NEW YORK CITY DEPARTMENT OF DESIGN + CONSTRUCTION

THE CITY OF NEW YORK
DEPARTMENT OF DESIGN AND CONSTRUCTION
DIVISION OF INFRASTRUCTURE

30-30 THOMSON AVENUE
LONG ISLAND CITY, NEW YORK 11101-3045
TELEPHONE (718) 391-1000
WEBSITE www.nyc.gov/buildnyc

VOLUME 3 OF 3

SCHEDULE A
ADDENDA NOS. 1 TO 4

FOR FURNISHING ALL LABOR AND MATERIALS NECESSARY AND REQUIRED FOR:

PROJECT ID: HEDA001

FOR THE CONSTRUCTION OF ACCELERATED WATER MAIN REPLACEMENT AND SEWER REHABILITATION AND REPLACEMENT

Together With All Work Incidental Thereto
BOROUGH OF THE BRONX
CITY OF NEW YORK

FOR THE DEPARTMENT OF ENVIRONMENTAL PROTECTION
PREPARED BY
IN-HOUSE DESIGN

DECEMBER 26, 2014

15-097

SPECIFICATIONS AND STANDARDS OF NEW YORK CITY

The following New York City Department of Transportation (NYCDOT) reference documents are available on-line at: http://www.nyc.gov/html/ddc/html/pubs/pubs_infrastdts.shtml or for purchase between 9:00 A.M. and 3:00 P.M. at 55 Water St., Ground Floor, NYC, N.Y. 10041. Contact: Ms Vivian Valdez, Tel. (212) 839-9434

1. NYCDOT Standard Highway Specifications, November 1, 2010
2. NYCDOT Standard Highway Details of Construction, July 1, 2010
3. NYCDOT Division of Street Lighting Specifications
4. NYCDOT Division of Street Lighting Standard Drawings
5. NYCDOT Standard Specifications for Traffic Signals
6. NYCDOT Standard Drawings for Traffic Signals

The following reference documents for New York City Department of Environmental Protection (NYCDEP) are available on-line at: http://www.nyc.gov/html/ddc/html/pubs/pubs_infrastdts.shtml or for pick up between 8:00 A.M. and 4:00 P.M. at 30-30 Thomson Avenue, 3rd Floor, Division of Infrastructure, Long Island City, N.Y. 11101.
Contact: Mr. Waqar Ahmad, Tel. (718) 391-2056

1. NYCDEP Standard Sewer and Water Main Specifications, July 1, 2014
2. NYCDEP Instructions for Concrete Specifications, Jan. 92
3. NYCDEP General Specification 11-Concrete, November 1991
4. NYCDEP Sewer Design Standards, (September 2007) Revised January 2009

The following reference documents for New York City Department of Environmental Protection (NYCDEP) are available on-line at: http://www.nyc.gov/html/ddc/html/pubs/pubs_infrastdts.shtml or for pick up between 8:00 A.M. and 4:00 P.M. at 30-30 Thomson Avenue, 3rd Floor, Division of Infrastructure, Long Island City, N.Y. 11101.
Contact: Mr. Robert Kuhlmann, Tel. (718) 391-2145

1. NYCDEP Water Main Standard Drawings
2. Specifications for Trunk Main Work, dated July 2014
3. Standards for Green Infrastructure, latest version, available only on-line at: http://www.nyc.gov/html/dep/pdf/green_infrastructure/bioswales-standard-designs.pdf

Water main work material specifications are available at the Department of Environmental Protection, 59-17 Junction Boulevard, 3rd Floor Low-Rise Building, Flushing, N.Y. 11373-5108.
Contact: Mr. Tarlock Sahansra, P.E., Tel. (718) 595-5302
E-mail: TSAHANSRA@DEP.NYC.GOV

Standard Specifications and Drawings for Fire Department Communications facilities of New York City are available at 87 Union Street, Engineering Office, Brooklyn, N.Y. 11231-1416.
Contact: Mr. Ed Durkin, Tel. (718) 624-3752

Tree Planting Standards of the City of New York Parks & Recreation are available at the following Department of Parks & Recreation website: http://www.nycgovparks.org/pagefiles/53/Tree-Planting-Standards.pdf

SPECIFICATIONS AND STANDARDS OF PRIVATE UTILITIES

The Following reference document for Private Utility Work is available for pick up between 8:30 A.M. and 4:00 P.M. at 30-30 Thomson Avenue, First Floor Bid Procurement Room, L.I.C., N.Y. 11101.

1. CET SPECIFICATIONS AND SKETCHES dated November 2010

(NO TEXT ON THIS PAGE)

SCHEDULE "A"

(GENERAL CONDITIONS TO CONSTRUCTION CONTRACT)
(INCLUDING GENERAL CONDITIONS RELATED TO ARTICLE 22 - INSURANCE)

PART I. REQUIRED INFORMATION

INFORMATION FOR BIDDERS SECTION 26 **BID SECURITY** The **Contractor** shall obtain a bid security in the amount indicated to the right.	See Attachment 1 (page A-1 of the Bid Booklet)
INFORMATION FOR BIDDERS SECTION 26 **PERFORMANCE AND PAYMENT BONDS** The **Contractor** shall obtain performance and payment bonds in the amount indicated to the right.	See Attachment 1 (page A-1 of the Bid Booklet)
CONTRACT ARTICLE 14. **DATE FOR SUBSTANTIAL COMPLETION** The **Contractor** shall substantially complete the **Work** in the number of calendar days indicated to the right.	See Page SA-4
CONTRACT ARTICLE 15. **LIQUIDATED DAMAGES** If the **Contractor** fails to substantially complete the **Work** within the time fixed for substantial completion plus authorized time extensions or if the **Contractor**, in the sole determination of the **Commissioner**, has abandoned the **Work**, the **Contractor** shall pay to the **City** the amount indicated to the right.	For Each Consecutive Calendar Day Over Completion Time Specified On Each Issued Task Order: $350.00
CONTRACT ARTICLE 17. **SUB-CONTRACTOR** The **Contractor** shall not make subcontracts totaling an amount more than the percentage of the total **Contract** price indicated to the right.	Not to Exceed 40% of the **Contract** Price
CONTRACT ARTICLE 21. **RETAINAGE** The **Commissioner** shall deduct and retain until the substantial completion of the **Work** the percent value of the **Work** indicated to the right.	5% of the Value of the **Work**
CONTRACT ARTICLE 22. **(Per Directions Indicated To The Right)**	See pages SA-5 through SA-9

CONTRACT ARTICLE 24. DEPOSIT GUARANTEE As security for the faithful performance of its obligations, the **Contractor**, upon filing its requisition for payment on **Substantial Completion**, shall deposit with the **Commissioner** a sum equal to the percentage of the **Contract** price indicated to the right.	1% of **Contract** Price
CONTRACT ARTICLE 24. PERIOD OF GUARANTEE Periods of maintenance and guarantee other than the period set forth in **Article 24.1** are indicated to the right.	Eighteen (18) Months, excluding Trees Twenty-Four (24) Months for Tree Planting
CONTRACT ARTICLE 74. STATEMENT OF WORK The **Contractor** shall furnish all labor and materials and perform all **Work** in strict accordance with the **Contract Drawings**, **Specifications**, and all **Addenda** thereto.	See **Contract Article 74**
CONTRACT ARTICLE 75. COMPENSATION TO BE PAID TO CONTRACTOR The **City** shall pay and the **Contractor** shall accept in **full** consideration for the performance of the **Contract**, subject to additions and deductions as provided in **Contract Article 75**, this said sum being the amount at which the **Contract** was awarded to the **Contractor** at a public letting thereof, based upon the **Contractor's** bid for the **Contract.**	**See Contract Article 75**
CONTRACT ARTICLE 78. PARTICIPATION BY MINORITY-OWNED AND WOMEN-OWNED BUSINESS ENTERPRISES IN CITY PROCUREMENT	See M/WBE Utilization Plan in the Bid Booklet

STANDARD HIGHWAY SPECIFICATIONS **SECTION 6.70** **LIQUIDATED DAMAGES FOR** **MAINTENANCE AND PROTECTION OF TRAFFIC**	For each instance of failure to comply with the Maintenance and Protection of Traffic requirements within three (3) hours after written notice from the Engineer: $250.00 For each and every hour of failing to open the entire width of roadway to traffic the morning following a night/weekend work operation: $500.00
STANDARD HIGHWAY SPECIFICATIONS **SECTION 7.13** **LIQUIDATED DAMAGES FOR** **MAINTENANCE OF SITE** If the Contractor fails to comply, within three (3) consecutive hours after written notice from the Engineer, with the requirements of **Section 7.13 - Maintenance of Site**, the Contractor shall pay to the City of New York, until such notice has been complied with or rescinded, the sum specified above per calendar day, for each instance of such failure, as liquidated damages and not as a penalty, for such default.	For Each Calendar Day, for Each Occurrence: $250.00

Date for Substantial Completion (Reference: Article 14)

The Contractor shall substantially complete the Work within the Final Contract Duration determined in accordance with the terms and conditions set forth herein.

The Base Contract Duration for this project is 365 consecutive calendar days ("ccds").

The Final Contract Duration shall be the Base Contract Duration when a check mark is indicated before the word "NO", below, and shall be the Base Contract Duration adjusted by the table set forth below when a check mark is indicated before the word "YES", below.

_____ YES √ NO

When the Final Contract Duration is indicated above to be adjusted by the table below, the table may increase the Base Contract Duration depending on the date of scheduled substantial completion to avoid a scheduled substantial completion of the Work during the winter months. The date of the scheduled substantial completion shall be determined by adding the Base Contract Duration to the date specified to commence work in the written Notice To Proceed. The Final Contract Duration shall then be determined as follows:

(a) Find the row that corresponds to the month of the substantial completion based on the Base Contract Duration added to the date specified to commence work in the written Notice To Proceed.
(b) Find the number of days to be added to the Base Contract Duration in the table below. Add that number of days to the Base Contract Duration to obtain the Final Contract Duration in consecutive calendar days.

Month Of Substantial Completion Based On The Base Contract Duration	Number Of Days Of Adjustment
January	150
February	120
March	90
April	60
May	30
June	0
July	0
August	0
September	0
October	0
November - December 15	0
December 16 - December 31	180

In addition, should Item No. 9.30 - STORM WATER POLLUTION PREVENTION exist in the Contract and the required Storm Water Pollution Prevention Plan (SWPPP) does not conform to NYSDEC's recommended Standards, an additional 60-ccds shall be added to the above Final Contract Duration.

(GENERAL CONDITIONS RELATING TO ARTICLE 22 - INSURANCE)

PART II. TYPES OF INSURANCE, MINIMUM LIMITS AND SPECIAL CONDITIONS

Note: All certificate(s) of insurance submitted pursuant to Contract Article 22.3.3 must be accompanied by a Certification by Broker consistent with Part III below and include the following information:

- **For each insurance policy, the name and NAIC number of issuing company, number of policy, and effective dates;**
- **Policy limits consistent with the requirements listed below;**
- **Additional insureds or loss payees consistent with the requirements listed below; and**
- **The number assigned to the Contract by the City (in the "Description of Operations" field).**

Insurance indicated by a blackened box (■) or by an X in a box (☒) to left will be required under this contract

TYPES OF INSURANCE (per Article 22 in its entirety, including listed paragraph)		MINIMUM LIMITS AND SPECIAL CONDITIONS
■ Commercial General Liability	Art. 22.1.1	The minimum limits shall be $1,000,000 per Occurrence and $2,000,000 per Project Aggregate applicable to this **Contract.** Additional Insureds: (1) City of New York, including its officials and employees, with coverage at least as broad as ISO Form CG 20 10 and CG 20 37. (2) All person(s) or organization(s), if any, that Article 22.1.1(b) of the **Contract** requires to be named as Additional Insured(s), with coverage at least as broad as ISO Form CG 20 26. The Additional Insured endorsement shall either specify the entity's name, if known, or the entity's title (e.g., Project Manager). (3) Consolidated Edison Company Of New York (4)

■ Workers' Compensation ■ Disability Benefits Insurance ■ Employers' Liability ☐ Jones Act ☐ U.S. Longshoremen's and Harbor Workers Compensation Act	Art. 22.1.2 Art. 22.1.2 Art. 22.1.2 Art. 22.1.3 Art. 22.1.3	Workers' Compensation, Employers' Liability, and Disability Benefits Insurance: Statutory per New York State law without regard to jurisdiction. **Note:** The following forms are acceptable: (1) New York State Workers' Compensation Board Form No. C-105.2, (2) State Insurance Fund Form No. U-26.3, (3) New York State Workers' Compensation Board Form No. DB-120.1 and (4) Request for WC/DB Exemption Form No. CE-200. The City will not accept an ACORD form as proof of Workers' Compensation or Disability Insurance. Jones Act and U.S. Longshoremen's and Harbor Workers' Compensation Act: Statutory per U.S. Law. ☐ Additional Requirements: (1) (2)
☐ Builders' Risk	Art. 22.1.4	100% of Total Value of **Work** **Contractor** the Named Insured; the **City** both an Additional Insured and one of the loss payees as its interests may appear. If the **Work** does not involve construction of a new building or gut renovation work, the **Contractor** may provide an installation floater in lieu of Builders Risk insurance. Note: Builders Risk Insurance may terminate upon **Substantial Completion** of the **Work** in its entirety.
■ Commercial Auto Liability	Art. 22.1.5	$2,000,000 per accident combined single limit If vehicles are used for transporting hazardous materials, the **Contractor** shall provide pollution liability broadened coverage for covered vehicles (endorsement CA 99 48) as well as proof of MCS 90. Additional Insureds: (1) City of New York, including its officials and employees. (2) (3)

☐ Contractors Pollution Liability Art. 22.1.6	$_____ per occurrence $_____ aggregate Additional Insureds: (1) City of New York, including its officials and employees. (2) (3)
☐ Marine Protection and Indemnity Art. 22.1.7(a)	$_____ each occurrence $_____ aggregate Additional Insureds: (1) City of New York, including its officials and employees. (2) (3)
☐ Hull and Machinery Insurance Art. 22.1.7(b)	$_____ per occurrence $_____ aggregate Additional Insureds: (1) City of New York, including its officials and employees. (2) (3)
☐ Marine Pollution Liability Art. 22.1.7(c)	$_____ per occurrence $_____ aggregate Additional Insureds: (1) City of New York, including its officials and employees. (2) (3)

[OTHER] Art. 22.1.8 ☐ Railroad Protection Liability Policy (ISO-RIMA or equivalent form) approved by Permittor covering the work to be performed at the designated site and affording protection for damages arising out of bodily injury or death, physical damage to or destruction of property, including damage to the Insured's own property and conforming to the following: • Policy Endorsement CG 28 31 - Pollution Exclusion Amendment is required to be endorsed onto the policy when environmental-related work and/or exposures exist. • Indicate the Name and address of the Contractor to perform the work, the Contract Number and the name of the railroad property where the work is being performed and the Agency Permit. • Evidence of Railroad Protective Liability Insurance, must be provided in the form of the Original Policy. A detailed Insurance Binder (ACORD or Manuscript Form) will be accepted pending issuance of the Original Policy, which must be provided within thirty (30) days of the Binder Approval.	$2,000,000 per occurrence $6,000,000 annual aggregate Named Insureds: (1) (2)

[OTHER] Art. 22.1.8

☐ Professional Liability

A. The Contractor's Professional Engineer shall maintain and submit evidence of Professional Liability Insurance in the minimum amount of $1,000,000 per claim. The policy or policies shall include an endorsement to cover the liability assumed by the Contractor under this Contract arising out of the negligent performance of professional services or caused by an error, omission or negligent act of the Contractor's Professional Engineer or anyone employed by the Contractor's Professional Engineer.

B. Claims-made policies will be accepted for Professional Liability Insurance. All such policies shall have an extended reporting period option or automatic coverage of not less than two (2) years. If available as an option, the Contractor's Professional Engineer shall purchase extended reporting period coverage effective on cancellation or termination of such insurance unless a new policy is secured with a retroactive date, including at least the last policy year.

[OTHER] Art. 22.1.8 ☐ Engineer's Field Office **Section 6.40, Standard Highway Specifications**	Fire insurance, extended coverage and vandalism, malicious mischief and burglary, and theft insurance coverage in the amount of $40,000

[OTHER] Art. 22.1.8

☐ The Following Additional Insurance Must Be Provided:

Umbrella/Excess Liability Insurance - The Contractor shall provide Umbrella/Excess Liability Insurance in the minimum amount of $10,000,000 per Occurrence and $10,000,000 in Aggregate. The policy terms and condition should be at least as broad as the underlying policies. The underlying policies should comply with the insurance provision as outlined by the contract. Defense cost should be in addition to the limit of liability. The City of New York, including its officials and employees, should be included as additional insured as respects to the noted project.

SCHEDULE "A"
(GENERAL CONDITIONS TO CONSTRUCTION CONTRACT)
(GENERAL CONDITIONS RELATING TO ARTICLE 22 - INSURANCE)

PART III. BROKER'S CERTIFICATION

Pursuant to Article 22.3.3 of the **Contract**, every Certificate Of Insurance must be accompanied by either the following certification by the broker setting forth the following text and required information and signatures or certified copies of all policies referenced in the Certificate Of Insurance.

CERTIFICATION BY BROKER

The undersigned insurance broker represents to the City of New York that the attached Certificate Of Insurance is accurate in all material respects, and that the described insurance is effective as of the date of this Certification.

_____
[Name Of Broker (Typewritten)]

_____
[Address Of Broker (Typewritten)]

_____
[E-Mail Address Of Broker (Typewritten)]

_____
[Phone Number/Fax Number Of Broker (Typewritten)]

_____
[Signature Of Authorized Official Or Broker]

_____
[Name And Title Of Authorized Official (Typewritten)]

State of.....)
) ss.:
County of.....)

Sworn to before me this _____ day of _____, 20__

_____
NOTARY PUBLIC FOR THE STATE OF _____

SCHEDULE "A"

(GENERAL CONDITIONS TO CONSTRUCTION CONTRACT)

PART IV. ADDRESS OF COMMISSIONER

Wherever reference is made in Article 7 or Article 22 to documents to be sent to the **Commissioner** (e.g., notices, filings, or submissions), such documents shall be sent to the address set forth below or, in the absence of such address, to the **Commissioner's** address as provided elsewhere in this **Contract**.

DDC Director, Insurance Risk Manager

30 - 30 Thomson Avenue, 4th Floor (IDCNY Building)

Long Island City, NY 11101

ATTACH TO CONTRACT DOCUMENTS

THE CITY OF NEW YORK
DEPARTMENT OF DESIGN AND CONSTRUCTION
INFRASTRUCTURE DIVISION
BUREAU OF DESIGN

PROJECT ID: HEDA001

FOR THE CONSTRUCTION OF ACCELERATED WATER MAIN REPLACEMENT AND SEWER REHABILITATION AND REPLACEMENT

Together With All Work Incidental Thereto
BOROUGH OF THE BRONX
CITY OF NEW YORK

ADDENDUM NO. 1

DATED: February 24, 2014

THIS ADDENDUM IS HEREBY MADE A PART OF THE CONTRACT DOCUMENTS

The New York City Department of Transportation Standard Highway Specifications, dated November 1, 2010, (which include, but are not limited to, "General Conditions", "Basic Materials of Construction", "Combined Materials of Construction", "Construction Methods", "Inspection and Testing of Materials, Adjustments for Deficiencies, and Maintenance", and "Supplemental Construction Methods"), as modified by addenda issued prior to the opening of bids, shall apply to and become a part of the contract.

All references contained herein are to the New York City Department of Transportation, Standard Highway Specifications, dated November 1, 2010. The said Specifications are hereby revised. Included hereunder are the following REVISIONS:

1. Amendments to Standard Highway Specifications, Volume I
2. Amendments to Standard Highway Specifications, Volume II, including Section 7.88 (Revised)and new Section 6.44 PO and 6.52 CG.

1. AMENDMENTS TO STANDARD HIGHWAY SPECIFICATIONS, VOLUME I

The following amendments to the Contract Requirements shall become a part of and apply to the contract:

[Added 12-09-2010]

1. Refer to Page 15, **Subsection 1.06.23.(C) CONFORMANCE WITH FEDERAL, STATE AND CITY AGENCIES;**
Add the following new paragraphs:

"The Contractor is notified that all vehicles that are owned, leased or operated by the Contractor or its subcontractors and used in connection with the Project shall comply with the following requirement:

Every truck, tractor, and tractor-trailer or semitrailer combination, having a gross vehicle weight rating of twenty-six thousand pounds or more, and a conventional cab configuration in which more than half of the engine length is forward of the foremost point of the windshield base, and the steering wheel hub is in the forward quarter of the vehicle length shall be equipped with a convex mirror on the front of such vehicle or combination of vehicles. Such convex mirror shall be adjusted so as to enable the operator of such vehicle or combination of vehicles to see all points on an imaginary horizontal line which is three feet above the road, is one foot directly forward from the midpoint of the front of such vehicle or combination of vehicles, and extends the full width of the front of such vehicle or combination of vehicles.

Any vehicle that does not comply with this provision may be prohibited from entering the Project site and/or supplying equipment or materials to the Project. The Contractor shall not be entitled to any damages as a result of such prohibition."

[Added 01-09-2011]

2. Refer to Page 240, **Subsection 4.16.5.(B) STUMP REMOVAL;**
Delete **Subsection 4.16.5.(B) STUMP REMOVAL**, in its entirety:
Substitute the following revised **Subsection 4.16.5.(B)**:

"(B) STUMP REMOVAL

1. Tree stumps designated to be removed and their roots shall be completely excavated to a minimum depth of three (3) feet below the existing grade. A portable stump cutter may be required in some locations. It may be necessary to remove concrete, asphalt, pavers, and/or other types of material surrounding the base of the stump. All excess debris, including chips from tree stumps, shall be removed and disposed of by the Contractor, away from the site prior to backfilling and the area shall be restored by completion of the workday, to the satisfaction of the Engineer. The disposal of tree stumps by burning in open fires will not be permitted.

2. All voids and excavations left after the removal of the stump and roots shall be backfilled to grade with clean earth fill. Fill shall be placed and compacted to a minimum of 95 percent of Standard Proctor Maximum Density by acceptable methods to the satisfaction of the Engineer. Where paving blocks exist, they are to be reset to the existing grade as directed.

3. Maximum safety and care must be used by Contractor during stump removal. The Contractor shall carefully protect against damage all existing trees, plants, curbs, sidewalks and utilities and other features to remain. The Contractor is responsible for locating and protecting underground utilities from damage during stump removal procedures. During stump grinding operations, plywood must be used to protect adjacent vehicles, real property, and pedestrians. If, when removing stumps, existing sidewalks or curbs are disturbed, the Contractor shall restore and/or reset these sidewalks and curbs, at no additional cost to the City. Restoration work shall be done to match the existing, to the satisfaction of the Engineer. All damaged trees, curbs, sidewalks, real property, vehicles and utilities must be addressed within three (3) days."

[Added 04-18-2011]

3. Refer to Pages 218 and 219, **Subsection 4.13.4.(H) PIGMENT;**
Delete the first three (3) paragraphs on page 219:
Substitute the following revised three (3) paragraphs:

"Where the color of the concrete is required to simulate the color of dark gray bluestone, the concrete shall be integrally pigmented to produce a gray color equivalent to: Davis Colors No. 884-3%; Lansco Color No. 437 "Strong Black" 5 lbs. per 94 lbs. Light Grey Portland Cement and 3 parts sand; L.M. Scofield "Cool Black No. 4"; Bayferrox Limestone 330, 2 lbs. per 94 lbs. Light Gray Portland Cement; or an approved equivalent, unless otherwise specified.

Where the color of the concrete is required to simulate the color of light to medium gray granite, the concrete shall be integrally pigmented to produce a gray color equal to: Davis Colors No. 884-1%; Lansco Color No. 437 "Strong Black" 2.5 lbs. per 94 lbs. Light Grey Portland Cement and 3 parts sand; L.M. Scofield "Cool Black No. 1"; Bayferrox Silver 330, 1 lb. per 94 lbs. Light Gray Portland Cement; or an approved equivalent, unless otherwise specified.

Where the sidewalk is designated to have a saw cut joint finish the color of the concrete shall be integrally pigmented to produce a gray color equivalent to L.M. Scofield "Landmarks Grey" K-157-4; L.M. Scofield "Cool Black No. 4"; Davis Colors No. 884-3%; Lansco Color No. 437 "Strong Black" 5 lbs. per 94 lbs. Light Grey Portland Cement and 3 parts sand; Bayferrox NYC Landmark Commission Gray, 3.5 lbs. per 94 lbs. Light Gray Portland Cement; or an approved equivalent, unless otherwise specified."

[Added 07-01-2011]

4. Refer to Page 14, **Subsection 1.06.23.(A) PERMITS;**
Delete line (b) under the first paragraph;
Substitute the following text:

"(b) Any planned work requiring a DOT Construction Permit that may potentially be within 100 feet of a bridge structure will be placed on a Bridge Hold. If any proposed work is within 100 feet of a bridge structure, permittees must submit a scaled drawing showing the work and exact location, along with the following:

- Plan layout of the project area.
- The scope of work.
- The contractor's means and methods.
- Indicate if work will be done of the bridge itself or its abutments, and the type of work.

If the work is more than 100 feet away from the bridge structure, permittees may send a certification by e-mail stating so. Either response must be sent to the Division of Bridges at bridgeshold@dot.nyc.gov for review and release prior to commencing work. Emergency work will not be placed on hold and shall proceed in accordance with the New York City Highway Rules, section 2-11 (g);

(c) Permits from the Department of Sanitation for use of City landfills;"

[Added 07-27-2011]

5. Refer to Page 37, **Subsection 1.06.46.(A) 6. Sign Graphics;**
   Delete article "a." beginning with the words "All visual components of the sign are in an Adobe *.pdf file, . . ." and ending with the words ". . . DDC to the Contractor (on a CD or via E-mail) for printing.", in its entirety;
   Substitute the following revised article "a":

"a. All visual components of the sign are in an Adobe *.pdf file, which is provided by the Commissioner's representative. The file is not to be altered for composition, type font or image from the version provided by DDC. The Commissioner's representative shall provide a complete file with data and image. The digital file shall be provided by DDC to the Contractor (on a CD or via E-mail) for printing."

[Added 09-27-2012]

6. Refer to Page 36, **Subsection 1.06.46. Project Sign;**
   Delete the words "Unless otherwise specified in the Special Provisions of the contract, the following shall apply:";
   Substitute the following revised text:

"The Contractor is notified that he shall be required to furnish, install, maintain, and remove, when directed, Construction Project Information Signs (CPIS) as per Sec. 2-02(c)(4) and (5) of the NYC DOT Highway Rule and the cost shall be deemed included under all scheduled items of the contract. In addition, unless otherwise specified in the Special Provisions of the contract, the following Project Sign shall also apply:"

[Added 04-08-2013]

7. Refer to Page 200, **Subsection 4.11.2.(B), first paragraph, sixth line;**
   Delete the word "porcelain,".

8. Refer to Page 201, **Subsection 4.11.3.(B) FILL AND BACKFILL, second and third paragraphs;**
   Delete the second and third paragraphs under Subsection 4.11.3.(B), in their entirety;
   Substitute the following revised two paragraphs:

"Glass or Recycled Porcelain Aggregate (RPA) from recycling facilities that meets the requirements of **Subsection 4.11.3.(E)** for Glass and **Subsection 4.11.3.(F)** for RPA shall be considered suitable material for mixing with fill provided the Contractor maintains the gradations specified herein. However, glass shall not be placed in contact with synthetic liners, geogrids, geotextiles or other geosynthetics.

Glass and/or RPA incorporated into fill shall be thoroughly mixed with other suitable material so that glass, RPA or combination of both constitutes no more than 30 percent by volume anywhere in the fill as visually determined by the Engineer."

9. Refer to Page 202, **Subsection 4.11.3.(E) GLASS;**
Add the following new **Subsection 4.11.3.(F) RECYCLED PORCELAIN AGGREGATE (RPA):**

"(F) RECYCLED PORCELAIN AGGREGATE (RPA)

All porcelain to be used as RPA shall be crushed by a New York City Department of Environmental Protection (NYCDEP) approved recycling facility to a maximum particle size of 3/8 inch and graded to meet the gradation specified above for use in either fill, backfill or select fill, as may be required. RPA from any other source will not be permitted. The NYCDEP approved recycling facility will also certify that the RPA being furnished is free from organic material and other unsuitable material.

Should the Contractor desire to use RPA in his fill or backfill material, he shall contact Mr. Vasyl Kravchyk at NYCDEP (Tel. No. 718-595-7512) to determine the availability of RPA and from which recycling facility it can be obtained.

The Contractor shall be required to make arrangement with the recycling plant, at least two (2) weeks in advance of when he would need the material, to schedule the time, date and quantity available for pickup. The Contractor shall be required to furnish the recycling facility with a complete list of his trucks involved in transporting the material, which shall include the name of the registered owner (Contractor), Consumer Affairs or DOS Permit numbers, body license plate number, and truck volume. This information must be supplied to the facility prior to the start of picking up the RPA.

Weight ticket receipt slips given by the recycling facility to each truck driver picking up RPA shall be collected by the Contractor and given to the Engineer upon delivering fill or backfill material to the site that contains RPA, and the Contractor agrees and warrants that in obtaining the RPA that such material has originated only from a NYCDEP approved recycling plant and it has not been mixed with porcelain material from any other source.

The Contractor shall be required to transport said material from the approved recycling facility to his yard for storage and mixing with his fill material; however, there is not guarantee that the material will actually be available.

The Contractor is advised that there is no guarantee that RPA will in fact be available for his use from a NYCDEP approved recycling plant and he shall make no claim against the City for loss of anticipated profits should the material not be available upon request by the Contractor.

All excess RPA not used in the fill or backfill shall remain the property of the DDC Contractor.

The Contractor must comply with all rules and regulations of the Department of Transportation and the Department of Environmental Protections governing the use of RPA in its fill and backfill material."

10. Refer to Pages 218 and 219, **Subsection 4.13.4.(H) PIGMENTING, first four paragraphs;**
Delete the first four paragraphs under Subsection 4.13.4.(H), in their entirety;
Substitute the following revised four paragraphs:

"Where pigmenting is specified, the concrete sidewalks shall be pigmented with an admixture complying with the requirements of **Section 2.19** and the following requirements:

'Commercial Gray': In commercial districts C4–4 through C4–7, C5 and C6, as defined in the Zoning Resolution of the City of New York, and in areas under the jurisdiction of the Lower Manhattan Development Corporation the color of the concrete shall be integrally pigmented to produce a gray color equivalent to L.M. Scofield 'Landmarks Grey' K-157-4; L.M. Scofield 'Cool Black No. 4'; Davis Colors No. 884-3%; Lansco Color No. 437 'Strong Black' 5 lbs. per 94 lbs. Light Grey Portland Cement and 3 parts sand; Bayferrox NYC Landmark Commission Gray, 3.5 lbs. per 94 lbs. Light Gray Portland Cement; or an approved equivalent, unless otherwise specified.

'Bluestone': Where the color of the concrete is required to simulate the color of dark gray bluestone, the concrete shall be integrally pigmented to produce a gray color equivalent to: Davis Colors No. 884-3%; Lansco Color No. 437 'Strong Black' 5 lbs. per 94 lbs. Light Grey Portland Cement and 3 parts sand; L.M. Scofield 'Cool Black No. 4'; Bayferrox Limestone 330, 2 lbs. per 94 lbs. Light Gray Portland Cement; or an approved equivalent, unless otherwise specified.

'Granite': Where the color of the concrete is required to simulate the color of light to medium gray granite, the concrete shall be integrally pigmented to produce a gray color equal to: Davis Colors No. 884-1%; Lansco Color No. 437 'Strong Black' 2.5 lbs. per 94 lbs. Light Grey Portland Cement and 3 parts sand; L.M. Scofield 'Cool Black No. 1'; Bayferrox Silver 330, 1 lb. per 94 lbs. Light Gray Portland Cement; or an approved equivalent, unless otherwise specified."

[Added 05-24-2013]

11. Refer to Page 14, **Subsection 1.06.23.(A) PERMITS**, first paragraph as modified by Article 4 on page A1-1b;
Add the following new text:

"(d) All necessary permits from the Department of Environmental Protection which may include, but are not limited to, permits for use of City water."

12. Refer to Page 14, **Subsection 1.06.23.(A) PERMITS**, second paragraph;
Add the following as the third paragraph:

"No fee permits for use of City water necessary to complete roadway pavement reconstruction project in conjunction with installation of sewers and/or water mains, will be issued by the Department of Environmental Protection. However, for all other type projects (such as installation of sidewalks, installation of pedestrian ramps, pavement milling, resurfacing, rehabilitation of retaining walls, and bridge reconstruction type projects) the Contractor will be required to obtain the water use permit at its own cost."

[Added 08-05-2013]

13. Refer to page 116, second paragraph up from the bottom of the page, first line;
Change the words "Concrete of Type IA and IIA shall have . . ." to read "Concrete of Type IA, IIA and IIIA shall have . . ."

[Added 09-04-2013]

14. Refer to page 100, **Subsection 3.01.3.(C)1.(c)**;
Delete the last two lines of text beginning with the words "The proportion of reclaimed asphalt pavement permitted within each mix . . .";
Substitute the following sentence: "The proportion of reclaimed asphalt pavement permitted within each mix shall be not less than 30 percent for the top and bottom courses as per Local Law #71 of 2011."

15. Refer to page 110, **Subsection 3.05.2.(A), Table 3.05-I**;
Insert the following text at the bottom of **Table 3.05-I**:

"Note: The above proportions shown for non-High-Early mixes shall be modified by pozzolan substitutes as per **Subsection 3.05.4.**"

16. Refer to page 112, **Subsection 3.05.3.(C)**, second paragraph;
Delete the second paragraph in its entirety;
Substitute the following paragraph:

"Water shall be potable and drawn from municipal water mains."

17. Refer to page 113, first line of text, beginning with the words "condition making up one (1) cubic yard of concrete.";
Insert the following sentence between the words "condition making up one (1) cubic yard of concrete." and "The range of water-cement ratio within which the . . .":

"The calculated yield of the mix shall be within ± 2% of the Theoretical (1) cubic yard."

18. Refer to Page 113, second paragraph beginning with the words "The Contractor may substitute Portland cement . . .";
Delete the second paragraph under **Subsection 3.05.4.**, in its entirety;
Substitute the following revised paragraph:

"With the exception of high-early strength concrete, the Contractor shall be required to substitute Portland cement with pozzolans (Fly Ash or GGBFS) such that the maximum amount of Portland cement per cubic yard of concrete does not exceed 400 pounds, and with the use of an approved non-corrosive, non-chloride admixture as required to obtain a minimum compressive strength of 3,000 psi in seven (7) days. For high-early strength concrete the Contractor may substitute Portland cement with pozzolans (Fly Ash or GGBFS), pound for pound, up to 20% (or up to 25% for tidal/sea water spray areas) of the weight of cement specified for any concrete mixture provided the Contractor can obtain a minimum compressive strength of 3,000 p.s.i. in three (3) days. The Contractor, immediately following but not later than eight weeks after the date of the Contractor's Notice to Proceed, shall file with the Engineer, Age-Strength data of the job mix he proposes to use for the various ambient temperatures anticipated during the period of concrete placement. This data shall be presented in both tabular and graphical form for those various ambient temperatures with a maximum setting period of seven (7) days for Class B-32 concrete or seventy-two (72) hours for High-Early Strength Concrete."

19. Refer to Page 115, **TABLE 3.05-III - INGREDIENT MATERIALS**;
Change in the third row, second column, the type of Portland Cement from "Type III*" to read "Type II or Type III*"

20. Refer to page 132, **Subsection 3.06.3.(D)**;
Change the words "Water shall be drawn from mains owned by The City of New York." to read "Water shall be potable and drawn from municipal water mains."

21. Refer to page 133, **Subsection 3.07.3.(D)**;
Change the words "Water shall be drawn from mains owned by or supplying water to The City of New York." to read "Water shall be potable and drawn from municipal water mains."

22. Refer to page 134, **Subsection 3.08.4.(D)**;
Change the words "Water shall be drawn from mains owned by or supplying water to The City of New York." to read "Water shall be potable and drawn from municipal water mains."

23. Refer to Page 166, **Subsection 4.05.2.(A)**;
Delete **Subsection 4.05.2.(A)**, in their entirety;
Substitute the following revised **Subsection 4.05.2.(A)**:

"(A) Concrete Pavement shall be of the following types:

Type 1--Non-reinforced
Type 2--Reinforced (Unpigmented or pigmented if specified)
Type 3--High Early Strength Reinforced (Unpigmented or pigmented if specified)

Type 2 and Type 3 pavements shall consist of a concrete surface course, which shall be unpigmented or pigmented if specified, laid on a concrete base course, which may or may not be pigmented at the Contractor's option, while the base course is still plastic, of the thickness shown on the Contract Drawings, with reinforcement placed between the surface and base courses."

24. Refer to Page 166, **Subsection 4.05.3.(A)**;
Insert the following new **Subsection 4.05.3.(A1)**:

"(A1) PIGMENTING

Where pigmenting is specified, the surface course of the concrete bus pad shall be pigmented with an admixture complying with Section 2.19 and the following requirements:

Where the color of the concrete is required to simulate the red color of the Red Bus Lane Pavement Overlay (Item 6.44 POR in Section 6.44 PO), the surface course concrete shall be integrally pigmented to produce a red color equivalent to Scofield's quarry red.

Except for the use of an air-entraining agent complying with ASTM Designation C 260 and water reducing admixtures complying with ASTM Designation C 494 used in combination with the Pigment Admixture as per the pigment manufacturer's instruction, no other admixtures (including, but not limited to, calcium chloride) shall be used unless stated in writing by the manufacturer of the Pigment Admixture to be of no consequence to the colorfastness of the concrete mixture and is approved by the Engineer.

All pigmented concrete at different locations shall be identical, unless otherwise directed. Variations in color/tint/hue will not be acceptable. Therefore, the same brand and type of cement and the same source and type of aggregate shall be used throughout the project.

Prior to the mix design being made, the cement intended for use shall be checked to determine that its lightness/darkness is similar to the cement used in the original approved sample. The Pigmented Admixture shall be added in the standard proportion specified by the manufacturer."

25. Refer to Page 170, **Subsection 4.05.5.(A) GENERAL**;
Insert the following two new paragraphs:

"For pigmented concrete, the Contractor shall within eight weeks of the notice to proceed, submit the name of its proposed roadway installer upon which his bid is based, along with their respective work history experience in placing pigmented concrete. The installer shall have documented experience in working with pigmented concrete.

Prior to making any field samples and the placing of any pigmented concrete, the Contractor, its concrete supplier, installer, cement producer, laboratory, the pigmented admixture's representative, and the Engineer shall meet and agree on the specifications and methods of handling the pigmented concrete."

26. Refer to Page 183, **Subsection 4.05.9. PRICES TO COVER**, 4th line; Insert in the fourth line, the words "pigment when specified" between the words "specifications, including, but not limited to," and "furnishing and installing . . .":

27. Refer to Page 183, **Subsection 4.05.9. PRICES TO COVER**; Insert the following two new Items to the list of Item Nos. at the bottom of **Subsection 4.05.9**:

"4.05 ACP	REINFORCED CONCETE PAVEMENT (BUS STOPS)(PIGMENTED)	C.Y.
4.05 AXP	HIGH-EARLY STRENGTH REINFORCED CONCRETE PAVEMENT (BUS STOPS)(PIGMENTED)	C.Y."

2. AMENDMENTS TO STANDARD HIGHWAY SPECIFICATIONS, VOLUME II

[Added 01-25-2012]

1. Refer to Pages 365 and 366, **Subsection 6.40.2.(C)(c)(1) Personal Computer(s) - Workstation Configuration;**
Delete the text under **Subsections (a), (b), (c), (d),** (h), (i), and (m), in their entirety;
Substitute the following revised text:

"(a)	Make and Model:	Dell; HP; Gateway; Acer; or, an approved equivalent. (Note: an approved equivalent requires written approval of the Assistant Commissioner of ITS.)
(b)	Processor:	i5-2400 (6MB Cache, 3.1GHz) or faster computer - Single Processor.
(c)	System Ram:	Minimum of 4GB (Gigabytes) Dual Channel DDR3 SDRAM at 1333MHz – 2 DIMMSs
(d)	Hard Disk Drive(s):	500 GB (Gigabytes) Serial ATA (7200RPM) w/DataBurst Cache, or larger."
"(h)	Video Display Card:	HD Graphics (VGA, HDMI) with a minimum of 64 MB of RAM.
(i)	Monitor:	22" W, 23.0 Inch VIS, Widescreen, VGA/DVI LCD Monitor."
"(m)	Software Requirements:	Microsoft Windows 7 Professional SP1, 64 bit; Microsoft Office Professional 2010; Microsoft Project 2010; Adobe Acrobat reader; Anti-Virus software package with 2 year updates subscription; and, either Auto Cad 2012 LT or Microsoft Visio 2010 Standard Edition, as directed by the Engineer."

2. Refer to Page 366, **Subsection 6.40.2.(C)(c)(2)(b);**
Delete the text under **Subsection (b)**, which begins with the words "(b) One (1) 600 DPI HP Laser Jet . . .", in its entirety;
Substitute the following revised text:

"(b) One (1) 600 DPI HP Color Laser Jet all-in-one Printer/Scanner/Copier/Fax (twelve (12) pages per minute or faster) with one (1) Extra Paper Tray (Legal Size) networked to all office computers."

3. Refer to Page 367, **Subsection 6.40.3. SPECIFIC REQUIREMENTS FOR ENGINEERS FIELD OFFICE (TYPE A, B, C, CU, D OR DU)**, first paragraph;
Delete the text in the first paragraph of **Subsection 6.40.3.**, in its entirety;
Substitute the following revised text:

6.40.3. SPECIFIC REQUIREMENTS FOR ENGINEER'S FIELD OFFICE (TYPE A, B, C, CU, D, OR DU). In addition to the general requirements, each type of Field Office shall have the minimum floor area indicated in Table 6.40-I calculated based on usable area only, excluding any loss factors. Loss factors are defined as those areas such as lobby, sidewalk window ledge, elevator shafts and stairways. The Contractor shall provide and maintain furnishings for each type of Field Office in the quantity specified in Table 6.40-I. The furnishings shall be new or used equipment satisfactory to the Engineer:

4. Refer to Page 368, TABLE 6.40-I, ADDITIONAL REQUIREMENTS SPECIFIC REQUIREMENTS;
Delete the requirements for a Photocopy Machine shown in the 15th row of TABLE 6.40-I, in its entirety;
Substitute the following revised requirements:

Photocopying Machine – Stand-alone, heavy duty, electric, dry-process color photocopying type with a minimum production rate of 70 pages per minute and an adequate supply of copy paper, toner, etc. The machine shall be capable of duplex copying paper sizes of 8-1/2 x 11 inches, 8-1/2 x 14 inches and 11 x 17 inches, and have separate trays for each paper size. It shall have a document feeder, collator, stapler, and the capability to reduce/enlarge copies between each paper size. The supply of each size copy paper, toner, etc. shall be replenished and the machines shall be maintained for the duration of the contract by the Contractor as required by the Engineer. Make and model can be Minolta, Canon, IBM, Epson, or an approved equivalent, and shall be networked to the office computers.	1	1	1	1	1	1

5. Refer to Page 368, TABLE 6.40-I, ADDITIONAL REQUIREMENTS SPECIFIC REQUIREMENTS;
Insert the following two additional requirements:

Heavy duty commercial grade diamond cut shredder with automatic start. The shredder shall be able to receive 8-1/2 inch wide paper and shred a minimum of 15 sheets simultaneously along with CDs and staples.	1	1	1	1	1	1
Projector – 1080p LCD with a min. of 2200 ANSI Lumins, 1920 x 1080, 16:9, 40,000:1 contrast ratio, HDMI, VGA, USB, and a 10 feet diagonal, 16:9 Projection Screen.	-	-	1	1	1	1

6. Refer to Page 496, Subsection **7.20.4. METHODS**, last paragraph beginning with the words "When directed by the Engineer, due to the original conditions . . .";
Add the following sentence to the end of the last paragraph under **Subsection 7.20.4:**

"However, if the owner at his own expense supplies the replacement frame and doors or hatch covers the Contractor shall install the replacement frame and doors or hatch covers under this Item 7.20, as a basement access reset, in lieu of the steel safety closure plate."

[Added 07-16-2012]

7. Refer to Page 365, **Subsection 6.40.2.(C)(c)(1) "Personal Computer(s) - Workstation Configuration";**
Delete the text under **Subsections (g) and (k),** in their entirety;
Substitute the following revised text:

"(g)	I/O Ports:	Must have at least one (1) Serial Port, one (1) Parallel Port, and three (3) USB Ports.
(k)	Network Interface:	Integrated 10/100/1000 Ethernet card."

8. Refer to Page 366, **Subsection 6.40.2.(C)(c)(2) "All field offices requiring computers shall be provided with the following:";**
Delete the text under **Subsection (a),** in its entirety;
Substitute the following revised text:

"(a) One (1) broad-band internet service account. Wideband Internet connectivity at a minimum throughput of 15 Mbps download and 5 Mbps upload is required at each field office location with 1-5 staffers. For larger field offices see table below for minimum required upload speeds. Telephone service should be bundled together with Internet connectivity. Because of throughput requirements Verizon FIOS is the preferred connectivity provider where available.

Office Personnel #	**Upload Speeds (*Minimum*)**
1 - 5	5 Mbps
6 - 10	10 Mbps
11 - 15	15 Mbps
16 - 20 ...	20 Mbps

This account will be active for the life of the project. The e-mail name for the account shall be the DDC Field Office/project Id (e.g. FLD K HWK666 McGuinness@earthlink.com)."

[Added 08-09-2012]

9. Refer to Page 366, **Subsection 6.40.2.(C)(c)(2)(b)**, as amended by Article 2 on page A1-2 of this Addendum;
   Delete the text under **Subsection (b)**, in its entirety;
   Substitute the following words: "**(b) (No Text)**."

10. Refer to Page 368, TABLE 6.40-I, ADDITIONAL REQUIREMENTS SPECIFIC REQUIREMENTS;
    Delete the requirements for a Photocopy Machine shown in the 15th row of TABLE 6.40-I, as modified by Article 4 on page A1-2a of this Addendum, in its entirety;
    Substitute the following revised requirements:

Photocopying Machine – Stand-alone, heavy duty, electric, dry-process color photocopying type with color scan and send capability via e-mail, a minimum production rate of 70 pages per minute and an adequate supply of copy paper, toner, etc. The machine shall be capable of duplex copying paper sizes of 8-1/2 x 11 inches, 8-1/2 x 14 inches and 11 x 17 inches, and have separate trays for each paper size. It shall have a document feeder, collator, stapler, and the capability to reduce/enlarge copies between each paper size. The supply of each size copy paper, toner, etc. shall be replenished and the machines shall be maintained for the duration of the contract by the Contractor as required by the Engineer. Make and model can be Minolta, Canon, IBM, Epson, or an approved equivalent, and shall be networked to the office computers.	1	1	1	1	1	1

[Added 11-26-2012]

11. Refer to Pages 504 through 508, **SECTION 7.88 – Rodent and Waterbug Pest Control**;
    Delete **Section 7.88,** in its entirety;
    Substitute SECTION 7.88 (Revised), as contained on the following pages A1-2d through A1-2i.

[Added 02-08-2013]

12. (NO TEXT)

SECTION 7.88 (Revised)
Rodent and Waterbug Pest Control

7.88.1. DESCRIPTION. The Contractor shall provide all labor, materials, plant and equipment, and incidentals required to survey and monitor rodent activity and control any infestation or outbreak of rodents and waterbugs (American cockroaches) within the project limit.

7.88.2. MATERIALS. All materials shall be approved by the New York State Department of Environmental Conservation and comply with the New York City Health Code for the intended usage.

Rodenticide weatherproof bait blocks shall be multiple dose anticoagulants such as Chlorophacinone or Dephacinone, or single feed rodenticides such as ContraMeal, ContracBait block, Quintox pellets or TalonG pellets, or an approved equivalent.

Tamper proof bait station boxes shall be designed to exclude other mammals and shall be used with poisoned bait to attract rats. Information on "tamper proof bait station boxes" is available from the NYC Bureau of Regulatory & Environmental Health Services, Pest Control Office (718-956-7103/4).

Live traps shall be of proper dimensions for trapping rats and shall not be used with poisoned bait.

Insecticide bait shall be a residual type such as phenol methyl carbamate (2%) bait or an approved equivalent.

(A) SUBMITTALS

Prior to commencement of construction activities the Contractor shall submit to the Engineer manufacturer's installation instructions for all materials required for rodent and waterbug pest control work and product data which shall include illustrations, catalog data, product characteristics, typical use, performance, and limitation criteria of all rodent and waterbug pest control materials required.

7.88.3. PERSONNEL. The Contractor shall employ two independent licensed exterminators: one to engage in survey and monitoring work to establish the level of infestation of rodents and insects and provide recommendations for specific Integrated Pest Management (IPM) actions, and one to execute the rodent and waterbug pest control work to deal with such infestations. All pest control personnel employed by each exterminator company must be supervised by an exterminator licensed in categories 7A & 8. The Contractor shall submit the names and license credentials of the two exterminator companies to the Engineer for approval prior to the commencement of any work under this section.

7.88.4. METHODS. Application and dosage of all materials shall be done in strict compliance with the manufacturer's recommendations. All surveying, monitoring, baiting, and/or live trapping work shall be performed in the presence of the Engineer, without which no payment will be made under this Section.

(A) GENERAL

The Contractor's construction activity is expected to disturb any established rodent and/or waterbug population that may exist within the project limits, possibly causing their dispersion. The Contractor shall take all appropriate action to eliminate and/or control these populations within the construction corridor: the construction corridor shall be defined as being the full width of streets under the contract and intersecting streets up to the limits of construction, from property line to property line, excluding buildings and under sidewalk building vaults.

Under the Maintenance of Site requirements for the contract, any unsanitary conditions, such as uncollected garbage or debris, resulting from the Contractor's activities which will provide food and shelter to the resident rodent population shall be corrected by the Contractor immediately after notification of such condition by the Engineer. Non-compliance shall be subject to the application of the "Nonconformance" provisions of the Item for Maintenance of Site, and no payment will be made for any additional application of rodenticide or insecticide needed to control resultant infestations.

(B) SURVEY AND MONITORING WORK

(1) Prior to Construction - The Contractor's designated survey and monitoring exterminator shall execute a survey of the project area and estimate the level of rodent (Norway rat, House mouse) infestation and the waterbug population within the construction corridor. An appropriate sample of utility manholes (sewer, electrical, telephone, etc.) and catch basins should be opened and surveyed to the satisfaction of the Engineer. Contractor shall maintain all survey records in the manner described in 7.88.6., Records and Reports.

(2) During Construction - The Contractor shall monitor the rodent activity through trapping (snap, glue traps or live traps), fecal count methods, and inspection of the conditions of all installed baits every week during construction activity or as otherwise directed by the Engineer. Contractor shall maintain all monitoring records in the manner described in 7.88.6., Records and Reports.

(C) RODENT CONTROL WORK

(1) Wetlands, Woodlands and Areas Within Seventy-five (75') feet of a Stream. In wetlands, woodlands and areas adjacent to a stream, special precautions must be taken to protect water quality and to ensure the safety of other wildlife. To prevent poisoned bait from entering streams, no poisoned bait shall be used in areas within seventy-five (75') feet of either streambank. Live traps must be used in these seventy-five (75') feet buffer zone areas and within wetland and woodland areas.

(2) Outside Wetland Areas, Woodland Areas and Beyond Seventy-five (75') feet of a Stream. In areas outside the seventy-five foot zone of protection adjacent to streams, and areas outside wetlands and woodlands, tamper proof bait stations with poisoned bait shall be established during the period of construction and any consumed or decomposed bait shall be replenished as directed.

Rodent control shall be achieved in two stages as follows:

Stage I. At least one month prior to initiation of the construction work, and periodically thereafter, live traps and/or rodenticide bait, as directed above, shall be placed at locations [e.g., burrows, utility manholes (sewer, electrical, phone, etc.), and catch basins] that are inaccessible to pets, human beings, children and other non-target species, particularly wildlife (e.g., birds) in the construction corridor. Locations of initial bait placement and quantities of bait shall be determined by the survey and monitoring exterminator's written report of his survey and monitoring results, or as otherwise directed by the Engineer.

Stage II. During Construction - Infested sites as determined by the survey and monitoring exterminator's monitoring report shall be baited and/or rebaited, and live traps shall be collected and replaced, the rates and quantities of which shall be determined by the written monitoring reports submitted weekly or as otherwise directed by the Engineer in consultation with the City's Office of Pest Control.

The baiting exterminator shall be responsible for collecting and disposing of all trapped and poisoned rodents found in live traps and tamper proof bait stations. The baiting exterminator shall also be responsible for posting and maintaining signs announcing the baiting of each particular location.

The Contractor, under his maintenance of site operations, shall be responsible for the immediate collection and disposal of any visible rodent remains found on streets or sidewalk within the project limits. Any visible remains shall be placed into double plastic bags. No more than five (5) carcasses shall be placed into each bag. Each bag shall be a minimum of 3 mils thick, black plastic. No additional payment will be made for this work.

It is anticipated that public complaints will be addressed to the Engineer's Field Office. The Contractor, where directed by the Engineer, shall take appropriate Integrated Pest Management (IPM) actions, such as baiting, trapping, proofing, etc., to remedy the source of a complaint within the next six (6) hours of normal working time, which is defined herein, for the purposes of this section, as 7 A.M. to 6 P.M. on Mondays through Saturdays.

(D) WATERBUG (AMERICAN COCKROACH) CONTROL

Infested sites (e.g., sewers) shall be baited at least 2 times per month with insecticides, or as directed by the Engineer in consultation with the exterminator monitoring the work and the City's Office of Pest Control.

7.88.5. EDUCATION & TRAINING. The Contractor shall post notices in all Construction Bulletin Boards advising workers, employees, and residents to call the Engineer's Field Office to report rodent and waterbug infestations. The Contractor shall provide and distribute literature pertaining to IPM techniques of rodent control to affected businesses and superintendents of nearby residential buildings to ensure their participation in maintaining their establishments free of unsanitary conditions, harborage removal and rodent proofing.

Prior to application of any chemicals, the Contractor shall furnish copies or sample labels for each pesticide, antidote information, and Material Data Safety Sheets (MSDS) for each chemical used.

7.88.6. RECORDS AND REPORTS.

(A) GENERAL

The Contractor shall be responsible for assigning within the construction corridor an identifying number to each manhole, catch basin, and other location where bait and/or live trap placement and/or waterbug control work is proposed by the survey and monitoring exterminator. The Contractor shall then provide that list of locations and corresponding reference numbers along with a drawing showing the locations, as a reference for the exterminator(s) performing the work, to indicate locations of bait placement and waterbug control work and rodent and waterbug activity (droppings, bait consumed, dead rodents, etc.).

(B) SURVEY AND MONITORING WORK

(1) Prior to Construction – Contractor shall submit to the Engineer, for approval, a written survey report including proposed IPM procedures, including specific materials, quantities, locations, methods, and time schedule for the implementation of the exterminating work. The written report shall also include a survey with a drawing (provided by the Contractor) marked with locations indicating all signs of rodent (Norway rat, House mouse) infestation and waterbug activity discovered during the execution of the survey indicating that rodent and waterbug pest control work is necessary.

(2) During Construction - Based on monitoring results, Contractor shall submit to the Engineer a weekly written monitoring report identifying all locations and conditions of installed bait and/or other rodent control work. The monitoring report shall also include any other recommended IPM techniques, such as baiting, trapping, proofing, etc., proposed for rodent and waterbug pest control.

The survey and monitoring exterminator shall keep a record of all rodent and waterbug infestation surveys s/he has conducted. The Contractor shall be required to submit a copy of all survey and monitoring reports to the Engineer each week, prior to payment.

(C) RODENT AND WATERBUG CONTROL WORK

The baiting exterminator shall maintain records of all locations baited along with the type and quantity of rodenticide and insecticide bait used. These records will be kept by the City Inspector. A weekly report shall be prepared, signed and certified by the approved licensed exterminator, and such reports shall be submitted to the Engineer each week, prior to payment.

7.88.7. NONCONFORMANCE. If the Contractor fails to perform as directed to control the rodent and/or waterbug population at any location within the project limits for a period of more than one week, the Engineer will correct the adverse conditions by any means he deems appropriate, including but not limited to, the use of "outside services" and shall deduct the cost of the corrective work from any monies due to the Contractor. The deducted cost of this work shall be in addition to the non-payment for rodent and waterbug pest control.

7.88.8. MEASUREMENT.

(A) RODENT INFESTATION SURVEY AND MONITORING

The quantity to be measured for payment under Item No. 7.88 AA, RODENT INFESTATION SURVEY AND MONITORING, shall be a Lump Sum measurement.

(B) RODENT BAIT STATIONS

The quantity to be measured for payment under Item No. 7.88 AB, RODENT BAIT STATIONS, shall be the number of tamper-proof rodent bait station boxes and/or live traps satisfactorily installed or reinstalled after inspection within the construction corridor, as approved by the Engineer. However, the initial baiting, and subsequent rebaiting as may be required, of any bait station will be paid for under Item 7.88 AC.

(C) BAITING OF RODENT BAIT STATIONS

The quantity to be measured for payment under Item No. 7.88 AC, BAITING OF RODENT BAIT STATIONS, shall be the number of tamper-proof rodent bait station boxes, utility manholes, catch basins, or other locations approved by the Engineer, satisfactorily baited or rebaited to replenish consumed or decomposed bait within the construction corridor, as approved by the Engineer.

(D) WATERBUG BAIT APPLICATION

The quantity to be measured for payment under Item No. 7.88 AD, WATERBUG BAIT APPLICATIONS, shall be the number of blocks satisfactorily treated with insecticide bait within the construction corridor, as approved by the Engineer. A block shall be defined as the area of street, measured between property lines, from intersection to intersection. Each rebaiting of any block shall be considered as a new block for measurement purposes.

7.88.9. PRICES TO COVER.

(A) RODENT INFESTATION SURVEY AND MONITORING

Payment will be made at the lump sum price bid for RODENT INFESTATION SURVEY AND MONITORING which shall include the cost of furnishing all the labor, materials, plant, equipment (traps, etc.), insurance, and other incidentals required, including but not limited to providing all required maintenance of traffic equipment, to perform a rodent infestation survey of the project area and then monitor the site each week for rodent activity, all in accordance with the specifications and the directions of the Engineer.

Ten (10%) percent of the lump sum price bid will be paid when the initial survey of the project area has been completed and the written survey report has been submitted to the satisfaction of the Engineer. The remainder will be paid in proportion to the percentage of contract completion.

(B) RODENT BAIT STATIONS

The Contract price bid for RODENT BAIT STATIONS shall be a unit price per each tamper proof bait station box and/ or live trap installed or reinstalled after inspection and shall cover the cost of furnishing all labor, materials, plant, equipment (bait stations, etc.), insurance, and other incidentals, including but not limited to providing all required maintenance of traffic equipment, required to control the rodent population found within the project limits in accordance with the specifications and the directions of the Engineer.

In addition to the payment for Rodent Bait Stations installed or reinstalled under this Item 7.88 AB, the Contractor will also be paid for each baiting or rebaiting, when required, of each bait station, under Item No. 7.88 AC.

(C) BAITING OF RODENT BAIT STATIONS

The Contract price bid for BAITING OF RODENT BAIT STATIONS shall be a unit price per each bait station, utility manhole, catch basin or other location approved by the Engineer satisfactorily baited or rebaited, when required, and shall cover the cost of furnishing all labor, materials, plant, equipment (bait), insurance, and other incidentals, in accordance with the specifications and directions of the Engineer. Installation or resetting of the bait station will be paid for under Item 7.88 AB.

(D) WATERBUG BAIT APPLICATION

The Contract price bid for WATERBUG BAIT APPLICATION shall be a unit price per block treated by the exterminator and shall include the cost of furnishing all the labor, materials, plant, equipment (bait, etc.), insurance, and other incidentals, including but not limited to providing all required maintenance of traffic equipment, necessary to control the waterbug population found within the project limits for the duration of the contract in accordance with the specifications and the directions of the Engineer.

Payment will be made under:

Item No.	Item	Pay Unit
7.88 AA	RODENT INFESTATION SURVEY AND MONITORING	L.S.
7.88 AB	RODENT BAIT STATIONS	EACH
7.88 AC	BAITING OF RODENT BAIT STATIONS	EACH
7.88 AD	WATERBUG BAIT APPLICATION	BLOCK

[Added 05-24-2013]

13. Refer to Page 366, **Subsection 6.40.2.(C)(c)(1)(m) Software Requirements**, as modified by Article 1 on page A1-2;
Delete the text under **Subsection (m)**, in its entirety;
Substitute the following revised text:

"(m) Software Requirements: Microsoft Windows 7 Professional SP1, 32 bit; Microsoft Office Professional 2010; Microsoft Project 2010; Adobe Acrobat reader; Anti-Virus software package with 2 year updates subscription; and, either Auto Cad LT or Microsoft Visio Standard Edition, as directed by the Engineer."

[Added 09-04-2013]

14. Refer to Page 384, the end of **Section 6.44 – White and Yellow Thermoplastic Reflectorized Pavement Markings;**
Insert new **SECTION 6.44 PO,** after **Section 6.44**, as contained on the following pages A1-2k through A1-2m.

[Added 02-10-2014]

15. Refer to Pages 393 and 394, **SECTION 6.52 – Uniformed Full-Time Flagperson;**
Delete **Section** 6.52 on pages 393 and 394, but do not delete examples on pages 395 and 396;
Substitute SECTION 6.52 CG, as contained on the following pages A1-2n and A1-2o.

SECTION 6.44 PO
Lane Pavement Overlay

6.44PO.1. DESCRIPTION. This section describes the furnishing and application of an approved Green Asphalt Pavement Color Scheme along designated bicycle lanes and Brick-Red Asphalt Pavement Color Scheme matching Quest's StreetBondCL Terracotta color along designated Select Bus Service (SBS) lanes, as indicated in the Contract Drawings or as directed by the Engineer.

6.44PO.2. REFERENCES.

A. ASTM D-4541 Standard Test Method for Pull-Off Strength of Coatings Using Portable Adhesion Tester.
B. ASTM D-4060 Test Method for Abrasion Resistance of Organic Coatings by the Taber Abrasion.
C. ASTM D-522-93A Standard Test Method for Mandrel Bend Test of Attached Organic Coatings.
D. ASTM G-155 QUV Accelerated Weathering Environment. Standard Practice for Operating Fluorescent Light Apparatus for UV Exposure of Nonmetallic Materials.
E. ASTM D-2486 MEK rub test for chemical resistance.
F. ASTM D-570 Standard Test Method for water absorption of plastics.
G. ASTM E-303 British Pendulum test for friction.
H. EPA 24 ASTM D3960-05 Volatile Organic Compounds.

6.44PO.3. SUBMITTALS.

A. A copy of the current year accreditation certificate available from the Contractor or subcontractor who will be performing this work, or written verification from the coating supplier that the Contractor or subcontractor is qualified to perform this Work.
B. Written and published specification for the application of the selected asphalt pavement coating.
C. Confirmation of coating color.
D. Proof of coating performance through a Certificate of Analysis or equivalent document as provided by the Contractor or the coating supplier.

6.44PO.4. MATERIALS.

The following table outlines minimum performance properties of a typical asphalt pavement coating.

Characteristic	Test Specification	Measured result
Durability: Taber Abrasion resistance	ASTM D-4060 7 day cure, H-10 wheel (wet test)	< 5.0 g/1000
Water sensitivity	ASTM D-570 Water absorption after 9 days: Remaining absorption after 1 hour of recovery:	 < 10% < 1.0%
Color stability	ASTM G-155 QUV 2,000 hours (CIE units)	New York City Bike Lane Green $\Delta E < 1.5$
Color stability	ASTM G-155 QUV 2,000 hours (CIE units)	Brick color $\Delta E < 1.5$

Flexibility: Mandrel Bend	ASTM D-522-93A Flexibility as measured by Mandrel bend 0.5mm thick sample passes 10 mm at 21°C 0.5mm thick sample passes 125mm at -18°C	
Chemical resistance	ASTM D-2486 Modified MEK scrubs 16 dry mils, number of scrubs until 50% substrate exposed	>5000
Adhesion to Asphalt	ASTM D-4541	Substrate Failure
Friction Wet	ASTM E-303 British Pendulum Tester	>55
Environmental Sensitivity	EPA 24 ASTM D-3960-05 Volatile Organic Compounds	VOC < 150

These properties shall be evidenced by Certificates of Analysis produced by an independent qualified testing facility.

Green Bicycle and Red Bus Lane Pavement Overlays furnished by the following manufacturers, or approved equivalent, are acceptable for use in this contract:

Ennis Paint, Inc.
1509 S. Kaufman Street
Ennis, TX 75119

Integrated Pavement Concepts, Inc.
102-17957 55th Avenue
Surrey, BC Canada V3S 6C4

Crafco, Inc.
420 N. Roosevelt Avenue
Chandler, AZ 85226

6.44PO.5. METHODS. The asphalt pavement coating system shall be applied to the pavement in accordance with the manufacturer's specification. In its hardened state the color shall be as specified, and as approved by the Engineer. The material shall present a marking whose color and chemical resistance will not degrade under normal exposure to calcium chloride, sodium chloride or automotive oils and fuels. Color pigments used shall remain stable under exposure to ultra violet light. A minimum of four (4) layers of coating material shall be applied to the pavement surface.

The Contractor shall be required to use the proper equipment in the application of the asphalt pavement coating, as per the recommendation of the coating supplier, and as approved by the Engineer.

Asphalt pavement must be stable, well compacted and generally in excellent condition for the application of the asphalt pavement coating to be successful. The Engineer shall make the final determination as to the suitability of the existing asphalt pavement.

The asphalt pavement surface shall be dry and free from all foreign matter, including but not limited to dirt, dust, de-icing materials, and chemical residue.

The asphalt pavement coating shall only be applied in the correct environmental conditions as instructed by the coating supplier, and as approved by the Engineer.

Refer to the instructions provided by the coating supplier regarding when the painted lane may be opened to traffic. Wait time is typically a function of the dry rate of the coating, and climate conditions.

The Engineer may, at his discretion, require the Contractor to remove all extraneous marks on the pavement made by the agents or employees of the Contractor, or made by others due to improper control or protection of the work area by the Contractor, his agents or employees. Any installation which, in the opinion of the Engineer, is not acceptable, whether by reason of poor workmanship, poor appearance, poor performance, poor materials, improper width or improper alignment, shall be reworked by the Contractor at no cost to the City. The Contractor shall replace rejected installation as directed by the Engineer, within fifteen (15) days after receiving written notification of the rejection of such completed work.

6.44PO.6. MEASUREMENT. The quantities to be measured for payment shall be the number of square yards of Lane Pavement Overlay, of each color, placed as specified to the satisfaction of the Engineer.

6.44PO.7. PRICES TO COVER. The unit prices bid per square yard of Green Bicycle Lane Pavement Overlay and Red Bus Lane Pavement Overlay shall cover the cost of all labor, materials, plant, equipment, insurance, and necessary incidentals required including, but not limited to, testing, cleaning, preparation of surfaces, and application of the lane pavement overlay materials, all in accordance with the contract plans and specifications, and as directed by the Engineer.

Payment will be made under:

Item No.	Item	Pay Unit
6.44 POG	GREEN BICYCLE LANE PAVEMENT OVERLAY	S.Y.
6.44 POR	RED BUS LANE PAVEMENT OVERLAY	S.Y.

SECTION 6.52 CG
Crossing Guard

6.52CG.1. INTENT. This section describes the employment of full-time uniformed crossing guards to direct and detour traffic.

6.52CG.2. DESCRIPTION. The Contractor shall furnish an adequate number of competent crossing guards to control vehicular and pedestrian traffic when it is necessary to maintain alternating one-way traffic in one lane of a two-way roadway, and at all other locations where construction operations, construction vehicles and equipment, and temporary traffic patterns related to the construction operations require positive temporary traffic control for safe, efficient traffic operations.

6.52CG.3. METHODS. All crossing guards, whether paid for under this item or not, shall be proficient in speaking, writing and reading English and adequately trained, as approved by the Engineer, in controlling vehicular and pedestrian traffic at construction sites.

All crossing guards, whether paid for under this item or not, their apparel, hand-signaling devices, and active two-way radios shall be appropriate for use at roadway construction sites as approved by the Engineer.

Prior to the start of crossing guard operations, the Contractor shall provide to the Engineer a list of crossing guards to be used in the contract, identifying the source of crossing guard training for each individual. When requested by the Engineer, crossing guards shall demonstrate their competency in crossing guard procedures. Crossing guards not competent in controlling vehicular and pedestrian traffic procedures to the satisfaction of the Engineer shall be retrained or replaced at once. Each crossing guard paid under this item must be a full-time crossing guard. If any worker performing services under this item is also assigned the task of directing construction equipment (as per attached Example #2, worker acting as a flagperson 'A') or any laborer tasks, then such worker shall be deemed to be subject to the provisions of Labor Law §220 Prevailing Wage Schedule and will not be paid for under this Item.

6.52CG.4. MEASUREMENT. The quantity to be measured for payment shall be the number of person-hours of uniformed crossing guard service actually performed, as authorized by the Engineer. Laborers who are not full-time crossing guard will not be measured for payment as crossing guards under this or any other item. Each uniformed crossing guard shall be required to work a minimum of eight (8) hours a day and the Contractor will be given a minimum of twelve (12) hours advanced notice by the Engineer as to when to furnish a crossing guard.

6.52CG.5. PRICE TO COVER. The contract price per person-hour shall cover the cost of all labor, materials, equipment, and insurance necessary to employ a uniformed full-time crossing guard, and equip him/her with safety vests, hard hats, and signaling devices, including all other incidental costs necessary to control and detour traffic, as shown on the Contract Drawings, the Examples #1 and #2 on pages 395 and 396 (excluding worker acting as a flagperson "A" in Example #2), or as directed by the Engineer.

Payment for flagperson "A" in Example #2, shall be deemed to be included under other items of work, as appropriate.

Where there is no scheduled item for Crossing Guard, the cost of furnishing Crossing Guards as required shall be deemed included in the unit price bid for the Maintenance and Protection of Traffic item.

Payment will be made under:

Item No.	Item	Pay Unit
6.52 CG	CROSSING GUARD	PERSON-HOUR (P/HR)

[Added 02-24-2014]

16. Refer to PageS 480 and 481, **Subsection 7.13.2.(B) MAINTENANCE OF STREETS**, 4th paragraph, beginning with the words "The Contractor shall maintain the traveled way . . .;
Delete the 4th paragraph, in its entirety;
Substitute the following text:

"The Contractor shall maintain the traveled way in such a condition and conduct operations in such a manner that snow and ice may be readily removed by others as and when necessary, and in such a manner that proper drainage is provided for the melting of snow in the banks resulting from normal plowing. However, the Contractor will not be responsible for snow or ice removal on the pavement or traveled way opened for public usage, except within the limits of the work zone(s) which may include, but is not be limited to, stairways, promenades, esplanade areas, and sidewalk, including those fronting his office and the Engineer's field office all of which will be the responsibility of the Contractor."

ATTACH TO CONTRACT DOCUMENTS

THE CITY OF NEW YORK
DEPARTMENT OF DESIGN AND CONSTRUCTION
INFRASTRUCTURE DIVISION
BUREAU OF DESIGN

PROJECT ID: HEDA001

FOR THE CONSTRUCTION OF ACCELERATED WATER MAIN REPLACEMENT AND SEWER REHABILITATION AND REPLACEMENT

Together With All Work Incidental Thereto

BOROUGH OF THE BRONX

ADDENDUM NO. 2

DATED: December 26, 2014

This Addendum is issued for the purpose of amending the requirements of the contract documents and is hereby made part of said contract documents to the same extent as if it was originally included therein.

The Standard Sewer And Water Main Specifications of the Department of Environmental Protection (dated July 1, 2014), Sewer Design Standards of the Department of Environmental Protection (dated (September 2007) Revised January 2009), Water Main Standard Drawings of the Department of Environmental Protection (latest revisions), Specifications For Trunk Main Work of the Department of Environmental Protection (dated July 2014) and the Standard Highway Specifications (Volumes I and II) of the Department of Transportation (dated November 1, 2010) of The City of New York, shall be included as part of the contract documents. These said specifications and standard drawings are hereby revised under the following section headings:

A. SPECIFIC PROVISIONS FOR WATER MAIN WORK
B. NOTICE TO BIDDERS
C. AMENDMENTS TO THE STANDARD HIGHWAY SPECIFICATIONS
D. AMENDMENTS TO THE STANDARD SEWER AND WATER MAIN SPECIFICATIONS
E. AMENDMENTS TO THE SPECIFICATIONS FOR TRUNK MAIN WORK

A. SPECIFIC PROVISIONS FOR WATER MAIN WORK

SPW-1 DESCRIPTION OF WORK

This is a Borough-wide annual contract to install water mains in connection with new building construction, or to improve the City's water main distribution system pertaining to water quality and fire protection on an as needed basis. Contract drawings/plans showing new water main work are not issued with this contract, but will be furnished to the Contractor with each Task Order, for the duration of this contract.

Work by Others - In the event there is need for required services in the borough(s) designated in the contract, the Commissioner reserves the right not to issue a task order to the Contractor and to have the work performed by another contractor, or by City employees, if the Commissioner, in the Commissioner's sole opinion, determines that the Contractor may be unable to satisfactorily provide the required services in a timely fashion.

SPW-2 WORK TO BE DONE UNDER THIS CONTRACT

Under this contract the Contractor may be required to install water mains in connection with new building construction. The Contractor may also be required to install water mains to improve the City's water distribution system, replace existing water mains requiring tap transfers or to cut in additional fire hydrants as deemed needed to existing water mains. The Contractor may be further required to replace existing nonfunctioning and/or defective fire hydrants on existing water mains, replace existing nonfunctioning and/or defective air cock hydrants on existing trunk mains, cut in additional valves on existing water mains and/or replace existing nonfunctioning and/or defective valves on existing water mains.

The Contractor shall be prepared to report to any designated location in accordance with Section SPW-4 - Issuance of Task Orders.

It shall be the Contractor's responsibility to obtain any and all permits needed to do the work under this contract, which shall include, but not be limited to, permits obtained from the Department of Transportation (Bureau of Traffic Operations), Police Department, Fire Department and the Transit Authority.

The Contractor is required to give twenty-four (24) hours prior notice before the start of the work in a manner satisfactory to the Engineer, to the Transit Authority, Department of Transportation (Bureau of Traffic Operations), Police Department and Fire Department so that proper arrangements can be made for maintaining traffic during the course of the work.

The attention of the Contractor is also called to the fact that under this type of contract, the City is not able to determine accurately in advance the quantity of each size of pipe and appurtenances that will be required to be installed as the quantities are dependent upon applications for water service to new buildings over which the City has no control.

The quantities of work set forth herein are only an estimate; they are not a guarantee of work and are included solely for the purpose of bid computation.

The City, however, will endeavor with each task order to have drawings/plans available for the Contractor to install the pipe quantities herein specified, as measured along the axes of the pipes in place and no allowance will be made if the quantities of the various sizes of pipe and appurtenances differ from that as specified.

At the conclusion of the contract, any task orders furnished to the Contractor in which work has not already commenced will be deleted from the contract. No additional compensation shall be made to the Contractor for these deleted locations. However, the Contractor may request from the Engineer to work beyond the expiration date of the contract provided there are sufficient funds and quantities of all necessary items to complete the required work. No extra allowance other than an extension of time will be granted to the Contractor to complete the proposed work.

The attention of the Contractor is also called to the fact that the duration of the contract is three hundred sixty-five (365) days and that the City does not guarantee or stipulate that the pipe laying work will be continuous.

The Contractor may be required to install water mains, including hydrants and appurtenances, all excavations/restorations, etc. at various locations, in the borough. The Contractor will also be required to cut in additional fire hydrants as deemed needed to existing water mains, replace existing nonfunctioning and/or defective fire hydrants on existing water mains, replace existing nonfunctioning and/or defective air cock hydrants on existing trunk mains, cut in additional valves on existing water mains and/or replace existing nonfunctioning and/or defective valves on existing water mains. Task orders together with drawings/plans will be issued to the Contractor by the Commissioner or the Commissioner's duly authorized representative as applications warrant.

SPW-3 WORK COMMENCEMENT AFTER RECEIVING TASK ORDER

Following the execution of the contract, water main installation drawings/plans will be issued with each task order to the Contractor by the Commissioner or the Commissioner's duly authorized representative. The water main drawings/plans will be issued to the Contractor as applications for water service to new buildings needs, distribution/fire protection needs, water quality needs and/or service needs which may warrant water main and/or appurtenance installations.

Based upon past experience, the following are approximate proportions of the total footage of pipe installed in various streets of contract, over six (6) month periods:

Installation in Streets	Proportion
75' to 150' in length	2%
151' to 300' in length	15%
301' to 500' in length	17%
501' and longer in length	66%

The City shall not be held responsible should these percentages differ for the work to be done under this contract.

As such, this contract may include the installation or replacement of hydrants and valves, as required, and spot repairs with minimal, if any, pipe replacement. The work of installing or replacing hydrants and valves shall include but not be limited to the following:

For Replacing Existing Fire Hydrants:

(a) On Cast Iron Water Mains: Replace fire hydrant, 6-inch gate valve, 6-inch hydrant pipe connection and hydrant valve box to existing water main. Also, replace three-way connection on existing main and lengths of water main pipe for pipe restraint on each side of the three-way in accordance with **Subsection 60.12.3 (l) - Restrained Pipe Joints**. Also install hydrant fenders and reconstruct sidewalk, curb and roadway areas as required.

(b) On Ductile Iron Water Mains: Replace fire hydrant and 6-inch hydrant pipe connection to the outlet of the existing hydrant gate valve. Also install hydrant fenders and reconstruct sidewalk, curb and roadway areas as required.

For Replacing Existing Air Cock Hydrants:

On All Trunk Mains: Replace air cock hydrant and 6-inch hydrant pipe connection to the outlet of the existing hydrant gate valve. Also install hydrant fenders and reconstruct sidewalk, curb and roadway areas as required.

For Installing A New Fire Hydrant To An Existing Main:

On All Water Mains: Install fire hydrant, 6-inch gate valve, 6-inch hydrant pipe connection, hydrant valve box, install three-way connection on existing main and lengths of water main pipe for pipe restraint on each side of the three-way in accordance with **Subsection 60.12.3 (l) - Restrained Pipe Joints**. Also install hydrant fenders and reconstruct sidewalk, curb and roadway areas as required.

For Replacing Existing Gate Valves:
On All Water Mains: Replace gate valve, valve box and lengths of water main pipe for pipe restraint on each side of the valve in accordance with **Subsection 60.12.3 (I) - Restrained Pipe Joints**. Also reconstruct sidewalk, curb and roadway areas as required.

For Installing A New Gate Valve On An Existing Main:
On All Water Mains: Install gate valve, valve box and lengths of water main pipe for pipe restraint on each side of the valve in accordance with **Subsection 60.12.3 (I) - Restrained Pipe Joints**. Also reconstruct sidewalk, curb and roadway areas as required.

SPW-4 ISSUANCE OF TASK ORDERS

(A) GENERAL: The Contractor shall, for the duration of this contract, provide services as directed by the Engineer to install water mains in connection with new building construction, or to improve the City's water main distribution system pertaining to water quality and fire protection on an as needed basis, in accordance with the terms and conditions set forth herein.

(B) TRANSMISSION OF TASK ORDERS:

(1) The Engineer shall advise the Contractor of the need for services by issuing Task Orders to the Contractor as set forth in **paragraph (C)** below. The Engineer shall send Task Orders to the Contractor by e-mail, fax, or by telephone promptly confirmed by e-mail and/or fax.

(2) The Contractor shall, for the duration of this contract, provide and maintain at its place of business a dedicated telephone line, a dedicated e-mail address and a dedicated fax line for the receipt of Task Orders hereunder. The e-mail and fax machine shall be in operation twenty-four (24) hours per day, seven (7) days per week, for the duration of this contract. The Contractor shall not be entitled to any compensation for the provision of such equipment. All expenses for the required telephone, e-mail and fax lines shall be deemed included in the unit prices bid for all items in this contract.

(C) TASK ORDER: When the need for services arises, the Engineer shall issue a Task Order to the Contractor together with drawings/plans. The Task Order shall specify the items set forth below:

(1) Description and Location of the Project
(2) Length of Work
(3) Services to be Performed (install water mains in connection with new building construction, install water mains to improve the City's water main distribution system, replace existing water mains requiring tap transfers, to cut in additional fire hydrants on existing water mains, to replace existing nonfunctioning and/or defective fire hydrants on existing water mains, to replace existing nonfunctioning and/or defective air cock hydrants on existing trunk mains, cut in additional valves on existing water mains, replace existing nonfunctioning and/or defective valves on existing water mains, etc.)
(4) Completion Time (consecutive calendar days for completing work on each task order)

(D) Time is of the essence as the public health and safety are involved. Accordingly, the Contractor shall perform the work at each and every ordered location promptly and diligently, using such means and methods of work as will assure its expeditious and satisfactory completion without delay. In light of the difficulty of ascertaining the amount of the City's damages in the event that the Contractor does not complete a task order within the time specified by the Engineer, the Contractor shall be assessed the amount stipulated in Schedule "A" for each consecutive calendar day over the completion time specified in each issued written task order, as and for liquidated damages and not as a penalty for failure to complete a task order within the time specified.

(E) PERSONNEL: The Contractor shall provide adequate personnel and equipment at each ordered location. Prior to the start of work the Engineer shall approve such personnel and equipment. The Engineer reserves the right to determine the personnel and equipment required to adequately and

properly carry out the intent of this contract. The Contractor must be prepared to provide adequate personnel and equipment to perform the services specified herein at up to three (3) concurrent sites.

(F) NO RIGHT TO REFUSE: The Contractor shall have no right to reject or decline to perform any Task Order issued under this contract. However, if the Contractor is unable to begin the required work for any reason, the Contractor shall so notify the Engineer by telephone as soon as possible, such notifications to be followed by an explanation in writing as to the reasons why the Contractor is unable to begin the required work.

(G) SUPPLEMENTARY TASK ORDERS: The Contractor shall perform only the work specifically ordered by the Engineer in the written Task Order. The Department of Design and Construction reserves the right to order additional work through Supplementary Task Orders issued by the Engineer, as the work on the original Task Order progresses.

SPW-5 EXAMINATION AND VIEWING OF SITE, ETC.

In Contract Book, Volume 2 of 3, INFORMATION FOR BIDDERS, Page 2, Section 8 - Examination and Viewing of Site, Consideration of Other Sources of Information and Changed Conditions, DELETE Paragraph (A), in its entirety and **SUBSTITUTE** the following:

"(A) Contractor (Investigation) Viewing of Sites - The Contractor after issuance of task order from the Commissioner or duly authorized representative must carefully view and examine the site of the proposed work, as well as its adjacent areas, and seek other usual sources of information, for the Contractor will be conclusively presumed to have full knowledge of any and all conditions on, about or above the sites relating to or affecting in any way the performance of the work to be done under this contract which were or should have been indicated to a reasonably prudent Contractor. Upon examination of the sites and/or from other usual sources of information, the Contractor finds conditions that are unusual, and may materially affect the cost of the work to be done under this contract, the Contractor shall follow the procedure specified in INFORMATION FOR BIDDERS, Page 2, Section 8, Paragraph (B)."

SPW-6 GUARANTEED MINIMUM

In the event the Contractor is not issued any Task Orders hereunder, the City agrees to pay, and the Contractor agrees to accept, a minimum fee of two thousand dollars ($2,000.00). The Contractor further agrees that under such circumstances, the Contractor has no action for damages or for loss of profits against the City.

B. NOTICE TO BIDDERS

(1) The Contractor is advised that the duration of the contract is one (1) year from the date of Order to Commence Work.

(2) (A) The Contractor is advised that copies of the Standard Sewer And Water Main Specifications (dated July 1, 2014), Sewer Design Standards (dated (September 2007) Revised January 2009), Specifications For Trunk Main Work (dated July 2014) and Water Main Standard Drawings (latest revisions) are available to all prospective bidders at no cost upon presentation of receipt of purchase of Bid Package at the following location:

Department of Design and Construction
Division of Infrastructure
Design Services, Specifications, 3rd Floor
30-30 Thomson Avenue
Long Island City, NY 11101

(B) The Contractor is advised that copies of the Standard Highway Specifications (Volume I and II) (dated November 1, 2010), Standard Highway Details of Construction (latest revisions), Division of Street Lighting Specifications (latest revisions), Division of Street Lighting Standard Drawings (latest revisions), Standard Specifications for Traffic Signals (latest revisions), and Standard Drawings for Traffic Signals (latest revisions) are available to all prospective bidders for a fee at the following location:

Department of Transportation
55 Water Street, Ground Floor
New York City, NY 10041

(3) The Contractor is notified that a Notice To Proceed (NTP) date will be issued for work to commence within twenty-one (21) to thirty (30) days of Contract Registration.

(4) The Contractor shall furnish, install, maintain and subsequently remove temporary Protective Tree Barriers. Protective Tree Barriers shall be Type B, unless otherwise directed by the Engineer, and shall be constructed and installed as shown on the Protective Tree Barrier sketch in Department Of Transportation, Standard Highway Details Of Construction, Drawing No. H-1046A, as directed by the Engineer, and in accordance with Department of Parks and Recreation requirements.

(5) The Contractor is notified that Victaulic Style 77 Coupling is no longer acceptable for use in any steel water main work. All reference to Victaulic Style 77 Coupling within the Standard Sewer And Water Main Specifications of the Department of Environmental Protection (dated July 1, 2014), the Water Main Standard Drawings of the Department of Environmental Protection (latest revisions), the Specifications For Trunk Main Work (dated July 2014), and the contract drawings, shall be replaced with Bolted Split-Sleeve Restrained Coupling.

(6) The Contractor is notified that wherever the Item No. "6.52" and words "flagger", "flagperson" and "flagman" are used in the contract documents and drawings it shall mean the Item No. "6.52 CG" and the words "Crossing Guard", respectively.

(7) The Contractor is notified that the fuel cost per gallon used in the formula under **Sub-Article 26.2.8** of the Standard Construction Contract for **Extra Work** will be derived from the fuel price index for the United States East Coast published weekly by the United States Energy Information Administration ("USEIA"), and available on its website at http://www.eia.gov/petroleum/gasdiesel/ . The USEIA published cost per gallon for the applicable fuel on the East Coast for the week in which the first day of each calendar quarter during the contract term occurs (i.e., January 1st, April 1st, July 1st and September 1st) will be used in the reimbursement formula for all **Extra Work** invoiced that was performed during that calendar quarter. Should the USEIA stop publishing this fuel price index, the

fuel cost per gallon will be determined by reference to a substitute index to be agreed upon by the Contractor and the City.

(8) The Contractor is responsible for any damage to the existing street and traffic signal equipment, including underground conduits and the safety of both pedestrian and vehicular traffic for the duration of the contract.

Should any conduits, cables or foundations need repair due to the Contractor's negligent operations during construction, all work shall be performed according to NYCDOT Bureau of Traffic's Standard Drawings and Specifications at the sole expense of the Contractor.

It is the Contractor's responsibility to secure an approved electrical contractor to perform all traffic signal work (if any). For list of approved electrical contractors, contact Mr. Michael R. LeFosse of New York City Department of Transportation at (718) 786-2236.

(9) (A) There is no provision for "ENGINEER'S FIELD OFFICE" in this contract, as per **New York City Department of Transportation (NYCDOT) Standard Highway Specifications Section 6.40 - Engineer's Field Office**.

(10)The Contractor will be required to prepare and submit **"As Built"** sewer record drawings to the Engineer for approval, at the completion of each installation. Drawings submitted at the completion of the entire contract after all installations shall not be accepted. Approved **"As Built"** drawings shall be delivered to the Department of Environmental Protection, Chief of Emergency Construction, 59-17 Junction Boulevard, 6th Floor - High Rise, Corona, New York, 11368, Tel. No. (718) 227-1868. The following guideline is provided for the preparation of **"As Built"** sewer record drawings:

(A) Drawings shall be prepared for each individual unrelated location. The drawings shall be submitted in CADD format on CD's along with a plotted Mylar for each location drawing. The drawings on CD's and the plotted Mylar's shall be legal size (8-1/2" x 14"). The Mylar shall be 3-mil in thickness.

(B) The **"As Built"** drawings shall conform to Department of Environmental Protection (DEP) Emergency Construction Drawings (ECD). A sample copy of the ECD may be obtained at the above office together with DEP guidelines. These DEP guidelines are summarized below:

(1) Drawings shall consist of the same legend and layout of title boxes shown on the sample ECD drawing.
(2) Drawings shall consist of a location plan view on one sheet. The location plan view shall be drawn Not-To-Scale.
(3) Drawings shall contain a note making reference to the datum used. (Datum used shall be that of the Borough where the sewer is located.)
(4) Each plotted Mylar drawing shall contain the signature and stamp of the Contractor's NYS Professional Engineer/Registered Architect.
(5) The location plan view shall include:
  (a) street name and two (2) crossing streets or distance from;
  (b) north arrow;
  (c) property lines and widths;
  (d) curb lines and widths;
  (e) sewers, manholes, catch basins, connections (No horizontal bends allowed on sewer lines);
  (f) sewer sizes, materials (ESVP, RCP, DIP, etc.), and types (New, Existing, Sanitary, Storm, Combined, etc.);
  (g) sewer length (between centerlines of manholes);
  (h) sewer flow direction;
  (i) offsets of sewer lines or extensions from property lines (not curb lines);
  (j) foundations (concrete cradle, stone ballast, piles, etc.);
  (k) manholes types (Precast, Concrete, Brick, A-1, A-2, etc.);
  (l) manhole elevations (both rim and invert);

(m) manhole stationing along installed sewers;
(n) catch basins types (Type 1, Type 2, etc.);
(o) catch basin connections;
(p) show actual number of manholes and catch basins;
(q) house connection spurs (stations and locations);
(r) address of house connections (new connections and reconnections);
(s) house connection information at curb (station, length, depth and offset from the curb);
(t) details of non-standard structures or appurtenances constructed;
(u) location of all existing and installed offset distances from property lines;
(v) for shotcreted sewers (thickness and reinforcement of shotcreting); and
(w) all appropriate notes.

(6) Examples of notes that can be used are as follows:
(a) Unless otherwise noted, all house connections are 6" ESVP;
(b) Unless otherwise noted, all catch basins are Standard Type 1;
(c) Unless otherwise noted, all new curb connections are at a depth of approximately 8-feet at the curb and are 2-feet inside the curb line;
(d) Unless otherwise noted, all built manholes are brick;
(e) Unless otherwise noted, all catch basin connections are 12" DIP on crushed stone;
(f) unless otherwise noted, all ESVP sewers are installed on 6" concrete cradle;
(g) Pipe lengths are measured from inside face of manhole to inside face of manhole.

(C) The cost of preparing and submitting "**As Built**" approved drawings shall be deemed included in the prices bid for all scheduled bid items in the contract. No separate or additional payment will be made for this work.

(11)The Contractor will be required to prepare and submit "As-Built" water main record drawings to the Engineer for approval, at the completion of each installation. Drawings submitted at the completion of the entire contract after all installations shall not be accepted. Approved "As-Built" drawings shall be delivered to the Department of Environmental Protection, Chief of Emergency Construction, 59-17 Junction Boulevard, 6th Floor - High Rise, Corona, New York, 11368, Tel No. (718) 227-1868. The following guideline is provided for the preparation of "As-Built" water main record drawings:

(A) Drawings shall be prepared for each individual unrelated location. The Contractor shall prepare the "As-Built" drawings on AutoCAD and shall provide to the City two (2) sets of Mylar and AutoCAD files on a CD for each location drawing. For Trunk Mains - The drawings shall be on CD's and the plotted Mylar's shall conform to the standard size of 22" x 36" (559-mm. x 914-mm.) using a 1"=30' (1:360) horizontal and 1"=10' (1:120) vertical scale. The Mylar shall be 3-mil in thickness. For Distribution Mains - The drawings shall be on CD's and the plotted Mylar's shall be field card size 6" x 4". The Mylar shall be 3-mil in thickness. Two (2) copies on regular field card stock paper shall also be provided.

(B) The "As-Built" drawings shall conform to Department of Environmental Protection (DEP) Emergency Construction Drawings (ECD). A sample of the ECD may be obtained at the above office together with DEP guidelines. These guidelines are summarized below:

(1) Drawings shall consist of the same legend and layout of title boxes shown on the contract drawings.
(2) Each plotted Mylar drawing shall contain the signature and stamp of the Contractor's NYS Professional Engineer/Registered Architect.
(3) The drawings shall include:
(a) street name and crossing street(s) or distance from;
(b) north arrow;
(c) property lines and widths;
(d) legal and existing street widths, street alignment and grades;
(e) "new" curb lines and widths;
(f) water main center line measured off the "new" curb line;

(g) horizontal stationing for all valves, hydrants, outlets, blow-offs, house service connections, etc., measured on a horizontal line as established by the Borough Office Bureau of Topographic;
(h) alignment and appurtenance location stationing, and deflection angles;
(i) cover and elevations (Datum used shall be that of the Borough where work is located);
(j) location of pipe joints;
(k) profile of all piping;
(l) complete details of ail outlet piping roundabouts;
(m) complete details of all blow-off connections to the sewer;
(n) complete details of all air cocks;
(o) location of taps and access manholes;
(p) location of all cathodic protection stations;
(q) Venturi sensing lines plans and profiles;
(r) all appropriate notes.

(C) The cost of preparing and submitting "As Built" approved drawings shall be deemed included in the prices bid for all scheduled bid items in the contract. No separate or additional payment will be made for this work.

(12)Any spot repair shall mean that the existing sewer at locations shall be replaced in the kind to the extent as specified by the Engineer.

(13)The cost of sewer replacement under spot repair shall be deemed included in the price bid for item Nos. 1.A50.31PC08 - 8" E.S.V.P. SEWER, ON CONCRETE CRADLE (MINIMUM 15 FEET LENGTHS), Item No. 1.B50.31PCO8 - 8" E.S.V.P. SEWER, ON CONCRETE CRADLE (ADDITIONAL LENGTH BEYOND THE MINIMUM 15 FEET) (FIXED UNIT PRICE TO BE 70% OF UNIT PRICE BID FOR ITEM NO. 1.A50.31PC08), Item No. 1.C50.31PC10 - 10" E.S.V.P. SEWER, ON CONCRETE CRADLE (MINIMUM 15 FEET LENGTHS) (FIXED UNIT PRICE TO BE $5.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.A50.31PC08), Item No. 1.D50.31PC10 - 10" E.S.V.P. SEWER, ON CONCRETE CRADLE (ADDITIONAL LENGTH BEYOND THE MINIMUM 15 FEET TO A MAXIMUM OF 100 FEET) (FIXED UNIT PRICE TO BE $5.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.B50.31PC08), Item No. 1.E50.31PC10 - 10" E.S.V.P. SEWER, ON CONCRETE CRADLE (ADDITIONAL LENGTH BEYOND 100 FEET) (FIXED UNIT PRICE TO BE 90% OF UNIT PRICE BID FOR ITEM NO. 1.D50.31PC10), Item No. 1.F50.31PC12 - 12" E.S.V.P. SEWER, ON CONCRETE CRADLE (MINIMUM 15 FEET LENGTHS) (FIXED UNIT PRICE TO BE $10.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.A50.31PC08), Item No. 1.G50.31PC12 - 12" E.S.V.P. SEWER, ON CONCRETE CRADLE (ADDITIONAL LENGTH BEYOND THE MINIMUM 15 FEET TO A MAXIMUM OF 100 FEET) (FIXED UNIT PRICE TO BE $10.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.B50.31PC08), Item No. 1.H50.31PC12 - 12" E.S.V.P. SEWER, ON CONCRETE CRADLE (ADDITIONAL LENGTH BEYOND 100 FEET) (FIXED UNIT PRICE TO BE $10.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.E50.31PC10), Item No. 1.I50.31PC15 - 15" E.S.V.P. SEWER, ON CONCRETE CRADLE (MINIMUM 15 FEET LENGTHS) (FIXED UNIT PRICE TO BE $15.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.A50.31PC08), Item No. 1.J50.31PC15 - 15" E.S.V.P. SEWER, ON CONCRETE CRADLE (ADDITIONAL LENGTH BEYOND THE MINIMUM 15 FEET TO A MAXIMUM OF 100 FEET) (FIXED UNIT PRICE TO BE $15.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.B50.31PC08), Item No. 1.K50.31PC15 - 15" E.S.V.P. SEWER, ON CONCRETE CRADLE (ADDITIONAL LENGTH BEYOND 100 FEET) (FIXED UNIT PRICE TO BE $15.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.E50.31PC10), Item No. 1.L50.31PC18 - 18" E.S.V.P. SEWER, ON CONCRETE CRADLE (MINIMUM 15 FEET LENGTHS) (FIXED UNIT PRICE TO BE $25.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.A50.31PC08), Item No. 1.M50.31PC18 - 18" E.S.V.P. SEWER, ON CONCRETE CRADLE (ADDITIONAL LENGTH BEYOND THE MINIMUM 15 FEET TO A MAXIMUM OF 100 FEET) (FIXED UNIT PRICE TO BE $20.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.B50.31PC08), Item No. 1.N50.31PC18 - 18" E.S.V.P. SEWER, ON CONCRETE CRADLE (ADDITIONAL LENGTH BEYOND 100 FEET) (FIXED UNIT PRICE TO BE $20.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.E50.31PC10), Item No. 1.O50.21P3C024D - 24" R.C.P. CLASS III SEWER, ON CONCRETE CRADLE (MINIMUM 15 FEET LENGTHS) (FIXED UNIT PRICE TO BE $35.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.A50.31PC08), Item No. 1.P50.21P3C024D - 24" R.C.P. CLASS III SEWER, ON CONCRETE CRADLE (ADDITIONAL LENGTH BEYOND THE MINIMUM 15 FEET TO A MAXIMUM OF 100 FEET) (FIXED UNIT PRICE TO BE $30.00 PLUS UNIT PRICE BID FOR ITEM NO.

1.B50.31PC08), Item No. 1.Q50.21P3C024D - 24" R.C.P. CLASS III SEWER, ON CONCRETE CRADLE (ADDITIONAL LENGTH BEYOND 100 FEET) (FIXED UNIT PRICE TO BE $30.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.E50.31PC10), Item No. 1.R50.21P3C030D - 30" R.C.P. CLASS III SEWER, ON CONCRETE CRADLE (MINIMUM 15 FEET LENGTHS) (FIXED UNIT PRICE TO BE $40.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.A50.31PC08), Item No. 1.S50.21P3C030D - 30" R.C.P. CLASS III SEWER, ON CONCRETE CRADLE (ADDITIONAL LENGTH BEYOND THE MINIMUM 15 FEET TO A MAXIMUM OF 100 FEET) (FIXED UNIT PRICE TO BE $35.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.B50.31PC08), Item No. 1.T50.21P3C030D - 30" R.C.P. CLASS III SEWER, ON CONCRETE CRADLE (ADDITIONAL LENGTH BEYOND 100 FEET) (FIXED UNIT PRICE TO BE $35.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.E50.31PC10), Item No. 1.U50.21P3C036D - 36" R.C.P. CLASS III SEWER, ON CONCRETE CRADLE (MINIMUM 15 FEET LENGTHS) (FIXED UNIT PRICE TO BE $45.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.A50.31PC08), Item No. 1.V50.21P3C036D - 36" R.C.P. CLASS III SEWER, ON CONCRETE CRADLE (ADDITIONAL LENGTH BEYOND THE MINIMUM 15 FEET TO A MAXIMUM OF 100 FEET) (FIXED UNIT PRICE TO BE $40.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.B50.31PC08), Item No. 1.W50.21P3C036D - 36" R.C.P. CLASS III SEWER, ON CONCRETE CRADLE (ADDITIONAL LENGTH BEYOND 100 FEET) (FIXED UNIT PRICE TO BE $40.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.E50.31PC10), Item No. 1.X50.21P3C042D - 42" R.C.P. CLASS III SEWER, ON CONCRETE CRADLE (MINIMUM 15 FEET LENGTHS) (FIXED UNIT PRICE TO BE $50.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.A50.31PC08), Item No. 1.Y50.21P3C042D - 42" R.C.P. CLASS III SEWER, ON CONCRETE CRADLE (ADDITIONAL LENGTH BEYOND THE MINIMUM 15 FEET TO A MAXIMUM OF 100 FEET) (FIXED UNIT PRICE TO BE $45.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.B50.31PC08), Item No. 1.Z50.21P3C042D - 42" R.C.P. CLASS III SEWER, ON CONCRETE CRADLE (ADDITIONAL LENGTH BEYOND 100 FEET) (FIXED UNIT PRICE TO BE $45.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.E50.31PC10), Item No. 1.AA50.21P3C048D - 48" R.C.P. CLASS III SEWER, ON CONCRETE CRADLE (MINIMUM 15 FEET LENGTHS) (FIXED UNIT PRICE TO BE $55.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.A50.31PC08), Item No. 1.BB50.21P3C048D - 48" R.C.P. CLASS III SEWER, ON CONCRETE CRADLE (ADDITIONAL LENGTH BEYOND THE MINIMUM 15 FEET TO A MAXIMUM OF 100 FEET) (FIXED UNIT PRICE TO BE $50.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.B50.31PC08), and Item No. 1.CC50.21P3C048D - 48" R.C.P. CLASS III SEWER, ON CONCRETE CRADLE (ADDITIONAL LENGTH BEYOND 100 FEET) (FIXED UNIT PRICE TO BE $50.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.E50.31PC10).

(14)The Contractor shall be required to televise the condition of existing sewers between the adjoining existing/new manholes before and after the spot repair work is completed. The cost of the TV inspection shall be deemed included in the price bid for item No. 53.11DR – TELEVISION INSPECTION AND DIGITAL AUDIO-VISUAL RECORDING OF SEWERS.

(15)The Contractor is notified that at some locations there presently exists sewers, manholes, water mains, etc., which are to remain undisturbed and are in close proximity to the line of the proposed work. The Contractor shall exercise extreme care, minimize the trench width of the proposed sewers and take all necessary precautions in placing sheeting and during excavation of the trenches to prevent any damage to the existing structures that are to remain while working adjacent to them. Should any damage occur to any portion of the existing structures that are to remain due to the Contractor's operations, the Contractor shall make all repairs to the existing structures to the satisfaction of and as directed by the Engineer. The cost of such repair shall be borne by the Contractor solely at the Contractor's own expense.

C. AMENDMENTS TO THE STANDARD HIGHWAY SPECIFICATIONS

(1) Refer to Standard Highway Specifications Volume II (November 1, 2010), Page 544:
Add the following new **Section 9.32**:

SECTION 9.32 - Reinforced Silt Fence

9.32.1. DESCRIPTION OF WORK. The Contractor shall furnish all materials, labor, equipment and incidentals necessary to construct a reinforced silt fence, comprised of a construction (limiting) fence, filter fabric, and staked hay bales, as specified herein.

Upon furnishing and installing the approved reinforced silt fence but prior to commencing any other work on-site, the Contractor shall notify the Engineer and arrange for an on-site inspection.

The reinforced silt fence shall be maintained in good condition and repaired as necessary by the Contractor during the construction and post-construction/site stabilization phases as directed by the Engineer.

9.32.2. MATERIALS AND METHODS.

(1) Construction (Limiting) Fence: The construction (limiting) fence shall be a welded wire fence with a minimum height of six (6) feet. The fence shall be constructed of wire fabric fastened to the middle rails and to vertical line posts.

Wire fabric shall be of No. 6 gauge wire with a mesh of approximately 2-inches. The upper edge of the fabric shall be twisted and barbed. The fabric shall be securely fastened to vertical line posts and middle rails by means of ties and spaced not more than 12-inches apart on rails and not more than 14 inches apart on line posts.

Post shall have the following nominal outside diameters and minimum weights per linear foot:

(a) Line posts 2-1/2-inches @ 3.7-lbs.
(b) End and corner posts 3-inches @ 5.8-lbs.
(c) Middle rails 1-5/8-inches @ 2.3-lbs.

The construction (limiting) fence shall be located where directed. The fence shall be adjusted to avoid interference with trees and to maintain access.

Line posts shall be spaced not more than 6-feet on centers. Posts shall be securely set in the ground. Line posts shall extend at least 4-feet below finished grade. Post locations shall be adjusted to avoid tree roots as appropriate.

(2) Filter Fabric: Filter fabric shall be securely attached to the vertical line posts and wire fabric, and shall be situated between the wire fabric and staked hay bales.

The filter fabric shall be purchased and delivered in a continuous roll and cut on-site to the length of the barrier(s) to avoid the use of joints. Dimensions of the roll shall be thirty-six (36) inches by one hundred (100) feet in length. When joints are necessary, filter cloth shall be spliced together only at a line post, with a minimum 6-inch overlap, and securely sealed. The filter fabric shall meet NYSDOT specifications on same, and shall be fabric #2130 as manufactured by Mutual Industries Inc., 707 W. Grange Street, Philadelphia, PA 19120, or approved equivalent.

A trench shall be excavated approximately 4-inches wide and 4-inches deep along the line of posts and up slope from the barrier. The filter fabric shall be extending into the trench, the trench backfilled, and the soil compacted over the filter fabric.

Siltation fences shall be removed when they have served their useful purpose, but not before the up slope area has been permanently stabilized.

(3) Hay Bales: All hay bales shall be of straw, and shall be standard sized bales. Bales shall be placed in a single row, with ends of adjacent bales tightly abutting one another. Bales shall be placed up slope of the filter fabric, and shall at all times run parallel to the construction (limiting) fence and abut the filter fabric.

All bales shall be fiber-bound. No string bound hay bales are accepted. Hay bales shall be installed so that bindings are oriented around the sides rather than along the tops and bottoms of the bales in order to prevent deterioration of the bindings.

The hay bale barrier shall be entrenched and backfilled. A trench shall be excavated the width of a bale and the length of the proposed barrier to a depth of 4-inches. After the bales are staked and chinked, the excavated soil shall be backfilled against the barrier. Backfill soil shall conform to the ground level on the downhill side and shall be built up to 4-inches against the uphill side of the hay bale barrier.

Each bale shall be securely anchored by at least two stakes or steel reinforcing bars driven through the bale. The first stake in each bale shall be driven toward the previously laid bale to force the bales together. Stakes or reinforcing bars shall be driven deep enough into the ground to securely anchor the bales.

The gaps between bales shall be chinked (filled by wedging) with straw to prevent water from escaping between the bales. The Contractor shall scatter loose hay over the area immediately uphill from the straw bale barrier to increase barrier efficiency.

Hay bale barriers shall be removed when they have served their usefulness, but not before the up slope areas have been permanently stabilized.

9.32.3. MAINTENANCE. The reinforced silt fence shall be inspected periodically (at least once per week), or as directed by the Engineer. Any required repairs shall be made immediately.

Filter fabric shall be inspected at least once per week and immediately after each rainfall and at least daily during prolonged rainfall. Any required repairs shall be made immediately. Should the fabric decompose or become ineffective prior to the end of the expected usable life while the barrier is still necessary, the fabric shall be replaced promptly.

Hay bales shall be inspected at least once per week and immediately after each rainfall and at least daily during prolonged rainfall. Close attention shall be paid to the repair of damaged bales, end runs and undercutting beneath bales. Necessary repairs to barriers or replacement of bales shall be accomplished promptly. Sediment deposits should be removed after each rainfall. They must be removed when the level of deposition reaches approximately one-half foot deep in front of the hay bale. Any sediment deposits remaining in place after the hay bale barrier is no longer required shall be dressed to conform to the existing grade.

9.32.4. MEASUREMENT. The quantity to be measured for payment under this section shall be the total number of linear feet of Reinforced Silt Fence installed and maintained in accordance with the plans, specifications and directions of the Engineer. Each linear foot of Reinforced Silt Fence shall be comprised of the following three elements: a construction (limiting) fence, filter fabric and staked hay bales.

9.32.5. PRICE TO COVER. The unit bid price shall constitute full compensation for all labor, materials, equipment, and incidentals necessary to complete the work, including but not limited to the furnishing of all samples and tests as required, in accordance with the plans and specifications and to the satisfaction of the Engineer.

Payment will be made under:

Item No.	Item Description	Pay Unit
9.32	REINFORCED SILT FENCE WITH STAKED HAY BALES	L.F.

D. AMENDMENTS TO THE STANDARD SEWER AND WATER MAIN SPECIFICATIONS

(1) Refer to **Subsection 10.15 - Notice To Utility Companies, Etc., To Remove Structures Occupying Place Of Sewers, Water Mains Or Appurtenances**, Page I-11:
Add the following to **Subsection 10.15**:

(1) CONSOLIDATED EDISON COMPANY OF NEW YORK

There are CON EDISON facilities in the areas of reconstruction. The existing systems are comprised of underground ducts, service boxes, manholes, street lighting, utility poles, underground transformer vaults, etc. The Contractor shall notify CON EDISON within the initial response time specified at time of notification of the task order at each ordered location by contacting Mr. Donald Soldiviero (The Bronx), at (212) 460-4834.

(2) EMPIRE CITY SUBWAY

There are EMPIRE CITY SUBWAY facilities in the areas of reconstruction. The Contractor shall notify EMPIRE CITY SUBWAY within the initial response time specified at time of notification of the task order at each ordered location by contacting Mr. Al Petrizzi, Governmental Liaison, 140 West Street, 18th Floor, New York, NY 10007, (The Bronx) at (212) 941-8407.

(3) CABLEVISION

There are CABLEVISION facilities in the areas of reconstruction. The Contractor shall notify CABLEVISION within the initial response time specified at time of notification of the task order at each ordered location by contacting Mr. Jeffrey Stigers or Mr. Ed Lepinsky (The Bronx) at (718) 861-7361.

(2) Refer to **Subsection 10.21 - Contractor To Notify City Departments**, Page I-13:
Add the following to **Subsection 10.21**:

(1) N.Y.C.D.E.P., BUREAU OF WATER AND SEWERS OPERATIONS

The Contractor shall notify Mr. James Garin, P.E., Director, Engineering at the Department of Environmental Protection, 59-17 Junction Blvd., 3rd floor low rise, Corona N.Y. 11368, within the initial response time specified at time of notification of the task order at each ordered location.

(2) NEW YORK CITY FIRE DEPARTMENT

Special New York City Fire Department Requirements:

(a) Access must be maintained for emergency vehicles at all times.

(b) Hydrants should be retained in service and accessible to the fullest extent feasible.

(c) The Fire Department must be notified by the Bureau of Water Supply and Wastewater Collection forthwith when water mains and/or hydrants are placed out of service and in service.

(d) If alarm boxes or alarm facilities are affected, the Bureau of Fire Communications must be notified immediately by the Contractor.

(e) During the course of the work at several locations, the Contractor may be required to relocate and/or protect existing Fire Department subsurface facilities. The approximate location of Fire Department Facilities can be obtained by contacting the Bureau of Fire Communications.

(f) All work on Fire Department facilities is to be done under direct Fire Department supervision, to the satisfaction of the Fire Department.

(g) Standards and specifications for the work of replacing Fire Communications system are available for reference at the:

New York City Fire Department
Bureau of Fire Communications
9 Metrotech Center, 7th Floor
Brooklyn, N.Y. 11201-3857
Attention: Stephen M. Gregory
Assistant Commissioner
Bureau of Fire Communications

(3) N.Y.C. DEPARTMENT OF TRANSPORTATION

The Contractor shall notify Mr. Steve Galgano, P.E., Chief of Signal/Street Lighting Operations, 34-02 Queens Boulevard, Long Island City, N.Y. 11101 at (718) 786-3550, within the initial response time specified at time of notification of the task order at each ordered location.

(4) N.Y.C. DEPARTMENT OF PARKS AND RECREATION

Special Department Of Parks And Recreation Requirements:

Department of Parks and Recreation requirements for this contract are as follows and are considered as part of this contract. The Contractor's special attention is directed to the following:

(a) Care shall be taken to protect all existing trees. The Contractor shall ensure that all trees are protected from construction damage, and shall perform all work as directed by the Borough Forester, the Engineer and the Tree Consultant. Trees damaged as a result of the Contractor's negligent construction operation shall be replaced in accordance with Subsection 10.06. The Contractor shall be liable for such damages and shall repair and replace such trees at own expense.

(b) The Contractor shall prune all trees shown, specified or ordered before excavation begins. All pruning of limbs and roots of existing trees shall be performed by an Arborist or firm recognized as a tree surgery or pruning specialist with three (3) years experience. The Contractor must submit the qualifications of the Arborist or firm for approval by the Borough Forestry prior to the pruning operation. The Contractor is notified that a permit for pruning is required. All work shall be performed in accordance with Subsection 10.06.

(c) Trees shall be protected in accordance with Subsection 10.06.

(d) The Contractor shall not be permitted to operate auxiliary equipment that generates exhaust or other heat upward (i.e. generators and compressors), under the branches of trees where the branches are less than twenty-five (25) feet above the ground. The Contractor shall not be permitted to store, stockpile, lay down or store any construction material within any existing tree pit within the canopy of any tree, or within ten (10) feet of the tree trunk, whichever is greater.

(e) All tree work requires a permit from the Parks Departments.

(f) Hand excavation shall be required around existing fire hydrants to be removed, if the Borough Forester or the Engineer determines that such work shall cause damage to tree roots. No separate or additional payment will be made for this hand excavation the cost shall be deemed included in the prices bid for all scheduled items.

(g) The Director of Borough Forestry of the Department of Parks and Recreation shall be notified at time of notification of the task order when such task order impacts trees and their root and canopy system. The applicable Borough Forestry Office is as follows:

Central Forestry: - 1234 Fifth Avenue, New York, NY 10029, Tel. No. (212) 360-1400

(5) N.Y.C. TRANSIT AUTHORITY

The Contractor shall notify the Transit Authority within the initial response time specified at time of notification of the task order by contacting Mr. John Malvasio, P.E., Director of Maintenance-Of-Way, 30 Livingston Street, Room 8044D, Brooklyn, New York, 11201, at (718) 694-1358 if any T.A. facility is within fifty (50) feet of the reconstruction work.

(3) **Refer** to **Subsection 10.30 - Contractor To Provide For Traffic**, Page I-15:
Add the following to **Subsection 10.30**:

(A) TRAFFIC STIPULATIONS:

The Contractor shall obtain all permits and traffic requirements from the Office of Construction Mitigation and Coordination (OCMC) prior to the start of work at any ordered location. The Contractors shall contact Nicolas Dagher at 212-839-9637 or John Martin at 212-839-9639, NYC Department of Transportation, Division of Engineering Control, 55 Water Street, 7th Floor, New York, NY 10041.

(4) **Refer** to **Subsection 10.32 - Photographs**, Page I-16:
Delete paragraphs number (7), (8) and (9) in their entirety:
Substitute the following new paragraphs:

(7) The cost of the Photographer and for the taking and providing of all required photographs, negatives, etc., shall be deemed included in the unit price bid for Item No. 10.32A - PHOTOGRAPHS.

(8) No separate payment will be made for the expense of furnishing the required binders; the cost thereof shall be deemed included in the unit price bid for Item No. 10.32A - PHOTOGRAPHS.

(9) The Engineer reserves the right to reject any and all views that are not reasonably clear and definitive. No payment will be made for any rejected photographs, payment under Item No. 10.32A - PHOTOGRAPHS, shall be made only for those photographs that are accepted by the Engineer.

(5) **Refer** to **Section 40.06 - Backfilling**, Page IV-18:
Delete from this section, **Subsection 40.06.2(D) - CLEAN FILL** in its entirety:
Substitute the following new **Subsection 40.06.2(D)**:

(D) CLEAN FILL

(1) Clean fill material for this contract shall be select granular fill ordered in writing by the Engineer where there is a deficiency of acceptable backfill. Select granular fill material shall be required in order to fill voids in the trenches and excavations, (For Sewers Trenches - from a point not less than two (2) feet above the top of sewers to the underside of the pavement as it existed at the start of the work; and, For Water Main Trenches - from a point not less than twelve (12) inches above the top of the barrel of the water main pipe to the underside of the pavement as it existed at the start of the work), caused by the removal of boulders, unsuitable backfill materials, existing sewers and associated sewer structures, and any other underground facilities or structures, and shall be approved clean earth or sand of low silt and clay content (less than eight (8) percent passing No. 200 sieve), free from bricks, blocks, excavated pavement materials and debris, stumps, roots and other organic matter, as well as ashes, oil and other perishable or foreign matter and shall not contain particles larger than one quarter (1/4) inch in diameter.

(2) This backfill shall be exclusive of the normal backfill required in the trenches and excavations for proposed sewers and associated sewer structures for which payment is included therein. Payment shall be made in accordance with **Subsection 40.06.6**.

(6) **Refer** to **Section 40.06 - Backfilling**, Page IV-18:
Delete from this section, paragraphs (B) and (C) of **Subsection 40.06.6 - Deficiency Of Backfill Material** in their entirety:
Substitute the following new paragraphs:

(B) For providing acceptable select granular fill (whether natural or processed) to satisfy the requirements of **Subsection 40.06.2(D)** to fill voids left by the removal of ledge rock payment shall be made under Item No. 70.61RE - ROCK EXCAVATION. The Contractor's attention is directed to **Section 70.61 - Rock Excavation** of the specifications, and that all references to clean fill therein, shall mean select granular fill.

(C) For providing acceptable select granular fill (whether natural or processed) to satisfy the requirements of **Subsection 40.06.2(D)** payment shall be made under Item No. 73.41AG - ADDITIONAL SELECT GRANULAR BACKFILL. The Contractor's attention is directed to **Section 73.41 - Additional Select Granular Backfill** of the specifications, with the addition that the conditions for use as specified in **Subsection 73.41.1** shall be expanded to include those specified in **Subsection 40.06.2(D)** as amended hereinbefore.

(7) **Refer** to **Section 70.51 - Excavation Of Boulders In Open Cut**, Page VII-37:
Add the following new **Subsection 70.51.6**:

70.51.6 EXISTING SEWER ENCASED IN CONCRETE

The Contractor is advised that at certain locations, the existing sewer to be removed may be encased in concrete. Where this condition is encountered, the Contractor shall remove the concrete encasement from the site. The quantity, in cubic yards, to be measured for payment shall be determined by taking the total volume of the encased sewer including the cradle portion less the volume of the sewer pipe. Payment shall be made at the unit price bid for Item No. 70.51EO - EXCAVATION OF BOULDERS IN OPEN CUT and shall cover the cost of all labor, materials, plant, equipment and insurance necessary to remove the concrete encasement, together with all work incidental thereto, as directed by the Engineer. The cost of any additional backfilling required to be done in connection with this work shall be deemed included in the unit price bid for Item No. 70.51EO - EXCAVATION OF BOULDERS IN OPEN CUT.

(8) **Refer** to **Subsection 71.41.4 - Specific Pavement Restoration Provisions**, Pages VII-67 and VII-68:
Add the following to **Subsection 71.41.4**:

(E) Specific Pavement Restoration Provisions:

Upon completion, at each and every ordered location, of the reconstructed collapsed or otherwise defective storm, sanitary or combined vitrified clay pipe sewers and the backfill and compaction of all sewer and water main trenches, the Contractor shall permanently restore all roadways, sidewalks and curbs within the ordered limits of the trench width and cutbacks as follows:

(1) Roadway Restoration:

(a) The permanent roadway restoration over the **trench widths and cutbacks only** shall consist of a top course of one and one-half (1-1/2) inches of asphaltic concrete wearing course on a base course of a minimum of four and one-half (4-1/2) inches of binder mixture, or a top course of one and one-half (1-1/2) inches of asphaltic concrete wearing course on a minimum of one and one-

half (1-1/2) inches of binder mixture on a base course of a minimum of six (6) inches of high-early strength concrete, to match the existing pavement as directed by the Engineer.

(b) Before the top course is installed, an additional width of asphalt beyond the edge of new base course shall be saw-cut and removed from all edges of trenches to a depth to accommodate the specified top course and the entire area restored. This additional removal shall be in accordance with paragraph (c).

(c) Pavement excavation along with saw cutting of pavements for sewer and water main trenches shall be in accordance with **Section 71.21 - Pavement Excavation** of the Standard Sewer And Water Main Specifications.

(d) At locations requiring the installation of a high-early strength concrete base course, a reflective cracking membrane shall be installed over joints prior to restoration. Additionally, appropriate pavement keys as described below shall be used as required by the Engineer.

(e) Pavement keys **Type B-1** shall be used to insure a desired four (4) inch curb reveal (two and one-half (2-1/2) inch absolute minimum). Pavement key **Type A** shall be used in all intersections. Both keys are to be per Bureau of Highways Operations Specifications and Standard Details of Construction.

(f) The cost of all labor, materials, equipment, samples and tests required and necessary to permanently restore the roadway over the trench width and cutbacks only shall be deemed included in the prices bid for Item No. 1.A50.31PC08 - 8" E.S.V.P. SEWER, ON CONCRETE CRADLE (MINIMUM 15 FEET LENGTHS), Item No. 1.B50.31PCO8 - 8" E.S.V.P. SEWER, ON CONCRETE CRADLE (ADDITIONAL LENGTH BEYOND THE MINIMUM 15 FEET) (FIXED UNIT PRICE TO BE 70% OF UNIT PRICE BID FOR ITEM NO. 1.A50.31PC08), Item No. 1.C50.31PC10 - 10" E.S.V.P. SEWER, ON CONCRETE CRADLE (MINIMUM 15 FEET LENGTHS) (FIXED UNIT PRICE TO BE $5.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.A50.31PC08), Item No. 1.D50.31PC10 - 10" E.S.V.P. SEWER, ON CONCRETE CRADLE (ADDITIONAL LENGTH BEYOND THE MINIMUM 15 FEET TO A MAXIMUM OF 100 FEET) (FIXED UNIT PRICE TO BE $5.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.B50.31PC08), Item No. 1.E50.31PC10 - 10" E.S.V.P. SEWER, ON CONCRETE CRADLE (ADDITIONAL LENGTH BEYOND 100 FEET) (FIXED UNIT PRICE TO BE 90% OF UNIT PRICE BID FOR ITEM NO. 1.D50.31PC10), Item No. 1.F50.31PC12 - 12" E.S.V.P. SEWER, ON CONCRETE CRADLE (MINIMUM 15 FEET LENGTHS) (FIXED UNIT PRICE TO BE $10.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.A50.31PC08), Item No. 1.G50.31PC12 - 12" E.S.V.P. SEWER, ON CONCRETE CRADLE (ADDITIONAL LENGTH BEYOND THE MINIMUM 15 FEET TO A MAXIMUM OF 100 FEET) (FIXED UNIT PRICE TO BE $10.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.B50.31PC08), Item No. 1.H50.31PC12 - 12" E.S.V.P. SEWER, ON CONCRETE CRADLE (ADDITIONAL LENGTH BEYOND 100 FEET) (FIXED UNIT PRICE TO BE $10.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.E50.31PC10), Item No. 1.I50.31PC15 - 15" E.S.V.P. SEWER, ON CONCRETE CRADLE (MINIMUM 15 FEET LENGTHS) (FIXED UNIT PRICE TO BE $15.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.A50.31PC08), Item No. 1.J50.31PC15 - 15" E.S.V.P. SEWER, ON CONCRETE CRADLE (ADDITIONAL LENGTH BEYOND THE MINIMUM 15 FEET TO A MAXIMUM OF 100 FEET) (FIXED UNIT PRICE TO BE $15.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.B50.31PC08), Item No. 1.K50.31PC15 - 15" E.S.V.P. SEWER, ON CONCRETE CRADLE (ADDITIONAL LENGTH BEYOND 100 FEET) (FIXED UNIT PRICE TO BE $15.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.E50.31PC10), Item No. 1.L50.31PC18 - 18" E.S.V.P. SEWER, ON CONCRETE CRADLE (MINIMUM 15 FEET LENGTHS) (FIXED UNIT PRICE TO BE $25.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.A50.31PC08), Item No. 1.M50.31PC18 - 18" E.S.V.P. SEWER, ON CONCRETE CRADLE (ADDITIONAL LENGTH BEYOND THE MINIMUM 15 FEET TO A MAXIMUM OF 100 FEET) (FIXED UNIT PRICE TO BE $20.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.B50.31PC08), Item No. 1.N50.31PC18 - 18" E.S.V.P. SEWER, ON CONCRETE CRADLE (ADDITIONAL LENGTH BEYOND 100 FEET) (FIXED UNIT PRICE TO BE $20.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.E50.31PC10), Item No. 1.O50.21P3C024D - 24" R.C.P. CLASS III SEWER, ON CONCRETE CRADLE (MINIMUM 15 FEET LENGTHS) (FIXED UNIT PRICE TO BE $35.00 PLUS UNIT PRICE BID FOR ITEM NO.

1.A50.31PC08), Item No. 1.P50.21P3C024D - 24" R.C.P. CLASS III SEWER, ON CONCRETE CRADLE (ADDITIONAL LENGTH BEYOND THE MINIMUM 15 FEET TO A MAXIMUM OF 100 FEET) (FIXED UNIT PRICE TO BE $30.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.B50.31PC08), Item No. 1.Q50.21P3C024D - 24" R.C.P. CLASS III SEWER, ON CONCRETE CRADLE (ADDITIONAL LENGTH BEYOND 100 FEET) (FIXED UNIT PRICE TO BE $30.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.E50.31PC10), Item No. 1.R50.21P3C030D - 30" R.C.P. CLASS III SEWER, ON CONCRETE CRADLE (MINIMUM 15 FEET LENGTHS) (FIXED UNIT PRICE TO BE $40.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.A50.31PC08), Item No. 1.S50.21P3C030D - 30" R.C.P. CLASS III SEWER, ON CONCRETE CRADLE (ADDITIONAL LENGTH BEYOND THE MINIMUM 15 FEET TO A MAXIMUM OF 100 FEET) (FIXED UNIT PRICE TO BE $35.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.B50.31PC08), Item No. 1.T50.21P3C030D - 30" R.C.P. CLASS III SEWER, ON CONCRETE CRADLE (ADDITIONAL LENGTH BEYOND 100 FEET) (FIXED UNIT PRICE TO BE $35.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.E50.31PC10), Item No. 1.U50.21P3C036D - 36" R.C.P. CLASS III SEWER, ON CONCRETE CRADLE (MINIMUM 15 FEET LENGTHS) (FIXED UNIT PRICE TO BE $45.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.A50.31PC08), Item No. 1.V50.21P3C036D - 36" R.C.P. CLASS III SEWER, ON CONCRETE CRADLE (ADDITIONAL LENGTH BEYOND THE MINIMUM 15 FEET TO A MAXIMUM OF 100 FEET) (FIXED UNIT PRICE TO BE $40.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.B50.31PC08), Item No. 1.W50.21P3C036D - 36" R.C.P. CLASS III SEWER, ON CONCRETE CRADLE (ADDITIONAL LENGTH BEYOND 100 FEET) (FIXED UNIT PRICE TO BE $40.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.E50.31PC10), Item No. 1.X50.21P3C042D - 42" R.C.P. CLASS III SEWER, ON CONCRETE CRADLE (MINIMUM 15 FEET LENGTHS) (FIXED UNIT PRICE TO BE $50.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.A50.31PC08), Item No. 1.Y50.21P3C042D - 42" R.C.P. CLASS III SEWER, ON CONCRETE CRADLE (ADDITIONAL LENGTH BEYOND THE MINIMUM 15 FEET TO A MAXIMUM OF 100 FEET) (FIXED UNIT PRICE TO BE $45.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.B50.31PC08), Item No. 1.Z50.21P3C042D - 42" R.C.P. CLASS III SEWER, ON CONCRETE CRADLE (ADDITIONAL LENGTH BEYOND 100 FEET) (FIXED UNIT PRICE TO BE $45.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.E50.31PC10), Item No. 1.AA50.21P3C048D - 48" R.C.P. CLASS III SEWER, ON CONCRETE CRADLE (MINIMUM 15 FEET LENGTHS) (FIXED UNIT PRICE TO BE $55.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.A50.31PC08), Item No. 1.BB50.21P3C048D - 48" R.C.P. CLASS III SEWER, ON CONCRETE CRADLE (ADDITIONAL LENGTH BEYOND THE MINIMUM 15 FEET TO A MAXIMUM OF 100 FEET) (FIXED UNIT PRICE TO BE $50.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.B50.31PC08), Item No. 1.CC50.21P3C048D - 48" R.C.P. CLASS III SEWER, ON CONCRETE CRADLE (ADDITIONAL LENGTH BEYOND 100 FEET) (FIXED UNIT PRICE TO BE $50.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.E50.31PC10), Item No. 60.12D20 - LAYING 20-INCH DUCTILE IRON PIPE AND FITTINGS, Item No. 60.12D12 - LAYING 12-INCH DUCTILE IRON PIPE AND FITTINGS, Item No. 60.12D08 - LAYING 8-INCH DUCTILE IRON PIPE AND FITTINGS, and Item No. 60.12D06 - LAYING 6-INCH DUCTILE IRON PIPE AND FITTINGS. No separate or additional payment will be made for any one and one-half (1-1/2) inches of asphaltic concrete wearing course, binder mixture, high-early strength concrete, reflective cracking member, tack coating, excavation of pavements, stripping or milling of existing pavements, etc. required to permanently restore the roadway over the trench width and cutbacks, cost shall be deemed included in the prices bid for the items specified herein paragraph (f).

(2) Sidewalk And Curb Restoration:

(a) The permanent sidewalk restoration over the **trench width and cutbacks only** shall consist of 4" concrete sidewalk (unpigmented) outside driveway and 7" concrete sidewalk (unpigmented) inside driveway and pedestrian ramps, as directed by the Engineer. All sidewalks shall be restored in full flag units.

(b) Since all sidewalks shall be restored in full flag units, the cutbacks for sidewalk restoration shall be defined as the distances beyond the edges of the trenches that require removal in order to get to an adjacent undisturbed full flag unit. For the purpose of this contract sidewalk shall be saw-cut, removed and restored in full flag units up to a maximum overall width of ten (10) feet (two (2) full flag units).

(c) The permanent restoration of curbs over the **trench width only** shall consist of concrete curb, straight steel faced concrete curb, depressed steel faced concrete curb and corner steel faced concrete curb, as directed by the Engineer.

(d) The cost of all labor, materials, equipment, samples and tests required and necessary to permanently restore the sidewalk and curb over the trench width and cutbacks only shall be deemed included in the prices bid for Item No. 1.A50.31PC08 - 8" E.S.V.P. SEWER, ON CONCRETE CRADLE (MINIMUM 15 FEET LENGTHS), Item No. 1.B50.31PCO8 - 8" E.S.V.P. SEWER, ON CONCRETE CRADLE (ADDITIONAL LENGTH BEYOND THE MINIMUM 15 FEET) (FIXED UNIT PRICE TO BE 70% OF UNIT PRICE BID FOR ITEM NO. 1.A50.31PC08), Item No. 1.C50.31PC10 - 10" E.S.V.P. SEWER, ON CONCRETE CRADLE (MINIMUM 15 FEET LENGTHS) (FIXED UNIT PRICE TO BE $5.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.A50.31PC08), Item No. 1.D50.31PC10 - 10" E.S.V.P. SEWER, ON CONCRETE CRADLE (ADDITIONAL LENGTH BEYOND THE MINIMUM 15 FEET TO A MAXIMUM OF 100 FEET) (FIXED UNIT PRICE TO BE $5.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.B50.31PC08), Item No. 1.E50.31PC10 - 10" E.S.V.P. SEWER, ON CONCRETE CRADLE (ADDITIONAL LENGTH BEYOND 100 FEET) (FIXED UNIT PRICE TO BE 90% OF UNIT PRICE BID FOR ITEM NO. 1.D50.31PC10), Item No. 1.F50.31PC12 - 12" E.S.V.P. SEWER, ON CONCRETE CRADLE (MINIMUM 15 FEET LENGTHS) (FIXED UNIT PRICE TO BE $10.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.A50.31PC08), Item No. 1.G50.31PC12 - 12" E.S.V.P. SEWER, ON CONCRETE CRADLE (ADDITIONAL LENGTH BEYOND THE MINIMUM 15 FEET TO A MAXIMUM OF 100 FEET) (FIXED UNIT PRICE TO BE $10.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.B50.31PC08), Item No. 1.H50.31PC12 - 12" E.S.V.P. SEWER, ON CONCRETE CRADLE (ADDITIONAL LENGTH BEYOND 100 FEET) (FIXED UNIT PRICE TO BE $10.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.E50.31PC10), Item No. 1.I50.31PC15 - 15" E.S.V.P. SEWER, ON CONCRETE CRADLE (MINIMUM 15 FEET LENGTHS) (FIXED UNIT PRICE TO BE $15.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.A50.31PC08), Item No. 1.J50.31PC15 - 15" E.S.V.P. SEWER, ON CONCRETE CRADLE (ADDITIONAL LENGTH BEYOND THE MINIMUM 15 FEET TO A MAXIMUM OF 100 FEET) (FIXED UNIT PRICE TO BE $15.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.B50.31PC08), Item No. 1.K50.31PC15 - 15" E.S.V.P. SEWER, ON CONCRETE CRADLE (ADDITIONAL LENGTH BEYOND 100 FEET) (FIXED UNIT PRICE TO BE $15.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.E50.31PC10), Item No. 1.L50.31PC18 - 18" E.S.V.P. SEWER, ON CONCRETE CRADLE (MINIMUM 15 FEET LENGTHS) (FIXED UNIT PRICE TO BE $25.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.A50.31PC08), Item No. 1.M50.31PC18 - 18" E.S.V.P. SEWER, ON CONCRETE CRADLE (ADDITIONAL LENGTH BEYOND THE MINIMUM 15 FEET TO A MAXIMUM OF 100 FEET) (FIXED UNIT PRICE TO BE $20.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.B50.31PC08), Item No. 1.N50.31PC18 - 18" E.S.V.P. SEWER, ON CONCRETE CRADLE (ADDITIONAL LENGTH BEYOND 100 FEET) (FIXED UNIT PRICE TO BE $20.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.E50.31PC10), Item No. 1.O50.21P3C024D - 24" R.C.P. CLASS III SEWER, ON CONCRETE CRADLE (MINIMUM 15 FEET LENGTHS) (FIXED UNIT PRICE TO BE $35.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.A50.31PC08), Item No. 1.P50.21P3C024D - 24" R.C.P. CLASS III SEWER, ON CONCRETE CRADLE (ADDITIONAL LENGTH BEYOND THE MINIMUM 15 FEET TO A MAXIMUM OF 100 FEET) (FIXED UNIT PRICE TO BE $30.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.B50.31PC08), Item No. 1.Q50.21P3C024D - 24" R.C.P. CLASS III SEWER, ON CONCRETE CRADLE (ADDITIONAL LENGTH BEYOND 100 FEET) (FIXED UNIT PRICE TO BE $30.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.E50.31PC10), Item No. 1.R50.21P3C030D - 30" R.C.P. CLASS III SEWER, ON CONCRETE CRADLE (MINIMUM 15 FEET LENGTHS) (FIXED UNIT PRICE TO BE $40.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.A50.31PC08), Item No. 1.S50.21P3C030D - 30" R.C.P. CLASS III SEWER, ON CONCRETE CRADLE (ADDITIONAL LENGTH BEYOND THE MINIMUM 15 FEET TO A MAXIMUM OF 100 FEET) (FIXED UNIT PRICE TO BE $35.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.B50.31PC08), Item No. 1.T50.21P3C030D - 30" R.C.P. CLASS III SEWER, ON CONCRETE CRADLE (ADDITIONAL LENGTH BEYOND 100 FEET) (FIXED UNIT PRICE TO BE $35.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.E50.31PC10), Item No. 1.U50.21P3C036D - 36" R.C.P. CLASS III SEWER, ON CONCRETE CRADLE (MINIMUM 15 FEET LENGTHS) (FIXED UNIT PRICE TO BE $45.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.A50.31PC08), Item No. 1.V50.21P3C036D - 36" R.C.P.

CLASS III SEWER, ON CONCRETE CRADLE (ADDITIONAL LENGTH BEYOND THE MINIMUM 15 FEET TO A MAXIMUM OF 100 FEET) (FIXED UNIT PRICE TO BE $40.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.B50.31PC08), Item No. 1.W50.21P3C036D - 36" R.C.P. CLASS III SEWER, ON CONCRETE CRADLE (ADDITIONAL LENGTH BEYOND 100 FEET) (FIXED UNIT PRICE TO BE $40.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.E50.31PC10), Item No. 1.X50.21P3C042D - 42" R.C.P. CLASS III SEWER, ON CONCRETE CRADLE (MINIMUM 15 FEET LENGTHS) (FIXED UNIT PRICE TO BE $50.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.A50.31PC08), Item No. 1.Y50.21P3C042D - 42" R.C.P. CLASS III SEWER, ON CONCRETE CRADLE (ADDITIONAL LENGTH BEYOND THE MINIMUM 15 FEET TO A MAXIMUM OF 100 FEET) (FIXED UNIT PRICE TO BE $45.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.B50.31PC08), Item No. 1.Z50.21P3C042D - 42" R.C.P. CLASS III SEWER, ON CONCRETE CRADLE (ADDITIONAL LENGTH BEYOND 100 FEET) (FIXED UNIT PRICE TO BE $45.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.E50.31PC10), Item No. 1.AA50.21P3C048D - 48" R.C.P. CLASS III SEWER, ON CONCRETE CRADLE (MINIMUM 15 FEET LENGTHS) (FIXED UNIT PRICE TO BE $55.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.A50.31PC08), Item No. 1.BB50.21P3C048D - 48" R.C.P. CLASS III SEWER, ON CONCRETE CRADLE (ADDITIONAL LENGTH BEYOND THE MINIMUM 15 FEET TO A MAXIMUM OF 100 FEET) (FIXED UNIT PRICE TO BE $50.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.B50.31PC08), Item No. 1.CC50.21P3C048D - 48" R.C.P. CLASS III SEWER, ON CONCRETE CRADLE (ADDITIONAL LENGTH BEYOND 100 FEET) (FIXED UNIT PRICE TO BE $50.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.E50.31PC10), Item No. 60.12D20 - LAYING 20-INCH DUCTILE IRON PIPE AND FITTINGS, Item No. 60.12D12 - LAYING 12-INCH DUCTILE IRON PIPE AND FITTINGS, Item No. 60.12D08 - LAYING 8-INCH DUCTILE IRON PIPE AND FITTINGS, and Item No. 60.12D06 - LAYING 6-INCH DUCTILE IRON PIPE AND FITTINGS. No separate or additional payment will be made for any concrete sidewalk including 6" foundation material, straight and depressed concrete and steel faced concrete curb, corner steel faced concrete curb, excavation of sidewalks and curbs, etc. required to permanently restore the sidewalk and curb over the trench width and cutbacks, cost shall be deemed included in the prices bid for the items specified herein paragraph (d).

(3) In all streets requiring water main work, the permanent pavement restoration shall be as follows:

(a) The permanent restoration over the **trench width and cutbacks only** shall consist of a top course of one and one-half (1-1/2) inches of asphaltic concrete wearing course on a base course of a minimum of four and one-half (4-1/2) inches of binder mixture, or a top course of one and one-half (1-1/2) inches of asphaltic concrete wearing course on a minimum of one and one-half (1-1/2) inches of binder mixture on a base course of a minimum of six (6) inches of high-early strength concrete, to match the existing pavement as directed by the Engineer.

(4) The following requirements apply to the areas specified in subsection (3) above:

(a) Before the top course is installed, an additional width of asphalt beyond the edge of new base course shall be saw-cut and removed from all edges of trenches to a depth to accommodate the specified top course and the entire area restored. This additional removal shall be in accordance with paragraph (b) below.

(b) Pavement excavation along with saw cutting of pavements for water main trenches shall be in accordance with **Section 71.21 - Pavement Excavation** of the Standard Sewer And Water Main Specification.

(c) At locations requiring the installation of a concrete base course, a reflective cracking membrane shall be installed over joints prior to restoration, the cost of which shall be deemed included in the prices bid for all pavement restoration items. Additionally, appropriate pavement keys as described below shall be used.

(d) Pavement keys **Type B-1** shall be used to insure a desired four (4) inch curb reveal (two and one-half (2-1/2) inch absolute minimum). Pavement key **Type A** shall be

used in all intersections. Both keys are to be per Bureau of Highways Operations Specifications and Standard Details of Construction.

(e) Unless otherwise specified, the cost for tack coating, removal of pavement markings and replacement with thermoplastic reflectorized pavement markings (crosswalks and lane dividers), placement and eradication of temporary roadway markings, stripping or milling of pavement keys and adjustment of city-owned castings shall be deemed included in the prices bid for all pavement restoration items.

(f) Payment for pavement restoration shall be made under the following items:

Item No.	Item	Payment Description
4.02 AB-R	Asphaltic Concrete Wearing Course, 1-1/2" Thick	(For asphaltic concrete wearing course top course when no overlay is required.)
4.02 CA	Binder Mixture	(For binder mixture base course over trenches and cutbacks; binder mixture top filler course under asphaltic concrete wearing course when no overlay is required; binder mixture in Type A and B Keys.)
4.04 H	Concrete Base For Pavement, Variable Thickness For Trench Restoration, High-Early Strength	(For concrete base course over trenches and cutbacks.)

(5) The cost for excavation of pavements within limits of sewer and water trenches and cutbacks, tack coating, removal of pavement markings and replacement with thermoplastic reflectorized pavement markings (crosswalks and lane dividers), placement and eradication of temporary roadway markings, stripping or milling of pavement keys and adjustment of city owned castings shall be deemed included in the prices bid for the items specified in paragraph (1)(f) above and paragraph (2)(d) above of this section. No separate or additional payment will be made for this work.

(6) All Sidewalks; Driveways; Curbs; Corner Curbs; Pedestrian Ramps; and Roadway base courses, top courses and wearing courses shall be installed in conformance with the latest Department of Transportation Specifications and Standard Details, except as amended herein.

(7) The Contractor shall exercise caution during the construction operation, so as to prevent damage and/or disturbance to sidewalks, curbs and roadways outside the ordered reconstruction limits of trench width and cutbacks.

(8) All disturbed grass sidewalk areas over the trench width and cutbacks only shall be restored in conformance with the **New York City Department of Transportation (NYCDOT) Standard Highway Specifications Section 4.19 - Sodding**. The cost of all labor, materials, equipment, samples and tests required and necessary to install sod in grass sidewalk areas over the trench width and cutbacks shall be deemed included in the prices bid for the items specified in paragraph (1)(f) above and paragraph (2)(d) above of this section. No separate or additional payment will be made for this work.

(9) Should granite block, asphalt block or brick pavement be encountered over the trench width and cutbacks only, five (5) inches of binder mixture shall be substituted for the blocks and bricks removed. The binder mixture shall be installed on a base course of a minimum of six (6) inch of high-early strength concrete and topped with a top course of one and one-half (1-1/2) inches of asphaltic concrete wearing course on a minimum of one and one-half (1-1/2) inches of binder mixture to match the existing pavement as directed by the Engineer. All granite or brick removed shall be delivered to the designated City Yard. The cost of all labor, materials, equipment, samples and tests required and necessary to install new pavement as described herein to replace granite block, asphalt block or brick pavement over the trench width and cutbacks shall be deemed included in the prices bid for the items specified in paragraph (1)(f) above and paragraph (2)(d) above of this section. No separate or additional payment will be made for this work.

(10)If additional roadway restoration is required and ordered in writing by the Engineer outside the ordered limits of trench widths and cutbacks the cost of all labor, materials, equipment, samples and tests required and necessary to perform this additional roadway restoration work shall be deemed included in the prices bid for Item No. 4.02 CA - BINDER MIXTURE, Item No. 4.02 CB - ASPHALTIC CONCRETE MIXTURE, and Item No. 4.04 H - CONCRETE BASE FOR PAVEMENT, VARIABLE THICKNESS FOR TRENCH RESTORATION, (HIGH-EARLY STRENGTH). Included in the prices bid for these items shall be the cost for all excavation of pavements, tack coating, removal of pavement markings and replacement with thermoplastic reflectorized pavement markings (crosswalks and lane dividers), placement and eradication of temporary roadway markings, stripping or milling of pavement keys and adjustment of city owned castings. No separate or additional payment will be made for this work.

(11)If additional sidewalk restoration is required and ordered in writing by the Engineer outside the ordered limits of trench widths and cutbacks the cost of all labor, materials, equipment, samples and tests required and necessary to perform this additional sidewalk restoration shall be deemed included in the prices bid for Item No. 4.13 AAS - 4" CONCRETE SIDEWALK (UNPIGMENTED), and Item No. 4.13 BAS - 7" CONCRETE SIDEWALK (UNPIGMENTED). Included in the prices bid for these items shall be the cost for all, excavation of sidewalks, 6" foundation material, etc. No separate or additional payment will be made for this work.

(9) **Refer** to Page VII-104:
Add the following new **DIVISION VIII**:

DIVISION VIII
DETAILED SPECIFICATION FOR RECONSTRUCTION OF COLLAPSED OR OTHERWISE DEFECTIVE STORM, SANITARY OR COMBINED VITRIFIED CLAY PIPE SEWERS

DSS-1 INTENT

It is intent of this contract, at all locations and areas ordered under this contract as determined by the New York City Department of Environmental Protection and as directed by the Engineer to reconstruct sections of existing collapsed or otherwise defective Storm, Sanitary or Combined Sewers in roadways, sidewalks, malls, medians, pedestrianways, easements or other non-roadway areas including the reconnection of all existing house sewers, basin connections, and the construction of new manholes as required.

The sections of existing collapsed or otherwise defective Storm, Sanitary or Combined Sewers shall be removed and reconstructed with Extra Strength Vitrified Clay Pipe on Concrete Cradle and/or Precast Reinforced Concrete Pipe on Concrete Cradle, complete, as shown, specified or required.

The Contractor, when so ordered by the Engineer, will be required to substitute the use of Ductile Iron Pipe on Stone Bedding in lieu of Extra-Strength Vitrified Clay Pipe on Concrete Cradle for the various sized pipes indicated in the Bid Schedule. The Ductile Iron Pipe shall meet all of the requirements, standards and specifications of the Department of Environmental Protection. The payment for Ductile Iron Pipe on Stone Bedding will be made under the applicable unit prices bid for the various sizes of Extra-Strength Vitrified Clay Pipe on Concrete Cradle. The substitution of 15-inch Extra-Strength Vitrified Clay Pipe will be made with 16-inch Ductile Iron Pipe.

At each ordered location the length of existing collapsed or otherwise defective Storm, Sanitary or Combined Pipe Sewer to be reconstructed will vary; however, the length will generally not be less than fifteen (15) feet per trench opening. The actual length at each ordered location and the area of reconstruction will be determined by the New York City Department of Environmental Protection and as directed by the Engineer. For each reconstruction less than a manhole length, the trench opening shall be at least one and one-half (1-1/2) feet longer at the ends of the reconstruction to permit proper jointing.

DSS-2 STANDARD SEWER AND WATER MAIN SPECIFICATION

Unless otherwise specified, all work and materials shall conform to the applicable sections of the Standard Sewer And Water Main Specifications of the Department of Environmental Protection (dated July 1, 2014), Sewer Design Standards of the Department of Environmental Protection (dated (September 2007) Revised January 2009), Water Main Standard Drawings of the Department of Environmental Protection (latest revisions), and the Standard Highway Specifications (Volumes I and II) of the Department of Transportation (dated November 1, 2010) of The City of New York.

DSS-3 DEFINITIONS

Whenever the following pronoun appears in this contract, the meaning and intent shall be interpreted as follows unless a different meaning is clear from the context: "Engineer" shall mean the Director, Bureau of Water and Sewer Operations, Department of Environmental Protection, or a designated representative to act as such in relation to this contract.

DSS-4 ISSUANCE OF TASK ORDERS

(A) General: The Contractor shall, for the duration of this contract, provide services as directed by the Engineer for the reconstruction of existing sewers or portions thereof, in accordance with the terms and conditions set forth herein. The services to be provided by the Contractor shall include both Initial Services and Reconstruction Services, as described below.

(B) Transmission of and Task Orders:

(1) The Engineer shall advise the Contractor of the need for services hereunder through Task Orders, as set forth in **Paragraph (C)** below. The Engineer shall send Task Orders to the Contractor by e-mail, fax, or by telephone promptly confirmed by e-mail and/or fax.

(2) The Contractor shall, for the duration of this contract, provide and maintain at its place of business a dedicated telephone line, a dedicated e-mail address and a dedicated fax line for the receipt of Task Orders hereunder. The e-mail and fax machine shall be in operation twenty-four (24) hours per day, seven (7) days per week, for the duration of this contract. The Contractor shall not be entitled to any compensation for the provision of such equipment. All expenses for the required telephone, e-mail and fax lines shall be deemed included in the Contractor's overhead.

(C) Task Order: When the need for services arises, the Engineer shall issue a Task Order to the Contractor. The Task Order shall specify the items set forth below:

(1) Description and Location of the Project
(2) Length of Reconstruction Work
(3) Reconstruction Services to be performed
(4) Reconstruction Time - Time for commencement and completion of work

(D) Reconstruction Services: The Engineer shall specify the services necessary and required for reconstruction. The Contractor shall perform such reconstruction services within the reconstruction time, as set forth below.

(E) Reconstruction Time: The Reconstruction Time shall mean the period of time within which the Contractor must complete the required Reconstruction Services. The Reconstruction Time shall be specified in the Task Order. The Contractor is advised that the Reconstruction Time shall be determined by the Department of Environmental Protection, in its sole discretion.

Time is of the essence as the public health and safety are involved. Accordingly, the Contractor shall perform the work at each and every ordered location promptly and diligently, using such means and methods of construction as will assure its expeditious and satisfactory completion without delay.

(F) Personnel: The Contractor shall provide adequate personnel and equipment at each ordered location. Prior to the start of work the Engineer shall approve such personnel and equipment. The Engineer reserves the right to determine the personnel and equipment required to adequately and properly carry out the intent of this contract and to order personnel and equipment in excess of that normally required for the work to be done, off the job site. No payment will be made for such excess personnel and equipment. The Contractor must be prepared to provide adequate personnel and equipment to perform the services specified in **Paragraphs (C) and (D)** above at up to three (3) concurrent reconstruction sites.

(G) No Right To Refuse: The Contractor shall have no right to reject or decline to perform any Task Order issued under this contract. However, if the Contractor is unable to begin the work of reconstruction for any reason, the Contractor shall so notify the Engineer by telephone as soon as possible, such notifications to be followed by an explanation in writing as to the reasons why the Contractor is unable to begin the required work.

(H) Supplementary Task Orders: The Contractor shall perform only the work specifically ordered by the Engineer in the written Task Order. The Department of Environmental Protection reserves the right to order additional work through Supplementary Task Orders issued by the Engineer, as the work on the original Task Order progresses.

DSS-5 WORK INCLUDED

The Contractor shall at each and every ordered location, furnish all labor, equipment, materials and supervision, and shall perform all the work called for within each item ordered including any incidental work required for a complete and satisfactory job.

All labor, equipment and materials necessary for the proper execution and completion of each item of work called for are to be furnished and delivered by and at the cost and expense of the Contractor, and the work executed and completed in every detail whether specifically mentioned or not.

The Contractor must be prepared to do this work without prepared plans.

At each ordered location the Contractor shall remove and clean the sewer of any debris up to and including manholes on both sides of the section of sewer being reconstructed during and after the completion of the work.

DSS-6 EXISTING CONDITIONS

The Contractor is advised that the Engineer will furnish to the Contractor, where available, plans of the existing collapsed or otherwise defective Storm, Sanitary or Combined Sewers.

The Contractor is further advised that since the reconstructed sewer is to be within the same trench where the existing collapsed or otherwise defective pipe sewer was constructed, it is assumed that the original trench was backfilled with acceptable materials and that no exceptionally large boulders, or other obstructions would hinder or delay the excavation work. If boulders, rip-rap and other large objects as herein before specified in excess of one-half (1/2) cubic yard in volume are encountered during the excavation down to the top of the existing collapsed or otherwise defective pipe sewer, payment for the removal of same will be paid for at the unit price bid for Item No. 70.51EO - EXCAVATION OF BOULDERS IN OPEN CUT. The entire boulder shall be measured where practicable. The resultant void shall be backfilled and paid for under Item No. 73.41AG - ADDITIONAL SELECT GRANULAR BACKFILL.

The average depth to be excavated to subgrade for the reconstructed sewer is eight (8) to nine (9) feet, varying from a minimum depth of four (4) feet to a maximum depth of twelve (12) feet. Deeper sewer excavations to a maximum depth of twenty (20) feet, shall be paid for under Item No.73.31AE2 - ADDITIONAL EARTH EXCAVATION INCLUDING TEST PITS (OVER 12' TO 16' DEPTH) and Item No. 73.31AE3 - ADDITIONAL EARTH EXCAVATION INCLUDING TEST PITS (OVER 16' TO 20' DEPTH).

DSS-7 PAYMENT FOR WORK PERFORMED

The Contractor shall include in the unit price bid for each item of work, the cost of all labor, equipment, materials, supervision, overhead, profit, insurance, and all other services required to execute and complete each item of work.

Payment will be made at the unit price bid for the various items of work ordered in writing by the Engineer and actually performed and incorporated into the work. The Contractor is advised that the payment for each increment of length of sewer to be replaced will be made at the unit prices bid for each increment of length of sewer to be replaced according to the following schedule:

(a) Minimum fifteen (15) linear feet.
(b) Additional length beyond the minimum fifteen (15) linear feet to a maximum of one hundred (100) linear feet. Fixed unit price as listed in the contract document - bid schedule of prices.
(c) Additional length beyond one hundred (100) linear feet. Fixed unit price as listed in the contract document - bid schedule of prices.

DSS-8 PROCEDURAL ORDERS TO CONTRACTOR

The Contractor shall either give personal attention to the work or employ and retain a competent superintendent or foreman at each and every ordered location while the work is in progress. Instructions given to the superintendent or foreman shall be considered as having been given to the Contractor.

DSS-9 CITY TO NOTIFY CITY DEPARTMENT

At the time the Engineer orders the Contractor to proceed with the work, the Department of Environmental Protection shall notify and transmit a copy of the order to start work to all public and private agencies concerned. These notifications shall be in addition to the Contractors required notifications of public and private agencies as specified herein.

At the start of the work, the Contractor will be furnished with a temporary street opening permit by the Department of Environmental Protection. However, the Contractor shall obtain the prescribed permits from the Department of Transportation prior to the start of the work.

DSS-10 MEASUREMENTS

All measurements shall be made under the supervision of the Engineer. The Contractor's representative shall notify the Engineer when measurements are to be made so the Engineer may be present at that time, the Contractor shall record all measurements and give the Engineer duplicate copies of these measurements.

DSS-11 WORK ORDERED BY THE ENGINEER AND NOT OTHERWISE COVERED IN THE DETAILED SPECIFICATION.

During the course of the work being performed at any ordered location, it may be necessary for the Engineer to order, in writing, extra work not otherwise covered in the task order and in the Detailed Specifications. Payment for extra work for which there are classified bid item(s) shall be made under the unit price bid for the respective bid item(s). Payment for extra work for which there are no specific classified bid item(s) shall be made in accordance with **Articles 25 and 26** of the Contract.

DSS-12 INSPECTION OF MATERIALS FURNISHED

In lieu of the procedure for the inspection of materials to be furnished, as called for in **DIVISION III** of the Standard Sewer And Water Main Specifications, the City will accept certificates from the Contractor's materials suppliers stating that the materials furnished and incorporated in the work at each ordered location, meets the requirement of the appropriate sections of the specifications. Such

material certificates shall be provided to the Engineer by the completion date specified in the task order for each ordered location.

DSS-13 TREES TO BE REMOVED AND REPLACED

During the work of reconstructing sewers in sidewalk or mall areas, the Contractor, when ordered in writing by the Engineer and approved by the Parks Department, shall remove trees along the line of the work. The cost of all the labor and materials required to remove trees, as directed, shall be deemed included in the unit prices bid for the respective tree removal items.

Where trees along the line of the work are removed, as directed, the Contractor shall replace such trees with new trees in accordance with the requirements of the Department of Parks and Recreation. The cost of all the labor and materials required to furnish and place new trees, as directed, together with the cutting of tree pits and all work incidental thereto, shall be deemed included in the unit price bid for Item No. 4.16 CA405 - TREES PLANTED, 3" TO 3-1/2" CALIPER, ALL TYPES, IN 4' X 5' TREE PITS.

DSS-14 ADDITIONAL SIDEWALK RESTORATION

The Contractor is notified that during the work of reconstructing sewers at any ordered location, the Engineer may order additional sidewalk reconstruction outside the ordered trench and cutback restoration limits.

The cost of all the labor and materials required to perform this ordered additional existing concrete sidewalk removal and reconstruction outside the ordered sewer and water main trench and cutback restoration limits, together with all work incidental thereto, shall be deemed included in the unit prices bid for Item No.4.13 AAS - 4" CONCRETE SIDEWALK (UNPIGMENTED), and Item No. 4.13 BAS - 7" CONCRETE SIDEWALK (UNPIGMENTED).

It shall be understood that such sidewalk reconstruction is in addition to and does not include sidewalk restoration included in the unit price bid for the reconstruction of sewers and water mains.

DSS-15 ADDITIONAL ROADWAY RESTORATION

The Contractor is notified that during the work of reconstructing sewers at any ordered location, the Engineer may order additional roadway reconstruction outside the ordered trench and cutback restoration limits.

The cost of all the labor and materials required to perform this ordered additional existing roadway removal and reconstruction outside the ordered sewer and water main trench and cutback restoration limits, together with all work incidental thereto, shall be deemed included in the unit prices bid for Item No. 4.02 CA - BINDER MIXTURE, Item No. 4.02 CB - ASPHALTIC CONCRETE MIXTURE, and Item No. 4.04 H - CONCRETE BASE FOR PAVEMENT, VARIABLE THICKNESS FOR TRENCH RESTORATION, (HIGH-EARLY STRENGTH).

It shall be understood that such roadway reconstruction is in addition to and does not include roadway restoration included in the unit price bid for the reconstruction of sewers and water mains.

DSS-16 METHOD OF PAYMENT

The following items of work herein specified are provided in order to afford the City of New York opportunity to have such work done if found necessary. It shall be understood by the Contractor that the work as specified under any one of these items may be ordered by the City of New York and in the unit quantities found necessary by the Department of Environmental Protection. The City of New York, however, is not bound to order any of the work specified under these items. Payment will be made only for the actual number of unit quantities ordered under each item.

In the execution of any work under any of these items, the Contractor shall see that the work is progressed as quickly as possible and without delay. All labor, equipment and materials necessary for the proper execution and completion of each item of work called for are to be furnished and delivered by and at the cost and expense of the Contractor and the work executed and completed in every detail whether specifically mentioned or not.

The contract prices for Extra Strength Vitrified Pipe Sewers and/or Precast Reinforced Concrete Pipe Sewers shall be the unit price bid per linear foot for each size, kind, class and type of sewer and shall cover the cost of all labor, materials, equipment, samples and tests required and necessary to construct the extra strength vitrified pipe sewers and/or the precast reinforced concrete pipe sewers of the sizes and to the lines and grades as shown, specified, or ordered, including the earth excavation of all materials of whatever nature encountered (See **Section 40.03 - Earth Excavation** and except excavation of concrete encased sewers and other large objects as specified herein); all pumping and work required to eliminate blockages and restore and maintain sewage flow, all sheeting and bracing; pumping; fluming; bridging; decking; breaking down and filling in of abandoned sewer appurtenances; connections; concrete cradle and encasements; maintaining flow in sewers; backfilling; cleaning up; mobilization (except mobilization for dewatering purpose); temporary restoration of street surfaces; support and maintenance of existing City structures that are encountered during excavation (including curbs, stoops, fences, copings, vaults, light poles, etc.); removal of existing collapsed or otherwise defective sewers and their foundation supports of broken stone or concrete cradle; removal, reconstruction and reconnection of existing house sewer connections together with spurs and risers for existing house connections; removal, reconstruction and reconnection of existing basin connections; removing and cleaning the sewer of any debris up to and including manholes on both sides of the section of sewer being reconstructed during and after the completion of the work at any ordered location; permanent restoration of all roadway top courses and base courses within the limits of trenches and cutbacks; permanent restoration of all sidewalks within the limits of trenches and cutbacks (sidewalks shall be restored in full flag units up to a maximum overall width of ten (10) feet) together with foundation material; permanent restoration of all curbs, malls, medians, pedestrianways and other non-roadway areas within the limits of trenches and cutbacks together with foundation materials; and furnishing and installing all other items necessary to complete this work and do all work incidental thereto, all in accordance with the plans, specifications and standards and as directed by the Engineer. In addition, included in the price hereunder shall be the cost of all labor and materials necessary to construct the concrete cradle so that it shall extend under the existing sewer one and one-half (1-1/2) feet beyond the pipe joints at each end of the reconstructed sewer; and to construct at both ends where the reconstructed sewer joins the existing sewer, joints that shall be encased with a four (4) inch thick concrete encasement, twelve (12) inches long on either side of the joint.

When additional spurs are required and ordered in writing by the Engineer for future house connections, payment shall be made for these in place additional spurs under the prices bid for Item No. 52.31V06P00 - 6" E.S.V.P. SPUR FOR HOUSE CONNECTION ON E.S.V.P. SEWER, and Item No. 52.31V08P00 - 8" E.S.V.P. SPUR FOR HOUSE CONNECTION ON E.S.V.P. SEWER.

When additional risers are required and ordered in writing by the Engineer for future house connections, payment shall be made for these in place additional risers under the prices bid for Item No. 52.21V08 - 8" E.S.V.P. RISER FOR HOUSE CONNECTION, and Item No. 52.21V10 - 10" E.S.V.P. RISER FOR HOUSE CONNECTION.

When basin connections are required and ordered in writing by the Engineer to be relayed in a new location, payment shall be made for these in place basin connections under the price bid for Item No. 52.11D12 - 12" DUCTILE IRON PIPE BASIN CONNECTION.

Payment for in place additional steel reinforcing bars required and ordered in writing by the Engineer shall be made under the price bid for Item No. 73.51AS - ADDITIONAL STEEL REINFORCING BARS.

Payment for in place additional select granular backfill required and ordered in writing by the Engineer shall be made under the price bid for Item No. 73.41AG - ADDITIONAL SELECT GRANULAR BACKFILL.

Payment for in place additional brick masonry required and ordered in writing by the Engineer shall be made under the price bid for Item No. 73.11AB - ADDITIONAL BRICK MASONRY.

Payment for in place standard manholes required and ordered in writing by the Engineer, shall be made under the prices bid for Item No. 51.21S0A1000V - STANDARD MANHOLE TYPE A-1, and Item No. 51.21S0B1000V - STANDARD MANHOLE TYPE B-1. Included in the respective prices bid shall be the cost for the removal of existing manholes. If no manhole exists where a new manhole is required and ordered, a credit will be taken for the omitted work.

Payment for in place standard catch basins required and ordered in writing by the Engineer shall be made under the price bid for Item No. 51.41S001 - STANDARD CATCH BASIN, TYPE 1. Included in the respective prices bid shall be the cost for the removal of existing catch basins. If no catch basin exists where a new catch basin is required and ordered, a credit will be taken for the omitted work.

Payment for excavation of boulders in open cut required and ordered in writing by the Engineer shall be made under the price bid for Item No. 70.51EO - EXCAVATION OF BOULDERS IN OPEN CUT.

Payment for in place planted trees required and ordered in writing by the Engineer, shall be made under the price bid for Item No. 4.16 CA405 - TREES PLANTED, 3" TO 3-1/2" CALIPER, ALL TYPES, IN 4' X 5' TREE PITS. Included in the price bid shall be the cost for tree pits, fertilizer, stakes and wire, topsoil, etc.

Payment for additional earth excavation required and ordered in writing by the Engineer, shall be made under the prices bid for Item No. 73.31AE2 - ADDITIONAL EARTH EXCAVATION INCLUDING TEST PITS (OVER 12' TO 16' DEPTH), and Item No. 73.31AE3 - ADDITIONAL EARTH EXCAVATION INCLUDING TEST PITS (OVER 16' TO 20' DEPTH). Included in the prices bid shall be the cost for additional sheeting, bracing and pumping required beyond the limits hereinbefore mentioned.

Payment for in place stone ballast required and ordered in writing by the Engineer, shall be made under the price bid for Item No. 70.71SB - STONE BALLAST. Included in the price bid shall be the cost for additional excavation for placement of stone ballast.

Payment for in place additional concrete required and ordered in writing by the Engineer, shall be made under the price bid for Item No. 73.21AC - ADDITIONAL CONCRETE.

Payment for maintenance and protection of traffic required and ordered in writing by the Engineer shall be made under the price bid for Item No. 6.70 - MAINTENANCE AND PROTECTION OF TRAFFIC. Included in this item will be payment for making the area safe for residents and for pedestrian and vehicular traffic within the initial response time.

Payment for maintenance of site required and ordered in writing by the Engineer shall be made under the price bid for Item No. 7.13 A - MAINTENANCE OF SITE.

Payment for in place fencing required and ordered in writing by the Engineer, shall be made under the price bid for Item No. 70.31FN - FENCING.

Payment for television inspection and digital audio-visual recording of sewers required and ordered in writing by the Engineer shall be made under the price bid for Item No. 53.11DR - TELEVISION INSPECTION AND DIGITAL AUDIO-VISUAL RECORDING OF SEWERS.

Payment for removal of trees required and ordered in writing by the Engineer, shall be made under the prices bid for Item No. 4.16 AA - TREES REMOVED (4" TO UNDER 12" CALIPER), Item No. 4.16 AB - TREES REMOVED (12" TO UNDER 18" CALIPER), Item No. 4.16 AC - TREES REMOVED (18" TO UNDER 24" CALIPER), and Item No. 4.16 AD - TREES REMOVED (24" CALIPER AND OVER).

Payment for maintenance tree pruning required and ordered in writing by the Engineer, shall be made under the prices bid for Item No. 4.18 A - MAINTENANCE TREE PRUNING (UNDER 12" CALIPER), Item No. 4.18 B - MAINTENANCE TREE PRUNING (12" TO UNDER 18" CALIPER), Item No. 4.18 C - MAINTENANCE TREE PRUNING (18" TO UNDER 24" CALIPER), and Item No. 4.18 D - MAINTENANCE TREE PRUNING (24" CALIPER AND OVER).

Payment for 8-inch, 12-inch and 20-inch water main offsets and replacements required and ordered in writing by the Engineer due to water mains crossing sewer trenches and water mains interfering with sewer trenches shall be made under the prices bid for the various water main items provided in the contract for water main work actually performed.

Payment for photographs required and ordered in writing by the Engineer, shall be made under the price bid for Item No. 10.32A - PHOTOGRAPHS.

Payment for Bid Schedule Item Nos. DSS014A1 - CLEANING OF SEWER (LESS THAN 24" DIAMETER) and DSS014A2 - CLEANING OF SEWER (24" TO 48" DIAMETER), will be made on a per linear foot basis for sewers successfully cleaned at the unit price bid.

Payment for Bid Schedule Item No. DSS014B - CLEANING OF MANHOLE, will be made for each manhole cleaned as directed by the Engineer at the unit price bid

DSS-17 GUARANTEED MINIMUM

In the event the Contractor is not issued any Task Orders hereunder, the City agrees to pay, and the Contractor agrees to accept, a minimum fee of two thousand dollars ($2,000.00). The Contractor further agrees that under such circumstances, the Contractor has no action for damages or for loss of profits against the City.

E. AMENDMENTS TO THE SPECIFICATIONS FOR TRUNK MAIN WORK

1) Refer to **Part 1 – Furnishing And Delivering Steel Pipes And Appurtenances 30 Inches In Diameter And Larger, Paragraph 13. Special Fittings:,** Page 5;
Add the following to **Paragraph 13:**

The steel reducer shall have a length of seven (7) feet for every twelve (12) inches reduction in diameter.

END OF ADDENDUM NO. 2
This Addendum consists of thirty-one (31) pages.

NO TEXT ON THIS PAGE

ATTACH TO CONTRACT DOCUMENTS

THE CITY OF NEW YORK
DEPARTMENT OF DESIGN AND CONSTRUCTION
INFRASTRUCTURE DIVISION
BUREAU OF DESIGN

PROJECT ID: HEDA001

FOR THE CONSTRUCTION OF ACCELERATED WATER MAIN REPLACEMENT AND SEWER REHABILITATION AND REPLACEMENT

Together With All Work Incidental Thereto
BOROUGH OF THE BRONX

ADDENDUM NO. 3

DATED: December 26, 2014

This Addendum is issued for the purpose of amending the requirements of the Contract Documents and is hereby made part of said Contract Documents to the same extent as if it was originally included therein.

GAS COST SHARING (EP-7) STANDARD SPECIFICATIONS

EP-7 GAS COST SHARING
STANDARD SPECIFICATIONS

TABLE OF CONTENT

I - NOTICE TO ALL BIDDERS; GAS COST SHARING WORK

All prospective bidders are hereby advised that, pursuant to the "Gas Facility Cost Allocation Act", ("the Act"), the City of New York has entered into an agreement ("the Agreement") with the gas companies (Con Edison or National Grid (formerly KeySpan Energy Delivery)) operating in their respective areas of the City to "share" the cost of facility relocation and/or support and protection of facilities disturbed by proposed water and/or sewer and related City work specified in this contract. Therefore, bid items, specifications and estimated quantities for the incremental costs of support and protection of certain gas facilities have been included in this contract. The low bid for this contract shall be determined by examining each bid for all work to be performed under this contract including any work of support and protection of gas facilities to be performed. The Contractor shall not seek additional compensation from gas companies except as specifically set forth in its contract.

II - GENERAL PROVISIONS; GAS COST SHARING WORK

1. General:

The Contractor shall perform City work with interferences from existing live and abandoned gas facilities. This shall be defined as utility work. Therefore, this contract includes bid items, specifications and estimated quantities designed to fully compensate him/her for the incremental costs of supporting, protecting, providing accommodations and, avoiding disturbing gas facilities located in the streets shown on the contract drawings. In the event that any other provisions of this contract related to gas facilities (or private utilities) conflict with these provisions, these provisions shall supersede and govern all work related to gas facilities owned by the companies operating in the project area. All utility work, as defined in these specifications, including changes and additions thereto shall be paid solely by the City except when specified otherwise in this contract. Contractor hereby agrees that the facility operator shall not be liable to pay him/her for any work performed including extra utility work. Contractor agrees that its bid prices include all compensation for loss of productivity and efficiency, idle time, delays (including any delays occasioned by negotiation of a contract change), change in operations, mobilization, demobilization, remobilization, added cost or expense, lost of profit, other damages or impact costs that may be suffered by or because of utility work, or the presence of gas facilities in the proximity of City work and that it will not seek additional compensation for these items. All disputes shall be resolved as specified in the contract.

Pursuant to the Act, Agreement, and the New York City Administrative Code, the gas company(ies) has been directed by the Commissioner and is required to perform all maintenance, repairs, replacement, shifting, alteration, relocation, and/or removal work that are not part of this contract. By having bid on this contract, the Contractor understands and agrees that the Commissioner has preasserted any right the City has to require, including the issuance of any directives or so called "order outs" under the New York City Administrative Code, any or all gas companies to maintain, repair, replace, protect, support, shift, alter, relocate, and/or remove all gas facilities that are about to be disturbed by the City contract work. The issuance of additional such directives during the performance of the contract work, where necessary in the sole judgment of the Commissioner, shall be initiated by such Commissioner as set forth in the relevant sections of the Act and Agreement. Contractor further agrees to insert such requirements as set forth herein above into any contracts with its approved subcontractors so that its subcontractors also understand and agree to such contract requirements.

2. Gas Interferences And Accommodations:

During the performance of sewer and water main work funded by the New York City Department of Environmental Protection (NYCDEP), as instructed by the Engineer, the use of any applicable contract bid item is allowed in order to resolve and accommodate all gas facilities interferences with such City work, including the removal of contaminated soil in associated trench excavation. This is in addition to the specified EP-7 bid items in the contract. Payment for such accommodation shall be funded by EP-7 bid item "UTL-GCS-2WS - GAS INTERFERENCES AND ACCOMMODATIONS" (F.S. Fixed Sum). The value of such accommodation shall be computed by multiplying the appropriate unit prices bid to the quantity of work performed, as determined by the Engineer, and applying the total amount thus to be paid

to EP-7 bid item "UTL-GCS-2WS - GAS INTERFERENCES AND ACCOMMODATIONS". When EP-7 bid item "UTL-GCS-2WS - GAS INTERFERENCES AND ACCOMMODATIONS" does not exist, such additional accommodation work shall be at no cost to the City but shall be a matter of adjustment between gas facility operator and Contractor. Private facilities, other than gas, that become in interference due to gas interferences accommodations shall also be accommodated, if so directed by the Resident Engineer at no additional cost to the City and, provided that its owner agrees to be responsible for all additional costs to Contractor, otherwise, such facility shall be ordered by the City to be maintained, shifted, relocated or replaced by its owner at his/her expenses.

2a. Water Main Accommodations:

When water main construction is to be performed in this contract, Contractor shall be required, if warranted by field conditions, and at locations designated by the Resident or Borough Engineer, to change the vertical or horizontal alignment of water mains including but not limited to all additional labor, material, work method accommodations, furnishing, delivering and laying offset fittings and pipes, etc., necessary in order to complete water main installation and, avoid gas interferences in the project area, including street intersections. Typical work method accommodations shall include, but not be limited to, pier and plate, installation of filter fabric and select fill, etc. Such work shall be performed as directed by the Engineer and in accordance with contract specifications and latest edition of water mains standards and specifications.

2b.Sewer Accommodations:

When sewer construction is to be performed in this contract, Contractor shall be required, if warranted by field conditions, and at locations designated by the Resident or Borough Engineer, to change the horizontal alignment of sewer facilities (if possible) including but not limited to all additional labor, material, work method accommodations, furnishing, delivering and construction of additional manholes or modification of manholes/catch basins, extending chute connections, house connections, using alternate materials and methods, poured-in-place structures, etc., necessary in order to complete sewer installation and, avoid gas interferences in the project area, including street intersections. The term sewer facility shall include, but not be limited to, all sewer pipe and appurtenances, manholes, catch basins, catch basin chutes, etc. Such work shall be performed as directed by the Engineer and in accordance with contract specifications and latest edition of sewer standards and specifications.

3. Quantity Overruns, EP-7 Funded Bid Items:

No quantity overrun, in excess of one hundred twenty five (125) percent, shall be permitted for EP-7 funded bid items (gas) included in this contract, except when Resident Engineer determines that such overruns are caused by field modifications to planned City work, or approved construction methods, or contract scope changes. Overruns not paid by City shall be negotiated and paid to Contractor by gas facility operator who then shall be entitled to reimbursement by NYCDEP under established cost sharing procedures.

4. Changes And Extra Work:

This section is not applicable to work defined under "Emergency Reconstruction Contracts" or so-called "Where and When Contracts" since these projects, by definition, inherently encounter unanticipated gas facilities and cannot be pre-engineered. In all other cases, any contract changes proposed for City work shall also cover and include all associated changes to support and protection of gas facilities affected by such changes to City work. In all other cases where the Contractor finds that City work cannot be performed as planned and specified and/or, as approved because of a need to support, protect and/or alleviate interferences from gas facilities that were not listed and/or shown, or incorrectly shown in contract plans and specifications, he shall immediately notify the Resident Engineer and the facility operators' representative of his findings. Resident Engineer shall promptly examine such claims and determine whether or not such work is covered by contract bid items and /or specifications (contract bid items and specifications shall include city contract items as well as EP-7 items). The Resident Engineer shall also examine the claim to determine if the application of EP-7 bid item "UTL-GCS-2WS - GAS INTERFERENCES AND ACCOMMODATIONS" is appropriate to resolve the claim. If upon examination, the Engineer determines that such field conditions were unanticipated (not shown and/or listed, or incorrectly shown in contract documents) and are not covered by bid items and contract specifications, he shall then direct the Contractor and the affected facility operator to negotiate the cost of supporting and

protecting, and/or alleviating the impact on City work caused by such unanticipated gas facilities with each other with the understanding that the performance of City work shall continue during negotiations. If a cost agreement is reached, the Contractor and facility operator shall adjust such costs between themselves at no additional costs to the City contract. If the Contractor and affected facility operator do not reach an agreement concerning the price to be paid for the extra work within five (5) business days of the Engineer's directive to engage into such negotiations and, after considering: public safety and inconvenience, requirements of laws and regulations applicable to private utilities, integrity of all utility systems, including but not limited to sewer and water, gas, electric, telephone and, cable TV facilities, sound engineering practices, cost (long and short term) to all affected parties, and potential City work delays, then the Resident Engineer, depending on nature and severity of interferences with City work, shall either, direct the facility operator to relocate or replace its facilities at its own discretion and cost, reimbursable by NYCDEP under established gas cost sharing procedures or, direct the Contractor to perform the utility work on actual time, material and equipment costs basis pursuant to relevant contract requirements and amendments. Contract bid prices for any applicable items of work involved shall be applied, or converted to an allowance for time and material charges. Changes shall be for affected portions of utility work and, shall be processed with EP-7 funds.

5. Excavation:

All excavators shall notify the NYC/LI One Call Center at 1-800-272-4480 at least two (2) working days, not including the day of the call, but not more than ten (10) working days in advance of the start of any excavation work. The gas company(ies) will mark out its facilities within the project limits and provide Construction Inspector(s) during all excavation work in close proximity (within twelve (12) inches) to gas facilities. The Contractor shall exercise extreme caution when excavating in the vicinity of any gas facilities. Hand excavation shall be performed within twelve (12) inches of gas facilities. The Contractor prior to excavating underneath these facilities shall adequately support all gas facilities. Standard support details for gas facilities have been included in the specifications. Any damage to gas facilities shall be reported immediately to the gas company(ies). The Contractor shall be responsible for all cost associated with repairs made necessary by damages caused by his operations.

6. Backfilling And Street Restoration:

Backfilling operations and street restorations shall be in accordance with contract requirements.

7. Non-Responsive Bids:

Every gas (EP-7) bid item has a suggested "Not less than" value per unit indicated on contract bid sheet. Bids resulting in cost of less than suggested for EP-7 items are hereby prohibited and if submitted shall be considered NON-RESPONSIVE.

8. Minimum Clearances:

Clearance requirements for City work shall govern and supersede any clearance requirement of gas facility operator. Therefore, a minimum of twelve (12) inches clearance between private utilities and City water mains, sewers or related structures to be installed in this contract shall be maintained. When this clearance is not attainable, the Resident Engineer may allow a minimum of four (4) inches clearance. With less than twelve (12) inches clearance a neoprene/polyethylene shield (to be provided by facility operator) shall be installed as part of all work item specifications. However, if Resident Engineer determines that City work cannot be performed within allowable clearance and no reasonable City accommodation (no-cost change to City work) is possible, the City shall direct the facility operator to remove, relocate, shift, or alter their facility(ies) pursuant to the New York City Administrative Code.

9. Work By Facility Operator:

The facility operator may find it necessary to perform the following types of work during performance of City work: accommodating a contractor's request for gas facilities modifications (in order to facilitate City contractor's proposed construction method) or, remedial and emergency work on gas facilities proper with their own resources and materials if an approved method of construction for City work causes unanticipated disturbances to gas facilities or, replacing defective gas facilities when they are exposed by the Contractor and their actual conditions are observable by the facility operator. Also included in the above category of defective gas facilities are: the presence of environmental contaminants attributable to

the gas facility in or around gas facilities. If such work is deemed required by the facility operator or if facility operator is directed by the City to address such deficiencies at any time during the course of construction, the Contractor shall modify the construction schedule at no cost to the City and allow the facility operator five (5) business days to perform such work without interferences. Additional costs to the facility operator (in cases of accommodations) or, Contractor (in cases of defective gas facilities) due to such gas work, if any, shall be the responsibility of the parties involved and not of the City. Such costs shall be a matter of adjustment between the Contractor and the facility operator.

10. Materials Furnished By Facility Operator:

It shall be the Contractor's responsibility to inspect material to be installed by him immediately upon delivery and advise the facility operator through its authorized representative, of all damaged materials. The Contractor at no additional costs to the City or the facility operator shall replace any material that is damaged or lost after the Contractor's inspection.

11. Liability And Insurance:

Notwithstanding the provisions of this contract, the existing division of liabilities to third parties shall remain the same as between the City and the company. Therefore, it is specifically agreed by the City, company and Contractor (by bidding on this contract) that for the purpose of any liabilities to third parties, that the City contractor performing work directly and physically relating to gas company facilities in this project, shall be deemed an agent of the company and not an agent of the City, the New York City Municipal Water Finance Authority, or the New York City Water Board. Contractor shall include the company as an additional insured on all insurance policies maintained to comply with the City's insurance requirements.

12. Width And Depth Of Excavation:

Contractor shall not be authorized to deliberately change trench or excavation widths and/or depth specified without Engineer's approval. Enlargement of any side of excavation up to eighteen (18) inches beyond pay limits (or inside face of sheeting) requested by the Contractor for the installation of certain types of sheeting may be granted. However, such enlargements or those greater than allowable shall not be approved when, in the sole judgment of the City, field conditions allow the water mains and sewer work to be performed within the limits specified and, the sole purpose of such enlargement request is to impact adjacent utilities (public or private) whose support and protection are part of this contract. Any approval shall be given at no additional cost to the City contract, including EP-7 funding, and all costs associated with unauthorized enlargements shall be the sole responsibility of the Contractor.

13. Depth And Crossing Angles Of Gas Facilities:

Where gas facilities are shown (or specified as) crossing proposed alignment of sewers, water mains, catch basins and chute connections or any other proposed excavations at specific angles (as measured off plans or sketches or specified in contract), it shall be understood that actual field measurements may deviate (plus or minus) forty-five (45) degrees from those shown or specified. The cover, or depth from street surface to top of facilities, shall be as shown or specified in contract documents, no deviation is to be assumed. Where gas facilities are not shown on contract documents, but their support and protection are otherwise included in this contract then, all references to facilities crossing at "various angles and depth" in the gas sections shall mean that such facilities are crossing sewer, water, catch basin and, catch basin chute, and other excavations at a ninety (90) degree angle to the proposed sheeting line or side of excavation (for unsheeted trenches) with an allowable deviation of forty-five (45) degrees in any direction, except for catch basin chute excavation where the allowable deviation shall be sixty (60) degrees. Where the cover is not noted or specified, the bottom face of such facilities shall be assumed to be crossing catch basin chutes at a depth of three (3) foot eight (8) inches or less from the street surface. Paragraph No. 2 above shall apply in cases of distribution water main construction. Appropriate bid items and specifications are provided for cases where angle and depth are greater than stated above. This section also applies to work defined in "Emergency Reconstruction Contracts" or so-called "Where and When Contracts". These contracts are not pre-engineered and consequently have no drawings, sketches or determined locations and so, gas facilities encountered will be crossing existing and proposed sewer, water, catch basin/catch basin chutes and all appurtenances at various angles and depths.

14. Maintenance Of Traffic For Gas Work:

All work pertaining to gas bid items and specifications shall be performed within the contract maintenance of traffic plan as specified in the contract document. The bid price for the Maintenance and Protection of Traffic shall cover all work pertaining to gas items. The City shall make compensation for additional maintenance and protection of traffic items in connection with gas item of work only when such additional work is deemed reasonable and necessary by the Resident Engineer and is approved by him prior to its performance.

15. Relocated Gas And Temporary Systems Installation:

In cases where the Contractor is allowed to select the location for temporary construction such as, installation of dewatering headers, wells, well points, etc., he shall not disturb any gas facilities shown on sketches provided in this section. The only exception shall be, if the affected gas company agrees to such relocation and provided that the cost of such relocation is a matter of adjustment between the company and Contractor, and at no cost to the City.

16. Role Of Company Inspector:

In any case in which the City elects to perform some or all support and protection work with its own employees, personnel or contractors, the facility operator shall provide onsite inspectors to approve and certify such support and protection work (exclusive of City accommodations) performed by the City's own employees, personnel, and contractors. Facility operator's inspectors are not authorized to direct City contractor during the performance of contract work. They shall act through the City Resident Engineer and provide him/her required approvals and certifications, prior to preparing partial payments of EP-7 items, in a format and frequency to be prescribed by the appropriate City Head of Construction.

17. Coordination With Gas Company:

The Contractor shall be required to notify the gas company(ies), in writing, at least two (2) weeks prior to the start of final paving in order to allow companies to complete any unfinished gas work located within the area to be paved. Every effort shall be made to maintain gas service with minimum inconvenience to the public.

III - TECHNICAL SECTION

SECTION 6.01 - Trench Crossings; Support And Protection Of Gas Facilities And Services.

1. Description:

Under this section, the Contractor shall provide all labor, materials, equipment, and incidentals required to support and/or protect the integrity of gas mains, services and appurtenances of any sizes, configurations, and operating pressures crossing trench excavations above subgrade for planned construction of sewers and water mains facilities. A gas service shall be defined as a gas pipe of three (3) inches in diameter or less branching from the main to a customer pick up point or property valve box. A gas main may be any size pipe that is part of a distribution or transmission network other than services described above. Crossings shall be defined as gas facilities spanning the width of excavation (one side to the other side). These crossings may be at various angles and depth as shown on "Gas Cost Sharing Work Standard Sketches Nos. 1 and 1A", and as specified in "General Provisions; Gas Cost Sharing Work Paragraph No. 13" and, at the locations shown or listed in contract documents. The gas company operating in the area, (facility operator), owns these facilities. The work shall be performed in accordance with contract specifications, plans, and at the directions of the Resident Engineer in consultation with the authorized representatives of the facility operator.

2. Method Of Construction:

A. Protection: In general, the gas facilities shall be protected as required by New York State Industrial Code 753. In particular, the Contractor shall use hand excavation methods (pick and shovel or hand held power tools) directly below the pavement base to expose the gas facilities (marked out by facility operators) and to ascertain the clearances and cover of the facilities with respect to the proposed excavation. Upon exposing the affected facilities sufficiently, at the discretion of the Resident Engineer, to ascertain the foregoing, Contractor shall be permitted to proceed with a combination of hand and machine excavation, as appropriate, outside a zone of protection whose limit shall be defined as a perimeter located twelve (12) inches from the outside face of each gas facility crossings (See "Gas Cost Sharing Work Standard Sketch No. 2"). If the facilities are in direct interference with City work, meaning that "Minimum Clearances" described in "General Provisions; Gas Cost Sharing Work Paragraph No. 8" cannot be maintained, and excavation has to be temporarily or permanently abandoned then this particular location shall become a test pit and dealt with as specified in Section 6.07, and "General Provisions; Gas Cost Sharing Work Paragraphs Nos. 2 and 8".

B. Support: Gas mains or services crossing excavations equal or less than four (4) feet wide are generally self supporting, unless field conditions as determined by the Resident Engineer require otherwise. The support requirements for gas mains and services crossing excavations greater than four (4) feet wide shall be as shown on the attached "Gas Cost Sharing Work Standard Sketch No. 1" and Contractor shall use sheeting methods that permit the maintenance of gas facilities in their existing locations and configurations. Alternate methods equivalent to those shown on the sketch or accommodations by the facility operator proposed by the Contractor in order to facilitate the execution of the specified work shall be allowable, provided that prior approval is obtained by the Contractor from the Engineer and the facility operator. The support and protection of gas facilities crossings shown on plans, drawings, listings or otherwise identified in this contract shall not be circumvented with the issuance of so called "order outs".

3. Method Of Measurement:

The Contractor shall be paid for supporting and/or protecting gas facilities crossing trench excavations under the appropriate bid items covered by this section. The Contractor shall be directly responsible to the facility operator for the total cost of using any alternate method requiring the use of resources owned by the facility operator. Regardless of the method used, the City shall pay the bid price for the appropriate support and/or protect item of work. The average rate charged by the facility operator for alternate support and protection work such as, disconnecting and reconnecting gas services is listed in attached "Schedule GCS-A".

4. Payment Restrictions:

These items shall not be paid for: gas services crossing unsheeted water main trench excavation; abandoned gas main/services identified by facility operator; gas mains/services crossing trench excavations for fire hydrant branch connections pipes, catch basins and/or chutes (sewer drain pipe), house sewer and/or water services; gas facilities encroaching any face of excavation for sewer and/or water construction, all of which are covered under other contract sections. Also this item shall not be paid for new gas mains and services crossing water trenches when trenching for such new facilities has been performed by the Contractor in common with trench excavation for City work (overlapping trench limits). The cost of supporting and protecting such gas facilities crossings shall be deemed included in the cost of trench excavation for the new gas facilities. This payment restriction shall apply even if such common trench gas excavation is not part of the contract. The prices bid for items covered by this section represent full compensation to Contractor to completely perform the work described. No other bid items shall be combined with these items in order to pay for gas main and/or services crossing excavations specified herein.

5. Method Of Payment:

Each (Ea.) gas facility crossing trench excavation as described in these specifications shall be counted for payment.

6. Price To Cover:

The cost of timber/steel supports installed for gas facilities shall be included in the bid price. The bid price for each crossing shall also cover all additional supervision, labor, material (except those provided by the facility operator), equipment and insurance necessary to completely maintain the gas facilities without disruption of service to the customers and in accordance with contract plans, specifications and facility operator standards. The price shall also include: changes of method of operations; sheeting modifications where necessary to accommodate the gas facilities crossings; installation and removal of water pipe under gas facilities (so called "snaking"); extra care during excavation (including hand excavation under existing single and multiple gas facilities); extra backfilling and compaction around, over and under gas facilities; installation and removal of sheeting around gas facilities; associated maintenance and protection of traffic; barricades; and traffic plates that may be required to temporarily close and/or complete the work.

SECTION 6.02 - Extra Excavation For The Installation Of Catch Basin Sewer Drain Pipes With Gas Interferences.

1. Description:

Under this item, the Contractor shall provide all labor, materials, equipment, insurance, and incidentals for the extra excavation associated with the installation of catch basin sewer drain pipes (chute) under gas facilities of various sizes crossing the trench excavation at various angles and depth at the locations shown in the contract documents and also, for the support and protection of these facilities during associated excavation and backfill operations. The gas company operating in the area, (facility operator), owns these facilities.

2. Method Of Measurement:

The bid price shall be per location (Each) where extra excavation is required when catch basin sewer drain pipes are installed at an upstream invert depth lower than four (4) feet (up to a maximum of six (6) feet) from the proposed pavement grade because the bottom faces of interfering gas mains and appurtenances are located at a depth greater than three (3) foot eight (8) inches from proposed pavement surface (See "Gas Cost Sharing Work Standard Sketch No. 4").

3. Method Of Construction:

Incremental cost responsibility for chute excavation is determined by the first private facility encountered starting from catch basin structure proper and that prevents the installation of the chute connection at an upstream cover less than or equal to three (3) feet or any other minimum cover required to avoid City facilities (e.g. water, sewer, etc.) as directed by the Resident Engineer.

4. Payment Restrictions:

This item shall not apply and related bid item shall not be paid in cases where:

A. Upstream invert chute is more than six (6) feet deep because of gas facilities.

B. Chute cannot be installed above existing gas facilities because of interferences with other private facilities that are not otherwise covered under this contract, regardless of upstream invert depth.

The above cases shall be at no cost to the City, but shall be a matter of adjustment between the Contractor and the facility operator(s).

5. Price To Cover:

The bid price shall cover the additional cost of all additional supervision, labor, materials, equipment and insurance, to complete the installation of catch basins and associated sewer connections in accordance with the contract plans and specifications. The price shall include: excavation by hand around and under single and multiple gas facilities; locating, supporting and protecting gas facilities; backfilling and all other items necessary to perform all work incidental thereto including: installation and removal of drain pipe under gas facilities ("snaking"); widening of trenches to facilitate the above work; subsequent additional

backfill and pavement restoration; modifying precast catch basin window to accommodate connection; changing sheeting method and configuration to accommodate gas facility crossings; maintenance and protection of traffic; barricades; and installation of traffic plates that may be required to temporarily close and/or complete the work. The price shall not include removal of ledge rock and/or excavation of boulders in open cut.

SECTION 6.02.1 - Extra Excavation For The Installation Of Catch Basin Sewer Drain Pipes With Upstream Inverts Greater Than Six (6) Feet.

1. Description:

Under this item, the Contractor shall provide all labor, materials, equipment, insurance and incidentals for the extra excavation of catch basin chutes where the upstream invert is greater than six (6) feet under gas facilities of various sizes crossing the trench excavation at various angles and depth at the locations shown in the contract documents or as determined by field conditions and also, for the support and protection of these facilities during the associated excavation, sheeting and backfilling operations.

2. Method Of Measurement:

The bid price shall be per location (Each) where extra excavation and sheeting is required when the catch basin chute installed at an upstream invert depth lower than six (6) feet from the proposed pavement grade because the bottom faces of the interfering gas mains and appurtenances are located at a greater depth than three foot eight inches from the proposed pavement surface only.

3. Method Of Construction:

Incremental cost responsibility for chute excavation is determined by the first private facility encountered during such excavation when initiated from catch basin structure and that prevents the installation of the chute at an upstream cover less than or equal to three (3) feet or any other cover required to avoid City facilities as directed by the Resident Engineer.

4. Payment Restriction:

This item shall not apply and related bid item shall not be paid in cases where:

Upstream invert chute is less than or equal to six (6) feet deep because of gas facilities. Section 6.02 shall be paid.

5. Price To Cover:

The bid price shall cover the additional cost of all supervision, labor, materials, equipment and insurance to complete the installation of catch basin and associated sewer connections in accordance with the contract plans and specifications. The price shall include: excavation by hand around and under single and multiple gas facilities; locating, supporting and protecting gas facilities incidental thereto; widening of trenches to facilitate the above work; subsequent additional backfilling and pavement restoration; modifying pre-cast basin window to accommodate connection; the installation of catch basin with deeper sumps as specified; additional sheeting and changes in sheeting method and configuration to accommodate gas facility crossings; maintenance and protection of traffic; barricades; and installation of traffic plates that may be required to temporarily close and/or complete the work.

SECTION 6.03 - Removal Of Abandoned Gas Facilities. All Sizes.

1. Description:

Under this section the Contractor shall provide all labor, materials, equipment, insurance and, incidentals required for the removal of abandoned gas mains, services, or appurtenances thereof, located within the street shown on the contract plans, owned by gas company operating in the project area (facility operator), used or to be used for or in connection with or to facilitate the conveying, transportation, distribution or

furnishing of gas (natural or manufactured or mixture of both) for light, heat, or power, but does not include property used solely for or in connection with business of selling, distributing or furnishing of gas in enclosed containers. Such removal shall include only abandoned gas facilities that interfere with (i.e. cause additional work) City work.

2. Determination Of Operating Status Of Gas Facilities:

The Contractor shall notify facility operator, as required by New York State Industrial Code 753. Gas facilities shall not be removed without the approval of the facility operator whose authorized representative shall certify in writing (specific facility or area wide facilities certification) and in a timely manner acceptable to the Resident Engineer that abandoned facilities are free of combustible gas and any other environmental contaminants prior to removal. The Resident Engineer shall rely on facility operator's certification. The facility operator may request the excavation of test pits (See Section 6.07) for this determination ahead of City work and, Contractor shall provide safe access, facilitate and permit facility operator to enter test pit excavations for the purpose of testing gas facilities to be removed by the Contractor. However, facility operator may prefer to make this test during performance of City work, in order to issue the above certification. This shall be permitted provided that it is agreed that additional costs, if any resulting from this choice shall be a matter of adjustment between the Contractor and facility operator only, and at no cost to the City.

3. Restrictions:

The facility operator shall be solely responsible for its contaminated gas facilities, surrounding contaminated soil and their disposal and abatement procedures, unless contract bid items are applicable and provided for such work. In such cases, the quantity removed shall be charged to EP-7 bid item "UTL-GCS-2WS - GAS INTERFERENCES AND ACCOMMODATIONS" at the City bid prices.

4. Method Of Measurement:

Abandoned gas pipeline removal shall be measured for payment per linear foot of pipe and appurtenances removed.

5. Price To Cover:

The price shall cover all additional cost of supervision, labor, materials, equipment, and insurance necessary to complete this work in accordance with the contract plans and specifications, including excavation by hand around and under other City and facility operator owned properties and, where necessary, support and protection of such properties. The price shall also cover breaking, cutting, and/or burning of abandoned gas pipes and their disposal from the site; sealing open ends remaining in the excavation with concrete or caps (caps to be provided by the facility operator) and backfilling of the area where the pipeline has been removed with clean backfill. The price shall also include any required dump charges. This item does not include any type of extra excavation, backfilling, compaction, pavement removal and restoration associated with abandoned gas facilities removal, all of which are covered under Section 6.06.

SECTION 6.03.1 - Removal Of Abandoned Gas Facilities With Possible Coal Tar Wrap. All Sizes. (For National Grid Work Only)

1. Description:

Under this section the Contractor shall provide all labor, materials, equipment, insurance and, incidentals required for the removal of abandoned gas mains, services or appurtenances thereof, located within the street shown on the contract plans, owned by the gas company operating in the project area (facility operator), used or to be used for or in connection with or to facilitate the conveying, transportation, distribution or furnishing of gas (natural or manufactured or mixture of both) for light, heat, or power, but does not include property used solely for or in connection with business of selling, distributing or furnishing of gas in enclosed containers. Such removal shall include only abandoned gas facilities that interfere with (i.e. cause additional work) City work. These gas facilities may be coated with Coal Tar Wrap and so, may require special handling and disposal methods as specified in National Grid Standard Operating Procedure 12-2, Coal Tar Wrap Handling and 12NYCRR56.

2. Determination Of Operating Status Of Gas Facilities:

The Contractor shall notify facility operator, as required by New York State Industrial Code 753. Gas facilities shall not be removed without the approval of the facility operator whose authorized representative shall certify in writing (specific facility or area wide facilities certification) and in a timely manner acceptable to the Resident Engineer that abandoned facilities are free of combustible gas and any other environmental contaminants prior to removal. The Resident Engineer shall rely on the facility operator's certification. The facility operator may request the excavation of test pits (See Section 6.07) for this determination ahead of City work and, the Contractor shall provide safe access, facilitate and permit facility operator to enter test pit excavations for the purpose of testing gas facilities to be removed by the Contractor. However, the facility operator may prefer to make this test during performance of City work, in order to issue the above certification. This shall be permitted provided that it is agreed that additional costs, if any, resulting from this choice shall be a matter of adjustment between the Contractor and the facility operator only, and at no cost to the City contract. Should such investigation result in the determination that the abandoned gas facilities do not contain Coal Tar Wrap then the removal of said facilities shall be covered under separate item (See Section 6.03).

3. Requirements:

The City Contractor shall excavate abandoned gas facility sufficiently, either in its entirety, or at locations determined by Contractor to allow the removal of Coal Tar Wrap (if present on the abandoned gas facility) and to facilitate the safe extraction of manageable lengths of abandoned pipe without damage to adjacent facilities, utilities or City structures either parallel to or crossing above or below abandoned gas facility. The Contractor is to allow access to the designated cutting points within the Contractor's trench by authorized National Grid personnel who will remove the Coal Tar Wrap as per National Grid procedures. This work by National Grid personnel shall be performed in a timely fashion and shall not unduly impede the Contractor's progress and/or productivity. Upon completion of the coating removal, the Contractor shall be allowed to cut, burn or grind the gas facility and remove the section of abandoned pipe. The Contractor at a site designated by the Contractor shall stockpile the removed pipe. The facility operator will be responsible to provide trucking and disposal services with its own personnel and shall remove the stockpiled pipes during off hours or during such time as agreed to by the Contractor. Since the pipe removed will remain the property of the facility operator and is to be disposed of by the facility operator, the facility operator shall be responsible for any required notifications, filings, dump charges and incidentals associated with the disposal of abandoned gas facilities found to contain Coal Tar Wrap.

4. Method Of Measurement:

Abandoned gas pipeline removal shall be measured for payment per linear foot of pipe and appurtenances removed.

5. Price To Cover:

The price shall cover all additional cost of supervision, labor, materials, equipment and insurance necessary to complete this work in accordance with the contract plans and specifications, including excavation by hand around and under other City and facility operator owned properties and, where necessary, the support and protection of such properties. The cost shall also include hand excavation in the area(s) of proposed abandoned pipe cut(s), cutting and/or burning of abandoned gas pipes and stockpile of removed sections of abandoned pipe and associated maintenance and protection of traffic, blocking and temporary fencing if required. The unit price shall also cover sealing open ends remaining in the excavation with concrete or end caps (end caps to be provided by the facility operator) and backfilling of the area where the abandoned pipeline has been removed with clean backfill material. This item does not include any type of extra excavation, backfilling, compaction, pavement removal and/or restoration (temporary and permanent) associated with abandoned pipe removal ("lost trench"), all of which are covered under separate Section 6.06. The price shall also include allowance for any loss of productivity by the Contractor due to required facility operator work to remove pipe coating and prepare pipe for cutting as well as any change in Contractor's excavation method, additional trucking and/or stockpiling costs.

SECTION 6.03.1a - Removal Of Abandoned Gas Facilities With Possible Coal Tar Wrap. All Sizes. (For Con Edison Work Only)

1. Description:

Under this section the Contractor shall provide all labor, material, equipment, insurance and, incidentals required to prepare abandoned gas mains, services and appurtenances thereof located within the street shown on contract plans, owned by the gas company operating in the project area (facility operator), for removal due to interference with proposed City work. These abandoned gas facilities were, at one time, used for or in connection with or to facilitate the conveying, transportation, distribution or furnishing of gas (natural, manufactured or a combination of both) for light, heat, or power, but does not include property used solely for or in connection with business of selling, distribution or furnishing of gas in enclosed containers. Such preparation for removal shall include only abandoned gas facilities that interfere with (i.e. cause additional work) City work. These gas facilities may be coated with Coal Tar Wrap which may contain asbestos or PCB's and so, may require special handling and disposal methods as specified in Con Edison - ASBESTOS MANAGEMENT MANUAL, CHAPTER 6 - ASBESTOS WORK PROCEDURES, SECTION 06.04 - COAL TAR WRAP REMOVAL. For under 25' (feet) in length and an approved NYC-DEP variance for over 25' (feet).

2. Determination Of Operating Status Of Gas Facilities:

The Contractor shall notify facility operator, as required by New York State Industrial Code 753. Gas Facilities shall not be removed without the approval of the facility operator whose authorized representative shall certify in writing (specific facility or area wide facilities certification) and in a timely manner acceptable to the Resident Engineer that abandoned facilities are free of combustible gas and any other environmental contaminants prior to removal. The Resident Engineer shall rely on the facility operator's certification. The facility operator may request the excavation of test pits (See Section 6.07) for this determination ahead of City work and Contractor shall provide safe access, facilitate and permit facility operator to enter test pit excavations for the purpose of testing gas facilities. However, the facility operator may prefer to make this test during performance of City work in order to issue the above certification. This shall be permitted provided that it is agreed that additional costs, if any, resulting from this choice shall be a matter of adjustment between the Contractor and the facility operator only, and at no cost the City contract. Should such investigation result in the determination that the abandoned gas facilities do not contain Coal Tar Warp then the removal of said facilities shall be covered under separate item (See Section 6.03).

3. Requirements:

The Contractor shall excavate abandoned gas facility sufficiently, either in it's entirety, or at locations determined by Contractor to allow the removal of Coal Tar Wrap (if present on the abandoned gas facility) and to facilitate the safe extraction of manageable lengths of abandoned pipe without damage to adjacent facilities, utilities or city structures either parallel to or crossing above or below abandoned gas facility. The Contractor is to allow access to the designated cutting points within the Contractors trench by authorized Con Edison personnel who will remove the Coal Tar Wrap as per Con Edison and/or NYC-DEP approved procedures. This access shall conform to all applicable codes, rules & regulations. This work by Con Edison personnel shall be performed in a timely fashion and shall not unduly impede the Contractors progress and/or productivity. Upon completion of the coating removal, the Contractor shall be allowed to cut, burn or grind the gas facility and remove the section of abandoned pipe. Contractor shall designate a specific site to stockpile those removed pipes. The facility operator will be responsible to provide trucking and disposal services with its own personnel and shall remove the stockpiled pipes during off hours or during such time as agreed to by the Contractor. Since the pipe removed will remain the property of the facility operator and is to be disposed of by the facility operator, the facility operator shall be responsible for any required notifications, filings, dump charges and incidentals associated with the disposal of abandoned gas facilities found to contain Coal Tar Wrap.

4. Method Of Measurement:

Abandoned gas facility removal shall be measured for payment per linear foot of pipe and appurtenances removed.

5. Price To Cover:

The price shall cover all additional cost of supervision, labor, materials, equipment and insurance necessary to complete this work in accordance with the plans and specifications, including, but not limited to, excavation by hand around and under other City and facility operator owned properties and, where necessary, the support and protection of such properties. The cost shall also include hand excavation in the area(s) of proposed abandoned pipe cut(s), cutting and/or burning of abandoned gas pipes and stockpile of removed sections of abandoned pipe and associated maintenance of traffic, blocking and temporary fencing if required. The unit price shall also cover sealing open ends remaining in the excavation with concrete or end caps (end caps to be supplied by facility operator) and backfilling of the area where the abandoned pipeline has been removed with clean backfill material. This item does not include any type of extra excavation, backfilling, compaction, pavement removal and/or restoration (temporary and permanent) associated with abandoned pipe removal ("lost trench"), all of which are covered under separate Section 6.06. The price shall also include allowance for any loss of productivity by the Contractor due to required facility operator work to remove pipe coating and prepare pipe for cutting as well as any change in Contractor excavation method, additional trucking and/or stockpiling costs.

SECTION 6.04 - Adjust Hardware To Grade Using Spacer Rings/Adaptors. (Street Repaving.)

1. Description:

Under this section, the Contractor shall provide all labor, supervision, materials, equipment, insurance and incidentals required to adjust to final grade gas street surface hardware located within the contract area boundaries shown on the plans. The gas company operating in the area, (facility operator), owns these facilities. The work shall be performed in accordance with the contract plans, specifications and at the directions of the Resident Engineer in concurrence with authorized representative of the facility operator.

2. Materials:

The facility operator shall furnish and deliver all prefabricated hardware parts required. These include adaptors for the grade adjustment proper and new street hardware if existing ones are found to be defective, all in accordance with the facility operator standards and City rules and regulations. The Contractor shall notify the facility operator of the installation schedule at least three (3) business days before materials are required on the site. Should the facility operator fail to deliver the necessary material according to any schedule mutually agreed upon by the Contractor and facility operator, the City shall not be responsible for any delays attributable thereto, nor for the failure of delivery of such materials. On project where material storage is not permitted on site, the facility operator shall deliver the required material to the Contractor's yard and it shall be the Contractor's responsibility to transport the material to the work site when needed for installation. It shall also be the Contractor's responsibility to inspect the materials to be installed by him immediately upon delivery and advise the facility operator through its authorized representative, of all damaged materials. The Contractor at no additional expense to the City or the facility operator shall replace any material that is damaged or lost after the Contractor's inspection.

3. Method Of Measurement:

The Contractor shall be paid for each six (6) inch round box and/or nine (9) inch square box adjusted to grade regardless of adjustment height requirements.

4. Price To Cover:

The unit price bid for this item shall include all additional labor, supervision, insurance, equipment and, material (except those to be provided by the facility operator), required to adjust each box to grade as required in the contract plans and specifications. The bid price shall also include the removal of existing frames and covers from existing facilities to be salvaged and returned to the facility operator and, all material transportation from the Contractor's material storage yard to the work site. In addition the bid price shall include "chipping" around existing box using appropriate means and methods where grinding is required.

SECTION 6.05 - Adjust Hardware To Grade By Resetting. (Road Reconstruction.)

1. Description:

Under this item, the Contractor shall provide all labor, supervision, materials, equipment, insurance and incidentals required to adjust to the proposed grade gas street surface hardware located within the contract area boundaries shown on the plans. The gas company operating in the area, (facility operator), owns these facilities. The work shall consist of either building up or lowering or resetting the casting by removing the existing frame and cover building up or decreasing the existing installation, replacing the frame and/or cover if damaged or worn out, as determined by the Resident Engineer, with a new frame and/or cover furnished by the owner, and setting the frame and cover to new elevation. The work shall be performed in accordance with the contract plans, specifications and at the directions of the Resident Engineer.

2. Materials:

The facility operator shall furnish and deliver all new hardware parts required. The Contractor shall furnish materials such as mortar, bricks and concrete in compliance with contract requirements. At locations where high-early strength concrete is required under this contract to be placed adjacent to gas facilities, then the requirement for concrete shall be high-early strength complying with the current New York State Department of Transportation, Standard Specifications for Class F concrete. Existing castings may be replaced as required and deemed necessary by the Engineer and by City rules and regulations. The Contractor shall install the new castings of various sizes furnished by the facility operator. The Contractor shall notify the facility operator of the installation schedule at least three (3) business days before materials are required on the site and, shall provide off-loading services to the facility operator. Should the facility operator fail to deliver the necessary material according to any schedule mutually agreed upon by the Contractor and facility operator, the City shall not be responsible for any delays attributable thereto, nor for the failure of delivery of such materials. Such delays shall be a matter of adjustment between the Contractor and the facility operator. On project where material storage is not permitted on site, the facility operator shall deliver the required material to the Contractor's yard and it shall be the Contractor's responsibility to transport the material to the work site when needed for installation. It shall also be the Contractor's responsibility to inspect the materials to be installed by him, immediately upon delivery and advise the facility operator through its authorized representative, of all damaged materials. The Contractor at no additional expense to the City or the facility operator shall replace any material that is damaged or lost after the Contractor's inspection.

3. Methods Of Construction:

The Contractor shall remove and reinstall existing castings or install new castings to the proposed grade. Setting and resetting the castings shall be done with mortar and brick according to the standards of the facility operator. Work shall be performed in a workmanlike manner. Castings that are deemed unacceptable for resetting shall remain the property of the facility operator and he shall be responsible for their removal and proper disposal from site. No traffic shall be allowed on adjusted street hardware until permitted by the Engineer.

4. Method Of Measurement:

The Contractor shall be paid for each gas hardware adjusted to grade regardless of size or adjustment height requirements (up or down).

5. Price To Cover:

The unit price bid for this item shall include all additional labor, supervision, insurance, equipment and, material (except those to be provided by the facility operator), required to adjust each gas hardware to grade as required in the contract plans and specifications. The bid price shall also include the removal of existing frames and covers from existing facilities; building up the existing installations with bricks and mortar, or lowering the existing installation by removing bricks and mortar; replacing damaged frames and/or covers with new frames and/or covers furnished by the facility operator; setting the frames and covers to the new elevations; protect existing installations; repair minor structural damages to existing installations prior to resetting frames; unloading of furnished castings at the Contractor's yard and transporting castings from the Contractor's yard to the job site as required; completing the work in

accordance with the contract plans, specifications and, at the directions of the Engineer. In addition the bid price shall include "chipping" around existing gas facilities using appropriate means and methods where grinding is required.

SECTION 6.06 - Special Care Excavation And Backfilling.

1. Description:

Under this section, the Contractor shall provide all labor, materials, equipment, insurance and incidentals required to support and protect the integrity of live gas facilities including mains, services, related structures and appurtenances during excavations. The gas company operating in the area, (facility operator), owns these facilities. The work shall be performed in accordance with the contract plans, specifications and at the directions of the Resident Engineer in consultation with authorized representatives of the facility operator.

2. Applicability Of Section:

This section shall apply to live gas facilities of various sizes located within two (2) feet of any face of unsheeted excavation, (unsheeted excavation refers to any excavation performed for city work and includes excavations performed that are to be subsequently sheeted using approved methods) and paralleling or, encroaching any face of excavation. Also, for crossings greater than forty-five (45) degrees and/or located at a cover depth greater than five (5) feet from existing street surface. Parallel facilities are not exposed at any time during excavation (See "Gas Cost Sharing Work Standard Sketch No. 5"). Encroaching facilities are partially exposed inside the limit of excavation (See "Gas Cost Sharing Work Standard Sketch No. 5"). This section shall also apply to gas facilities crossing catch basins excavation, and catch basins sewer connections (chutes) trench excavation only when extra depth (covered in other section), is not required for chutes installations because of such utilities interferences (See "Gas Cost Sharing Work Standard Sketch No. 3"). This section shall also apply to gas services (if shown or otherwise listed in contract documents) crossing unsheeted excavations for water mains, gas facilities crossing fire hydrant branch connections, house sewer and/or water service connections excavations. This section shall also apply for so called "loss trench", as described further, and for additional excavation (pavement and/or soil), backfilling, compaction, roadway base and pavement restoration due to abandoned gas facilities, only if removed by Contractor. If operating status of gas facilities cannot be determined prior to excavation then such facilities shall be considered live and this section shall fully apply. The excavation around fully exposed live gas facilities along and within limits of excavation (not crossings) shall be covered by this section also (not shown on "Gas Cost Sharing Work Standard Sketch No. 5"), however the support requirement, if any is required, of such facilities is beyond the scope of these specifications and therefore shall be the responsibility of facility operator to determine and prescribe, at no cost to the City contract, but shall be a matter of adjustment between the Contractor and facility operator.

3. Payment Restriction:

No special care excavation shall be paid for abandoned gas facilities paralleling and/or encroaching excavation and therefore are not in direct interference with City work. Except as allowed in this section, the bid item specified under this section shall not be used in combination with items covered under other sections for work done due to a particular gas facility. This item shall not be paid for new gas facilities when trenching for such new facilities has been performed by the Contractor of record in common with trench excavation for City Work (overlapping trench limits). The cost of excavating with care as defined in this section shall be deemed included in the cost of trench excavation for the new gas facilities. This restriction shall apply even if such gas common trench excavation is not part of the contract. If facilities are in direct interference with City work, meaning that "Minimum Clearances" described in "General Provisions; Gas Cost Sharing Work Paragraph No. 8" cannot be maintained and excavation has to be temporarily or permanently abandoned then this particular location shall become a test pit and dealt with as specified in Section 6.07 and "General Provisions; Gas Cost Sharing Work Paragraphs Nos. 2 and 8".

4. Method Of Construction:

All excavation in the vicinity of gas facilities shall be as required by NYS Industrial Code 753. Where these facilities are paralleling and located two (2) feet or less from the limits of the proposed excavation, the Contractor shall use hand excavation methods (pick and shovel or hand held power tools) to ascertain

the clearances of these facilities with respect to the proposed excavation. Once the location of these facilities with respect to the proposed excavation is verified to the satisfaction of the Resident Engineer, the Contractor shall then proceed with a combination of hand and machine excavation as required preserving the integrity of the facilities. The installation of timber supports or underpinning, when soil foundation cannot fully support partially exposed pipes, may be required to prevent pipe movement as directed by the Resident Engineer.

5. Method Of Payment:

The unit price for this work item shall be based on cubic yard (CY) of average excavation with care and, is to be considered as an incremental cost for performing City work with gas facilities interferences.

6. Method Of Measurement:

A. For Paralleling Facilities: Volume calculated as: Depth as measured from existing street surface to the bottom of unsheeted trench excavation allowable by OSHA regulations, multiplied by, the width measured as one (1) foot from the face of excavation toward the center of excavation, multiplied by the length of parallel facility, divided by twenty-seven (27) cubic feet per cubic yard (See "Gas Cost Sharing Work Standard Sketch No. 5"). The gas facility is no longer considered to be in interference once sheeting has been installed, therefore no further compensation for paralleling facilities as described above will be made.

B. For Encroaching Facilities: Volume calculated as: Depth of trench excavation multiplied by, the width of partially exposed pipe plus one (1) foot, multiplied by the length of facility encroachment, divided by twenty-seven (27) cubic feet per cubic yard (See "Gas Cost Sharing Work Standard Sketch No. 5").

C. Fully Exposed Gas Facilities: (Not shown on "Gas Cost Sharing Work Standard Sketch No. 5") along and inside trench and/or crossing trench at an angle greater than forty-five (45) degrees and/or a cover depth greater than five (5) feet from the existing street surface. The volume shall be measured as the depth of trench excavation multiplied by the distance measured along the sheeting line between two (2) points of intersections of the gas facilities and the sides of trench excavation, multiplied by the width of trench excavation.

D. For Additional Excavation And Restoration Due To So Called "Loss Trench", When The Integrity Of Pavement And Soil Above And Around Existing Live Gas Facilities Cannot Be Maintained Due To Its Lack Of Cohesiveness: Volume shall be calculated as: Depth of unsheeted trench excavation multiplied by width measured as distance of facility from closest edge of unsheeted excavation plus, width of facility proper plus, one (1) foot or a maximum width of three (3) feet multiplied by length of facility fully exposed divided by, twenty-seven (27) cubic feet per cubic yard (not shown on "Gas Cost Sharing Work Standard Sketch No. 5").

E. For Facilities Crossing Excavation For Catch Basins, Or Chutes Installations (When NYCDEP Funded) Or Fire Hydrant Branch Connections, Or Unsheeted Water Main Trench, Or House Sewer And/Or Water Services: Volume calculated as: Depth as defined above multiplied by, the width taken as the outside diameter of pipe or the width of structure plus one (1) foot on either side (two (2) feet), multiplied by, the length of exposed facility crossing the trench, divided by twenty-seven (27) cubic feet per cubic yard (not shown on "Gas Cost Sharing Work Standard Sketch No. 5").

Overlapping volume dimensions measured as described above may occur when multiple facilities are paralleling excavations, encroaching excavations or crossing catch basins and catch basin chute installations. In such cases, all such facilities shall be counted as one limited by the extreme pipes, faces (See "Gas Cost Sharing Work Standard Sketch No. 2"). The volume shall then be calculated as described above.

7. Price To Cover:

The bid price shall also cover all additional supervision, labor, material, equipment and insurance necessary to excavate while protecting and maintaining (excluding supports for fully exposed live gas) gas facilities without disruption of service to the public and in accordance with contract specifications. The price shall also include, changes of sheeting method and excavation width configuration where necessary to accommodate gas facilities in their existing locations; difficulties during the installation of catch basins,

chute connections, hydrant branch, and house sewer and water connections under or over gas facilities; loss of productivity due to slower rate of excavation (special care) during excavation, including the use of such methods as: hand excavation around existing single and multiple facilities, extra excavation and backfilling due to lost trench because of existing and adjacent gas facilities, compaction, removal of sheeting from the facilities, extra roadway base restoration and temporary pavement, associated maintenance and protection of traffic, barricades, and traffic plates that may be required to temporarily close and/or complete the work.

SECTION 6.07 - Test Pits For Gas Facilities.

1. Description:

Under this section, the Contractor shall furnish all labor, materials, insurance, equipment and appliances necessary to excavate, sheet and, maintain test pits at locations approved by the Resident Engineer in consultation with the facility operator. Test pits shall be dug in order to ascertain exact locations, cover and invert elevations, clearances, alignment and operating status (live or dead) of existing gas facilities. The Contractor shall inspect jointly with the Resident Engineer and facility operator, gas facilities and other structures uncovered, take all relevant measurements and elevations as directed by the Resident Engineer. Tests to determine operating status of gas facilities shall be performed by facility operator. The pits shall be covered with steel plates during daytime nonworking hours, and uncovered, as required, until the inspection work is completed. Testing of gas facilities may require a maximum of four (4) hours. Then, the pits shall be backfilled with clean fill, and resurfaced with temporary pavement. All traffic shall be maintained and all safety measures as stipulated shall be complied with.

2. Methods Of Construction:

A. Excavation: Existing pavement to be removed shall be neatly cut along lines of removal with a saw or other approved equipment which leaves a neat straight joint line along the juncture with subsequently replaced pavement. Excavation in the vicinity of utilities and other structures shall be performed using hand tools. Use of hand operated pneumatic and electric jackhammers will be permitted only for breaking pavement and removal of masonry, concrete and boulders, or as otherwise directed by the Resident Engineer. The Contractor shall properly dispose of all materials excavated from test pits away from site. Test pits shall be excavated at locations shown on the contract drawings or as directed by the Resident Engineer. Additional test pits may be required and shall be excavated where required, as ordered by the Resident Engineer. All test pits shall be excavated to a depth and size necessary to locate the existing facilities. Sheeting shall be used when depth of excavation exceeds five (5) feet. The sheeting required shall be furnished and installed in full compliance with the State of New York and Federal Safety Codes requirements and as specified in contract, whichever is more stringent. Care shall be taken that no existing gas facilities or other structures are broken or damaged. All broken or damaged facilities shall be reported immediately to facility operator who shall decide whether such facilities shall be repaired or replaced by company forces or by City contractor and in conformance with "General Provisions; Gas Cost Sharing Work Paragraph No. 9". Contractor shall excavate all material encountered, including large masses of concrete, cemented masonry and boulders, as directed by the Resident Engineer. Any type of excavation protection used, shall satisfy the following:

   (a) Industrial Code Rule 753.
   (b) Prevent injury to workers and the public, and avoid damage to existing water, sewer, and gas pipes or other structures, and to pavements and their foundations, through caving or sliding of the banks of the excavation.

   Should it become necessary, as determined by the Resident Engineer, to enlarge any test pit in any dimension after sheeting has been placed, the Contractor shall remove portions of the sheeting, as necessary, enlarge the test pits as directed, and replace the sheeting without additional compensation for this work other than for the additional volume of material excavated.

B. Maintenance Of Test Pits: Excavated test pits shall be maintained free of debris and kept dry by the Contractor in order to permit the inspection and measurements and to determine the locations of facilities. In order to accomplish this, Contractor shall, upon completion of excavation and placement of sheeting (if depth greater than five (5) feet), furnish and install adequate steel plates and posting

over the excavated pits and shall temporarily remove all equipment debris and workers, and relocate barricades in order to open the full width of street to traffic during nonworking hours. The Contractor shall then, at no additional cost, relocate such barricades, barrels, cones and other warning devices and remove steel plates, as and when directed by the Resident Engineer to facilitate the inspection of exposed facilities. When work is being performed and the pits are not covered with steel plates, the Contractor shall provide complete and safe access to the test pits as may be required, and he shall provide construction barricades and maintain traffic at all times as shown or as directed by the Resident Engineer. Upon completion of test pit inspection by the Resident Engineer, the pit shall be backfilled by the Contractor as specified in contract, except that backfill material shall conform to contract specifications for such purpose.

C. Pavement And Sidewalk Restoration: After backfilling is completed, the Contractor shall construct a temporary pavement consisting of a minimum of four (4) inches thick asphaltic concrete mixture in roadway areas or a two (2) inches thick asphaltic concrete mixture in sidewalk areas in order to maintain existing pedestrian and vehicular traffic. This temporary pavement shall be maintained until permanent pavement and sidewalk replacement is constructed as specified in contract.

3. Measurements:

The quantity to be measured for payment shall be the number of cubic yards of material removed from within the limits of the pit dimensions as directed by the Resident Engineer. The volume occupied by existing pipes or other structures remaining within the maximum payment lines will not be deducted from the total volume measured except, where the cross sectional area of these facilities exceeds four (4) square feet. As determined by the Resident Engineer, the quantity measured for payment may be proportionate to a fair and reasonable estimate of gas responsibility in the total volume excavated.

4. Price To Cover:

The contract price bid per cubic yard for test pits shall cover all additional costs of labor, material, insurance, equipment, appliances and incidentals required to excavate test pits, including removal and disposal of excavated materials, sheeting, steel plating, backfill, compaction and temporary pavement and sidewalk restoration all in accordance with the specifications and as directed by the Resident Engineer. The price shall also include the cost of providing safe access to the excavation by facility operator for the performance of certain test to determine operating status of gas facilities prior to City work. The price shall also include support and protection of all gas facilities crossing excavation, paralleling and/or encroaching any face of excavation.

GAS COST SHARING STANDARD SPECIFICATIONS
SCHEDULE GCS-A

Average rate charged by utility companies to Disconnect and Reconnect Gas Services:

1. National Grid - $586.90 per Service/and Visit
2. Con Edison - $524.00 per Service/and Visit

IV - STANDARD SKETCHES; GAS COST SHARING WORK

Hereinafter attached are the following Standard Sketches for Gas Cost Sharing Work:

Sketch No. 1 - Support Requirements For Gas Mains And Services Crossing Excavation Greater Than 4' - 0" Wide At Any Angle

Sketch No. 1A - Support Requirements For Gas Mains Over 16" Diameter Up To And Including 48" Diameter Crossing Excavation At Any Angle

Sketch No. 2 - Typical Methods Of Measurement For Gas Crossings

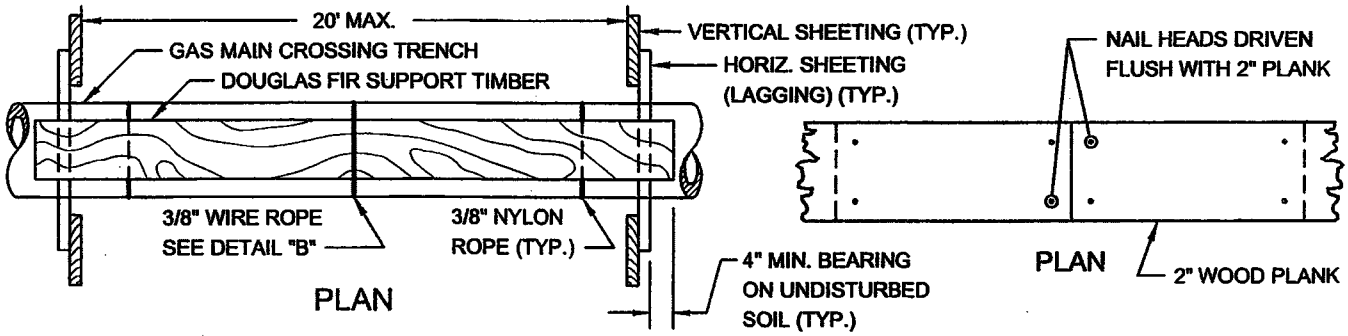
Sketch No. 3 - Utility Crossings During Catch Basin Chute Connection Pipe Installation

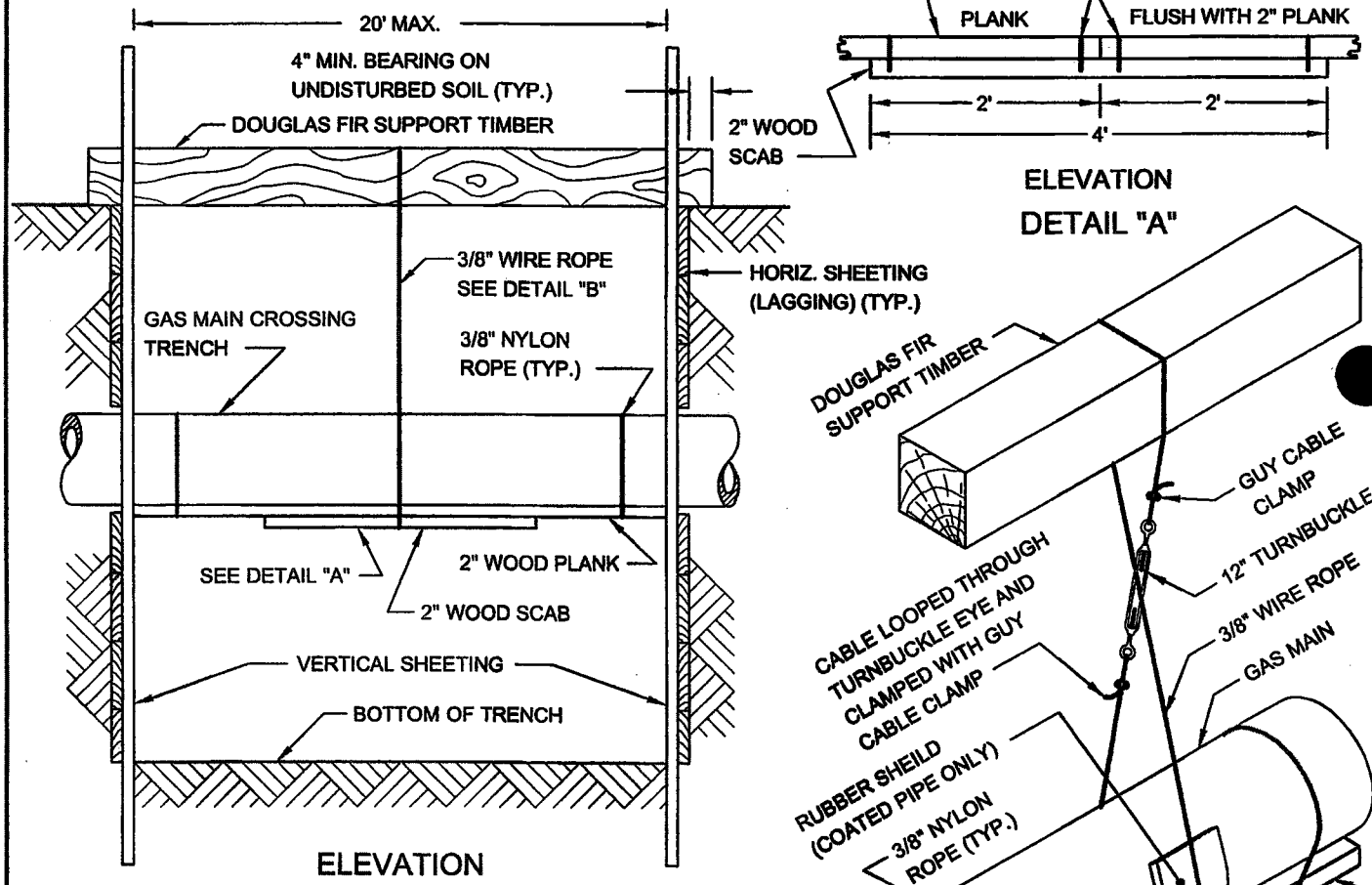
Sketch No. 4 - Utility Crossings During Catch Basin Chute Connection Pipe Installation (Extra Depth)

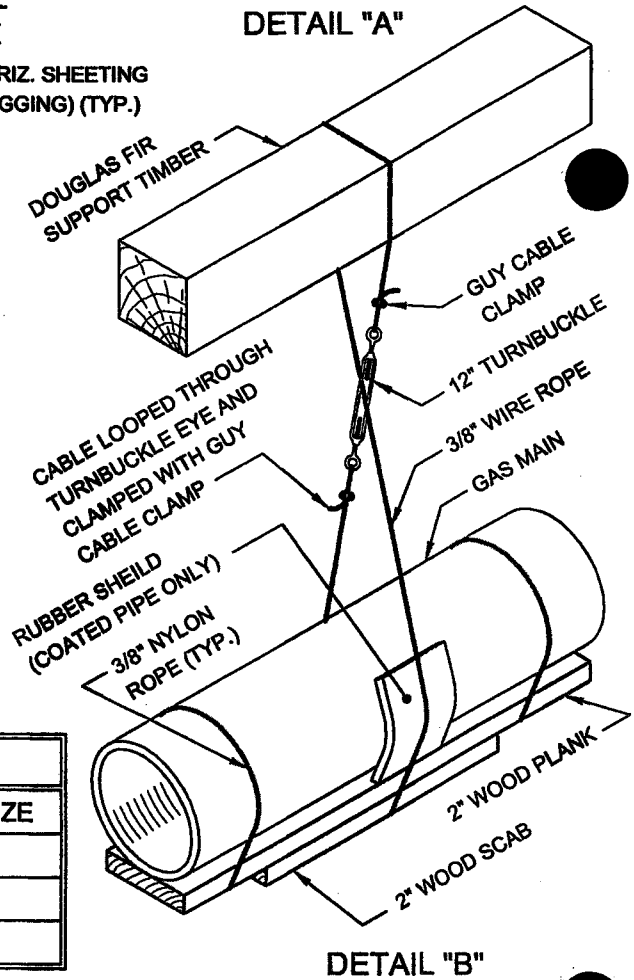
Sketch No. 5 - Gas Main Encroachment On And/Or Parallel To Excavation Of Unsheeted Trench

GAS COST SHARING WORK (SKETCH NO. 1)

SUPPORT REQUIREMENTS FOR GAS MAINS AND SERVICES CROSSING EXCAVATION GREATER THAN 4'-0" WIDE AT ANY ANGLE





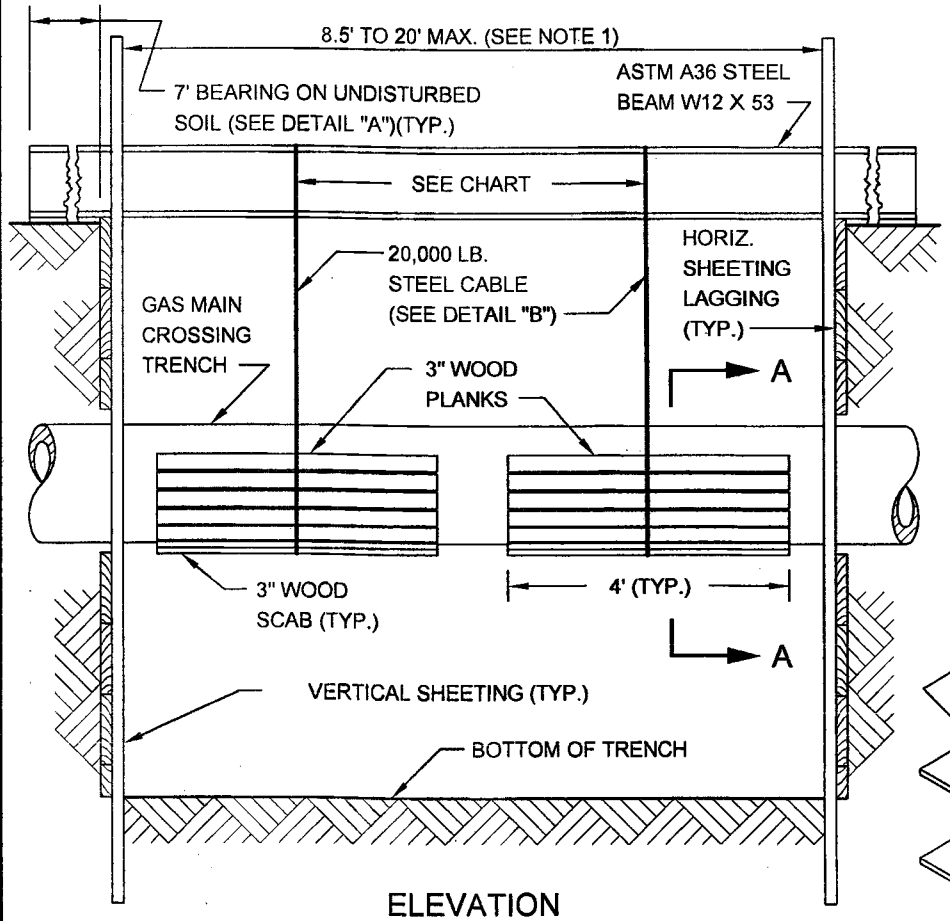


CABLE SUPPORT		TIMBER SUPPORT	
MAIN TYPE	SPACING	MAIN SIZE	TIMBER SIZE
CAST IRON	4' O.C. MAX.	UP TO 6"	6" X 6"
STEEL	10' O.C. MAX.	8" TO 10"	8" X 8"
PLASTIC	10' O.C. MAX.	12" TO 16"	10" X 10"

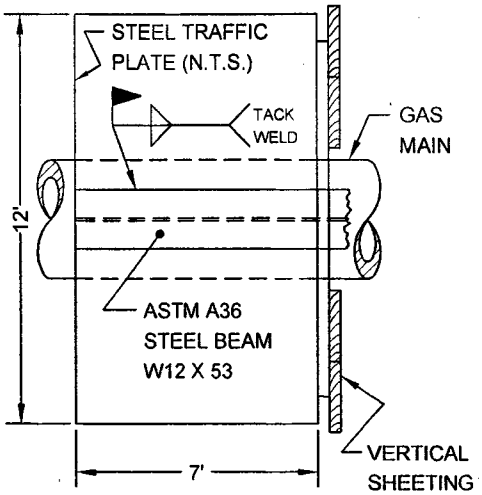
REVISED OCT. 2004 - L. ADRIEN
REVISED JUNE 1998 - J. WONG / W. PATALANOP. MOY

GAS COST SHARING WORK (SKETCH NO. 1A)

SUPPORT REQUIREMENTS FOR GAS MAINS OVER 16" DIAMETER UP TO AND INCLUDING 48" DIAMETER CROSSING EXCAVATION AT ANY ANGLE

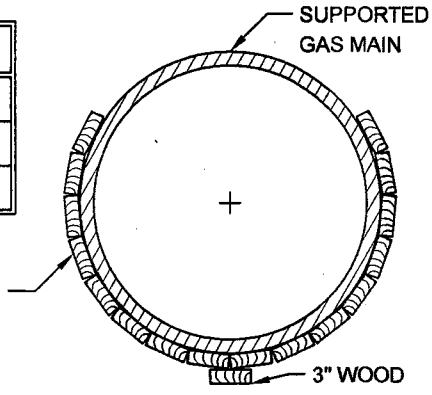


ELEVATION

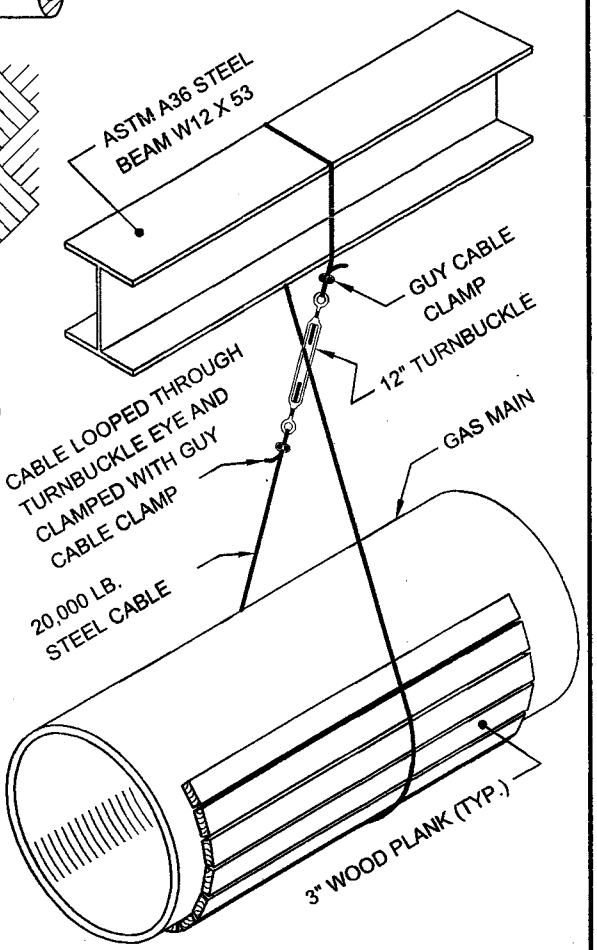


DETAIL "A"

CABLE SUPPORT	
MAIN TYPE	SPACING
CAST IRON	4' O.C. MAX.
STEEL	10' O.C. MAX.



SECTION A-A



DETAIL "B"

NOTES:

(1) NO SUPPORT IS REQUIRED FOR GAS MAINS OVER 16" DIA. UP TO AND INCLUDING 48" DIA. CROSSING TRENCHES LESS THAN 8.5' WIDE.

(2) UNDERMINE A MAXIMUM OF 8.5 L.F. OF CAST IRON GAS MAIN AT A TIME.

(3) SET STEEL CABLE OVER 3" WOOD PROTECTIVE PLANKS AND PLACE AN ADDITIONAL 3" SCAB ON THE BOTTOM OF THE GAS MAIN.

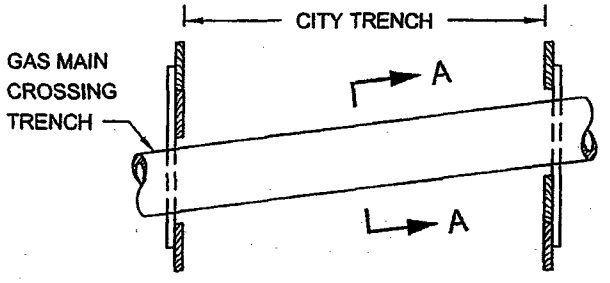
(4) ADJUST STEEL CABLE UNTIL DEAD WEIGHT OF THE UNDERMINED GAS MAIN HAS BEEN TAKEN UP BY THE OVERHEAD STEEL BEAM SUPPORT.

(5) ALL SUPPORTS AND STEEL CABLES CAN BE REMOVED ONLY AFTER THE REQUIRED BACKFILL (AROUND AND BELOW GAS MAIN) HAS BEEN COMPACTED IN ACCORDANCE WITH NEW YORK CITY STANDARDS AND AT THE DIRECTIONS OF THE ENGINEER.

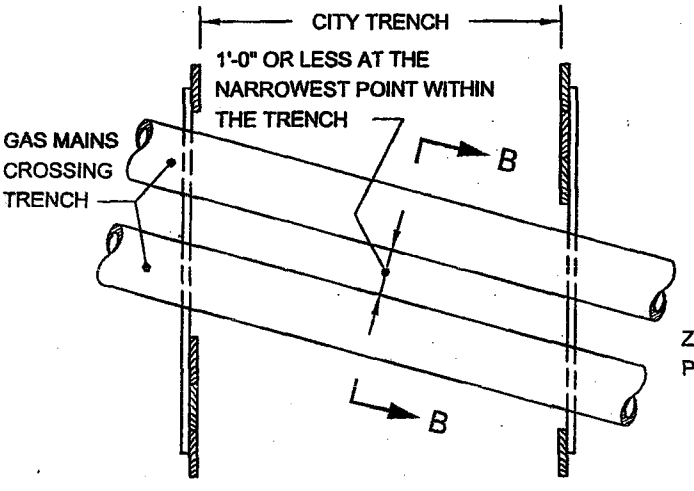
REVISED OCT. 2 ... ADRIEN
REVISED JUNE 1998 - J. WONG / W. PATALANO/P. MOY

GAS COST SHARING WORK (SKETCH NO. 2)

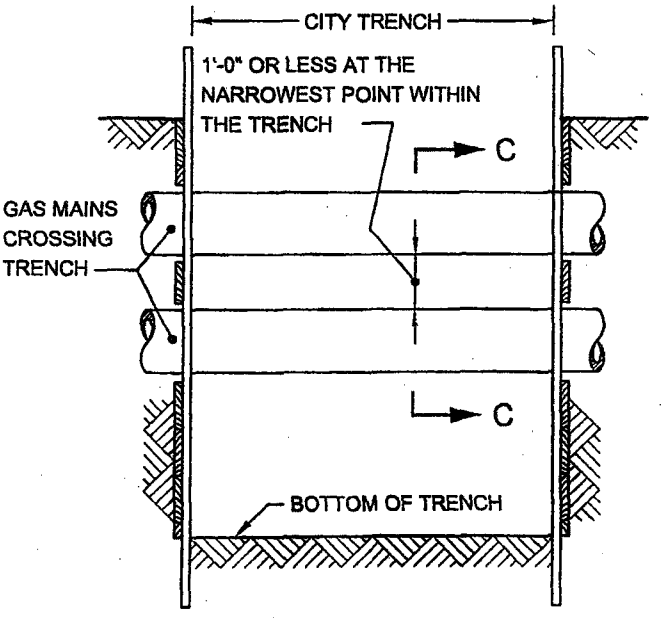
TYPICAL METHODS OF MEASUREMENT FOR GAS CROSSINGS



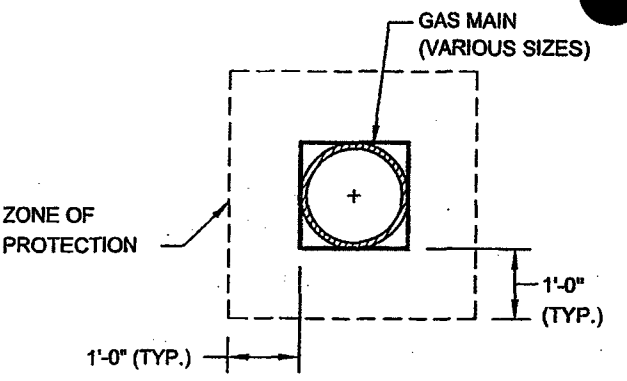
SINGLE FACILITY CROSSING



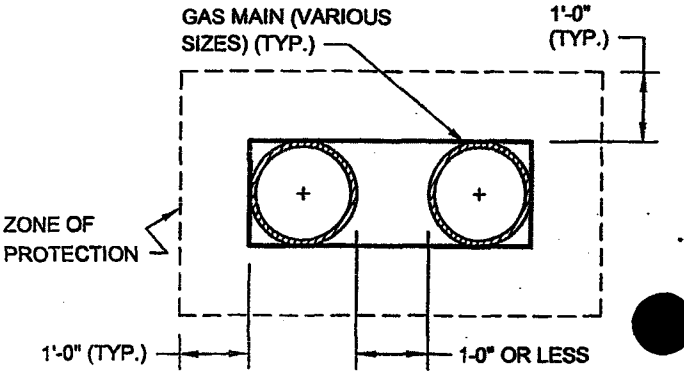
MULTIPLE FACILITIES
(GAS MAINS AT SAME ELEVATION)



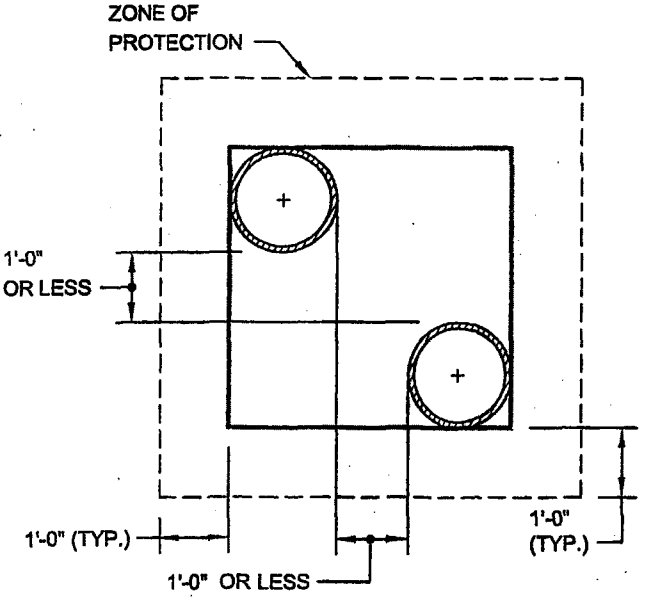
MULTIPLE FACILITIES
(ONE CROSSING AT DIFFERENT ELEVATIONS)



SECTION A-A



SECTION B-B



SECTION C-C

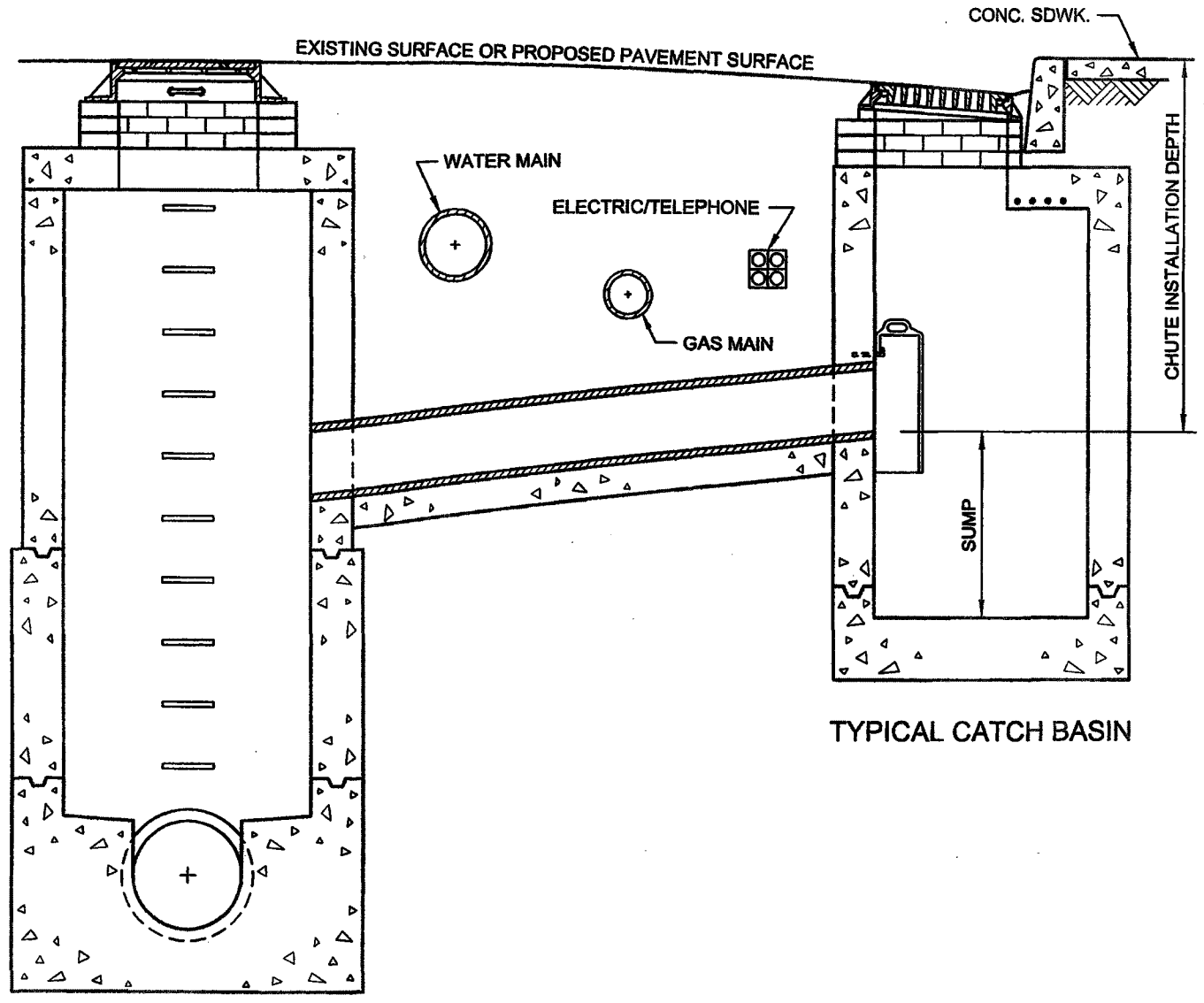
NOTE:

GAS MAINS MAY OR MAY NOT BE PARALLEL TO EACH OTHER.

REVISED SEPT. 2004 - L. ADRIEN
REVISED SEPT. 2004 - J. WONG/W. PATALANO/P. MOY

GAS COST SHARING WORK (SKETCH NO. 3)

UTILITY CROSSINGS DURING CATCH BASIN CHUTE CONNECTION PIPE INSTALLATION



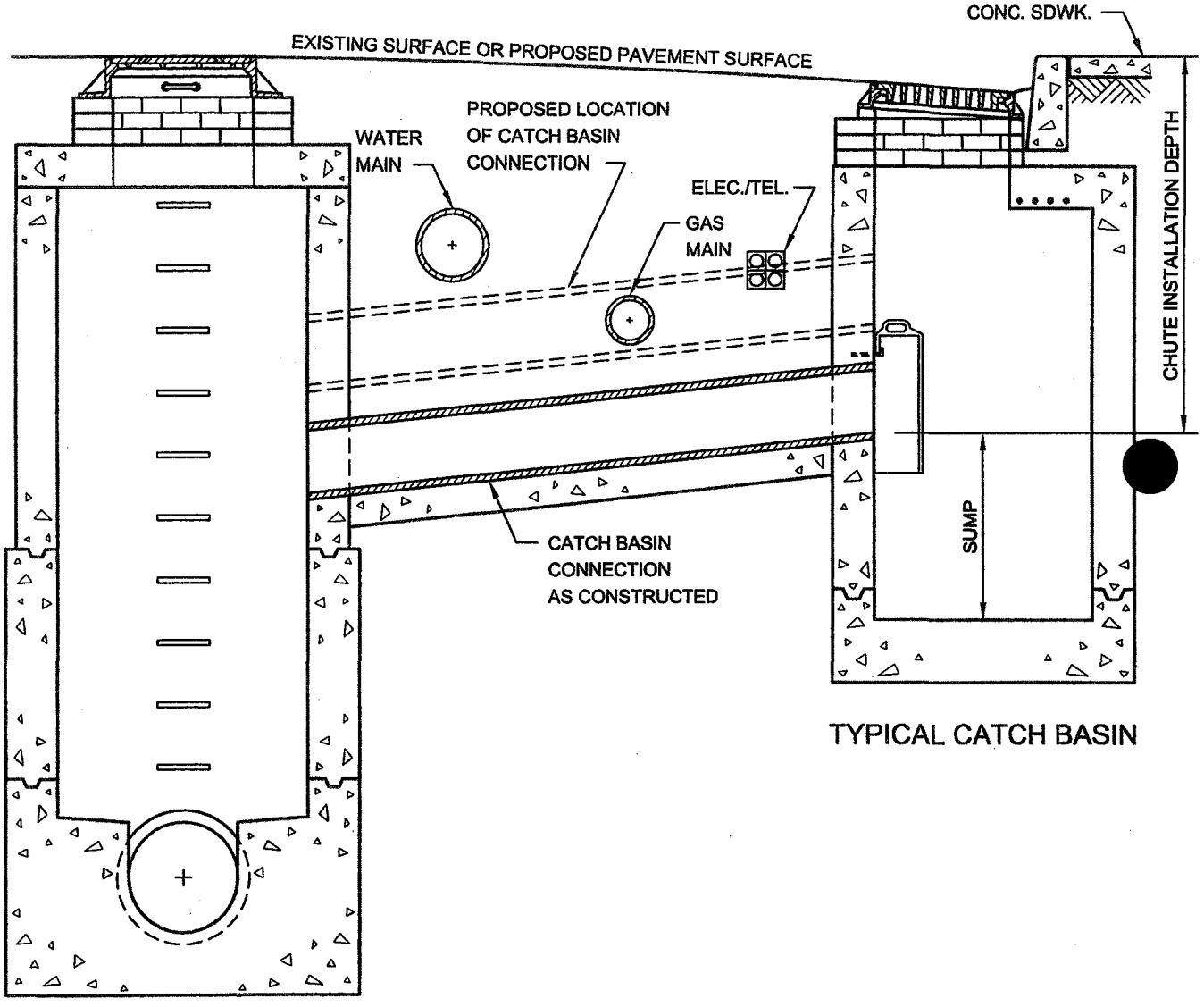
TYPICAL CATCH BASIN

TYPICAL SEWER MANHOLE

REVISED OCT. 2004 - L. ADRIEN
REVISED OCT. 1998 - J. WONG/W. PATALANO/P. MOY

GAS COST SHARING WORK (SKETCH NO. 4)

UTILITY CROSSINGS DURING CATCH BASIN CHUTE CONNECTION PIPE INSTALLATION (EXTRA DEPTH)



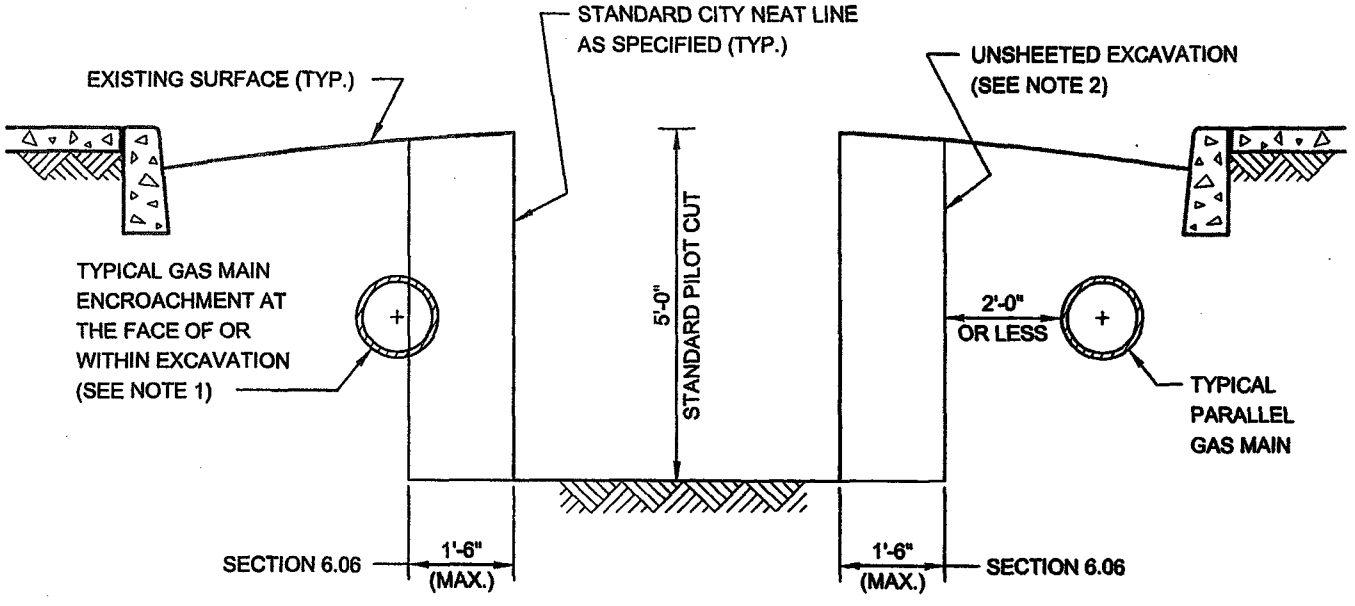
TYPICAL CATCH BASIN

TYPICAL SEWER MANHOLE

REVISED OCT. 2004 - I. ADRIEN
REVISED OCT. 1998 - J. WONG/W. PATALANO/P. MOY

GAS COST SHARING WORK (SKETCH NO. 5)

GAS MAIN ENCROACHMENT ON AND/OR PARALLEL TO EXCAVATION OF UNSHEETED TRENCH



NOTES:

(1) GAS MAIN LOCATED AS SHOWN MAY HAVE TO BE REMOVED BY THE FACILITY OPERATOR PRIOR TO THE START OF CITY EXCAVATION, OTHERWISE, THE CONTRACTOR WILL BE PAID UNDER SECTION 6.06 FOR THE SAID WORK. IF GAS MAIN IS ABANDONED THEN SECTION 6.03 SHALL APPLY.

(2) EIGHTEEN (18) INCHES FROM STANDARD NEAT LINE IS THE MAXIMUM ALLOWABLE WIDTH OF AREA THAT MAY BE DISTURBED OR EXCAVATED DURING INSTALLATION OF CERTAIN TYPES OF SHEETING SYSTEMS THAT MEET THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS OF THE DEPARTMENT OF DESIGN AND CONSTRUCTION OF THE CITY OF NEW YORK.

REVISED OCT. 2004 - I. ADRIEN
REVISED OCT. 1998 - J. WONG/W. PATALANO/P. MOY

NO TEXT THIS PAGE

V - PRELIMINARY GAS WORK TO BE PERFORMED BY FACILITY OPERATOR

APPLICABLE TO ALL GAS DRAWINGS:

- ALL RELOCATION WORK SHOWN IN THIS ADDENDUM IS TO BE PERFORMED BY FACILITY OPERATOR.
- ALL SUPPORT AND PROTECTION WORK TO BE PERFORMED BY CITY CONTRACTOR
- NO CAPITAL WORK IS ANTICIPATED AT THIS TIME.
- IF ADDITIONAL INFORMATION IS NEEDED REGARDING THE FACILITY OPERATOR RELOCATION WORK, THE CONTRACTOR IS ADVISED TO CONTACT THE GAS COMPANY REPRESENTATIVE:

MS. THERESA KONG
CONSOLIDATED EDISON
4 IRVING PLACE, 17TH FLOOR NE
NEW YORK, NY 10003
TEL.: 212-460-4834

(NO TEXT IN THIS AREA, TURN PAGE)

VI - LISTING OF APPROXIMATE LOCATIONS OF EP-7 BID ITEMS QUANTITIES

(NO TEXT IN THIS AREA, TURN PAGE)

SCOPE OF WORK
SUPPORT AND PROTECTION
FOR CONTRACT NUMBER HEDA-001

The City of New York Department of Design and Construction is planning to install sewers and/or water mains and all appurtenances in various locations in The City of New York along with all work incidental thereto.

6.01.1 - Support & Protect Gas Main Crossing Sewer Up To 24" In Diameter (Ea.)

2 in Various Locations As Required.

6.01.2 - Support & Protect Gas Main Crossing Sewer 30" In Diameter (Ea.)

2 in Various Locations As Required.

6.01.3 - Support & Protect Gas Main Crossing Sewer 36" Thru 42" In Diameter (Ea.)

2 in Various Locations As Required.

6.01.4 - Support & Protect Gas Main Crossing Sewer 48" Thru 54" In Diameter (Ea.)

2 in Various Locations As Required.

6.01.8 - Support & Protect Gas Services Crossing Trenches And/Or Excavations (Ea.)

150 in Various Locations As Required.

6.01.9 - Support & Protect Gas Main Crossing Water Main Up To 20" In Diameter (Ea.)

100 in Various Locations As Required.

6.02 - Extra Excavation For The Installation Of Catch Basin Sewer Drain Pipes With Gas Interferences (Ea.)

10 in Various Locations As Required

6.03 - Removal Of Abandoned Gas Facilities. All Sizes (L.F.)

4000 in Various Locations As Required

6.03.1a - Removal Of Abandoned Gas Facilities With Possible Coal Tar Wrap. All Sizes. (For Con Edison Work Only) (L.F.)

200 in Various Locations As Required

SCOPE OF WORK
SUPPORT AND PROTECTION
FOR CONTRACT NUMBER HEDA-001

The City of New York Department of Design and Construction is planning to install sewers and/or water mains and all appurtenances in various locations in The City of New York along with all work incidental thereto.

6.04 - Adjust Hardware To Grade Using Spacer Rings / Adaptor (Street Repaving) (Ea.)

150 in Various Locations As Required

6.05 - Adjust Hardware To Grade By Resetting (Road Reconstruction) (Ea.)

150 in Various Locations As Required

6.06 - Special Care Excavation & Backfilling (C.Y.)

2500 CY In Various Locations As Required, Including But Not Limited To All Gas Services Crossing Unsheeted Water Main Trenches.

6.07 - Test Pits For Gas Facilities (C.Y.)

200 in Various Locations As Required.

6.09 - Trench Excavation & Backfill For New Gas Mains & Services. Gas Installed By Others (C.Y.)

2000 in Various Locations As Required

SECTION 6.09 - Trench Excavation and Backfill for New Gas Mains and Services (To be performed by City Contractor)(For Con Edison Work Only)

1. Description:

Under this section, the contractor shall furnish all labor, materials, equipment, insurance, permits and incidentals required to break/remove roadway and sidewalk pavement, excavate, backfill and restore gas trenches. The trench to be excavated shall be determined by the size of the gas facility to be installed. The work shall be performed in accordance with applicable specifications, and/or at the direction of the Resident Engineer in consultation with the facility operator.

2. Materials:

All materials used to excavate and prepare trenches shall be supplied by the Contractor and be approved by the facility operator in consultation with the Resident Engineer. Clean sand backfill material shall be used and shall conform to Con Edison specification EO-1181-rev.6, General Specification for Backfilling of Trench and Small Openings, which is included in this contract.

3. Method of Construction:

Excavation – The Contractor shall saw cut and/or break and remove existing roadway which may include but is not limited to, asphalt, concrete and cobblestone, utilizing approved equipment that leaves a neat straight joint line along the juncture with subsequently replaced pavement. Prior to starting the trenching operation, the contractor shall excavate the appropriate gas main tie-in pits at the extremities of the gas main sections to be replaced. Test pits shall be excavated to determine exact location of all tie-in pits and at appropriate intervals along proposed trench excavation to verify lane and clearances as shown on the contract plans. The tie-in pits shall be adequately protected by the contractor using wood fencing or steel traffic plates until such time when the facility operator has completed the tie-in work. The Contractor shall be permitted to excavate utilizing a combination of machine and hand excavation, as field conditions warrant, and as directed by the facility operator. The trench shall be adjusted so as to provide for a nominal cover on the new gas facilities or as required based on field conditions, applicable specifications, or as directed by the facility operator in consultation with the Resident Engineer. The width of the trench shall be as directed by the facility operator in consultation of the Resident Engineer. The bottom of the trench shall be graded smooth with a minimum cushion of 3 inches of clean sand and in conformance with applicable specification and be compacted, to minimize initial settlement and to avoid "point" support of new gas facilities. All stones projecting into the trench bottom shall be removed, and the voids backfilled before the new gas facilities are installed. Where streets are not to final grade, the cover shall be measured from the final grade, or the existing grade, whichever provides the deeper trench. Excavation in the vicinity of utilities and other structures shall be performed using hand tools. The contractor shall properly dispose of all materials excavated away from site. Size and location of excavation shall be as directed by the facility operator in consultation with the Resident Engineer. Trenches shall be excavated to a depth and size necessary to facilitate the installation of the new gas facility and in conformance with the applicable specification. All existing facilities that are encountered during trench excavating shall be protected in a manner suitable to the facility operator in consultation with the Resident Engineer. Tight sheeting shall be used, as required, based on field conditions and/or when the depth of excavation is equal to or greater than five feet. Skeleton type sheeting will not be permitted. The sheeting required

shall be furnished and installed in full compliance with the State of New York and Federal Safety Code requirements and in compliance with applicable specifications and/or as directed by the facility operator in consultation with the Resident Engineer. Care shall be taken that no existing gas facilities or other structures are broken or damaged. Contractor shall excavate all material encountered necessary to facilitate the installation of the new gas facilities, and as directed by the facility operator. Care should be taken to avoid damage to existing utility facilities and structures, and to pavements and their foundations, and to avoid caving or sliding banks within the excavation.

Maintenance of Trench Excavation - Excavated trenches shall be maintained free of debris and kept dry by the contractor. In order to accomplish this, contractor shall, upon completion of excavation and placement of sheeting (as required and/or if depth is equal to or greater than five feet), furnish and install adequate steel plates, as directed by the facility operator in consultation with the Resident Engineer, and posting over the excavated trenches and shall temporarily remove all equipment debris and workers, and relocate barricades in order to open the full width of street to traffic during non-working hours, as required based on DOT requirements. Con Edison forces will perform all live gas main connections, dead gas main cut-outs, and/or service work associated with disconnecting and reconnecting from old to new gas main The Contractor shall then, at no additional cost, relocate such barricades barrels, cones and other warning devices and remove steel plates, as and when directed by the facility operator in consultation with the Resident Engineer to facilitate the installation of the new gas facilities. When work is being performed and the excavations are not covered with steel plates, the Contractor shall provide complete and safe access to the trench as may be required, and shall provide construction barricades and maintain traffic at all times as shown or as directed by the facility operator in consultation with the Resident Engineer. The contractor has the responsibility to maintain and set to grade all Con Edison hardware during backfill and pavement restoration. Upon completion of installation of the new gas facility, the trench excavation shall be backfilled by the contractor in accordance with Contract requirements and all backfill material shall conform to contract specifications for such purpose.

Pavement and Sidewalk Restoration - After backfilling is completed, the contractor shall install temporary pavement consisting of six inches (6") thick asphaltic concrete mixture in roadway areas or a two inches (2") thick asphaltic concrete mixture in sidewalk areas in order to maintain existing pedestrian and vehicular traffic. This temporary pavement shall be maintained until permanent replacement as specified in contract. Permanent pavement restoration shall be as required by the appropriate contract specifications and as directed by the Resident Engineer.

4. Method of Measurement:

The quantity to be measured for payment shall be the number of cubic yards (C.Y.) of trench actually excavated, including roadway pavement, base and/or sidewalk concrete removed within the limits of the trench as directed by the Resident Engineer in consultation with the facility operator. The volume occupied by existing pipes or other structures will be deducted from the total volume measured as encountered based on existing field conditions.

5. Price to Cover:

The unit price bid per cubic yard for excavation shall include the cost of all supervision, labor, material, equipment, insurance and incidentals necessary to complete excavation trenches, including backfill, compaction testing and restoration of trenches and tie-ins pits as specified or shown on the contract, plans. The bid price shall also include the cost of coordinating the sewer and water main work to be performed by the contractor with the gas installation work to be performed by others. The price shall also include, associated maintenance of traffic, and traffic plates and openings and closings of plates as may be required in order to provide access to the facility operator during the new gas facility installation, and installing, removing and maintaining tight sheeting that may be required, cut, break and remove various thickness of surface and base pavement, excavate by hand, furnish, place and compact, in compliance with DOT requirements, clean sand backfill following installation of the gas facility. Any required removing, trucking, storing, and disposing of material shall be deemed included in the unit price. The price shall also include the cost of providing temporary pavement restoration. Permanent pavement restoration shall be deemed included in this item, as required and as directed by the Resident Engineer.

conEdison

CONSOLIDATED EDISON COMPANY OF NEW YORK, INC.
4 IRVING PLACE
NEW YORK, NY 10003

DISTRIBUTION ENGINEERING
TOOLS AND STRUCTURES

SPECIFICATION EO-1181
REVISION 6
May 2010

EFFECTIVE DATE
June 1, 2010

GENERAL SPECIFICATION FOR BACKFILLING OF TRENCH AND SMALL OPENINGS

FILE: CONSTRUCTION STANDARDS MANUAL NO. 3, SECTION 37

TARGET AUDIENCE	REGIONAL CONSTRUCTION
NESC REFERENCE	NONE

A3-23F

TABLE OF CONTENTS

A3-23G

1.0 PURPOSE

This specification details the procedures to be followed in backfilling all Con Edison street openings for electric, gas and steam facilities.

2.0 APPLICATION

This specification applies to all Con Edison Customer Service Areas.

3.0 REFERENCE SPECIFICATION AND DEFINITIONS

3.1 The term "Engineer" used in this specification refers to the Distribution Tools & Structures Engineer or his authorized representative.

3.2 The term Construction Representative shall mean the Construction Manager, Contract Construction Manager, or his authorized representative.

3.3 The terms "Type 3/8", "Type I" and "Type II" shall be as defined in EO-8085.

3.4 The term "small opening" shall refer to street openings which are 6' x 5' or smaller.

3.5 The term "suitable backfill" shall refer to in-place material excavated from the trench or opening which satisfies the following requirements:

3.5.1 The excavated material shall be free of all broken asphalt pavement, broken concrete, brick, all organic material, and all debris.

3.5.2 The excavated material shall be substantially sandy soil gritty and granular in texture and have a small amount of rocks compared to the total volume of soil. It shall have no rocks greater than 2 inches in size.

3.5.3 The excavated material shall be substantially free of clay like or clayey soil. Clayey soil shall be determined as soil that is powder like in texture when dry and capable of being molded when wet.

3.5.4 Frozen backfill material shall either be removed or broken into small particles before being compacted. Excessively wet material shall be mixed with dry material to reduce moisture content before backfilling.

3.5.5 Fill materials, known as "Stone Dust", or "Pond Fill", containing crystalline silica shall not be used as backfill material.

3.5.6 If there are any questions as to suitability of the excavated material, the Engineer shall be consulted.

3.6 The term "mechanical compaction" shall mean the use of equipment, either impact or plate vibratory, which is designed specifically for soil compaction. The term "hand tamping" shall mean compaction of backfill by means of a plate tamper, which will impart sufficient force to compact the backfill material.

3.7 The term "wetted backfill" shall mean backfill material containing sufficient moisture so that when molded by hand it will form a firm shape. If the specimen crumbles it lacks sufficient moisture. If water is squeezed from the specimen it contains too much moisture.

4.0 REQUIREMENTS

4.1 Compaction

4.1.1 The term "compacted", for both "mechanical compaction" and "hand tamping", shall mean a minimum level of compaction of 95% of the maximum dry density of the backfill material used as determined by a Standard Proctor Test (ASTM D-698). In lieu of a Standard Proctor Test a "one point" test shall be done by taking a sample of the soil and compacting it using a Standard Proctor mold procedure and determining the maximum in field density that can be obtained and 95% of this value should be used as a comparison to the actual compaction achieved.

4.1.2 In lieu of the above, when using "suitable backfill", compaction will be considered adequate if density readings of the compacted fill equal 95% of the readings of the in-place material (i.e. density readings must be taken at the time of excavation to use as reference for compaction). For this type of "before and after" comparison, devices such as the nuclear density tester may be used.

A3-23I

4.2 Density Testing

4.2.1 The sand-cone test, ASTM D1556 or nuclear density tester may be used for all in place density tests. Other methods may be used upon approval of the Engineer.

4.2.2 The Construction Representative or Engineer may order as many in-place density tests as he deems necessary to insure proper compaction. If an in-place density test indicates insufficient compaction, the Contractor shall re-compact the area in question until the backfill is compacted to the requirements set forth in paragraph 4.1.1. The Contractor may elect to take additional tests 5 feet on both sides of the test which failed, and average the values of the three readings. If the average value of the three tests meets the compaction requirements, the area in question will be considered sufficiently compacted and no additional compaction will be required. If the average value does not meet the compaction requirements, the Contractor will be required to pay for the two additional in-place density tests and to re-compact the area, which has been determined to be insufficiently compacted. Test after recompaction.

4.3 Procedure For Electric Duct Backfill

4.3.1 The following backfill procedure shall be used for concrete duct, asbestos cement, and plastic and fibre conduit.

4.3.2 Where the ducts are in a rock area, a minimum 4" bed of Type 3/8" backfill shall be placed. It shall be wetted and mechanically compacted to form a firm base for the support of the ducts. Suitable backfill shall be free of stones larger than 2 inches.

4.3.3 For concrete conduit, asbestos cement conduit, plastic and fibre conduit encased in concrete, the trench shall be filled with suitable backfill as defined in paragraph 3.5 or Type II material (EO-8085) in 12 inch wetted lifts. Each lift shall be mechanically compacted.

4.3.4 For direct buried asbestos cement, plastic and fibre conduit, the trench shall be filled with Type 3/8 material to a level of 12 inches above the ducts. It shall be compacted by hand in a no more than 12 inch wetted lifts. The remaining trench shall be backfilled with suitable backfill or Type II material (EO-8085) in 12 inch wetted lifts mechanically compacted.

4.4 Procedure For 138kv Cable Pipe Installation

4.4.1 All installation of I38KV and 345KV cable pipe type feeders shall comply with the requirements set forth in CE-TS-3352.

4.4.2 The requirement for the use of excavated material as "suitable backfill" shall follow the requirements of paragraph 3.5.

4.5 Procedure For Backfilling Gas Trenches & Small Openings

4.5.1 Coated Steel & Plastic Gas Pipe Trenches

a. A smooth surface shall be excavated in the bottom of the trench and the pipes laid to grade. Where the trench is in a rock area, a minimum of 4 inches of Type 3/8 material shall be placed, wetted and mechanically compacted to form a firm base for the gas pipes.

b. The trench shall be backfilled with Type 3/8 material to a height of 12 inches above the pipe in a maximum of 12 inch wetted lifts which shall be hand compacted.

c. The remaining trench shall be backfilled with Type 3/8, Type I, Type II or suitable existing backfill in a maximum of 12 inch wetted lifts, which shall be mechanically compacted.

d. The density of the compacted backfill shall be tested and accepted or rejected in accordance with paragraph 4.2.2.

4.5.2 Cast Iron, Plastic & Steel Gas Pipe In Small Openings

a. Backfill material shall be Type 3/8, or suitable existing backfill, which has been segregated to remove all rocks, which may damage the pipe coating.

b. Openings shall be backfilled to a height of 12 inches above the pipe in a maximum of 12 inch wetted lifts, which shall be hand, compacted. The remainder of the openings shall be backfilled in 12 inch wetted lifts with Type I or Type II or "suitable backfilled" as per paragraph 7 which shall be mechanically compacted.

c. The density of the compacted backfill shall be tested and

accepted or rejected in accordance with paragraph 4.2.2.

4.6 Backfilling Concrete Coated & Steel Jacketed Steam Main Trenches

4.6.1 A smooth surface shall be established in the bottom of the trench and the pipes leveled and laid on a firm base. Where the trench is in a rock area, a minimum of 4 inches of Type I material shall be placed, wetted and mechanically compacted to form a firm base.

4.6.2 The trench shall be backfilled with Type I, or Type II or suitable backfill material in 12 inch wetted lifts, which shall be mechanically compacted.

4.6.3 The backfill shall be tested and accepted or rejected in accordance with paragraph 4.2.2.

5.0 PRECAUTIONS

If a work site is found to contain existing fill material that contains or comprised of "Stone Dust" or "pond Fill", the contractor shall cover the material with a 3" layer of sand. If this material is found to be stockpiled at a work site, it shall be covered with a tarpaulin or removed from the work site.

Joseph R. Martin (Signature on File)
Joseph R. Martin
Manager
Tools and Structures
Distribution Engineering

Marco Meza

REVISION No. 5	FILE:
Revised section 4.4 (added installation spec.). Due to be reviewed 05/2015	Construction Standards Manual 3 Section 237 - Subway

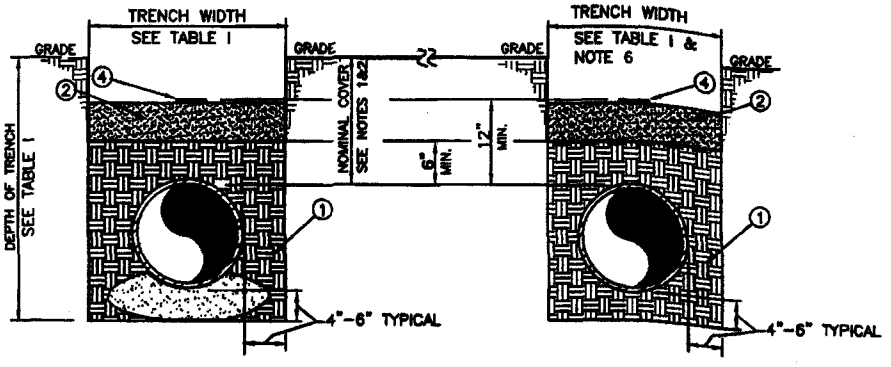
A3-23L

309495

REVISIONS

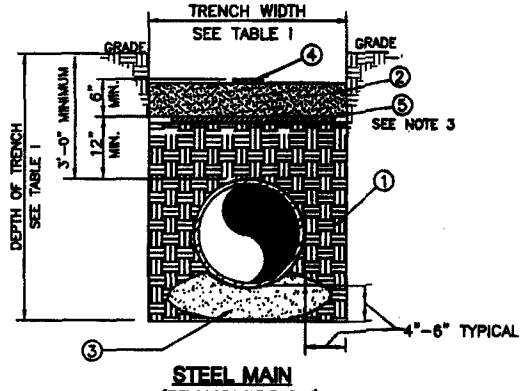
R.OROGAN 7/21/98	0
M. BALDOVIN 2/02/06 REVISED TRENCH WIDTH FOR 4" THRU 12" MAINS IN TABLE 1 REMOVED REQUIREMENT FOR SANDBAGS FOR STEEL DISTRIBUTION MAIN. RAJ. 2/1//06	1
M. BALDOVIN 4/04/06 ADDED REQUIREMENTS OF SAND BAGS FOR STEEL DISTRIBUTION MAIN. RAJ. 4/4//06	2
M. BALDOVIN 3/12/08 REVISED TRENCH WIDTH OF 16" AND GREATER SIZE MAINS IN TABLE I. P.L.S. 1/28/08	3
M. BALDOVIN 04/29/13 REVISED TITLE REVISED DRAWING IN ITS ENTIRETY. HT 04/24/13	4

GAS OPERATIONS
CONSTRUCTION STDS.
VOLUME 2
SECTION 5



STEEL MAIN OR SERVICE (DISTRIBUTION)

PLASTIC MAIN OR SERVICE (DISTRIBUTION)



STEEL MAIN (TRANSMISSION)

TABLE 1

SIZE OF MAIN/ SERVICE	TRENCH WIDTH	TRENCH DEPTH (MAIN)	TRENCH DEPTH (SERVICE)
1"	0'-10"	3'-6"	2'-6"
1 ¼"	0'-10"	3'-6"	2'-6"
1 ½"	0'-10"	3'-6"	2'-6"
2"	1'-0"	3'-6"	2'-6"
3"	1'-0"	3'-6"	2'-6"
4"	1'-2"	3'-10"	2'-10"
6"	1'-4"	4'-0"	3'-0"
8"	1'-6"	4'-2"	3'-2"
10"	1'-6"	4'-4"	3'-4"
12"	1'-10"	4'-6"	3'-6"
16"	4'-4"	4'-10"	3'-10"
20"	4'-6"	5'-2"	4'-2"
24"	5'-0"	5'-6"	4'-6"
30"	5'-6"	6'-0"	
36"	6'-0"	6'-6"	

BILL OF MATERIAL

ITEM NO.	DESCRIPTION	SPEC. OR DWG. NO.	CLASS & STOCK NO.
1	3/8" SAND/ CLEAN FILL/ RECYCLED BACKFILL	EO-8085	-
2	SUITABLE BACKFILL	EO-1181	
3	SANDBAG	ASTM C-33	568-8975
4	"WARNING BURIED GAS LINES BELOW" TAPE	G-8005/ G-8100	624-8660
5	STEEL PROTECTIVE COVER	EO-6799-C	-

NOTES:

1. DISTRIBUTION MAINS SHOULD BE INSTALLED WITH A MINIMUM 3'-0" COVER SO AS TO ALLOW A MINIMUM COVER OF 2'-0" ON THE SERVICE PIPING.
2. FOR DISTRIBUTION MAINS OR SERVICES, STEEL PROTECTIVE PLATES ARE REQUIRED WHEN THE COVER IS LESS THAN 2'-0". (SEE SPECS. G-8005, G-8100, AND DWG. EO-6799-C).
3. FOR TRANSMISSION MAINS, STEEL PROTECTIVE PLATES ARE REQUIRED FOR ALL NEW INSTALLATIONS REGARDLESS OF COVER AND IF FEASIBLE, WHENEVER AN EXISITING TRANSMISSION MAIN IS EXPOSED. (SEE SPECS. G-8051, G-11863, AND DWG. EO-6799-C).
4. ENSURE PROPER CLEARANCES ARE MAINTAINED BETWEEN GAS FACILITIES AND OTHER FACILITIES OR STRUCTURES. (SEE CI-920-1 AND DWG. EO-5570-C)
5. WHEN SHEETING IS USED, THE "TRENCH WIDTH" DIMENSION IN TABLE 1 SHALL BE MEASURED FROM THE INSIDE OF THE SHEETING.
6. WHEN INSTALLING COILED PLASTIC PIPE, THE TRENCH WIDTH MAY BE LESS THAN SHOWN ON TABLE 1.
7. FOR STEEL MAINS AND SERVICES, INSTALL SANDBAGS AT 10' INTERVALS.
8. ALL REPLACEMENT DIRECT BURIED COPPER TUBING AND PLASTIC TUBING SERVICES IN 1" OR 1 ¼" CTS SIZES SHALL HAVE A PROTECTIVE SLEEVE INSTALLED. (SEE G-8100)
9. SEE G-8200 FOR MINIMUM SIZES OF NEW DIRECT BURIED PLASTIC, STEEL, AND COPPER SERVICES OF VARIOUS PRESSURES.

REFERENCE SPECS & DWGS:

GAS MAIN INSTALLATION	G-8005
GAS SERVICE INSTALLATION	G-8100
GAS SERVICE SIZING	G-8200
STEEL PROTECTION PLATES	EO-6799-C; G-8051; G-11863
PROPER CLEARANCES	CI-920-1; EO-5570-C
SHEETING	EO-16954-B; EO-16965-B
BACKFILLING	EO-1181; EO-8085

THIS DWG. SUPERSEDES _ _ _ _ EO-7922

TRENCH EXCAVATION FOR GAS MAINS & SERVICES UP TO 350 PSIG

CONSOLIDATED EDISON COMPANY OF N.Y., INC.
GAS OPERATIONS DEPT.

DATE 7/21/98
LAST REV. 04/29/13

DWG. NO. 309495 REV. 4

A3-231

End of Addendum No. 3

This addendum consists of forty-four (44) pages.

THE CITY OF NEW YORK
DEPARTMENT OF DESIGN AND CONSTRUCTION
INFRASTRUCTURE DIVISION
BUREAU OF DESIGN

PROJECT ID: HEDA001

ACCELERATED DISTRIBUTION WATER MAIN REPLACEMENT AND SEWER REHABILITATION

TOGETHER WITH ALL WORK INCIDENTAL THERETO
BOROUGH OF THE BRONX
CITY OF NEW YORK

ADDENDUM NO.4

DATED: January 7, 2015

THIS ADDENDUM IS HEREBY MADE A PART OF THE CONTRACT DOCUMENTS

1. The Contractor shall be responsible for compliance with all the provisions of the following Sections and Schedules, which are hereby made a part of the original contract documents:

   A. "SECTION U: Additional Contract Requirements Applying to Work Performed in the Presence of Privately Owned Utility Facilities" (Pages A4-3 through A4-13)

   B. Schedule U-1 (Page A4-14)

   C. Schedules U-2 (one for each Utility Company) (Pages A4-15 through A4-51)

   D. Section U-3 (Page A4-52) (as per the Private Utilities reference document for SECTION U called "CET SPECIFICATIONS AND SKETCHES", dated November 2010, in this Addendum); and,

   E. Utility drawings (1 Sheet), consisting of:
      * General Notes & Conditions (1 Sheet),(Con Edison)

2. Each facility operator shall provide inspectors at the work site to inspect methods of interference work, verify quantities and items of Utility Work, and coordinate all phases of the facility operator operations.

3. In addition, the following statements are made to provide clarification of various paragraphs under Section U:

   A. Section U, ¶4, requires the Contractor to immediately commence negotiations with each Company for an Interference Agreement under which the Company will compensate the Contractor for any Interference Work which the Company does not elect to perform with its own forces or by specialty contractors retained by the Company. Thus the Contractor is on notice that its work under the Contract may be affected by Interference Work performed by (a) the Contractor pursuant to a separate Interference Agreement with the Company, (b) the Company, or (c) partly by each.

   B. Section U, ¶2, informs the Contractor that the duration of the Contract as shown in Schedule A includes the time which

may be necessary for the Contractor to perform the necessary Interference Work.

C. The Contractor is hereby informed that the duration of the Contract as shown in Schedule A includes the time which may be necessary for the Company to perform whatever portion of the Interference Work which the Company elects to perform with its own forces or by specialty contractors retained by the Company.

D. Section U informs the Contractor that the City has entered into a Utility Agreement with the Companies regarding interferences to the City work in this Contract created by the facilities owned and/or operated by such Companies. Pursuant to this Addendum, a sample of the Utility Agreement letter as executed by the Companies is annexed on page A4-13, as an Exhibit to the Contract. Signed copies of those Utility Agreement letters are on file with NYCDDC.

E. The City has no contract with any of the Companies for work on or adjacent to the site of work under this Contract, and the Companies are not "Other Contractors" as defined for the purposes of this Contract. The Contractor is reminded, however, that pursuant to Section U, ¶4, the City will not compensate the Contractor for any direct and/or indirect costs related to Interference Work, regardless of whether such Interference Work is covered by an Interference Agreement between the Contractor and the Company or is performed by the Company using its own forces or by specialty contractors retained by the Company.

F. Section U, ¶14, provides that the provisions of Section U are material provisions of the Contract and that the Contractor's failure to comply with the procedures set forth in Section U are sufficient for the Commissioner to declare the Contractor in default pursuant to Article 48 of the Contract.
Pursuant to this Addendum, the Contractor is informed that the Performance Bond required of the Contractor pursuant to the Contract is not deemed to guarantee performance of any of the Interference Work.

Section U: Additional Contract Requirements Applicable to Work Performed in the Presence of Privately Owned Utility Facilities

The Contractor is hereby notified that pursuant to the law and franchise agreements issued by the City, certain private utility and public service companies named in Schedule U-1 ("the Companies") own and/or operate surface and/or subsurface facilities within the limits of this contract. The existence of these facilities impacts the productivity of the City work called for in the contract. In order to improve coordination of the City construction with the private utility facilities owned and/or operated by the Companies named in Schedule U-1, Article 1.06.30 of the Standard Highway Specifications of the New York City Department of Transportation, Dated November 1, 2010; and Articles 10.15 through 10.18 of the General Provisions of the Standard Sewer and Water Main Specifications of the New York City Department of Environmental Protection, dated July 1, 2014; as applicable, are amended and will be implemented as follows:

1. Pre-engineering:

The anticipated scopes of private utility facilities interferences and anticipated work items and specifications are included in this contract. The locations of these interferences are indicated on the plans and/or listed in the specifications for this contract, and a schedule of estimated quantities by type of interference expected to be encountered within the limits of this project area have been listed on Schedule U-2. In addition, in Section U-3 the Companies have provided standard details and methods for supporting, protecting, relocating, and/or working around their facilities when they are in interference with City contract work.

2. Means and methods for City work:

a) The Contractor is hereby notified that the utility interferences identified on the plans and/or listed in the Specifications to be known conditions which may impact the performance of, and/or interferes with, City work. The contractor will be required to perform such utility work as directed by the Resident Engineer in order to clear all utility interferences from the project site as required for satisfactory completion of City work within specified contract schedule.

b) In areas serviced by overhead electric system, the contractor understands and by bidding for this contract agrees that he/she has reviewed the section 'U' package and that he/she will be required to perform the public work in the presence of energized electrical overhead lines and appurtenances located in areas adjacent and/or within the

project area. As a consequence he/she will select means and method of construction appropriate to maintain the safety clearances required or as permitted by contract specifications (e.g. "CET 350 – Overhead Accommodation Protection of Overhead Facilities, Poles, and Appurtenances") in order to avoid damaging the insulation or shielding of these lines and also to prevent knocking them down. The duration of the contract as shown in Schedule A thus includes the time which may be necessary for the Contractor to remove, repair, protect, support, shift, relocate, temporarily remove and replace, work around and/or work in the presence of the Companies' facilities ("Interference Work") as described on the plans and/or specifications of the contract during the progress of the City work.

*3. **Field inspection prior to construction**:*

Prior to the start of any contract work in areas serviced by overhead electric lines, and after the award to the apparent low bidder for this contract, the contractor must request a field walk of the project area along with the operator of the overhead electrical facilities and the DDC Engineer-In-Charge. At that time the facility operator, pursuant to contract specification (e.g. "CET 350 – Overhead Accommodation Protection of Overhead Facilities, Poles, and Appurtenances") will confirm the type and condition of the overhead electrical lines and the sufficiency of their insulating properties with respect to the means and methods proposed by the contractor. The contractor must be prepared to describe in enough details his/her proposed means and methods of construction operations in order to anticipate the likelihood that electric lines insulation would be cut or otherwise compromised. Also such details will allow the facility operator to anticipate the need for added insulation and/or shielding of non-insulated lines.

*4. **Compensation for interference work:***

Compensation for Interference Work is a matter of adjustment between the Contractor and each private utility company located within the limits of the project area and whose utility facilities are affected by City contract work. In particular, the City will not compensate the Contractor for any direct and/or indirect costs related to Interference Work, including, but not limited to, lost profit, increased overhead, or any other impact costs. Upon receipt of a Notice of Award from the City, the Contractor shall immediately commence negotiations with each of the Companies concerning the manner in which and the price for which the Contractor, through its own forces or by others hired by it, will perform and be paid by the Company for all necessary Interference Work as defined above that the Company(ies) choose(s) not to

perform with its(their) own forces or by specialty Contractors hired by it (them) (as per "Interference Agreement"). (Specialty contractors' work is limited to (i) insulation installation and removal, {ii) live gas and steam work, (iii) cleanup and disposal of hazardous materials, (iv) splicing live electrical and telecommunications facilities, and (v) work not traditionally performed by general construction contractors.

5. Interference Agreement:

1. The Companies have provided estimate of the quantity of each of the types of interferences expected to be encountered in the contract in Schedule U-2. Although the parties may negotiate an Interference Agreement in any format or manner they deem fit, the Contractor is hereby advised that the Companies have indicated to the City that they will agree to compensate the Contractor on a unit price basis according to the Quantity and Types of Interferences expected to be encountered on this Contract as stated in Schedule U-2.
2. Furthermore, in Section U-3 standard unit work measurement and payment provisions are specified and shall apply only if the Contractor and affected Utility companies enters into a unit price based Interference Agreement, otherwise the unit of work measurement, and payment provisions set forth in Section U-3 shall not apply. The Contractor shall notify the City upon concluding an Interference Agreement with each of the Companies, which shall be binding and final once concluded.

6. City contract work to continue without Interference Agreement :

If, prior to the start of construction, as directed by the City's Order to work / Notice To Proceed (OTW/ NTP) date any of the Companies and the Contractor have not concluded an Interference Agreement as described above, then the City construction will proceed as ordered and the Contractor will be directed by the Resident Engineer to perform the City work on Time, Material and Equipment basis (T&M) as specified in standard City contract agreement Article 26.2. T&M records will include identification of types of utility facilities interfering with City work, utility facility owners, specifying the nature and quantity of any materials, plant and equipment furnished or used in connection with the performance of such work and crew size, such as: name and number of each worker employed on such work. T&M records will also indicate the hours of, active time, standby time and idle time. The Company (ies) and the Contractor will maintain separate records of the actual quantity and cost of labor, materials, and equipment expended, and will provide copies of this information to the other party on a daily basis for reconciliation. These T&M records along with cost evaluations will be

submitted daily to the Resident Engineer for review and approval. The total cost of City work will be based on quantity of work performed multiplied by unit price contract bid items. The total interference cost will be calculated as the difference between the total T&M cost and total cost for City work. The Resident Engineer will conduct a monthly reconciliation session of the daily T&M records with the affected Company (ies) and contractor. If the contractor and affected utility companies cannot reconcile their T&M records, by the last day of each month, then the Resident Engineer will submit the approved City's T&M records along with total cost evaluations to the DDC Director of Construction who will review theses records and recommend approval and validity certification by the DDC Deputy Commissioner.

1. Copies of the DDC approved and certified T&M records will then be transmitted by the DDC to the contractor and the utility companies. These certified records may be used by the contractor for compensation claims against the responsible private facility owners, or may be used by any party as supporting documentation in dispute regarding compensation for performing Interference Work as identified in Schedule U-2. The contractor will be required to perform City work while invoices are submitted by the contractor to the Utility companies for payment within 30 days, or while compensation disputes between contractor and affected company (ies) are submitted to Binding Arbitration process described in Paragraph 10.
2. All issues related to utility work and/ or delays due to compensation disputes or claims against utility companies are not allowable as justification for granting contract time extensions. The City may assess liquidated damages specified in the contract for net overall delays suffered by City contract work as a result of utility issues, disputes and claims.
3. The standard City contract dispute resolution process specified in Article 27 "Presentation of disputes to Commissioner", of the standard City contract agreement is not applicable to any disputes related to utility work and/ or compensation for such work or claim against utility companies. Utility work issues, disputes and claims may only be submitted to Binding Arbitration process described in Paragraph 10.
4. The contractor will notify the Resident Engineer when utility capital work not specified in Schedule U2 and/ or for utility work that require the intervention of company utility specialty crews causes excessive contractor's labor and equipment standby or idleness and, thereby jeopardizing the City project schedule. The Resident Engineer will submit the facts to the DDC Director of construction who will recommend to the Deputy

Commissioner regarding the issuance of a "48 hours notice" to the concerned utility company as authorized by the New York City administrative Code Section 19-143 and/ or Section 24-521 as applicable.

5. Utility delays caused by utility capital work not listed in Schedule U2 and/ or by unavailability of utility specialty crews cannot be discounted for earning any contractual bonus when such bonus clause is included in a contract. However, if such specified bonus is not earned or disallowed by the City or if the City assesses specified liquidated damages as a result of such excessive delays, the contractor may seek damages from the responsible utility company (ies).

7. Extra utility work with Utility Agreement:

If during construction the Contractor encounters utility facilities interferences or utility scope of work that it believes is not covered by the Interference Agreement as described above, then the Contractor shall immediately notify the Company in writing, with a copy to the City, describing the nature and location of the extra work in question. The Company then has five (5) business days to investigate the conditions and then:

1. Advise the Contractor and the City in writing that no interference with its facilities exists at the location in question, and hence that the Contractor may proceed with City work without providing for any impact from Company facilities;
2. Advise the Contractor and the City in writing that the Interference Agreement negotiated pursuant to Paragraph (6), above, provides for the scope of work encountered, specifying the exact unit items and/or terms of the agreement that cover the work;
3. Advise the Contractor and the City in writing that it intends to perform the necessary utility Work with company forces or with its own contractor including, but not limited to, relocating its facility out of the way of the proposed City work. In this case, the Company shall provide a written schedule for the performance of the utility work it proposes to perform, which shall be subject to approval by the City based on its impact to the Contractor's currently approved progress schedule. Upon approval of the Company's schedule by the City, the Contractor shall provide access to the worksite to the Company and/or any contractors hired by it to perform this utility work. If necessary, the City may grant a contract time extension for delays caused by the performance of such utility work by the company.

4. Reasonably specify in writing the scope of work to be performed by the Contractor on behalf of the Company that is not covered under the Interference Agreement negotiated pursuant to Paragraph (6), Including, but not limited to, relocating, supporting, and/or protecting the Company's facilities, and/or shifting the City facility if approved by the Resident Engineer, and/or otherwise changing its operations to work in the presence of the Company's facilities. Should the Company elect this option, it must adequately define and provide an initial price offer for the work required to be performed.

8. Means and Methods for utility work:

Upon receipt of the Company's determination pursuant to paragraphs 7.2, or 7.4, above, the Contractor shall determine reasonable means and methods of performing the work defined by the Company. These means and methods are subject to approval of the Company, which shall not be unreasonably withheld. If, however, the Company objects to the Contractor's proposed means and methods then it shall define an alternate method of construction. Upon receipt of the Company's approval or its proposed alternate method of construction, the Contractor shall commence performance of the work defined by the Company as soon as possible, and shall perform the work in a good, workmanlike, and efficient manner, using the means and methods approved by the Company, in order to permit the City work to proceed in the most expeditious manner possible, but without imposing unreasonable and/or unnecessary costs on the Company. It is expressly understood by all parties that the City's rights pursuant to Article 4 of the Contract apply to Utility Work performed pursuant to this section.

9. Disputed utility work covered by a utility agreement:

The City Work will continue as described in paragraph 6 above. In the event of any dispute between the Company (ies) and the Contractor regarding any issue related to the performance of, or payment for, utility work, including, but not limited to, any indirect or impact costs incurred by the Contractor due to the Utility Work and/or to the existence of facilities owned or operated by the Company (ies) on the line of the work. The Company (ies) and the Contractor hereby agree to submit to each other a "Final Offer," in writing, by certified mail. Each party shall then have three business days to consider each other's Final Offer. In the event that neither party accepts the other's Final Offer within those three days, the Company (ies) and the Contractor agree to immediately submit the dispute to binding arbitration as described in Paragraph 10. During the pendency of any arbitration, the Company (ies) and the Contractor shall maintain separate records of the actual quantity and cost of labor, materials, and equipment expended, and to provide copies of this information to the other party on a daily

basis for reconciliation. Any and all disagreement with the records maintained and provided by the other, must be documented in writing to all parties. However, these records are solely for the benefit of presentation to the arbitrator, whose decision may not necessarily be based on these records and in any event is final. Both parties should be aware that the City will not confirm or deny the accuracy of any records maintained by either party for Utility work performed pursuant to a Utility Agreement. While the arbitration is pending, the Company shall pay the Contractor on a monthly basis, based on the price offered by the Company to the Contractor for the performance of the work.

10. Arbitration of utility work:

The arbitration of the issues described above shall be conducted pursuant to the Construction Industry Arbitration Rules of the American Arbitration Association (hereinafter "the Rules" and "AAA") in effect on the date the arbitration is initiated except as set forth herein. The arbitration award shall be final and binding upon the parties to the arbitration and judgment upon the award may be entered in a court having jurisdiction.

(a) Once an arbitrator(s) has been appointed by the AAA, the arbitration shall be scheduled as promptly as possible given the arbitrator(s) and the parties' schedules.

(b) No later than seven days prior to the first arbitration hearing, Company and Contractor shall submit to the arbitrator(s), and to each other, a summary of each party's respective position and such other information as is deemed appropriate, along with a copy of each party's Final Offer as specified in paragraph 9.

(c) The arbitration shall be conducted and concluded in two days.

(d) On the morning of the first day of the arbitration, Contractor and/or representatives shall have 3 ½ hrs to make a presentation of its claim to the arbitrator. During its presentation, Contractor shall not be permitted to produce any documents or cost records which have not already been provided to the Company. Contractor shall be permitted to produce any analysis or description of its claim which has been prepared for the purpose of its presentation.

(e) After lunch, Company and/or its representatives shall have two hours to ask Contractor questions about its claim and its presentation. Thereafter the arbitrator(s) shall have two hours to ask Contractor questions about its claim and its presentation.

(f) On the morning of the second day of the arbitration, Company and/or its representatives shall have 3 ½ hours to make a presentation of its claim to the arbitrator. During its presentation, the Company shall not be permitted to produce any documents or cost

records which have not already been provided to the Contractor. The Company shall be permitted to produce any analysis or description of its claim which has been prepared for the purpose of its presentation.

(g) After lunch, Contractor and/or its representatives shall have two hours to ask Company questions about its claim and its presentation. Thereafter the arbitrator(s) shall have two hours to ask Company questions about its claim and its presentation.

(h) Subject to the above time limitations, the arbitrator(s) may conduct the arbitration in such manner as the arbitrator(s) deems reasonable.

(i) The arbitrator(s) shall then have one week to select in writing, as the arbitrator ('s) award, that party's Final Offer which appears to be more reasonable, based on the presentations at the arbitration hearings.

(j) The arbitrator shall have no discretion to grant an award other than one of the two Final Offers submitted by the parties.

(k) Any award for work that has already been performed shall be paid on the 7th day after receipt of the arbitrator's decision, or on the 30th day after completion of the work, whichever is later. Payment for work not yet completed at the time of the arbitrator's decision shall be paid within 30 days of completion of work. Interest shall accrue from the date payment is due at the rate of 9% per annum. Either party may cause judgment to be entered in accordance with the arbitrator(s) decision in a court in the State of New York, County of New York.

(l) The arbitrator's fees and any other costs of the arbitration shall be initially shared equally by Company and Contractor. The non-prevailing party shall then pay all arbitrator's fees and costs of the arbitration and shall reimburse the prevailing party for its share of such fees and costs theretofore paid.

(m) The parties may, at any time, settle any matter submitted to arbitration.

11. Order-out waiver:

The Contractor and all subcontractors hired by it, if an Interference Agreement is executed as specified between the concerned parties, agree to waive any rights they may have, if any, under law, contract or otherwise to compel the City to assert any right the City may have, including the issuance of any directives required under the New York City Administrative Code, Section 19-143 and Section 24-521, to require any or all of the Companies to maintain, repair, replace, protect, support, shift, alter, relocate, and/or remove utility facilities in connection with the work to be performed under this contract. However, nothing in this section shall preclude the City from exercising its rights under the Law to issue such a directive to the Company.

12. Cost of insurance:

Each of the named Companies, at their option and if an Interference Agreement is executed as specified between the concerned parties, may be named as an additional insured on all insurance policies required to be maintained under this contract. In the event that a Company opts to be so named as an additional insured, the actual incremental cost, if any, to the Contractor of providing such insurance coverage shall be borne by that Company. The Contractor shall provide a written statement from its insurance provider documenting the actual cost of this added coverage to the Company. Under no circumstances shall the cost of insurance coverage on behalf of any Company be borne by the City. Nothing in this paragraph shall be interpreted to imply the City's acceptance of any additional responsibility or liability for any matter related to the performance of Utility Work. In particular, the Company and the Contractor bear joint and full responsibility to ensure that any Utility Work performed by the Contractor is in compliance with all applicable government and Company regulations.

13. Cost of utility interference work:

The Companies, by virtue of a prior agreement with the City, have agreed to perform their obligations described in this section. It is expressly understood that the cost of Utility Work shall not be a charge against the City, but shall be a matter for adjustment between the Contractor and the Company or Companies concerned. The City and the Contractor agree that the Companies are third party beneficiaries of this section of the contract, if a Utility Agreement is executed between the contractor and utility company (ies). The provisions of this section shall govern in all cases where Company property interferes with or is about to be disturbed by the City work, notwithstanding any other provision of the Contract, except for Natural Gas transmission/distribution facilities covered subject to the Gas Facility Cost Allocation Act (GFCAA) and covered separately in this contract.

14. Default declaration:

The Contractor agrees that the provisions of this section are material provisions of the contract, and that the Contractor's failure to comply with the procedures set forth above are sufficient for the Commissioner to declare the Contractor in default pursuant to Article 48 of the Contract.

15. NYS Labor Law:

The Contractor is hereby advised that New York State Labor Law applies to public work. The work described in this Section U of the contract performed by utility company (ies) with their own forces or vendors hired by such company (ies) is not public work.

16. Facility operators:

The insurance requirements in Paragraph 12 of this Section U apply to: (i) additional Companies, if any, who were not named in Schedule "A" but which have executed a Utility Agreement with the contractor for utility work; and (ii) additional coverage, if any, paid for by Utility Companies whose utility facilities are located within the project limits, that they may require for the utility work pursuant to an utility agreement between the contractor and such utility companies.

[End]

"STANDARD UTILITY LETTER OF AGREEMENT"

(Name)
Deputy Commissioner, Infrastructure Division
Department of Design and Construction
30-30 Thomson Avenue
Long Island City, NY 11101

RE: City Work Performed in the Presence of Private Utility Facilities
Project No: _____

Dear (Name):

This letter is to certify that _____, has requested the inclusion of the attached "Section U: Additional contract requirements applying to work performed in the presence of privately owned utility." The company agrees to abide by the terms of this Section U and to submit a schedule listing the scope of work, including the items and estimated quantities, and types of utility facilities to be supported and protected at the company's own expenses due to interferences with the Public work.

Sincerely,

_____
By: Authorized Company Representative

_____
Title

NOTARY PUBLIC

CERTIFIED AS TO FORM
AND LEGAL AUTHORITY:

By:_____

SCHEDULE U-1

HEDA-001

ACCELERATED DISTRIBUTION WATER MAIN REPLACEMENT AND SEWER REHABILITATION

COMPANY NAME	CONTACT NAME	CONTACT TELEPHONE
CON EDISON	THERESA KONG	212-460-4834
ECS	AUBREY MAKHANLALL	718-977-8165
CABLE VISION	SCOTT TALBOT	718-861-6890

SCHEDULE U-2

FOR INFORMATION ONLY

ENGINEER'S ESTIMATE OF QUANTITY AND TYPES OF INTERFERENCE

FOR CONSOLIDATED EDISON

HEDA-001

ACCELERATED DISTRIBUTION WATER MAIN REPLACEMENT AND SEWER REHABILITATION

CET ITEM	DESCRIPTION	UNITS	ESTIMATED QUANTITY
CET 100.1	UTILITIES CROSSING TRENCH FOR CATCH BASIN CHUTE CONNECT. AND/OR TESTPIT (TYPE .1)	EA	7
CET 100.2	UTILITIES CROSSING TRENCH FOR CATCH BASIN CHUTE CONNECT. AND/OR TESTPIT (TYPE .2)	EA	7
CET 100.3	UTILITIES CROSSING TRENCH FOR CATCH BASIN CHUTE CONNECT. AND/OR TESTPIT (TYPE .3)	EA	7
CET 101.1	UTILITIES CROSSING TRENCH FOR SEWERS UP TO AND INCL. 24" DIAMETER (TYPE .1)	EA	15
CET 101.2	UTILITIES CROSSING TRENCH FOR SEWERS UP TO AND INCL. 24" DIAMETER (TYPE .2)	EA	15
CET 101.3	UTILITIES CROSSING TRENCH FOR SEWERS UP TO AND INCL. 24" DIAMETER (TYPE .3)	EA	7
CET 102.1	UTILITIES CROSSING TRENCH FOR SEWERS OVER 24" TO 36" DIAMETER (TYPE .1)	EA	10
CET 102.2	UTILITIES CROSSING TRENCH FOR SEWERS OVER 24" TO 36" DIAMETER (TYPE .2)	EA	10
CET 102.3	UTILITIES CROSSING TRENCH FOR SEWERS OVER 24" TO 36" DIAMETER (TYPE .3)	EA	10
CET 103.1	UTILITIES CROSSING TRENCH FOR SEWERS OVER 36" TO 48" DIAMETER (TYPE .1)	EA	10
CET 103.2	UTILITIES CROSSING TRENCH FOR SEWERS OVER 36" TO 48" DIAMETER (TYPE .2)	EA	10
CET 103.3	UTILITIES CROSSING TRENCH FOR SEWERS OVER 36" TO 48" DIAMETER (TYPE .3)	EA	10
CET 104.1	UTILITIES CROSSING TRENCH FOR SEWERS OVER 48" TO 54" DIAMETER (TYPE .1)	EA	10
CET 104.2	UTILITIES CROSSING TRENCH FOR SEWERS OVER 48" TO 54" DIAMETER (TYPE .2)	EA	10
CET 104.3	UTILITIES CROSSING TRENCH FOR SEWERS OVER 48" TO 54" DIAMETER (TYPE .3)	EA	10
CET 108.1	UTILITIES CROSSING TRENCH FOR WATERMAIN UP TO AND INCL. 12" DIAMETER (TYPE .1)	EA	35
CET 108.2	UTILITIES CROSSING TRENCH FOR WATERMAIN UP TO AND INCL. 12" DIAMETER (TYPE .2)	EA	30

November 16, 2014

SCHEDULE U-2

FOR INFORMATION ONLY

ENGINEER'S ESTIMATE OF QUANTITY AND TYPES OF INTERFERENCE

FOR CONSOLIDATED EDISON

HEDA-001

ACCELERATED DISTRIBUTION WATER MAIN REPLACEMENT AND SEWER REHABILITATION

CET ITEM	DESCRIPTION	UNITS	ESTIMATED QUANTITY
CET 108.3	UTILITIES CROSSING TRENCH FOR WATERMAIN UP TO AND INCL. 12". DIAMETER (TYPE .3)	EA	10
CET 109.1	UTILITIES CROSSING TRENCH FOR WATERMAIN OVER 12" AND UP TO 24" (TYPE .1)	EA	14
CET 109.2	UTILITIES CROSSING TRENCH FOR WATERMAIN OVER 12" AND UP TO 24" (TYPE .2)	EA	10
CET 109.3	UTILITIES CROSSING TRENCH FOR WATERMAIN OVER 12" AND UP TO 24" (TYPE .3)	EA	10
CET 200.1	EXTRA DEPTH EXCAVATION OF CATCH BASIN CHUTE CONNECTIONS (INVERT DEPTH 4'-6" TO 5' FOR TYPE 2 OR UP TO 5'-6 FOR TYPE 3)	LF	100
CET 200.2	EXTRA DEPTH EXCAVATION OF CATCH BASIN CHUTE CONNECTIONS (INVERT DEPTH 5' TO 6' FOR TYPE 2 OR > 5'-6" TO 6'-6" FOR TYPE 3)	LF	100
CET 225.1A	INSTALLATION AND REMOVAL OF CATCH BASINS WITH UTILITY INTERFERENCES	EA	13
CET 225.1B	INSTALLATION OF CATCH BASINS WITH UTILITY INTERFERENCES	EA	10
CET 225.1C	REMOVAL OF CATCH BASINS WITH UTILITY INTERFERENCES	EA	10
CET 225.2A	INSTALLATION AND REMOVAL OF CATCH BASINS WITH UTILITY INTERFERENCES AT AN ADDITIONAL DEPTH OF UP TO 3'	EA	4
CET 225.2B	INSTALLATION OF CATCH BASINS WITH UTILITY INTERFERENCES AT AN ADDITIONAL DEPTH OF UP TO 3'	EA	4
CET 300	SPECIAL CARE EXCAVATION AND BACKFILING	CY	52
CET 301	SPECIAL CARE HAND EXCAVATION OIL-O-STATIC ENCROACHMENT	CY	16
CET 302	FIELD COATING OF OIL-O-STATIC FEEDER PIPES	LF	100
CET 303	FURNISH, DELIVER AND INSTALL 3/8" CLEAN SAND BACKFILL	CY	44
CET 304 A	FURNISH, DELIVER AND INSTALL CONCRETE ROAD BASE	CY	56
CET 304 B	FURNISH, DELIVER AND INSTALL CONCRETE SIDEWALK	CY	50

November 16, 2014

SCHEDULE U-2

FOR INFORMATION ONLY

ENGINEER'S ESTIMATE OF QUANTITY AND TYPES OF INTERFERENCE

FOR CONSOLIDATED EDISON

HEDA-001

ACCELERATED DISTRIBUTION WATER MAIN REPLACEMENT AND SEWER REHABILITATION

CET ITEM	DESCRIPTION	UNITS	ESTIMATED QUANTITY
CET 304 C	BREAK, REMOVE, AND DISPOSE CONCRETE SIDEWALK	CY	50
CET 305	FURNISH AND INSTALL ASPHALT PAVING MIXTURE	TONS	19
CET 330E-A.1	SUPPORT & PROTECT ELEC, GAS & STEAM FAC. DURING EXCAVATION OF CITY TRENCH WHEN FAC. LIE W/IN TRENCH LIMITS W/O SHEETING (TYPE .1)	LF	300
CET 330E-A.2	SUPPORT & PROTECT ELEC, GAS & STEAM FAC. DURING EXCAVATION OF CITY TRENCH WHEN FAC. LIE W/IN TRENCH LIMITS W/O SHEETING(TYPE .2)	LF	300
CET 330E-A.3	SUPPORT & PROTECT ELEC, GAS & STEAM FAC. DURING EXCAVATION OF CITY TRENCH WHEN FAC. LIE W/IN TRENCH LIMITS W/O SHEETING (TYPE .3)	LF	150
CET 330E-B.1	SUPPORT & PROTECT ELEC, GAS & STEAM FAC. DURING EXCAVATION OF CITY TRENCH WHEN FAC. LIE W/IN TRENCH LIMITS W/ SHEETING (TYPE .1)	LF	300
CET 330E-B.2	SUPPORT & PROTECT ELEC, GAS & STEAM FAC. DURING EXCAVATION OF CITY TRENCH WHEN FAC. LIE W/IN TRENCH LIMITS W/ SHEETING (TYPE .2)	LF	300
CET 330E-B.3	SUPPORT & PROTECT ELEC, GAS & STEAM FAC. DURING EXCAVATION OF CITY TRENCH WHEN FAC. LIE W/IN TRENCH LIMITS W/ SHEETING (TYPE .3)	LF	150
CET 331E	TRENCH EXCAVATION FOR WIDENING CITY TRENCHES	CY	44
CET 350	OVERHEAD ACCOMMODATION, PROTECTION OF OVERHEAD FACILITIES AND APPURTENANCES	LS	1
CET 351	INSTALL AND REMOVE "A" FRAME ON UTILITY POLES	EA	18
CET 352E	SPECIAL CARE OPERATION - TREE REMOVAL	EA	6
CET 353E	SPECIAL CARE OPERATION - TREE PRUNING	EA	6
CET 400	TEST PITS FOR UTILITY FACILITIES	CY	175
CET 401	TRENCH EXCAVATION FOR ADJUSTMENT OF UTILITIES	CY	267
CET 402.1	EXISTING OCCUPIED CONCRETE ENCASED CONDUITS PLACED IN FINAL POSITION W/O CONCRETE ENCASEMENT	LF	140
CET 402.1A	EXISTING OCCUPIED CONCRETE ENCASED CONDUITS PLACED IN FINAL POSITION WITH CONCRETE ENCASEMENT	LF	100

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SCHEDULE U-2

FOR INFORMATION ONLY

ENGINEER'S ESTIMATE OF QUANTITY AND TYPES OF INTERFERENCE

FOR CONSOLIDATED EDISON

HEDA-001

ACCELERATED DISTRIBUTION WATER MAIN REPLACEMENT AND SEWER REHABILITATION

CET ITEM	DESCRIPTION	UNITS	ESTIMATED QUANTITY
CET 402.2	EXISTING OCCUPIED NON-CONCRETE ENCASED CONDUITS PLACED IN FINAL POSITION W/O CONCRETE ENCASEMENT	LF	140
CET 402.2A	EXISTING OCCUPIED NON-CONCRETE ENCASED CONDUITS PLACED IN FINAL POSITION WITH CONCRETE ENCASEMENT	LF	100
CET 402.V1	EXISTING VACANT CONCRETE ENCASED CONDUITS PLACED IN FINAL POSITION W/O CONCRETE ENCASEMENT	LF	140
CET 402.V1A	EXISTING VACANT CONCRETE ENCASED CONDUITS PLACED IN FINAL POSITION WITH CONCRETE ENCASEMENT	LF	100
CET 402.V2	EXISTING VACANT NON-CONCRETE ENCASED CONDUITS PLACED IN FINAL POSITION W/O CONCRETE ENCASEMENT	LF	140
CET 402.V2A	EXISTING VACANT NON-CONCRETE ENCASED CONDUITS PLACED IN FINAL POSITION WITH CONCRETE ENCASEMENT	LF	100
CET 403	PLACING STEEL PROTECTION PLATES FOR UTILITY FACILITIES	SF	200
CET 404	PIER AND PLATE METHOD OF PROTECTION FOR DUCTILE IRON WATERMAIN AND OTHER SHALLOW FACILTIES	SF	100
CET 450.2	CONSTRUCTION FIELD SUPPORT REQUIRING AVERAGE SMALL SIZE CREW CAPABLE OF PERFORMING VARIOUS TASKS (TYPE .2)	CRHRS	40
CET 450.3	CONSTRUCTION FIELD SUPPORT REQUIRING AVERAGE MEDIUM SIZE CREW CAPABLE OF PERFORMING VARIOUS TASKS (TYPE .3)	CRHRS	40
CET 500	REMOVAL OF ABANDONED UTILITY CONDUITS (NON-CONCRETE ENCASED)	LF	70
CET 501	REMOVAL OF ABANDONED MASONRY FOR ELEC. AND TEL. FACILITIES	CY	15
CET 600.1	INSTALL CONDUIT IN UNPAVED AREA (1 EA. 2", 4" OR 5" CONDUIT - ALL TYPES)	LF	200
CET 600.2	INSTALL CONDUIT IN UNPAVED AREA (2 EA. 4" OR 5" CONDUIT - ALL TYPES)	LF	200
CET 601.1	INSTALL CONDUIT IN PAVED AREA (1 EA. 2", 4" OR 5" CONDUIT - ALL TYPES)	LF	200
CET 601.2	INSTALL CONDUIT IN PAVED AREA (2 EA. 4" OR 5" CONDUIT - ALL TYPES)	LF	200
CET 636 ED RD	ADJUSTMENT OF UTILITY HARDWARE IN ROADWAY (30" TO UNDER 34" WIDTH)	EA	10

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SCHEDULE U-2

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FOR CONSOLIDATED EDISON

HEDA-001

ACCELERATED DISTRIBUTION WATER MAIN REPLACEMENT AND SEWER REHABILITATION

CET ITEM	DESCRIPTION	UNITS	ESTIMATED QUANTITY
CET 636 ED SW	ADJUSTMENT OF UTILITY HARDWARE IN SIDEWALK (30" TO UNDER 34" WIDTH)	EA	2
CET 636 EE RD	ADJUSTMENT OF UTILITY HARDWARE IN ROADWAY (34" TO UNDER 41" WIDTH)	EA	10
CET 636 EE SW	ADJUSTMENT OF UTILITY HARDWARE IN SIDEWALK (34" TO UNDER 41" WIDTH)	EA	2
CET 636 EG RD	ADJUSTMENT OF UTILITY HARDWARE IN ROADWAY (41" TO UNDER 75" WIDTH)	EA	10
CET 636 EG SW	ADJUSTMENT OF UTILITY HARDWARE IN SIDEWALK (41" TO UNDER 75" WIDTH)	EA	2
CET 636 RM	REBUILDING & MODIFICATIONS OF UTILITY STRUCTURE	CY	9
CET 710.1	REMOVAL OF ABANDONED UTILITY STEEL/CAST IRON/PLASTIC, UP TO AND INCL. 12" DIAMETER PIPES	LF	300
CET 711	USE SHEETING LINE AS FORM	LF	70
CET 802A	SPECIAL MODIFICATION OF WORK FOR INSTALLATION OF NEW SIDEWALKS	SF	300
CET 802B	SPECIAL MODIFICATION OF WORK FOR INSTALLATION OF NEW CURBS	LF	150
CET 803.2	LINE CUT BY PNEUMATIC TOOLS IN LIEU OF SAW CUT ASSOCIATED W/ ROADWAY REMOVAL (ASPHALT & CONCRETE)	LF	120
CET 1006V	6" VERTICAL OR ROLLED WATER MAIN OFFSET	EA	10
CET 1008V	8" VERTICAL OR ROLLED WATER MAIN OFFSET	EA	10
CET 1012V	12" VERTICAL OR ROLLED WATER MAIN OFFSET	EA	6
CET 1020V	20" VERTICAL OR ROLLED WATER MAIN OFFSET	EA	2

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CET 100.1	UTILITIES CROSSING TRENCH FOR CATCH BASIN CHUTE CONNECT. AND/OR TESTPIT (TYPE .1)	EA

At the following locations:

Various Mid-block Locations
Various Intersections

AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE

Total Quantity for CET 100.1 = 7

CET 100.2	UTILITIES CROSSING TRENCH FOR CATCH BASIN CHUTE CONNECT. AND/OR TESTPIT (TYPE .2)	EA

At the following locations:

Various Mid-block Locations
Various Intersections

AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE

Total Quantity for CET 100.2 = 7

CET 100.3	UTILITIES CROSSING TRENCH FOR CATCH BASIN CHUTE CONNECT. AND/OR TESTPIT (TYPE .3)	EA

At the following locations:

Various Mid-block Locations
Various Intersections

AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE

Total Quantity for CET 100.3 = 7

CET 101.1	UTILITIES CROSSING TRENCH FOR SEWERS UP TO AND INCL. 24" DIAMETER (TYPE .1)	EA

At the following locations:

Various Mid-block Locations
Various Intersections

AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE

Total Quantity for CET 101.1 = 15

CET 101.2	UTILITIES CROSSING TRENCH FOR SEWERS UP TO AND INCL. 24" DIAMETER (TYPE .2)	EA

At the following locations:

Various Mid-block Locations
Various Intersections

AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE

Total Quantity for CET 101.2 = 15

CET 101.3	UTILITIES CROSSING TRENCH FOR SEWERS UP TO AND INCL. 24" DIAMETER (TYPE .3)	EA

At the following locations:

Various Mid-block Locations
Various Intersections
AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE

Total Quantity for CET 101.3 = 7

CET 102.1	UTILITIES CROSSING TRENCH FOR SEWERS OVER 24" TO 36" DIAMETER (TYPE .1)	EA

At the following locations:

Various Mid-block Locations
Various Intersections
AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE

Total Quantity for CET 102.1 = 10

CET 102.2	UTILITIES CROSSING TRENCH FOR SEWERS OVER 24" TO 36" DIAMETER (TYPE .2)	EA

At the following locations:

Various Mid-block Locations
Various Intersections
AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE

Total Quantity for CET 102.2 = 10

CET 102.3	UTILITIES CROSSING TRENCH FOR SEWERS OVER 24" TO 36" DIAMETER (TYPE .3)	EA

At the following locations:

Various Mid-block Locations
Various Mid-block Locations
AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE

Total Quantity for CET 102.3 = 10

CET 103.1	UTILITIES CROSSING TRENCH FOR SEWERS OVER 36" TO 48" DIAMETER (TYPE .1)	EA

At the following locations:

Various Mid-block Locations
Various Intersections
AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE

Total Quantity for CET 103.1 = 10

CET 103.2	UTILITIES CROSSING TRENCH FOR SEWERS OVER 36" TO 48" DIAMETER (TYPE .2)	EA

At the following locations:

Various Mid-block Locations
Various Intersections
AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE

Total Quantity for CET 103.2 = 10

CET 103.3	UTILITIES CROSSING TRENCH FOR SEWERS OVER 36" TO 48" DIAMETER (TYPE .3)	EA

At the following locations:

Various Mid-block Locations
Various Intersections
AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE

Total Quantity for CET 103.3 = 10

CET 104.1	UTILITIES CROSSING TRENCH FOR SEWERS OVER 48" TO 54" DIAMETER (TYPE .1)	EA

At the following locations:

Various Mid-block Locations
Various Intersections
AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE

Total Quantity for CET 104.1 = 10

CET 104.2	UTILITIES CROSSING TRENCH FOR SEWERS OVER 48" TO 54" DIAMETER (TYPE .2)	EA

At the following locations:

Various Mid-block Locations
Various Intersections
AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE

Total Quantity for CET 104.2 = 10

CET 104.3	UTILITIES CROSSING TRENCH FOR SEWERS OVER 48" TO 54" DIAMETER (TYPE .3)	EA

At the following locations:

Various Mid-block Locations
Various Intersections
AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE

Total Quantity for CET 104.3 = 10

CET 108.1	UTILITIES CROSSING TRENCH FOR WATERMAIN UP TO AND INCL. 12" DIAMETER (TYPE .1) *At the following locations:* Various Mid-block Locations Various Intersections AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE **Total Quantity for CET 108.1 = 35**	EA
CET 108.2	UTILITIES CROSSING TRENCH FOR WATERMAIN UP TO AND INCL. 12" DIAMETER (TYPE .2) *At the following locations:* Various Mid-block Locations Various Intersections AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE **Total Quantity for CET 108.2 = 30**	EA
CET 108.3	UTILITIES CROSSING TRENCH FOR WATERMAIN UP TO AND INCL. 12" DIAMETER (TYPE .3) *At the following locations:* Various Mid-block Locations Various Intersections AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE **Total Quantity for CET 108.3 = 10**	EA
CET 109.1	UTILITIES CROSSING TRENCH FOR WATERMAIN OVER 12" AND UP TO 24" (TYPE .1) *At the following locations:* Various Mid-block Locations Various Intersections AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE **Total Quantity for CET 109.1 = 14**	EA
CET 109.2	UTILITIES CROSSING TRENCH FOR WATERMAIN OVER 12" AND UP TO 24" (TYPE .2) *At the following locations:* Various Mid-block Locations Various Intersections AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE **Total Quantity for CET 109.2 = 10**	EA

CET 109.3	UTILITIES CROSSING TRENCH FOR WATERMAIN OVER 12" AND UP TO 24" (TYPE .3)	EA

At the following locations:

Various Mid-block Locations
Various Intersections
AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE

Total Quantity for CET 109.3 = 10

CET 200.1	EXTRA DEPTH EXCAVATION OF CATCH BASIN CHUTE CONNECTIONS (INVERT DEPTH 4'-6" TO 5' FOR TYPE 2 OR UP TO 5'-6 FOR TYPE 3)	LF

At the following locations:

Various Mid-block Locations
Various Intersections
AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE

Total Quantity for CET 200.1 = 100

CET 200.2	EXTRA DEPTH EXCAVATION OF CATCH BASIN CHUTE CONNECTIONS (INVERT DEPTH 5' TO 6' FOR TYPE 2 OR > 5'-6" TO 6'-6" FOR TYPE 3)	LF

At the following locations:

Various Mid-block Locations
Various Intersections
AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE

Total Quantity for CET 200.2 = 100

CET 225.1A	INSTALLATION AND REMOVAL OF CATCH BASINS WITH UTILITY INTERFERENCES	EA

At the following locations:

Various Mid-block Locations
Various Intersections
AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE

Total Quantity for CET 225.1A = 13

CET 225.1B	INSTALLATION OF CATCH BASINS WITH UTILITY INTERFERENCES	EA

At the following locations:

Various Mid-block Locations
Various Intersections
AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE

Total Quantity for CET 225.1B = 10

CET 225.1C	**REMOVAL OF CATCH BASINS WITH UTILITY INTERFERENCES**	**EA**

At the following locations:

Various Mid-block Locations
Various Intersections
AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE

Total Quantity for CET 225.1C = 10

CET 225.2A	**INSTALLATION AND REMOVAL OF CATCH BASINS WITH UTILITY INTERFERENCES AT AN ADDITIONAL DEPTH OF UP TO 3'**	**EA**

At the following locations:

Various Mid-block Locations
Various Intersections
AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE

Total Quantity for CET 225.2A = 4

CET 225.2B	**INSTALLATION OF CATCH BASINS WITH UTILITY INTERFERENCES AT AN ADDITIONAL DEPTH OF UP TO 3'**	**EA**

At the following locations:

Various Mid-block Locations
Various Intersections
AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE

Total Quantity for CET 225.2B = 4

CET 300	**SPECIAL CARE EXCAVATION AND BACKFILING**	**CY**

At the following locations:

Various Mid-block Locations
Various Intersections
AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE

Total Quantity for CET 300 = 52

CET 301	**SPECIAL CARE HAND EXCAVATION OIL-O-STATIC ENCROACHMENT**	**CY**

At the following locations:

Various Mid-block Locations
Various Intersections
AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE

Total Quantity for CET 301 = 16

CET 302	**FIELD COATING OF OIL-O-STATIC FEEDER PIPES**	**LF**
	At the following locations:	
	Various Mid-block Locations	
	Various Intersections	
	AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE	
	Total Quantity for CET 302 = 100	
CET 303	**FURNISH, DELIVER AND INSTALL 3/8" CLEAN SAND BACKFILL**	**CY**
	At the following locations:	
	Various Mid-block Locations	
	Various Intersections	
	AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE	
	Total Quantity for CET 303 = 44	
CET 304 A	**FURNISH, DELIVER AND INSTALL CONCRETE ROAD BASE**	**CY**
	At the following locations:	
	Various Mid-block Locations	
	Various Intersections	
	AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE	
	Total Quantity for CET 304 A = 56	
CET 304 B	**FURNISH, DELIVER AND INSTALL CONCRETE SIDEWALK**	**CY**
	At the following locations:	
	Various Mid-block Locations	
	Various Intersections	
	AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE	
	Total Quantity for CET 304 B = 50	
CET 304 C	**BREAK, REMOVE, AND DISPOSE CONCRETE SIDEWALK**	**CY**
	At the following locations:	
	Various Mid-block Locations	
	Various Intersections	
	AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE	
	Total Quantity for CET 304 C = 50	

CET 305	FURNISH AND INSTALL ASPHALT PAVING MIXTURE	TONS

At the following locations:

Various Mid-block Locations
Various Intersections
AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE

Total Quantity for CET 305 = 19

CET 330E-A.1	SUPPORT & PROTECT ELEC, GAS & STEAM FAC. DURING EXCAVATION OF CITY TRENCH WHEN FAC. LIE W/IN TRENCH LIMITS W/O SHEETING (TYPE .1)	LF

At the following locations:

Various Mid-block Locations
Various Intersections
AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE

Total Quantity for CET 330E-A.1 = 300

CET 330E-A.2	SUPPORT & PROTECT ELEC, GAS & STEAM FAC. DURING EXCAVATION OF CITY TRENCH WHEN FAC. LIE W/IN TRENCH LIMITS W/O SHEETING(TYPE .2)	LF

At the following locations:

Various Mid-block Locations
Various Intersections
AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE

Total Quantity for CET 330E-A.2 = 300

CET 330E-A.3	SUPPORT & PROTECT ELEC, GAS & STEAM FAC. DURING EXCAVATION OF CITY TRENCH WHEN FAC. LIE W/IN TRENCH LIMITS W/O SHEETING (TYPE .3)	LF

At the following locations:

Various Mid-block Locations
Various Intersections
AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE

Total Quantity for CET 330E-A.3 = 150

CET 330E-B.1	SUPPORT & PROTECT ELEC, GAS & STEAM FAC. DURING EXCAVATION OF CITY TRENCH WHEN FAC. LIE W/IN TRENCH LIMITS W/ SHEETING (TYPE .1)	LF

At the following locations:

Various Mid-block Locations
Various Intersections
AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE

Total Quantity for CET 330E-B.1 = 300

CET 330E-B.2	SUPPORT & PROTECT ELEC, GAS & STEAM FAC. DURING EXCAVATION OF CITY TRENCH WHEN FAC. LIE W/IN TRENCH LIMITS W/ SHEETING (TYPE .2)	LF

At the following locations:

Various Mid-block Locations
Various Intersections
AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE

Total Quantity for CET 330E-B.2 = 300

CET 330E-B.3	SUPPORT & PROTECT ELEC, GAS & STEAM FAC. DURING EXCAVATION OF CITY TRENCH WHEN FAC. LIE W/IN TRENCH LIMITS W/ SHEETING (TYPE .3)	LF

At the following locations:

Various Mid-block Locations
Various Intersections
AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE

Total Quantity for CET 330E-B.3 = 150

CET 331E	TRENCH EXCAVATION FOR WIDENING CITY TRENCHES	CY

At the following locations:

Various Mid-block Locations
Various Intersections
AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE

Total Quantity for CET 331E = 44

CET 350	OVERHEAD ACCOMMODATION, PROTECTION OF OVERHEAD FACILITIES AND APPURTENANCES	LS

At the following locations:

Various Locations
AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE

Total Quantity for CET 350 = 1

CET 351	INSTALL AND REMOVE "A" FRAME ON UTILITY POLES	EA

At the following locations:

Various Locations
Various Intersections
AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE

Total Quantity for CET 351 = 18

CET 352E	**SPECIAL CARE OPERATION - TREE REMOVAL**	**EA**

At the following locations:

Various Locations
Various Intersections

AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE

Total Quantity for CET 352E = 6

CET 353E	**SPECIAL CARE OPERATION - TREE PRUNING**	**EA**

At the following locations:

Various Locations
Various Intersections

AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE

Total Quantity for CET 353E = 6

CET 400	**TEST PITS FOR UTILITY FACILITIES**	**CY**

At the following locations:

Various Mid-block Locations
Various Intersections

AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE

Total Quantity for CET 400 = 175

CET 401	**TRENCH EXCAVATION FOR ADJUSTMENT OF UTILITIES**	**CY**

At the following locations:

Various Mid-block Locations
Various Intersections

AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE

Total Quantity for CET 401 = 267

CET 402.1	**EXISTING OCCUPIED CONCRETE ENCASED CONDUITS PLACED IN FINAL POSITION W/O CONCRETE ENCASEMENT**	**LF**

At the following locations:

Various Mid-block Locations
Various Intersections

AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE

Total Quantity for CET 402.1 = 140

CET 402.1A	EXISTING OCCUPIED CONCRETE ENCASED CONDUITS PLACED IN FINAL POSITION WITH CONCRETE ENCASEMENT *At the following locations:* Various Mid-block Locations Various Intersections AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE **Total Quantity for CET 402.1A = 100**	LF
CET 402.2	EXISTING OCCUPIED NON-CONCRETE ENCASED CONDUITS PLACED IN FINAL POSITION W/O CONCRETE ENCASEMENT *At the following locations:* Various Mid-block Locations Various Intersections AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE **Total Quantity for CET 402.2 = 140**	LF
CET 402.2A	EXISTING OCCUPIED NON-CONCRETE ENCASED CONDUITS PLACED IN FINAL POSITION WITH CONCRETE ENCASEMENT *At the following locations:* Various Mid-block Locations Various Intersections AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE **Total Quantity for CET 402.2A = 100**	LF
CET 402.V1	EXISTING VACANT CONCRETE ENCASED CONDUITS PLACED IN FINAL POSITION W/O CONCRETE ENCASEMENT *At the following locations:* Various Mid-block Locations Various Intersections AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE **Total Quantity for CET 402.V1 = 140**	LF
CET 402.V1A	EXISTING VACANT CONCRETE ENCASED CONDUITS PLACED IN FINAL POSITION WITH CONCRETE ENCASEMENT *At the following locations:* Various Mid-block Locations Various Intersections AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE **Total Quantity for CET 402.V1A = 100**	LF

CET 402.V2	EXISTING VACANT NON-CONCRETE ENCASED CONDUITS PLACED IN FINAL POSITION W/O CONCRETE ENCASEMENT	LF
	At the following locations:	
	Various Mid-block Locations	
	Various Intersections	
	AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE	
	Total Quantity for CET 402.V2 = 140	
CET 402.V2A	EXISTING VACANT NON-CONCRETE ENCASED CONDUITS PLACED IN FINAL POSITION WITH CONCRETE ENCASEMENT	LF
	At the following locations:	
	Various Mid-block Locations	
	Various Intersections	
	AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE	
	Total Quantity for CET 402.V2A = 100	
CET 403	PLACING STEEL PROTECTION PLATES FOR UTILITY FACILITIES	SF
	At the following locations:	
	Various Mid-block Locations	
	Various Intersections	
	AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE	
	Total Quantity for CET 403 = 200	
CET 404	PIER AND PLATE METHOD OF PROTECTION FOR DUCTILE IRON WATERMAIN AND OTHER SHALLOW FACILTIES	SF
	At the following locations:	
	Various Mid-block Locations	
	Various Intersections	
	AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE	
	Total Quantity for CET 404 = 100	
CET 450.2	CONSTRUCTION FIELD SUPPORT REQUIRING AVERAGE SMALL SIZE CREW CAPABLE OF PERFORMING VARIOUS TASKS (TYPE .2)	CRHRS
	At the following locations:	
	Various Locations	
	AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE	
	Total Quantity for CET 450.2 = 40	

CET 450.3	CONSTRUCTION FIELD SUPPORT REQUIRING AVERAGE MEDIUM SIZE CREW CAPABLE OF PERFORMING VARIOUS TASKS (TYPE 3)	CRHRS
	At the following locations:	
	Various Locations	
	AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE	
	Total Quantity for CET 450.3 = 40	
CET 500	REMOVAL OF ABANDONED UTILITY CONDUITS (NON-CONCRETE ENCASED)	LF
	At the following locations:	
	Various Mid-block Locations Various Intersections	
	AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE	
	Total Quantity for CET 500 = 70	
CET 501	REMOVAL OF ABANDONED MASONRY FOR ELEC. AND TEL. FACILITIES	CY
	At the following locations:	
	Various Mid-block Locations Various Intersections	
	AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE	
	Total Quantity for CET 501 = 15	
CET 600.1	INSTALL CONDUIT IN UNPAVED AREA (1 EA. 2", 4" OR 5" CONDUIT - ALL TYPES)	LF
	At the following locations:	
	Various Mid-block Locations Various Intersections	
	AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE	
	Total Quantity for CET 600.1 = 200	
CET 600.2	INSTALL CONDUIT IN UNPAVED AREA (2 EA. 4" OR 5" CONDUIT - ALL TYPES)	LF
	At the following locations:	
	Various Mid-block Locations Various Intersections	
	AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE	
	Total Quantity for CET 600.2 = 200	

CET 601.1	INSTALL CONDUIT IN PAVED AREA (1 EA. 2", 4" OR 5" CONDUIT - ALL TYPES)	LF

At the following locations:

Various Mid-block Locations
Various Intersections
AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE

Total Quantity for CET 601.1 = 200

CET 601.2	INSTALL CONDUIT IN PAVED AREA (2 EA. 4" OR 5" CONDUIT - ALL TYPES)	LF

At the following locations:

Various Mid-block Locations
Various Intersections
AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE

Total Quantity for CET 601.2 = 200

CET 636 ED RD	ADJUSTMENT OF UTILITY HARDWARE IN ROADWAY (30" TO UNDER 34" WIDTH)	EA

At the following locations:

Various Mid-block Locations
Various Intersections
AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE

Total Quantity for CET 636 ED RD = 10

CET 636 ED SW	ADJUSTMENT OF UTILITY HARDWARE IN SIDEWALK (30" TO UNDER 34" WIDTH)	EA

At the following locations:

Various Mid-block Locations
Various Intersections
AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE

Total Quantity for CET 636 ED SW = 2

CET 636 EE RD	ADJUSTMENT OF UTILITY HARDWARE IN ROADWAY (34" TO UNDER 41" WIDTH)	EA

At the following locations:

Various Mid-block Locations
Various Intersections
AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE

Total Quantity for CET 636 EE RD = 10

CET 636 EE SW	ADJUSTMENT OF UTILITY HARDWARE IN SIDEWALK (34" TO UNDER 41" WIDTH)	EA

At the following locations:

Various Mid-block Locations
Various Intersections
AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE

Total Quantity for CET 636 EE SW = 2

CET 636 EG RD	ADJUSTMENT OF UTILITY HARDWARE IN ROADWAY (41" TO UNDER 75" WIDTH)	EA

At the following locations:

Various Mid-block Locations
Various Intersections
AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE

Total Quantity for CET 636 EG RD = 10

CET 636 EG SW	ADJUSTMENT OF UTILITY HARDWARE IN SIDEWALK (41" TO UNDER 75" WIDTH)	EA

At the following locations:

Various Mid-block Locations
Various Intersections
AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE

Total Quantity for CET 636 EG SW = 2

CET 636 RM	REBUILDING & MODIFICATIONS OF UTILITY STRUCTURE	CY

At the following locations:

Various Mid-block Locations
Various Intersections
AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE

Total Quantity for CET 636 RM = 9

CET 710.1	REMOVAL OF ABANDONED UTILITY STEEL/CAST IRON/PLASTIC, UP TO AND INCL. 12" DIAMETER PIPES	LF

At the following locations:

Various Mid-block Locations
Various Intersections
AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE

Total Quantity for CET 710.1 = 300

CET 711	**USE SHEETING LINE AS FORM**	**LF**

At the following locations:

Various Mid-block Locations
Various Intersections
AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE

Total Quantity for CET 711 = 70

CET 802A	**SPECIAL MODIFICATION OF WORK FOR INSTALLATION OF NEW SIDEWALKS**	**SF**

At the following locations:

Various Mid-block Locations
Various Intersections
AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE

Total Quantity for CET 802A = 300

CET 802B	**SPECIAL MODIFICATION OF WORK FOR INSTALLATION OF NEW CURBS**	**LF**

At the following locations:

Various Mid-block Locations
Various Intersections
AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE

Total Quantity for CET 802B = 150

CET 803.2	**LINE CUT BY PNEUMATIC TOOLS IN LIEU OF SAW CUT ASSOCIATED W/ ROADWAY REMOVAL (ASPHALT & CONCRETE)**	**LF**

At the following locations:

Various Mid-block Locations
Various Intersections
AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE

Total Quantity for CET 803.2 = 120

CET 1006V	**6" VERTICAL OR ROLLED WATER MAIN OFFSET**	**EA**

At the following locations:

Various Mid-block Locations
Various Intersections
AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE

Total Quantity for CET 1006V = 10

CET 1008V	**8" VERTICAL OR ROLLED WATER MAIN OFFSET**	**EA**

At the following locations:

Various Mid-block Locations
Various Intersections
AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE

Total Quantity for CET 1008V = 10

CET 1012V	**12" VERTICAL OR ROLLED WATER MAIN OFFSET**	**EA**

At the following locations:

Various Mid-block Locations
Various Intersections
AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE

Total Quantity for CET 1012V = 6

CET 1020V	**20" VERTICAL OR ROLLED WATER MAIN OFFSET**	**EA**

At the following locations:

Various Mid-block Locations
Various Intersections
AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE

Total Quantity for CET 1020V = 2

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CET ITEM	UNITS	TOTAL	DESCRIPTION
108.1	EACH	20	UTILITIES CROSSING TRENCH FOR WATER MAIN UP TO AND INCLUDING 12" DIAMETER (TYPE .1)
108.2	EACH	15	UTILITIES CROSSING TRENCH FOR WATER MAIN UP TO AND INCLUDING 12" DIAMETER (TYPE .2)
108.3	EACH	5	UTILITIES CROSSING TRENCH FOR WATER MAIN UP TO AND INCLUDING 12" DIAMETER (TYPE .3)
108.4	EACH	2	UTILITIES CROSSING TRENCH FOR WATER MAIN UP TO AND INCLUDING 12" DIAMETER (TYPE .4)
109.1	EACH	5	UTILITIES CROSSING TRENCH FOR WATER MAIN OVER 12" AND UP TO 24" DIAMETER (TYPE .1)
109.2	EACH	5	UTILITIES CROSSING TRENCH FOR WATER MAIN OVER 12" AND UP TO 24" DIAMETER (TYPE .2)
109.3	EACH	5	UTILITIES CROSSING TRENCH FOR WATER MAIN OVER 12" AND UP TO 24" DIAMETER (TYPE .3)
109.4	EACH	2	UTILITIES CROSSING TRENCH FOR WATER MAIN OVER 12" AND UP TO 24" DIAMETER (TYPE .4)
300	CY	400	SPECIAL CARE EXCAVATION AND BACKFILLING
303	CY	169	FURNISH, DELIVER AND INSTALL TYPE 3/8 CLEAN SAND BACKFILL
304	CY	169	FURNISH, DELIVER AND INSTALL CONCRETE PAVEMENT FOR ROADWAY OR SIDEWALK
305	TON	342	FURNISH, DELIVER AND INSTALL ASPHALT PAVING MIXTURES
330T1	LF	4,875	SUPPORT AND PROTECTION OF COMMUNICATION UTILITY FACILITIES DURING EXCAVATION OF CITY TRENCH WHEN FACILITIES LIE IN OR IN CLOSE PROXIMITY TO TRENCH LIMITS
350	LS	1	OVERHEAD ACCOMMODATION PROTECTION OF OVERHEAD FACILITIES, POLES AND APPURTENANCES
400	CY	50	TEST PITS FOR UTILITY FACILITIES
401	CY	846	TRENCH EXCAVATION FOR ADJUSTMENT OF UTILITY FACILITIES

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CET ITEM	UNITS	TOTAL	DESCRIPTION
402T.1A	LF	10,200	EXISTING CONCRETE ENCASED TELECOMMUNICATION CONDUITS PLACED IN FINAL POSITION WITH CONCRETE ENCASEMENT
402T.V1A	LF	300	EXISTING VACANT CONCRETE ENCASED TELECOMMUNICATION CONDUITS PLACED IN FINAL POSITION WITH CONCRETE ENCASEMENT
402T.2	LF	460	EXISTING NON-CONCRETE ENCASED TELECOMMUNICATION CONDUITS PLACED IN FINAL POSITION WITHOUT CONCRETE ENCASEMENT
402T.V2	LF	46	EXISTING VACANT NON-CONCRETE ENCASED TELECOMMUNICATION CONDUITS PLACED IN FINAL POSITION WITHOUT CONCRETE ENCASEMENT
402T.2A	LF	1,000	EXISTING NON-CONCRETE ENCASED TELECOMMUNICATION CONDUITS PLACED IN FINAL POSITION WITH CONCRETE ENCASEMENT
402T.V2A	LF	200	EXISTING VACANT NON-CONCRETE ENCASED TELECOMMUNICATION CONDUITS PLACED IN FINAL POSITION WITH CONCRETE ENCASEMENT
402T.J1	LF	300	EXISTING CONCRETE ENCASED TELECOMMUNICATION CONDUITS PLACED IN FINAL POSITION WITHOUT CONCRETE ENCASEMENT IN WHICH ONLY CONDUIT JOINTS ARE BROKEN OUT AND CONDUITS REMAIN INTACT
402T.J1A	LF	2,550	EXISTING CONCRETE ENCASED TELECOMMUNICATION CONDUITS PLACED IN FINAL POSITION WITH CONCRETE ENCASEMENT IN WHICH ONLY CONDUIT JOINTS ARE BROKEN OUT AND CONDUITS REMAIN INTACT
402T.J2	LF	460	EXISTING NON-CONCRETE ENCASED TELECOMMUNICATION CONDUITS PLACED IN FINAL POSITION WITHOUT CONCRETE ENCASEMENT IN WHICH ONLY CONDUIT JOINTS ARE BROKEN OUT AND CONDUITS REMAIN INTACT
402T.J2A	LF	250	EXISTING NON-CONCRETE ENCASED TELECOMMUNICATION CONDUITS PLACED IN FINAL POSITION WITH CONCRETE ENCASEMENT IN WHICH ONLY CONDUIT JOINTS ARE BROKEN OUT AND CONDUITS REMAIN INTACT
403	SF	500	PLACING STEEL PROTECTION PLATES FOR UTILITY FACILITIES
500	LF	500	REMOVAL OF ABANDONED UTILITY CONDUITS (NON-CONCRETE ENCASED)
798	LF	50	MODIFICATION OF NON CONCRETE YOKE TROLLEY STRUCTURES REMOVAL WHEN CROSSING UTILITY FACILITIES
799	LF	50	MODIFICATION OF NON CONCRETE TROLLEY STRUCTURES REMOVAL PARALLEL TO UTILITY FACILITIES

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CET ITEM	UNITS	TOTAL	DESCRIPTION
800	LF	50	MODIFICATION OF CONCRETE YOKE TROLLEY STRUCTURES REMOVAL WHEN CROSSING UTILITY FACILITIES
801	LF	50	MODIFICATION OF CONCRETE YOKE TROLLEY STRUCTURES REMOVAL PARALLEL TO UTILITY FACILITIES
803	LF	400	LINE CUT BY PNEUMATIC TOOLS IN LIEU OF SAW CUT ASSOCIATED WITH ROADWAY REMOVAL OPERATIONS
1006V	EA	8	6" VERTICAL OR ROLLED WATER MAIN OFFSET
1008V	EA	12	8" VERTICAL OR ROLLED WATER MAIN OFFSET
1012V	EA	12	12" VERTICAL OR ROLLED WATER MAIN OFFSET
1020V	EA	6	20" VERTICAL OR ROLLED WATER MAIN OFFSET

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CET 108.1
UTILITIES CROSSING TRENCH FOR WATER MAIN UP TO AND INCLUDING 12" DIAMETER (TYPE .1)

@ THE FOLLOWING LOCATIONS		QTY(EA)
AS ENCOUNTERED & DIRECTED BY THE ECS FIELD REPRESENTATIVE		
CET 108.1	**TOTAL**	**20**

CET 108.2
UTILITIES CROSSING TRENCH FOR WATER MAIN UP TO AND INCLUDING 12" DIAMETER (TYPE .2)

@ THE FOLLOWING LOCATIONS		QTY(EA)
AS ENCOUNTERED & DIRECTED BY THE ECS FIELD REPRESENTATIVE		
CET 108.2	**TOTAL**	**15**

CET 108.3
UTILITIES CROSSING TRENCH FOR WATER MAIN UP TO AND INCLUDING 12" DIAMETER (TYPE .3)

@ THE FOLLOWING LOCATIONS		QTY(EA)
AS ENCOUNTERED & DIRECTED BY THE ECS FIELD REPRESENTATIVE		5
CET 108.3	**TOTAL**	**5**

CET 108.4
UTILITIES CROSSING TRENCH FOR WATER MAIN UP TO AND INCLUDING 12" DIAMETER (TYPE .4)

@ THE FOLLOWING LOCATIONS		QTY(EA)
AS ENCOUNTERED & DIRECTED BY THE ECS FIELD REPRESENTATIVE		2
CET 108.4	**TOTAL**	**2**

CET 109.1

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UTILITIES CROSSING TRENCH FOR WATER MAIN OVER 12" AND UP TO 24" DIAMETER (TYPE .1)

@ THE FOLLOWING LOCATIONS		QTY(EA)
AS ENCOUNTERED & DIRECTED BY THE ECS FIELD REPRESENTATIVE		5
CET 109.1	**TOTAL**	**5**

CET 109.2
UTILITIES CROSSING TRENCH FOR WATER MAIN OVER 12" AND UP TO 24" DIAMETER (TYPE .2)

@ THE FOLLOWING LOCATIONS		QTY(EA)
CET 109.2	**TOTAL**	**5**

CET 109.3
UTILITIES CROSSING TRENCH FOR WATER MAIN OVER 12" AND UP TO 24" DIAMETER (TYPE .3)

@ THE FOLLOWING LOCATIONS		QTY(EA)
AS ENCOUNTERED & DIRECTED BY THE ECS FIELD REPRESENTATIVE		5
CET 109.3	**TOTAL**	**5**

CET 109.4
UTILITIES CROSSING TRENCH FOR WATER MAIN OVER 12" AND UP TO 24" DIAMETER (TYPE .4)

@ THE FOLLOWING LOCATIONS		QTY(EA)
AS ENCOUNTERED & DIRECTED BY THE ECS FIELD REPRESENTATIVE		2
CET 109.4	**TOTAL**	**2**

CET 300
SPECIAL CARE EXCAVATION AND BACKFILLING

@ THE FOLLOWING LOCATIONS		QTY(CY)
AS ENCOUNTERED & DIRECTED BY THE ECS FIELD REPRESENTATIVE		400
CET 300	**TOTAL**	**400**

CET 303
FURNISH, DELIVER AND INSTALL TYPE 3/8 CLEAN SAND BACKFILL

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@ THE FOLLOWING LOCATIONS		QTY(CY)
AS ENCOUNTERED & DIRECTED BY THE ECS FIELD REPRESENTATIVE		169
CET 303	**TOTAL**	**169**

CET 304
FURNISH, DELIVER AND INSTALL CONCRETE PAVEMENT FOR ROADWAY OR SIDEWALK

@ THE FOLLOWING LOCATIONS		QTY(CY)
AS ENCOUNTERED & DIRECTED BY THE ECS FIELD REPRESENTATIVE		169
CET 304	**TOTAL**	**169**

CET 305
FURNISH, DELIVER AND INSTALL ASPHALT PAVING MIXTURES

@ THE FOLLOWING LOCATIONS		QTY(TON)
AS ENCOUNTERED & DIRECTED BY THE ECS FIELD REPRESENTATIVE		342
CET 305	**TOTAL**	**342**

CET 330T1
SUPPORT AND PROTECTION OF COMMUNICATION UTILITY FACILITIES DURING EXCAVATION OF CITY TRENCH WHEN FACILITIES LIE IN OR IN CLOSE PROXIMITY TO TRENCH LIMITS

@ THE FOLLOWING LOCATIONS		QTY(LF)
AS ENCOUNTERED & DIRECTED BY THE ECS FIELD REPRESENTATIVE		
CET 330T1	**TOTAL**	**4875**

CET 350
OVERHEAD ACCOMMODATION PROTECTION OF OVERHEAD FACILITIES, POLES AND APPURTENANCES

@ THE FOLLOWING LOCATIONS		QTY(LS)
AS ENCOUNTERED & DIRECTED BY THE VERIZON FIELD REPRESENTATIVE		1
CET 350	**TOTAL**	**1**

CET 400

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TEST PITS FOR UTILITY FACILITIES

@ THE FOLLOWING LOCATIONS		QTY(CY)
AS ENCOUNTERED & DIRECTED BY THE ECS FIELD REPRESENTATIVE		50
CET 400	**TOTAL**	**50**

CET 401
TRENCH EXCAVATION FOR ADJUSTMENT OE UTILITY FACILITIES

@ THE FOLLOWING LOCATIONS		QTY(CY)
AS ENCOUNTERED & DIRECTED BY THE ECS FIELD REPRESENTATIVE		
CET 401	**TOTAL**	**846**

CET 402T.1A
EXISTING CONCRETE ENCASED TELECOMMUNICATION CONDUITS PLACED IN FINAL POSITION WITH CONCRETE ENCASEMENT

@ THE FOLLOWING LOCATIONS		QTY(LF)
FIELD REPRESENTATIVE		
CET 402T.1A	**TOTAL**	**10200**

CET 402T.V1A
EXISTING VACANT CONCRETE ENCASED TELECOMMUNICATION CONDUITS PLACED IN FINAL POSITION WITH CONCRETE ENCASEMENT

@ THE FOLLOWING LOCATIONS		QTY(LF)
AS ENCOUNTERED & DIRECTED BY THE ECS FIELD REPRESENTATIVE		300
CET 402T.V1A	**TOTAL**	**300**

CET 402T.2
EXISTING NON-CONCRETE ENCASED TELECOMMUNICATION CONDUITS PLACED IN FINAL POSITION WITHOUT CONCRETE ENCASEMENT

@ THE FOLLOWING LOCATIONS		QTY(LF)
AS ENCOUNTERED & DIRECTED BY THE ECS FIELD REPRESENTATIVE		
CET 402T.2	**TOTAL**	**460**

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CET 402T.V2
EXISTING VACANT NON-CONCRETE ENCASED TELECOMMUNICATION CONDUITS PLACED IN FINAL POSITION WITHOUT CONCRETE ENCASEMENT

@ THE FOLLOWING LOCATIONS		QTY(LF)
AS ENCOUNTERED & DIRECTED BY THE ECS FIELD REPRESENTATIVE		46
CET 402T.V2	**TOTAL**	**46**

CET 402T.2A
EXISTING NON-CONCRETE ENCASED TELECOMMUNICATION CONDUITS PLACED IN FINAL POSITION WITH CONCRETE ENCASEMENT

@ THE FOLLOWING LOCATIONS		QTY(LF)
AS ENCOUNTERED & DIRECTED BY THE ECS FIELD REPRESENTATIVE		1000
CET 402T.2A	**TOTAL**	**1000**

CET 402T.V2A
EXISTING VACANT NON-CONCRETE ENCASED TELECOMMUNICATION CONDUITS PLACED IN FINAL POSITION WITH CONCRETE ENCASEMENT

@ THE FOLLOWING LOCATIONS		QTY(LF)
AS ENCOUNTERED & DIRECTED BY THE ECS FIELD REPRESENTATIVE		200
CET 402T.V2A	**TOTAL**	**200**

CET 402T.J1
EXISTING CONCRETE ENCASED TELECOMMUNICATION CONDUITS PLACED IN FINAL POSITION WITHOUT CONCRETE ENCASEMENT IN WHICH ONLY CONDUIT JOINTS ARE BROKEN OUT AND CONDUITS REMAIN INTACT

@ THE FOLLOWING LOCATIONS		QTY(LF)
AS ENCOUNTERED & DIRECTED BY THE ECS FIELD REPRESENTATIVE		300
CET 402T.J1	**TOTAL**	**300**

CET 402T.J1A
EXISTING CONCRETE ENCASED TELECOMMUNICATION CONDUITS PLACED IN FINAL POSITION WITH CONCRETE ENCASEMENT IN WHICH ONLY CONDUIT JOINTS ARE BROKEN OUT AND CONDUITS REMAIN INTACT

@ THE FOLLOWING LOCATIONS	QTY(LF)

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AS ENCOUNTERED & DIRECTED BY THE ECS FIELD REPRESENTATIVE		2550
CET 402T.J1A	**TOTAL**	**2550**

CET 402T.J2
EXISTING NON-CONCRETE ENCASED TELECOMMUNICATION CONDUITS PLACED IN FINAL POSITION WITHOUT CONCRETE ENCASEMENT IN WHICH ONLY CONDUIT JOINTS ARE BROKEN OUT AND CONDUITS REMAIN INTACT

@ THE FOLLOWING LOCATIONS		QTY(LF)
AS ENCOUNTERED & DIRECTED BY THE ECS FIELD REPRESENTATIVE		460
CET 402T.J2	**TOTAL**	**460**

CET 402T.J2A
EXISTING NON-CONCRETE ENCASED TELECOMMUNICATION CONDUITS PLACED IN FINAL POSITION WITH CONCRETE ENCASEMENT IN WHICH ONLY CONDUIT JOINTS ARE BROKEN OUT AND CONDUITS REMAIN INTACT

@ THE FOLLOWING LOCATIONS		QTY(LF)
AS ENCOUNTERED & DIRECTED BY THE ECS FIELD REPRESENTATIVE		250
CET 402T.J2A	**TOTAL**	**250**

CET 403
PLACING STEEL PROTECTION PLATES FOR UTILITY FACILITIES

@ THE FOLLOWING LOCATIONS		QTY(SF)
AS ENCOUNTERED & DIRECTED BY THE ECS FIELD REPRESENTATIVE		500
CET 403	**TOTAL**	**500**

CET 500
REMOVAL OF ABANDONED UTILITY CONDUITS (NON-CONCRETE ENCASED)

@ THE FOLLOWING LOCATIONS		QTY(LF)
AS ENCOUNTERED & DIRECTED BY THE ECS FIELD REPRESENTATIVE		500
CET 500	**TOTAL**	**500**

CET 798
MODIFICATION OF NON CONCRETE YOKE TROLLEY STRUCTURES REMOVAL WHEN CROSSING UTILITY FACILITIES

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@ THE FOLLOWING LOCATIONS		QTY(LF)
AS ENCOUNTERED & DIRECTED BY THE ECS FIELD REPRESENTATIVE		50
CET 798	**TOTAL**	**50**

CET 799
MODIFICATION OF NON CONCRETE TROLLEY STRUCTURES REMOVAL PARALLEL TO UTILITY FACILITIES

@ THE FOLLOWING LOCATIONS		QTY(LF)
AS ENCOUNTERED & DIRECTED BY THE ECS FIELD REPRESENTATIVE		50
CET 799	**TOTAL**	**50**

CET 800
MODIFICATION OF CONCRETE YOKE TROLLEY STRUCTURES REMOVAL WHEN CROSSING UTILITY FACILITIES

@ THE FOLLOWING LOCATIONS		QTY(LF)
AS ENCOUNTERED & DIRECTED BY THE ECS FIELD REPRESENTATIVE		50
CET 800	**TOTAL**	**50**

CET 801
MODIFICATION OF CONCRETE YOKE TROLLEY STRUCTURES REMOVAL PARALLEL TO UTILITY FACILITIES

@ THE FOLLOWING LOCATIONS		QTY(LF)
AS ENCOUNTERED & DIRECTED BY THE ECS FIELD REPRESENTATIVE		50
CET 801	**TOTAL**	**50**

CET 803
LINE CUT BY PNEUMATIC TOOLS IN LIEU OF SAW CUT ASSOCIATED WITH ROADWAY REMOVAL OPERATIONS

@ THE FOLLOWING LOCATIONS		QTY(LF)
AS ENCOUNTERED & DIRECTED BY THE ECS FIELD REPRESENTATIVE		400
CET 803	**TOTAL**	**400**

CET 1006V
6"VERTICAL OR ROLLED WATER MAIN OFFSET

@ THE FOLLOWING LOCATIONS	QTY(EA)

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AS ENCOUNTERED & DIRECTED BY THE ECS FIELD REPRESENTATIVE		8
CET 1006V	**TOTAL**	**8**

CET 1008V
8" VERTICAL OR ROLLED WATER MAIN OFFSET

@ THE FOLLOWING LOCATIONS		QTY(EA)
AS ENCOUNTERED & DIRECTED BY THE ECS FIELD REPRESENTATIVE		12
CET 1008V	**TOTAL**	**12**

CET 1012V
12" VERTICAL OR ROLLED WATER MAIN OFFSET

@ THE FOLLOWING LOCATIONS		QTY(EA)
AS ENCOUNTERED & DIRECTED BY THE ECS FIELD REPRESENTATIVE		12
CET 1012V	**TOTAL**	**12**

CET 1020V
20" VERTICAL OR ROLLED WATER MAIN OFFSET

@ THE FOLLOWING LOCATIONS		QTY(EA)
AS ENCOUNTERED & DIRECTED BY THE ECS FIELD REPRESENTATIVE		6
CET 1020V	**TOTAL**	**6**

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CET ITEM	UNITS	TOTAL	DESCRIPTION
108.1	EACH	40	UTILITIES CROSSING TRENCH FOR WATER MAIN UP TO AND INCLUDING 12" DIAMETER (TYPE .1)
108.2	EACH	8	UTILITIES CROSSING TRENCH FOR WATER MAIN UP TO AND INCLUDING 12" DIAMETER (TYPE .2)
109.1	EACH	12	UTILITIES CROSSING TRENCH FOR WATER MAIN OVER 12" AND UP TO 24" DIAMETER (TYPE .1)
300	CY	20	SPECIAL CARE EXCAVATION AND BACKFILLING
330T1	LF	500	SUPPORT AND PROTECTION OF COMMUNICATION UTILITY FACILITIES DURING EXCAVATION OF CITY TRENCH WHEN FACILITIES LIE IN OR IN CLOSE PROXIMITY TO TRENCH LIMITS
350	LS	1	OVERHEAD ACCOMMODATION PROTECTION OF OVERHEAD FACILITIES, POLES AND APPURTENANCES
400	CY	10	TEST PITS FOR UTILITY FACILITIES
401	CY	65	TRENCH EXCAVATION FOR ADJUSTMENT OF UTILITY FACILITIES
401.AT	CY	100	SPECIAL CARE PAVEMENT EXCAVATION FOR ADJUSTMENT OF UTILITY FACILITIES CONNECTED TO THE BASE PAVEMENT
402T.1A	LF	200	EXISTING CONCRETE ENCASED TELECOMMUNICATION CONDUITS PLACED IN FINAL POSITION WITH CONCRETE ENCASEMENT
402T.V1A	LF	20	EXISTING VACANT CONCRETE ENCASED TELECOMMUNICATION CONDUITS PLACED IN FINAL POSITION WITH CONCRETE ENCASEMENT
402T.2	LF	180	EXISTING NON-CONCRETE ENCASED TELECOMMUNICATION CONDUITS PLACED IN FINAL POSITION WITHOUT CONCRETE ENCASEMENT
402T.V2	LF	18	EXISTING VACANT NON-CONCRETE ENCASED TELECOMMUNICATION CONDUITS PLACED IN FINAL POSITION WITHOUT CONCRETE ENCASEMENT
500	LF	25	REMOVAL OF ABANDONED UTILITY CONDUITS (NON-CONCRETE ENCASED)

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CET 108.1
UTILITIES CROSSING TRENCH FOR WATER MAIN UP TO AND INCLUDING 12" DIAMETER (TYPE .1)

@ THE FOLLOWING LOCATIONS		QTY(EA)
AS ENCOUNTERED & DIRECTED BY THE CABLEVISION FIELD REP		40
CET 108.1	**TOTAL**	**40**

CET 108.2
UTILITIES CROSSING TRENCH FOR WATER MAIN UP TO AND INCLUDING 12" DIAMETER (TYPE .2)

@ THE FOLLOWING LOCATIONS		QTY(EA)
AS ENCOUNTERED & DIRECTED BY THE CABLEVISION FIELD REP		8
CET 108.2	**TOTAL**	**8**

CET 109.1
UTILITIES CROSSING TRENCH FOR WATER MAIN OVER 12" AND UP TO 24" DIAMETER (TYPE .1)

@ THE FOLLOWING LOCATIONS		QTY(EA)
AS ENCOUNTERED & DIRECTED BY THE CABLEVISION FIELD REP		12
CET 109.1	**TOTAL**	**12**

CET 300
SPECIAL CARE EXCAVATION AND BACKFILLING

@ THE FOLLOWING LOCATIONS		QTY(CY)
AS ENCOUNTERED & DIRECTED BY THE CABLEVISION FIELD REP		20
CET 300	**TOTAL**	**20**

CET 330T1
SUPPORT AND PROTECTION OF COMMUNICATION UTILITY FACILITIES DURING EXCAVATION OF CITY TRENCH WHEN FACILITIES LIE IN OR IN CLOSE PROXIMITY TO TRENCH LIMITS

@ THE FOLLOWING LOCATIONS		QTY(LF)
AS ENCOUNTERED & DIRECTED BY THE CABLEVISION FIELD REP		500
CET 330T1	**TOTAL**	**500**

HEDA-001- Distribution Water Main Work
Boroughs of The Bronx
Schedule U-2: Scope of Work for CET items

CET 350
OVERHEAD ACCOMMODATION PROTECTION OF OVERHEAD FACILITIES, POLES AND APPURTENANCES

@ THE FOLLOWING LOCATIONS		QTY(LS)
AS ENCOUNTERED & DIRECTED BY THE VERIZON FIELD REPRESENTATIVE		1
CET 350	**TOTAL**	**1**

CET 400
TEST PITS FOR UTILITY FACILITIES

@ THE FOLLOWING LOCATIONS		QTY(CY)
AS ENCOUNTERED & DIRECTED BY THE CABLEVISION FIELD REP		10
CET 400	**TOTAL**	**10**

CET 401
TRENCH EXCAVATION FOR ADJUSTMENT OF UTILITY FACILITIES

@ THE FOLLOWING LOCATIONS		QTY(CY)
AS ENCOUNTERED & DIRECTED BY THE CABLEVISION FIELD REP		65
CET 401	**TOTAL**	**65**

CET 401.AT
SPECIAL CARE PAVEMENT EXCAVATION FOR ADJUSTMENT OF UTILITY FACILITIES CONNECTED TO THE BASE PAVEMENT

@ THE FOLLOWING LOCATIONS		QTY(CY)
AS ENCOUNTERED & DIRECTED BY THE CABLEVISION FIELD REP		100
CET 401 AT	**TOTAL**	**100**

CET 402T.1A
EXISTING CONCRETE ENCASED TELECOMMUNICATION CONDUITS PLACED IN FINAL POSITION WITH CONCRETE ENCASEMENT

@ THE FOLLOWING LOCATIONS		QTY(LF)
AS ENCOUNTERED & DIRECTED BY THE CABLEVISION FIELD REP		200
CET 402T.1A	**TOTAL**	**200**

CET 402T.V1A

HEDA-001- Distribution Water Main Work
Boroughs of The Bronx
Schedule U-2: Scope of Work for CET items

EXISTING VACANT CONCRETE ENCASED TELECOMMUNICATION CONDUITS PLACED IN FINAL POSITION WITH CONCRETE ENCASEMENT

@ THE FOLLOWING LOCATIONS		QTY(LF)
AS ENCOUNTERED & DIRECTED BY THE CABLEVISION FIELD REP		20
CET 402T.V1A	**TOTAL**	**20**

CET 402T.2
EXISTING NON-CONCRETE ENCASED TELECOMMUNICATION CONDUITS PLACED IN FINAL POSITION WITHOUT CONCRETE ENCASEMENT

@ THE FOLLOWING LOCATIONS		QTY(LF)
AS ENCOUNTERED & DIRECTED BY THE CABLEVISION FIELD REP		180
CET 402T.2	**TOTAL**	**180**

CET 402T.V2
EXISTING VACANT NON-CONCRETE ENCASED TELECOMMUNICATION CONDUITS PLACED IN FINAL POSITION WITHOUT CONCRETE ENCASEMENT

@ THE FOLLOWING LOCATIONS		QTY(LF)
AS ENCOUNTERED & DIRECTED BY THE CABLEVISION FIELD REP		18
CET 402T.V2	**TOTAL**	**18**

CET 500
REMOVAL OF ABANDONED UTILITY CONDUITS (NON-CONCRETE ENCASED)

@ THE FOLLOWING LOCATIONS		QTY(LF)
AS ENCOUNTERED & DIRECTED BY THE CABLEVISION FIELD REP		25
CET 500	**TOTAL**	**25**

SECTION U-3

(NO TEXT IN THIS SECTION)

END OF ADDENDUM No. 4
This Addendum consists of FIFTY-THREE (53) pages
And ONE (1) sheet of Contract Drawing

CITY OF NEW YORK
DEPARTMENT OF DESIGN AND CONSTRUCTION
DIVISION OF INFRASTRUCTURE

ADDENDA CONTROL SHEET

BID OPENING DATE: MARCH 19, 2015

PROJECT NO.: HEDA001

TITLE: CONSTRUCTION OF ACCELERATED WATER MAIN REPLACEMENT AND SEWER REHABILITATION AND REPLACEMENT

ADDENDA ISSUED	No. OF DRAWINGS	DATE
#1: Amendments to Standard Highway Specs.		02/24/2014
#2: Sewer and Water Main Specifications		12/26/2014
#3: Gas Cost Sharing (EP-7) Std. Specifications		12/26/2014
#4: To CET Specifications		01/07/2015
#5: Additional Amendments		02/19/2015

ATTACH TO CONTRACT DOCUMENTS

THE CITY OF NEW YORK
DEPARTMENT OF DESIGN AND CONSTRUCTION
INFRASTRUCTURE DIVISION
BUREAU OF DESIGN

PROJECT ID: HEDA001

FOR THE CONSTRUCTION OF ACCELERATED WATER MAIN REPLACEMENT AND SEWER REHABILITATION AND REPLACEMENT

Together With All Work Incidental Thereto

BOROUGH OF THE BRONX

ADDENDUM NO. 5

DATED: February 19, 2015

This Addendum is issued for the purpose of amending the requirements of the contract documents and is hereby made part of said contract documents to the same extent as if it was originally included therein.

Refer to the Bid and Contract Documents, VOLUME 1 OF 3, BID SCHEDULE, pages B-3 to B-29;
Delete all pages in their entirety;
Substitute attached revised pages B-3 (REVISION #1) to B-29 (REVISION #1).

By signing in the space provided below, the bidder acknowledges receipt of the one (1) page of this Addendum plus twenty-seven (27) pages of attachments.

THIS ADDENDUM MUST BE SIGNED BY ALL BIDDERS AND ATTACHED TO THEIR BIDS.

G. Saini

GURDIP SAINI, P.E.
Assistant Commissioner/Design

_____
Name of Bidder

By: _____

BID SCHEDULE

NOTE: (1) The Agency may reject a bid if it contains unbalanced bid prices. An unbalanced bid is considered to be one containing lump sum or unit items which do not reflect reasonable actual costs plus a reasonable proportionate share of the Bidder's anticipated profit, overhead costs, and other indirect costs, anticipated for the performance of the items in question.

(2) The following bid prices on Unit Price Contracts are to be paid for the actual quantities of the item numbers in the completed work or structure, and they cover the cost of all work, labor, material, tools, plant and appliances of every description necessary to complete the entire work, as specified, and the removal of all debris, temporary work and appliances.

(3) PLEASE BE SURE A LEGIBLE BID IS ENTERED, IN INK, FOR EACH ITEM.
Alterations must be initialed in ink by the bidder.

(4) The Extended Amount entered in Column 6 shall be the product of the Estimated Quantity in Column 3 times the Unit Price Bid in Column 5.

(5) Prospective bidders must examine the Bid Schedule carefully and, before bidding, must advise the Commissioner, in writing, if any pages are missing, and must request that such missing pages be furnished them. The pages of this Bid Schedule are numbered consecutively, as follows:
B - 3 [REVISION # 1] Through B - 29 [REVISION # 1]

PLEASE BE SURE A LEGIBLE BID IS ENTERED FOR EACH ITEM.
THE BIDDER SHALL INSERT THE TOTAL BID PRICE IN
THE BID FORM ON PAGE C-4 OF THIS BID BOOKLET.

NEW YORK CITY DEPARTMENT OF DESIGN AND CONSTRUCTION
DIVISION OF INFRASTRUCTURE - BUREAU OF DESIGN

PROJECT ID: HEDA001
CONTRACT PIN: 8502015WM0011C

BID SCHEDULE FORM

COL. 1 SEQ. NO	COL. 2 ITEM NUMBER and DESCRIPTION	COL. 3 ENGINEER'S ESTIMATE OF QUANTITY	COL. 4 UNIT	COL. 5 UNIT PRICE (IN FIGURES) DOLLARS	CTS	COL. 6 EXTENDED AMOUNT (IN FIGURES) DOLLARS	CTS
001	**1.A50.31PC08** 8" E.S.V.P. SEWER, ON CONCRETE CRADLE (MINIMUM 15 FEET LENGTHS)	30.00	L.F.				
002	**1.AA50.21P3C048D** 48" R.C.P. CLASS III SEWER, ON CONCRETE CRADLE (MINIMUM 15 FEET LENGTHS) (FIXED UNIT PRICE TO BE $55.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.A50.31PC08)	30.00	L.F.				
003	**1.B50.31PC08** 8" E.S.V.P. SEWER, ON CONCRETE CRADLE (ADDITIONAL LENGTH BEYOND THE MINIMUM 15 FEET) (FIXED UNIT PRICE TO BE 70% OF UNIT PRICE BID FOR ITEM NO. 1.A50.31PC08)	55.00	L.F.				
004	**1.BB50.21P3C048D** 48" R.C.P. CLASS III SEWER, ON CONCRETE CRADLE (ADDITIONAL LENGTH BEYOND THE MINIMUM 15 FEET TO A MAXIMUM OF 100 FEET) (FIXED UNIT PRICE TO BE $50.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.B50.31PC08)	55.00	L.F.				
005	**1.C50.31PC10** 10" E.S.V.P. SEWER, ON CONCRETE CRADLE (MINIMUM 15 FEET LENGTHS) (FIXED UNIT PRICE TO BE $5.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.A50.31PC08)	20.00	L.F.				

NEW YORK CITY DEPARTMENT OF DESIGN AND CONSTRUCTION
DIVISION OF INFRASTRUCTURE - BUREAU OF DESIGN

PROJECT ID: HEDA001
CONTRACT PIN: 8502015WM0011C

BID SCHEDULE FORM

COL 1 SEQ. NO	COL 2 ITEM NUMBER and DESCRIPTION	COL 3 ENGINEER'S ESTIMATE OF QUANTITTY	COL 4 UNIT	COL 5 UNIT PRICE (IN FIGURES) DOLLARS	CTS	COL 6 EXTENDED AMOUNT (IN FIGURES) DOLLARS	CTS
006	**1.CC50.21P3C048D** 48" R.C.P. CLASS III SEWER, ON CONCRETE CRADLE (ADDITIONAL LENGTH BEYOND 100 FEET) (FIXED UNIT PRICE TO BE $50.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.E50.31PC10)	105.00	L.F.				
007	**1.D50.31PC10** 10" E.S.V.P. SEWER, ON CONCRETE CRADLE (ADDITIONAL LENGTH BEYOND THE MINIMUM 15 FEET TO A MAXIMUM OF 100 FEET) (FIXED UNIT PRICE TO BE $5.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.B50.31PC08)	50.00	L.F.				
008	**1.E50.31PC10** 10" E.S.V.P. SEWER, ON CONCRETE CRADLE (ADDITIONAL LENGTH BEYOND 100 FEET) (FIXED UNIT PRICE TO BE 90% OF UNIT PRICE BID FOR ITEM NO. 1.D50.31PC10)	110.00	L.F.				
009	**1.F50.31PC12** 12" E.S.V.P. SEWER, ON CONCRETE CRADLE (MINIMUM 15 FEET LENGTHS) (FIXED UNIT PRICE TO BE $10.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.A50.31PC08)	30.00	L.F.				
010	**1.G50.31PC12** 12" E.S.V.P. SEWER, ON CONCRETE CRADLE (ADDITIONAL LENGTH BEYOND THE MINIMUM 15 FEET TO A MAXIMUM OF 100 FEET) (FIXED UNIT PRICE TO BE $10.00 PLUS UNIT PRICE BID FOR ITEM NO.1.B50.31PC08)	150.00	L.F.				

NEW YORK CITY DEPARTMENT OF DESIGN AND CONSTRUCTION
DIVISION OF INFRASTRUCTURE - BUREAU OF DESIGN

PROJECT ID: HEDA001
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BID SCHEDULE FORM

COL. 1	COL. 2	COL. 3	COL. 4	COL. 5 UNIT PRICE (IN FIGURES)		COL. 6 EXTENDED AMOUNT (IN FIGURES)	
SEQ. NO	ITEM NUMBER and DESCRIPTION	ENGINEER'S ESTIMATE OF QUANTITIY	UNIT	DOLLARS	CTS	DOLLARS	CTS
011	**1.H50.31PC12** 12" E.S.V.P. SEWER, ON CONCRETE CRADLE (ADDITIONAL LENGTH BEYOND 100 FEET) (FIXED UNIT PRICE TO BE $10.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.E50.31PC10)	200.00	L.F.				
012	**1.I50.31PC15** 15" E.S.V.P. SEWER, ON CONCRETE CRADLE (MINIMUM 15 FEET LENGTHS) (FIXED UNIT PRICE TO BE $15.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.A50.31PC08)	20.00	L.F.				
013	**1.J50.31PC15** 15" E.S.V.P. SEWER, ON CONCRETE CRADLE (ADDITIONAL LENGTH BEYOND THE MINIMUM 15 FEET TO A MAXIMUM OF 100 FEET) (FIXED UNIT PRICE TO BE $15.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.B50.31PC08)	50.00	L.F.				
014	**1.K50.31PC15** 15" E.S.V.P. SEWER, ON CONCRETE CRADLE (ADDITIONAL LENGTH BEYOND 100 FEET) (FIXED UNIT PRICE TO BE $15.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.E50.31PC10)	200.00	L.F.				
015	**1.L50.31PC18** 18" E.S.V.P. SEWER, ON CONCRETE CRADLE (MINIMUM 15 FEET LENGTHS) (FIXED UNIT PRICE TO BE $25.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.A50.31PC08)	15.00	L.F.				

NEW YORK CITY DEPARTMENT OF DESIGN AND CONSTRUCTION
DIVISION OF INFRASTRUCTURE - BUREAU OF DESIGN

PROJECT ID: HEDA001
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BID SCHEDULE FORM

COL. 1 SEQ. NO	COL. 2 ITEM NUMBER and DESCRIPTION	COL. 3 ENGINEER'S ESTIMATE OF QUANTITY	COL. 4 UNIT	COL. 5 UNIT PRICE (IN FIGURES) DOLLARS	CTS	COL. 6 EXTENDED AMOUNT (IN FIGURES) DOLLARS	CTS
016	**1.M50.31PC18** 18" E.S.V.P. SEWER, ON CONCRETE CRADLE (ADDITIONAL LENGTH BEYOND THE MINIMUM 15 FEET TO A MAXIMUM OF 100 FEET) (FIXED UNIT PRICE TO BE $20.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.B50.31PC08)	50.00	L.F.				
017	**1.N50.31PC18** 18" E.S.V.P. SEWER, ON CONCRETE CRADLE (ADDITIONAL LENGTH BEYOND 100 FEET) (FIXED UNIT PRICE TO BE $20.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.E50.31PC10)	130.00	L.F.				
018	**1.O50.21P3C024D** 24" R.C.P. CLASS III SEWER, ON CONCRETE CRADLE (MINIMUM 15 FEET LENGTHS) (FIXED UNIT PRICE TO BE $35.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.A50.31PC08)	15.00	L.F.				
019	**1.P50.21P3C024D** 24" R.C.P. CLASS III SEWER, ON CONCRETE CRADLE (ADDITIONAL LENGTH BEYOND THE MINIMUM 15 FEET TO A MAXIMUM OF 100 FEET) (FIXED UNIT PRICE TO BE $30.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.B50.31PC08)	50.00	L.F.				
020	**1.Q50.21P3C024D** 24" R.C.P. CLASS III SEWER, ON CONCRETE CRADLE (ADDITIONAL LENGTH BEYOND 100 FEET) (FIXED UNIT PRICE TO BE $30.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.E50.31PC10)	110.00	L.F.				

BID SCHEDULE FORM

COL. 1 SEQ. NO	COL. 2 ITEM NUMBER and DESCRIPTION	COL. 3 ENGINEER'S ESTIMATE OF QUANTITIY	COL. 4 UNIT	COL. 5 UNIT PRICE (IN FIGURES) DOLLARS	CTS	COL. 6 EXTENDED AMOUNT (IN FIGURES) DOLLARS	CTS
021	**1.R50.21P3C030D** 30" R.C.P. CLASS III SEWER, ON CONCRETE CRADLE (MINIMUM 15 FEET LENGTHS) (FIXED UNIT PRICE TO BE $40.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.A50.31PC08)	15.00	L.F.				
022	**1.S50.21P3C030D** 30" R.C.P. CLASS III SEWER, ON CONCRETE CRADLE (ADDITIONAL LENGTH BEYOND THE MINIMUM 15 FEET TO A MAXIMUM OF 100 FEET) (FIXED UNIT PRICE TO BE $35.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.B50.31PC08)	50.00	L.F.				
023	**1.T50.21P3C030D** 30" R.C.P. CLASS III SEWER, ON CONCRETE CRADLE (ADDITIONAL LENGTH BEYOND 100 FEET) (FIXED UNIT PRICE TO BE $35.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.E50.31PC10)	100.00	L.F.				
024	**1.U50.21P3C036D** 36" R.C.P. CLASS III SEWER, ON CONCRETE CRADLE (MINIMUM 15 FEET LENGTHS) (FIXED UNIT PRICE TO BE $45.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.A50.31PC08)	15.00	L.F.				
025	**1.V50.21P3C036D** 36" R.C.P. CLASS III SEWER, ON CONCRETE CRADLE (ADDITIONAL LENGTH BEYOND THE MINIMUM 15 FEET TO A MAXIMUM OF 100 FEET) (FIXED UNIT PRICE TO BE $40.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.B50.31PC08)	45.00	L.F.				

NEW YORK CITY DEPARTMENT OF DESIGN AND CONSTRUCTION
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BID SCHEDULE FORM

COL. 1 SEQ. NO	COL. 2 ITEM NUMBER and DESCRIPTION	COL. 3 ENGINEER'S ESTIMATE OF QUANTITY	COL. 4 UNIT	COL. 5 UNIT PRICE (IN FIGURES) DOLLARS	CTS	COL. 6 EXTENDED AMOUNT (IN FIGURES) DOLLARS	CTS
026	**1.W50.21P3C036D** 36" R.C.P. CLASS III SEWER, ON CONCRETE CRADLE (ADDITIONAL LENGTH BEYOND 100 FEET) (FIXED UNIT PRICE TO BE $40.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.E50.31PC10)	100.00	L.F.				
027	**10.32A** PHOTOGRAPHS	1,250.00	SETS				
028	**4.02 AB-R** ASPHALTIC CONCRETE WEARING COURSE, 1-1/2" THICK	16,745.00	S.Y.				
029	**4.02 CA** BINDER MIXTURE	2,750.00	TONS				
030	**4.02 CB** ASPHALTIC CONCRETE MIXTURE	760.00	TONS				
031	**4.04 H** CONCRETE BASE FOR PAVEMENT, VARIABLE THICKNESS FOR TRENCH RESTORATION, (HIGH-EARLY STRENGTH)	1,635.00	C.Y.				

NEW YORK CITY DEPARTMENT OF DESIGN AND CONSTRUCTION
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BID SCHEDULE FORM

COL. 1 SEQ. NO	COL. 2 ITEM NUMBER and DESCRIPTION	COL. 3 ENGINEER'S ESTIMATE OF QUANTITY	COL. 4 UNIT	COL. 5 UNIT PRICE (IN FIGURES) DOLLARS	CTS	COL. 6 EXTENDED AMOUNT (IN FIGURES) DOLLARS	CTS
032	**4.13 AAS** 4" CONCRETE SIDEWALK (UNPIGMENTED)	650.00	S.F.				
033	**4.13 BAS** 7" CONCRETE SIDEWALK (UNPIGMENTED)	1,650.00	S.F.				
034	**4.16 AA** TREES REMOVED (4" TO UNDER 12" CALIPER)	2.00	EACH				
035	**4.16 AB** TREES REMOVED (12" TO UNDER 18" CALIPER)	2.00	EACH				
036	**4.16 AC** TREES REMOVED (18" TO UNDER 24" CALIPER)	2.00	EACH				
037	**4.16 AD** TREES REMOVED (24" CALIPER AND OVER)	2.00	EACH				

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COL. 1 SEQ. NO	COL. 2 ITEM NUMBER and DESCRIPTION	COL. 3 ENGINEER'S ESTIMATE OF QUANTITIY	COL. 4 UNIT	COL. 5 UNIT PRICE (IN FIGURES) DOLLARS	CTS	COL. 6 EXTENDED AMOUNT (IN FIGURES) DOLLARS	CTS
038	**4.16 CA405** TREES PLANTED, 3" TO 3-1/2" CALIPER, ALL TYPES, IN 4' X 5' TREE PITS	2.00	EACH				
039	**4.18 A** MAINTENANCE TREE PRUNING (UNDER 12" CAL.)	20.00	EACH				
040	**4.18 B** MAINTENANCE TREE PRUNING (12" TO UNDER 18" CAL.)	15.00	EACH				
041	**4.18 C** MAINTENANCE TREE PRUNING (18" TO UNDER 24" CAL.)	15.00	EACH				
042	**4.18 D** MAINTENANCE TREE PRUNING (24" CAL. AND OVER)	4.00	EACH				
043	**4.21** TREE CONSULTANT	200.00	P/HR				

NEW YORK CITY DEPARTMENT OF DESIGN AND CONSTRUCTION
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BID SCHEDULE FORM

COL. 1 SEQ. NO	COL. 2 ITEM NUMBER and DESCRIPTION	COL. 3 ENGINEER'S ESTIMATE OF QUANTITY	COL. 4 UNIT	COL. 5 UNIT PRICE (IN FIGURES) DOLLARS	COL. 5 CTS	COL. 6 EXTENDED AMOUNT (IN FIGURES) DOLLARS	COL. 6 CTS
044	50.21C3C042D 42" R.C.P. CLASS III COMBINED SEWER, ON CONCRETE CRADLE	290.00	L.F.				
045	50.21C3C048D 48" R.C.P. CLASS III COMBINED SEWER, ON CONCRETE CRADLE	290.00	L.F.				
046	50.21M3C042D 42" R.C.P. CLASS III STORM SEWER, ON CONCRETE CRADLE	290.00	L.F.				
047	50.21M3C048D 48" R.C.P. CLASS III STORM SEWER, ON CONCRETE CRADLE	290.00	L.F.				
048	51.21S0A1000V STANDARD MANHOLE TYPE A-1	30.00	EACH				
049	51.21S0B1000V STANDARD MANHOLE TYPE B-1	2.00	EACH				

NEW YORK CITY DEPARTMENT OF DESIGN AND CONSTRUCTION
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BID SCHEDULE FORM

COL. 1 SEQ. NO	COL. 2 ITEM NUMBER and DESCRIPTION	COL. 3 ENGINEER'S ESTIMATE OF QUANTITIY	COL. 4 UNIT	COL. 5 UNIT PRICE (IN FIGURES) DOLLARS	CTS	COL. 6 EXTENDED AMOUNT (IN FIGURES) DOLLARS	CTS
050	**51.41S001** STANDARD CATCH BASIN, TYPE 1	25.00	EACH				
051	**52.11D12** 12" DUCTILE IRON PIPE BASIN CONNECTION	250.00	L.F.				
052	**52.21V08** 8" E.S.V.P. RISER FOR HOUSE CONNECTION	2.00	V.F.				
053	**52.21V10** 10" E.S.V.P. RISER FOR HOUSE CONNECTION	2.00	V.F.				
054	**52.31V06P00** 6" E.S.V.P. SPUR FOR HOUSE CONNECTION ON E.S.V.P. SEWER	10.00	EACH				
055	**52.31V08P00** 8" E.S.V.P. SPUR FOR HOUSE CONNECTION ON E.S.V.P. SEWER	4.00	EACH				

BID SCHEDULE FORM

COL. 1 SEQ. NO	COL. 2 ITEM NUMBER and DESCRIPTION	COL. 3 ENGINEER'S ESTIMATE OF QUANTITY	COL. 4 UNIT	COL. 5 UNIT PRICE (IN FIGURES) DOLLARS	CTS	COL. 6 EXTENDED AMOUNT (IN FIGURES) DOLLARS	CTS
056	53.11DR TELEVISION INSPECTION AND DIGITAL AUDIO-VISUAL RECORDING OF SEWERS	2,960.00	L.F.				
057	6.02 AAN UNCLASSIFIED EXCAVATION	1,300.00	C.Y.				
058	6.25 RS TEMPORARY SIGNS	13,710.00	S.F.				
059	6.26 TIMBER CURB	5,000.00	L.F.				
060	6.28 AA LIGHTED TIMBER BARRICADES	600.00	L.F.				
061	6.44 THERMOPLASTIC REFLECTORIZED PAVEMENT MARKINGS (4" WIDE)	800.00	L.F.				

NEW YORK CITY DEPARTMENT OF DESIGN AND CONSTRUCTION
DIVISION OF INFRASTRUCTURE - BUREAU OF DESIGN

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BID SCHEDULE FORM

COL. 1 SEQ. NO	COL. 2 ITEM NUMBER and DESCRIPTION	COL. 3 ENGINEER'S ESTIMATE OF QUANTITITY	COL. 4 UNIT	COL. 5 UNIT PRICE (IN FIGURES) DOLLARS	CTS	COL. 6 EXTENDED AMOUNT (IN FIGURES) DOLLARS	CTS
062	6.52 CG CROSSING GUARD	4,470.00	P/HR				
063	6.55 SAWCUTTING EXISTING PAVEMENT	64,800.00	L.F.				
064	6.87 PLASTIC BARRELS	7,499.00	EACH				
065	60.11R520 FURNISHING AND DELIVERING 20-INCH DUCTILE IRON RESTRAINED JOINT PIPE (CLASS 55)	1,500.00	L.F.				
066	60.11R606 FURNISHING AND DELIVERING 6-INCH DUCTILE IRON RESTRAINED JOINT PIPE (CLASS 56)	1,500.00	L.F.				
067	60.11R608 FURNISHING AND DELIVERING 8-INCH DUCTILE IRON RESTRAINED JOINT PIPE (CLASS 56)	24,000.00	L.F.				

NEW YORK CITY DEPARTMENT OF DESIGN AND CONSTRUCTION
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BID SCHEDULE FORM

COL. 1 SEQ. NO	COL. 2 ITEM NUMBER and DESCRIPTION	COL. 3 ENGINEER'S ESTIMATE OF QUANTITY	COL. 4 UNIT	COL. 5 UNIT PRICE (IN FIGURES) DOLLARS	CTS	COL. 6 EXTENDED AMOUNT (IN FIGURES) DOLLARS	CTS
068	**60.11R612** FURNISHING AND DELIVERING 12-INCH DUCTILE IRON RESTRAINED JOINT PIPE (CLASS 56)	2,450.00	L.F.				
069	**60.12D06-IH** LAYING 6-INCH DUCTILE IRON PIPE AND FITTINGS IN THE BRONX (IN IMPROVED ROADWAY AND/OR SIDEWALK LOCATIONS)	1,440.00	L.F.				
070	**60.12D06-UH** LAYING 6-INCH DUCTILE IRON PIPE AND FITTINGS IN THE BRONX (IN UNIMPROVED ROADWAY AND/OR SIDEWALK LOCATIONS)	210.00	L.F.				
071	**60.12D08-IH** LAYING 8-INCH DUCTILE IRON PIPE AND FITTINGS IN THE BRONX (IN IMPROVED ROADWAY AND/OR SIDEWALK LOCATIONS)	23,710.00	L.F.				
072	**60.12D08-UH** LAYING 8-INCH DUCTILE IRON PIPE AND FITTINGS IN THE BRONX (IN UNIMPROVED ROADWAY AND/OR SIDEWALK LOCATIONS)	2,690.00	L.F.				
073	**60.12D12-IH** LAYING 12-INCH DUCTILE IRON PIPE AND FITTINGS IN THE BRONX (IN IMPROVED ROADWAY AND/OR SIDEWALK LOCATIONS)	2,390.00	L.F.				

NEW YORK CITY DEPARTMENT OF DESIGN AND CONSTRUCTION
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PROJECT ID: HEDA001
CONTRACT PIN: 8502015WM0011C

BID SCHEDULE FORM

COL. 1 SEQ. NO	COL. 2 ITEM NUMBER and DESCRIPTION	COL. 3 ENGINEER'S ESTIMATE OF QUANTITIY	COL. 4 UNIT	COL. 5 UNIT PRICE (IN FIGURES) DOLLARS	CTS	COL. 6 EXTENDED AMOUNT (IN FIGURES) DOLLARS	CTS
074	**60.12D12-UH** LAYING 12-INCH DUCTILE IRON PIPE AND FITTINGS IN THE BRONX (IN UNIMPROVED ROADWAY AND/OR SIDEWALK LOCATIONS)	310.00	L.F.				
075	**60.12D20-IH** LAYING 20-INCH DUCTILE IRON PIPE AND FITTINGS IN THE BRONX (IN IMPROVED ROADWAY AND/OR SIDEWALK LOCATIONS)	1,650.00	L.F.				
076	**60.13M0A24** FURNISHING AND DELIVERING DUCTILE IRON MECHANICAL JOINT 24 -INCH DIAMETER AND SMALLER FITTINGS, INCLUDING WEDGE TYPE RETAINER GLANDS	65.00	TONS				
077	**61.11DMM06** FURNISHING AND DELIVERING 6-INCH MECHANICAL JOINT DUCTILE IRON GATE VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	65.00	EACH				
078	**61.11DMM08** FURNISHING AND DELIVERING 8-INCH MECHANICAL JOINT DUCTILE IRON GATE VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	65.00	EACH				

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BID SCHEDULE FORM

COL. 1 SEQ. NO	COL. 2 ITEM NUMBER and DESCRIPTION	COL. 3 ENGINEER'S ESTIMATE OF QUANTITY	COL. 4 UNIT	COL. 5 UNIT PRICE (IN FIGURES) DOLLARS	CTS	COL. 6 EXTENDED AMOUNT (IN FIGURES) DOLLARS	CTS
079	**61.11DMM12** FURNISHING AND DELIVERING 12-INCH MECHANICAL JOINT DUCTILE IRON GATE VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	17.00	EACH				
080	**61.11DMM20** FURNISHING AND DELIVERING 20-INCH MECHANICAL JOINT DUCTILE IRON GATE VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	9.00	EACH				
081	**61.11TWC03** FURNISHING AND DELIVERING 3-INCH WET CONNECTION TAPPING VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	20.00	EACH				
082	**61.11TWC04** FURNISHING AND DELIVERING 4-INCH WET CONNECTION TAPPING VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	13.00	EACH				
083	**61.11TWC06** FURNISHING AND DELIVERING 6-INCH WET CONNECTION TAPPING VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	10.00	EACH				

BID SCHEDULE FORM

COL. 1 SEQ. NO	COL. 2 ITEM NUMBER and DESCRIPTION	COL. 3 ENGINEER'S ESTIMATE OF QUANTITTY	COL. 4 UNIT	COL. 5 UNIT PRICE (IN FIGURES) DOLLARS	CTS	COL. 6 EXTENDED AMOUNT (IN FIGURES) DOLLARS	CTS
084	**61.11TWC08** FURNISHING AND DELIVERING 8-INCH WET CONNECTION TAPPING VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	10.00	EACH				
085	**61.11TWC12** FURNISHING AND DELIVERING 12-INCH WET CONNECTION TAPPING VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	7.00	EACH				
086	**61.12DMM06** SETTING 6-INCH MECHANICAL JOINT DUCTILE IRON GATE VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	65.00	EACH				
087	**61.12DMM08** SETTING 8-INCH MECHANICAL JOINT DUCTILE IRON GATE VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	65.00	EACH				
088	**61.12DMM12** SETTING 12-INCH MECHANICAL JOINT DUCTILE IRON GATE VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	17.00	EACH				
089	**61.12DMM20** SETTING 20-INCH MECHANICAL JOINT DUCTILE IRON GATE VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	9.00	EACH				

BID SCHEDULE FORM

COL. 1 SEQ. NO	COL. 2 ITEM NUMBER and DESCRIPTION	COL. 3 ENGINEER'S ESTIMATE OF QUANTITIY	COL. 4 UNIT	COL. 5 UNIT PRICE (IN FIGURES) DOLLARS	CTS	COL. 6 EXTENDED AMOUNT (IN FIGURES) DOLLARS	CTS
090	**61.12TWC03** SETTING 3-INCH WET CONNECTION TAPPING VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	20.00	EACH				
091	**61.12TWC04** SETTING 4-INCH WET CONNECTION TAPPING VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	13.00	EACH				
092	**61.12TWC06** SETTING 6-INCH WET CONNECTION TAPPING VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	10.00	EACH				
093	**61.12TWC08** SETTING 8-INCH WET CONNECTION TAPPING VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	10.00	EACH				
094	**61.12TWC12** SETTING 12-INCH WET CONNECTION TAPPING VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	7.00	EACH				
095	**62.11SD** FURNISHING AND DELIVERING HYDRANTS	65.00	EACH				

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COL. 1 SEQ. NO	COL. 2 ITEM NUMBER and DESCRIPTION	COL. 3 ENGINEER'S ESTIMATE OF QUANTITIY	COL. 4 UNIT	COL. 5 UNIT PRICE (IN FIGURES) DOLLARS	CTS	COL. 6 EXTENDED AMOUNT (IN FIGURES) DOLLARS	CTS
096	62.12SG SETTING HYDRANTS COMPLETE WITH WEDGE TYPE RETAINER GLANDS	65.00	EACH				
097	62.13RH REMOVING HYDRANTS	45.00	EACH				
098	62.14FS FURNISHING, DELIVERING AND INSTALLING HYDRANT FENDERS	130.00	EACH				
099	63.11VC FURNISHING AND DELIVERING VARIOUS CASTINGS	235.00	TONS				
100	64.11EL WITHDRAWING AND REPLACING HOUSE SERVICES USING 1-1/2-INCH OR LARGER SCREW TAPS	60.00	EACH				
101	64.11ST WITHDRAWING AND REPLACING HOUSE SERVICES USING SMALLER THAN 1-1/2-INCH SCREW TAPS	670.00	EACH				

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BID SCHEDULE FORM

COL. 1	COL. 2	COL. 3	COL. 4	COL. 5 UNIT PRICE (IN FIGURES)		COL. 6 EXTENDED AMOUNT (IN FIGURES)	
SEQ. NO	ITEM NUMBER and DESCRIPTION	ENGINEER'S ESTIMATE OF QUANTITIY	UNIT	DOLLARS	CTS	DOLLARS	CTS
102	**64.12ESEG** EXTENDING HOUSE SERVICE WATER CONNECTIONS (EQUAL TO OR GREATER THAN 3-INCH DIAMETER)	70.00	L.F.				
103	**64.12ESLT** EXTENDING HOUSE SERVICE WATER CONNECTIONS (LESS THAN 3-INCH DIAMETER)	470.00	L.F.				
104	**64.13WC08** FURNISHING, DELIVERING AND INSTALLING WET CONNECTION SLEEVE ON 8-INCH WATER MAIN PIPE WITH VARIOUS OUTLETS	20.00	EACH				
105	**64.13WC12** FURNISHING, DELIVERING AND INSTALLING WET CONNECTION SLEEVE ON 12-INCH WATER MAIN PIPE WITH VARIOUS OUTLETS	20.00	EACH				
106	**64.13WC20** FURNISHING, DELIVERING AND INSTALLING WET CONNECTION SLEEVE ON 20-INCH WATER MAIN PIPE WITH VARIOUS OUTLETS	10.00	EACH				
107	**65.11BR** FURNISHING, DELIVERING AND INSTALLING BANDS, RODS, WASHERS, ETC., COMPLETE, FOR RESTRAINING JOINTS	1,650.00	LBS.				

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COL. 1 SEQ. NO	COL. 2 ITEM NUMBER and DESCRIPTION	COL. 3 ENGINEER'S ESTIMATE OF QUANTITIY	COL. 4 UNIT	COL. 5 UNIT PRICE (IN FIGURES) DOLLARS	CTS	COL. 6 EXTENDED AMOUNT (IN FIGURES) DOLLARS	CTS
108	**65.21PS** FURNISHING AND PLACING POLYETHYLENE SLEEVE **Unit price bid shall not be less than: $ 0.50**	1,800.00	L.F.				
109	**65.31FF** FURNISHING, DELIVERING AND PLACING FILTER FABRIC **Unit price bid shall not be less than: $ 0.15**	22,000.00	S.F.				
110	**65.71SG** FURNISHING, DELIVERING AND PLACING SCREENED GRAVEL OR SCREENED BROKEN STONE BEDDING	250.00	C.Y.				
111	**7.13 B** MAINTENANCE OF SITE **Unit price bid shall not be less than: $ 4,000.00**	18.00	MONTH				
112	**7.36** PEDESTRIAN STEEL BARRICADES	26,900.00	L.F.				
113	**70.21DK** DECKING	100.00	S.Y.				

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COL. 1 SEQ. NO	COL. 2 ITEM NUMBER and DESCRIPTION	COL. 3 ENGINEER'S ESTIMATE OF QUANTITY	COL. 4 UNIT	COL. 5 UNIT PRICE (IN FIGURES) DOLLARS	CTS	COL. 6 EXTENDED AMOUNT (IN FIGURES) DOLLARS	CTS
114	**70.31FN** FENCING **Unit price bid shall not be less than: $ 1.75**	3,620.00	L.F.				
115	**70.51EO** EXCAVATION OF BOULDERS IN OPEN CUT **Unit price bid shall not be less than: $ 75.00**	60.00	C.Y.				
116	**70.61RE** ROCK EXCAVATION	60.00	C.Y.				
117	**70.71SB** STONE BALLAST **Unit price bid shall not be less than: $ 15.00**	160.00	C.Y.				
118	**70.91SW12** FURNISHING AND PLACING SHEETING AND BRACING IN TRENCH FOR WATER MAIN PIPE 12-INCH IN DIAMETER AND LESS	520.00	S.F.				
119	**70.91SW20** FURNISHING AND PLACING SHEETING AND BRACING IN TRENCH FOR WATER MAIN PIPE 20-INCH IN DIAMETER	1,650.00	S.F.				

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120	**73.11AB** ADDITIONAL BRICK MASONRY **Unit price bid shall not be less than: $ 62.50**	2.00	C.Y.				
121	**73.21AC** ADDITIONAL CONCRETE **Unit price bid shall not be less than: $ 87.50**	25.00	C.Y.				
122	**73.31AE0** ADDITIONAL EARTH EXCAVATION INCLUDING TEST PITS (ALL DEPTHS) **Unit price bid shall not be less than: $ 20.00**	1,100.00	C.Y.				
123	**73.31AE2** ADDITIONAL EARTH EXCAVATION INCLUDING TEST PITS (OVER 12' TO 16' DEPTH) **Unit price bid shall not be less than: $ 15.00**	340.00	C.Y.				
124	**73.31AE3** ADDITIONAL EARTH EXCAVATION INCLUDING TEST PITS (OVER 16' TO 20' DEPTH) **Unit price bid shall not be less than: $ 20.00**	80.00	C.Y.				
125	**73.41AG** ADDITIONAL SELECT GRANULAR BACKFILL **Unit price bid shall not be less than: $ 15.00**	6,500.00	C.Y.				

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126	73.51AS ADDITIONAL STEEL REINFORCING BARS **Unit price bid shall not be less than: $ 1.00**	220.00	LBS.				
127	9.32 REINFORCED SILT FENCE WITH STAKED HAY BALES	1,000.00	L.F.				
128	DSS014A1 CLEANING OF SEWER (LESS THAN 24" DIAMETER).	2,000.00	L.F.				
129	DSS014A2 CLEANING OF SEWER (24" TO 48" DIAMETER).	1,160.00	L.F.				
130	DSS014B CLEANING OF MANHOLE	10.00	EACH				
131	UTL-6.01.1 GAS MAIN CROSSING SEWER UP TO 24" IN DIAMETER (S6.01) **Unit price bid shall not be less than: $ 1,040.00**	2.00	EACH				

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132	**UTL-6.01.2** GAS MAIN CROSSING SEWER 30" IN DIAMETER (S6.01) **Unit price bid shall not be less than: $ 1,770.00**	2.00	EACH				
133	**UTL-6.01.3** GAS MAIN CROSSING SEWER 36" THRU 42" IN DIAMETER (S6.01) **Unit price bid shall not be less than: $ 2,040.00**	2.00	EACH				
134	**UTL-6.01.4** GAS MAIN CROSSING SEWER 48" THRU 54" IN DIAMETER (S6.01) **Unit price bid shall not be less than: $ 2,120.00**	2.00	EACH				
135	**UTL-6.01.8** GAS SERVICES CROSSING TRENCHES AND/OR EXCAVATIONS (S6.01) **Unit price bid shall not be less than: $ 465.00**	150.00	EACH				
136	**UTL-6.01.9** GAS MAIN CROSSING WATER MAIN UP TO 20" IN DIAMETER (S6.01) **Unit price bid shall not be less than: $ 485.00**	100.00	EACH				
137	**UTL-6.02** EXTRA EXCAVATION FOR THE INSTALLATION OF CATCH BASIN SEWER DRAIN PIPES WITH GAS INTERFERENCES (S6.02) **Unit price bid shall not be less than: $ 715.00**	10.00	EACH				

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COL. 1 SEQ. NO	COL. 2 ITEM NUMBER and DESCRIPTION	COL. 3 ENGINEER'S ESTIMATE OF QUANTITIY	COL. 4 UNIT	COL. 5 UNIT PRICE (IN FIGURES) DOLLARS . CTS	COL. 6 EXTENDED AMOUNT (IN FIGURES) DOLLARS . CTS
138	**UTL-6.03** REMOVAL OF ABANDONED GAS FACILITIES. ALL SIZES. (S6.03) **Unit price bid shall not be less than: $ 15.00**	4,000.00	L.F.		
139	**UTL-6.03.1A** REMOVAL OF ABANDONED GAS FACILITIES WITH POSSIBLE COAL TAR WRAP. ALL SIZES. (S6.03) **Unit price bid shall not be less than: $ 25.00**	200.00	L.F.		
140	**UTL-6.04** ADJUST HARDWARE TO GRADE USING SPACER RINGS/ADAPTORS. (STREET REPAVING.) (S6.04) **Unit price bid shall not be less than: $ 35.00**	150.00	EACH		
141	**UTL-6.05** ADJUST HARDWARE TO GRADE BY RESETTING. (ROAD RECONSTRUCTION.) (S6.05) **Unit price bid shall not be less than: $ 65.00**	150.00	EACH		
142	**UTL-6.06** SPECIAL CARE EXCAVATION AND BACKFILLING (S6.06) **Unit price bid shall not be less than: $ 180.00**	2,500.00	C.Y.		
143	**UTL-6.07** TEST PITS FOR GAS FACILITIES (S6.07) **Unit price bid shall not be less than: $ 100.00**	200.00	C.Y.		

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144	**UTL-6.09** TRENCH EXCAVATION AND BACKFILL FOR GAS MAINS AND SERVICES. GAS INSTALLED BY OTHERS. **Unit price bid shall not be less than: $ 190.00**	2,000.00	C.Y.				
145	**UTL-GCS-2WS** GAS INTERFERENCES AND ACCOMMODATIONS **PRICE BID SHALL BE FOR THE FIXED SUM OF $ 100,000.00**	1.00	F.S.	100,000	00	100,000	00

SUB-TOTAL: $ _____

146	**6.39 A** MOBILIZATION **BID PRICE OF MOBILIZATION SHALL NOT EXCEED 4% OF THE ABOVE SUB-TOTAL PRICE.**	1.00	L.S.				

TOTAL BID PRICE: $ _____

PLEASE BE SURE A LEGIBLE BID IS ENTERED FOR EACH ITEM.
THE BIDDER SHALL INSERT THE TOTAL BID PRICE IN THE BID FORM ON PAGE C-4 OF THIS BID BOOKLET.

CITY OF NEW YORK
DEPARTMENT OF DESIGN AND CONSTRUCTION
DIVISION OF INFRASTRUCTURE

ADDENDA CONTROL SHEET

BID OPENING DATE: MARCH 26, 2015

PROJECT NO.: HEDA001

TITLE: CONSTRUCTION OF ACCELERATED WATER MAIN REPLACEMENT AND SEWER REHABILITATION AND REPLACEMENT

ADDENDA ISSUED	No. OF DRAWINGS	DATE
#1: Amendments to Standard Highway Specs.		02/24/2014
#2: Sewer and Water Main Specifications		12/26/2014
#3: Gas Cost Sharing (EP-7) Std. Specifications		12/26/2014
#4: To CET Specifications		01/07/2015
#5: Additional Amendments		02/19/2015
#6: Additional Amendments		03/13/2015

ATTACH TO CONTRACT DOCUMENTS

THE CITY OF NEW YORK
DEPARTMENT OF DESIGN AND CONSTRUCTION
INFRASTRUCTURE DIVISION
BUREAU OF DESIGN

PROJECT ID: HEDA001

FOR THE CONSTRUCTION OF ACCELERATED WATER MAIN REPLACEMENT AND SEWER REHABILITATION AND REPLACEMENT

Together With All Work Incidental Thereto

BOROUGH OF THE BRONX

ADDENDUM NO. 6

DATED: March 13, 2015

This Addendum is issued for the purpose of amending the requirements of the contract documents and is hereby made part of said contract documents to the same extent as if it was originally included therein.

(1) Refer to the Bid and Contract Documents, VOLUME 1 OF 3, Page A-1, Attachment 1 - Bid Information; Change the dates shown for Submission of Bids To: and for Bid Opening: from "March 19, 2015" to read "March 26, 2015."

(2) Refer to the Bid and Contract Documents, VOLUME 1 OF 3, Page 13, Schedule B - MWBE; Change the dates shown for Bid/Proposal Response Date: from "March 19, 2015" to read "March 26, 2015."

(3) Refer to the Bid and Contract Documents, VOLUME 1 OF 3, BID SCHEDULE, page B-17 [REVISION #1], Sequence No. 076, Item No. 60.13M0A24, Column 3, ENGINEER'S ESTIMATE OF QUANTITY; Change the quantity of "65.00" to read "68.00".

(4) Refer to the Bid and Contract Documents, VOLUME 1 OF 3, BID SCHEDULE, page B-23 [REVISION #1] , Sequence No. 111, Item No. 7.13 B, Column 3, ENGINEER'S ESTIMATE OF QUANTITY; Change the quantity of "18.00" to read "12.00".

(5) Refer to the Bid and Contract Documents, VOLUME 3 OF 3, Addendum 2, pages A2-1 to A2-31;
Delete all pages in their entirety;
Substitute with attached revised Addendum 2 pages A2-1[R] to A2-29[R].

By signing in the space provided below, the bidder acknowledges receipt of the one (1) page of this Addendum plus twenty-nine (29) pages of attachments.

THIS ADDENDUM MUST BE SIGNED BY ALL BIDDERS AND ATTACHED TO THEIR BIDS.

for **GURDIP SAINI, P.E.**
Associate Commissioner/Design I

_____
Name of Bidder

By: _____

ATTACH TO CONTRACT DOCUMENTS

THE CITY OF NEW YORK
DEPARTMENT OF DESIGN AND CONSTRUCTION
INFRASTRUCTURE DIVISION
BUREAU OF DESIGN

PROJECT ID: HEDA001

FOR THE CONSTRUCTION OF ACCELERATED WATER MAIN REPLACEMENT AND SEWER REHABILITATION AND REPLACEMENT

Together With All Work Incidental Thereto

BOROUGH OF THE BRONX

ADDENDUM NO. 2

DATED: December 26, 2014

This Addendum is issued for the purpose of amending the requirements of the contract documents and is hereby made part of said contract documents to the same extent as if it was originally included therein.

The Standard Sewer And Water Main Specifications of the Department of Environmental Protection (dated July 1, 2014), Sewer Design Standards of the Department of Environmental Protection (dated (September 2007) Revised January 2009), Water Main Standard Drawings of the Department of Environmental Protection (latest revisions), Specifications For Trunk Main Work of the Department of Environmental Protection (dated July 2014) and the Standard Highway Specifications (Volumes I and II) of the Department of Transportation (dated November 1, 2010) of The City of New York, shall be included as part of the contract documents. These said specifications and standard drawings are hereby revised under the following section headings:

A. SPECIFIC PROVISIONS FOR WATER MAIN WORK
B. NOTICE TO BIDDERS
C. AMENDMENTS TO THE STANDARD HIGHWAY SPECIFICATIONS
D. AMENDMENTS TO THE STANDARD SEWER AND WATER MAIN SPECIFICATIONS
E. AMENDMENTS TO THE SPECIFICATIONS FOR TRUNK MAIN WORK

A. SPECIFIC PROVISIONS FOR WATER MAIN WORK

SPW-1 DESCRIPTION OF WORK

This is a Borough-wide annual contract to install water mains in connection with new building construction, or to improve the City's water main distribution system pertaining to water quality and fire protection on an as needed basis. Contract drawings/plans showing new water main work are not issued with this contract, but will be furnished to the Contractor with each Task Order, for the duration of this contract.

Work by Others - In the event there is need for required services in the borough(s) designated in the contract, the Commissioner reserves the right not to issue a task order to the Contractor and to have the work performed by another contractor, or by City employees, if the Commissioner, in the Commissioner's sole opinion, determines that the Contractor may be unable to satisfactorily provide the required services in a timely fashion.

SPW-2 WORK TO BE DONE UNDER THIS CONTRACT

Under this contract the Contractor may be required to install water mains in connection with new building construction. The Contractor may also be required to install water mains to improve the City's water distribution system, replace existing water mains requiring tap transfers or to cut in additional fire hydrants as deemed needed to existing water mains. The Contractor may be further required to replace existing nonfunctioning and/or defective fire hydrants on existing water mains, replace existing nonfunctioning and/or defective air cock hydrants on existing trunk mains, cut in additional valves on existing water mains and/or replace existing nonfunctioning and/or defective valves on existing water mains.

The Contractor shall be prepared to report to any designated location in accordance with Section SPW-4 - Issuance of Task Orders.

It shall be the Contractor's responsibility to obtain any and all permits needed to do the work under this contract, which shall include, but not be limited to, permits obtained from the Department of Transportation (Bureau of Traffic Operations), Police Department, Fire Department and the Transit Authority.

The Contractor is required to give twenty-four (24) hours prior notice before the start of the work in a manner satisfactory to the Engineer, to the Transit Authority, Department of Transportation (Bureau of Traffic Operations), Police Department and Fire Department so that proper arrangements can be made for maintaining traffic during the course of the work.

The attention of the Contractor is also called to the fact that under this type of contract, the City is not able to determine accurately in advance the quantity of each size of pipe and appurtenances that will be required to be installed as the quantities are dependent upon applications for water service to new buildings over which the City has no control.

The quantities of work set forth herein are only an estimate; they are not a guarantee of work and are included solely for the purpose of bid computation.

The City, however, will endeavor with each task order to have drawings/plans available for the Contractor to install the pipe quantities herein specified, as measured along the axes of the pipes in place and no allowance will be made if the quantities of the various sizes of pipe and appurtenances differ from that as specified.

At the conclusion of the contract, any task orders furnished to the Contractor in which work has not already commenced will be deleted from the contract. No additional compensation shall be made to the Contractor for these deleted locations. However, the Contractor may request from the Engineer to work beyond the expiration date of the contract provided there are sufficient funds and quantities of all necessary items to complete the required work. No extra allowance other than an extension of time will be granted to the Contractor to complete the proposed work.

The attention of the Contractor is also called to the fact that the duration of the contract is three hundred sixty-five (365) days and that the City does not guarantee or stipulate that the pipe laying work will be continuous.

The Contractor may be required to install water mains, including hydrants and appurtenances, and perform all excavations/restorations, etc. at various locations, in the borough. The Contractor will also be required to cut in additional fire hydrants as deemed needed to existing water mains, replace existing nonfunctioning and/or defective fire hydrants on existing water mains, replace existing nonfunctioning and/or defective air cock hydrants on existing trunk mains, cut in additional valves on existing water mains and/or replace existing nonfunctioning and/or defective valves on existing water mains. Task orders together with drawings/plans will be issued to the Contractor by the Commissioner or the Commissioner's duly authorized representative as applications warrant.

SPW-3 WORK COMMENCEMENT AFTER RECEIVING TASK ORDER

Following the execution of the contract, water main installation drawings/plans will be issued with each task order to the Contractor by the Commissioner or the Commissioner's duly authorized representative. The water main drawings/plans will be issued to the Contractor as applications for water service to new buildings needs, distribution/fire protection needs, water quality needs and/or service needs which may warrant water main and/or appurtenance installations.

Based upon past experience, the following are approximate proportions of the total footage of pipe installed in various streets of contract, over six (6) month periods:

Installation in Streets	Proportion
75' to 150' in length	2%
151' to 300' in length	15%
301' to 500' in length	17%
501' and longer in length	66%

The City shall not be held responsible should these percentages differ for the work to be done under this contract.

As such, this contract may include the installation or replacement of hydrants and valves, as required, and spot repairs with minimal, if any, pipe replacement. The work of installing or replacing hydrants and valves shall include but not be limited to the following:

For Replacing Existing Fire Hydrants:

(a) On Cast Iron Water Mains: Replace fire hydrant, 6-inch gate valve, 6-inch hydrant pipe connection and hydrant valve box to existing water main. Also, replace three-way connection on existing main and lengths of water main pipe for pipe restraint on each side of the three-way in accordance with **Subsection 60.12.3 (I) - Restrained Pipe Joints**. Also install hydrant fenders and reconstruct sidewalk, curb and roadway areas as required.

(b) On Ductile Iron Water Mains: Replace fire hydrant and 6-inch hydrant pipe connection to the outlet of the existing hydrant gate valve. Also install hydrant fenders and reconstruct sidewalk, curb and roadway areas as required.

For Replacing Existing Air Cock Hydrants:

On All Trunk Mains: Replace air cock hydrant and 6-inch hydrant pipe connection to the outlet of the existing hydrant gate valve. Also install hydrant fenders and reconstruct sidewalk, curb and roadway areas as required.

For Installing A New Fire Hydrant To An Existing Main:

On All Water Mains: Install fire hydrant, 6-inch gate valve, 6-inch hydrant pipe connection, hydrant valve box, install three-way connection on existing main and lengths of water main pipe for pipe restraint on each side of the three-way in accordance with **Subsection 60.12.3 (I) - Restrained Pipe Joints**. Also install hydrant fenders and reconstruct sidewalk, curb and roadway areas as required.

For Replacing Existing Gate Valves:
On All Water Mains: Replace gate valve, valve box and lengths of water main pipe for pipe restraint on each side of the valve in accordance with **Subsection 60.12.3 (I) - Restrained Pipe Joints**. Also reconstruct sidewalk, curb and roadway areas as required.

For Installing A New Gate Valve On An Existing Main:
On All Water Mains: Install gate valve, valve box and lengths of water main pipe for pipe restraint on each side of the valve in accordance with **Subsection 60.12.3 (I) - Restrained Pipe Joints**. Also reconstruct sidewalk, curb and roadway areas as required.

SPW-4 ISSUANCE OF TASK ORDERS

(A) GENERAL: The Contractor shall, for the duration of this contract, provide services as directed by the Engineer to install water mains in connection with new building construction, or to improve the City's water main distribution system pertaining to water quality and fire protection on an as needed basis, in accordance with the terms and conditions set forth herein.

(B) TRANSMISSION OF TASK ORDERS:

(1) The Engineer shall advise the Contractor of the need for services by issuing Task Orders to the Contractor as set forth in **paragraph (C)** below. The Engineer shall send Task Orders to the Contractor by e-mail, fax, or by telephone promptly confirmed by e-mail and/or fax.

(2) The Contractor shall, for the duration of this contract, provide and maintain at its place of business a dedicated telephone line, a dedicated e-mail address and a dedicated fax line for the receipt of Task Orders hereunder. The e-mail and fax machine shall be in operation twenty-four (24) hours per day, seven (7) days per week, for the duration of this contract. The Contractor shall not be entitled to any compensation for the provision of such equipment. All expenses for the required telephone, e-mail and fax lines shall be deemed included in the unit prices bid for all items in this contract.

(C) TASK ORDER: When the need for services arises, the Engineer shall issue a Task Order to the Contractor together with drawings/plans. The Task Order shall specify the items set forth below:

(1) Description and Location of the Project
(2) Length of Work
(3) Services to be Performed (install water mains in connection with new building construction, install water mains to improve the City's water main distribution system, replace existing water mains requiring tap transfers, to cut in additional fire hydrants on existing water mains, to replace existing nonfunctioning and/or defective fire hydrants on existing water mains, to replace existing nonfunctioning and/or defective air cock hydrants on existing trunk mains, cut in additional valves on existing water mains, replace existing nonfunctioning and/or defective valves on existing water mains, etc.)
(4) Completion Time (consecutive calendar days for completing work on each task order)

(D) Time is of the essence as the public health and safety are involved. Accordingly, the Contractor shall perform the work at each and every ordered location promptly and diligently, using such means and methods of work as will assure its expeditious and satisfactory completion without delay. In light of the difficulty of ascertaining the amount of the City's damages in the event that the Contractor does not complete a task order within the time specified by the Engineer, the Contractor shall be assessed the amount stipulated in Schedule "A" for each consecutive calendar day over the completion time specified in each issued written task order, as and for liquidated damages and not as a penalty for failure to complete a task order within the time specified.

(E) PERSONNEL: The Contractor shall provide adequate personnel and equipment at each ordered location. Prior to the start of work the Engineer shall approve such personnel and equipment. The Engineer reserves the right to determine the personnel and equipment required to adequately and

properly carry out the intent of this contract. The Contractor must be prepared to provide adequate personnel and equipment to perform the services specified herein at up to three (3) concurrent sites.

(F) NO RIGHT TO REFUSE: The Contractor shall have no right to reject or decline to perform any Task Order issued under this contract. However, if the Contractor is unable to begin the required work for any reason, the Contractor shall so notify the Engineer by telephone as soon as possible, such notifications to be followed by an explanation in writing as to the reasons why the Contractor is unable to begin the required work.

(G) SUPPLEMENTARY TASK ORDERS: The Contractor shall perform only the work specifically ordered by the Engineer in the written Task Order. The Department of Design and Construction reserves the right to order additional work through Supplementary Task Orders issued by the Engineer, as the work on the original Task Order progresses.

SPW-5 EXAMINATION AND VIEWING OF SITE, ETC.

In Contract Book, Volume 2 of 3, INFORMATION FOR BIDDERS, Page 2, Section 8 - Examination and Viewing of Site, Consideration of Other Sources of Information and Changed Conditions, DELETE Paragraph (A), in its entirety and **SUBSTITUTE** the following:

"(A) Contractor (Investigation) Viewing of Sites - The Contractor after issuance of task order from the Commissioner or duly authorized representative must carefully view and examine the site of the proposed work, as well as its adjacent areas, and seek other usual sources of information, for the Contractor will be conclusively presumed to have full knowledge of any and all conditions on, about or above the sites relating to or affecting in any way the performance of the work to be done under this contract which were or should have been indicated to a reasonably prudent Contractor. Upon examination of the sites and/or from other usual sources of information, the Contractor finds conditions that are unusual, and may materially affect the cost of the work to be done under this contract, the Contractor shall follow the procedure specified in INFORMATION FOR BIDDERS, Page 2, Section 8, Paragraph (B)."

SPW-6 GUARANTEED MINIMUM

In the event the Contractor is not issued any Task Orders hereunder, the City agrees to pay, and the Contractor agrees to accept, a minimum fee of two thousand dollars ($2,000.00). The Contractor further agrees that under such circumstances, the Contractor has no action for damages or for loss of profits against the City.

B. NOTICE TO BIDDERS

(1) The Contractor is advised that the duration of the contract is one (1) year from the date of Order to Commence Work.

(2) (A) The Contractor is advised that copies of the Standard Sewer And Water Main Specifications (dated July 1, 2014), Sewer Design Standards (dated (September 2007) Revised January 2009), Specifications For Trunk Main Work (dated July 2014) and Water Main Standard Drawings (latest revisions) are available to all prospective bidders at no cost upon presentation of receipt of purchase of Bid Package at the following location:

Department of Design and Construction
Division of Infrastructure
Design Services, Specifications, 3rd Floor
30-30 Thomson Avenue
Long Island City, NY 11101

(B) The Contractor is advised that copies of the Standard Highway Specifications (Volume I and II) (dated November 1, 2010), Standard Highway Details of Construction (latest revisions), Division of Street Lighting Specifications (latest revisions), Division of Street Lighting Standard Drawings (latest revisions), Standard Specifications for Traffic Signals (latest revisions), and Standard Drawings for Traffic Signals (latest revisions) are available to all prospective bidders for a fee at the following location:

Department of Transportation
55 Water Street, Ground Floor
New York City, NY 10041

(3) The Contractor is notified that a Notice To Proceed (NTP) date will be issued for work to commence within twenty-one (21) to thirty (30) days of Contract Registration.

(4) The Contractor shall furnish, install, maintain and subsequently remove temporary Protective Tree Barriers. Protective Tree Barriers shall be Type B, unless otherwise directed by the Engineer, and shall be constructed and installed as shown on the Protective Tree Barrier sketch in Department Of Transportation, Standard Highway Details Of Construction, Drawing No. H-1046A, as directed by the Engineer, and in accordance with Department of Parks and Recreation requirements.

(5) The Contractor is notified that Victaulic Style 77 Coupling is no longer acceptable for use in any steel water main work. All reference to Victaulic Style 77 Coupling within the Standard Sewer And Water Main Specifications of the Department of Environmental Protection (dated July 1, 2014), the Water Main Standard Drawings of the Department of Environmental Protection (latest revisions), the Specifications For Trunk Main Work (dated July 2014), and the contract drawings, shall be replaced with Bolted Split-Sleeve Restrained Coupling.

(6) The Contractor is notified that wherever the Item No. "6.52" and words "flagger", "flagperson" and "flagman" are used in the contract documents and drawings it shall mean the Item No. "6.52 CG" and the words "Crossing Guard", respectively.

(7) The Contractor is notified that the fuel cost per gallon used in the formula under **Sub-Article 26.2.8** of the Standard Construction Contract for **Extra Work** will be derived from the fuel price index for the United States East Coast published weekly by the United States Energy Information Administration ("USEIA"), and available on its website at http://www.eia.gov/petroleum/gasdiesel/ . The USEIA published cost per gallon for the applicable fuel on the East Coast for the week in which the first day of each calendar quarter during the contract term occurs (i.e., January 1st, April 1st, July 1st and September 1st) will be used in the reimbursement formula for all **Extra Work** invoiced that was performed during that calendar quarter. Should the USEIA stop publishing this fuel price index, the

fuel cost per gallon will be determined by reference to a substitute index to be agreed upon by the Contractor and the City.

(8) The Contractor is responsible for any damage to the existing street and traffic signal equipment, including underground conduits and the safety of both pedestrian and vehicular traffic for the duration of the contract.

Should any conduits, cables or foundations need repair due to the Contractor's negligent operations during construction, all work shall be performed according to NYCDOT Bureau of Traffic's Standard Drawings and Specifications at the sole expense of the Contractor.

It is the Contractor's responsibility to secure an approved electrical contractor to perform all traffic signal work (if any). For list of approved electrical contractors, contact Mr. Michael R. LeFosse of New York City Department of Transportation at (718) 786-2236.

(9) (A) There is no provision for "ENGINEER'S FIELD OFFICE" in this contract, as per **New York City Department of Transportation (NYCDOT) Standard Highway Specifications Section 6.40 - Engineer's Field Office.**

(10) The Contractor will be required to prepare and submit **"As Built"** sewer record drawings to the Engineer for approval, at the completion of each installation. Drawings submitted at the completion of the entire contract after all installations shall not be accepted. Approved **"As Built"** drawings shall be delivered to the Department of Environmental Protection, Chief of Emergency Construction, 59-17 Junction Boulevard, 6th Floor - High Rise, Corona, New York, 11368, Tel. No. (718) 227-1868. The following guideline is provided for the preparation of **"As Built"** sewer record drawings:

(A) Drawings shall be prepared for each individual unrelated location. The drawings shall be submitted in CADD format on CD's along with a plotted Mylar for each location drawing. The drawings on CD's and the plotted Mylar's shall be legal size (8-1/2" x 14"). The Mylar shall be 3-mil in thickness.

(B) The **"As Built"** drawings shall conform to Department of Environmental Protection (DEP) Emergency Construction Drawings (ECD). A sample copy of the ECD may be obtained at the above office together with DEP guidelines. These DEP guidelines are summarized below:

(1) Drawings shall consist of the same legend and layout of title boxes shown on the sample ECD drawing.
(2) Drawings shall consist of a location plan view on one sheet. The location plan view shall be drawn Not-To-Scale.
(3) Drawings shall contain a note making reference to the datum used. (Datum used shall be that of the Borough where the sewer is located.)
(4) Each plotted Mylar drawing shall contain the signature and stamp of the Contractor's NYS Professional Engineer/Registered Architect.
(5) The location plan view shall include:
  (a) street name and two (2) crossing streets or distance from;
  (b) north arrow;
  (c) property lines and widths;
  (d) curb lines and widths;
  (e) sewers, manholes, catch basins, connections (No horizontal bends allowed on sewer lines);
  (f) sewer sizes, materials (ESVP, RCP, DIP, etc.), and types (New, Existing, Sanitary, Storm, Combined, etc.);
  (g) sewer length (between centerlines of manholes);
  (h) sewer flow direction;
  (i) offsets of sewer lines or extensions from property lines (not curb lines);
  (j) foundations (concrete cradle, stone ballast, piles, etc.);
  (k) manholes types (Precast, Concrete, Brick, A-1, A-2, etc.);
  (l) manhole elevations (both rim and invert);

(m) manhole stationing along installed sewers;
(n) catch basins types (Type 1, Type 2, etc.);
(o) catch basin connections;
(p) show actual number of manholes and catch basins;
(q) house connection spurs (stations and locations);
(r) address of house connections (new connections and reconnections);
(s) house connection information at curb (station, length, depth and offset from the curb);
(t) details of non-standard structures or appurtenances constructed;
(u) location of all existing and installed offset distances from property lines;
(v) for shotcreted sewers (thickness and reinforcement of shotcreting); and
(w) all appropriate notes.

(6) Examples of notes that can be used are as follows:
(a) Unless otherwise noted, all house connections are 6" ESVP;
(b) Unless otherwise noted, all catch basins are Standard Type 1;
(c) Unless otherwise noted, all new curb connections are at a depth of approximately 8-feet at the curb and are 2-feet inside the curb line;
(d) Unless otherwise noted, all built manholes are brick;
(e) Unless otherwise noted, all catch basin connections are 12" DIP on crushed stone;
(f) unless otherwise noted, all ESVP sewers are installed on 6" concrete cradle;
(g) Pipe lengths are measured from inside face of manhole to inside face of manhole.

(C) The cost of preparing and submitting "**As Built**" approved drawings shall be deemed included in the prices bid for all scheduled bid items in the contract. No separate or additional payment will be made for this work.

(11) The Contractor will be required to prepare and submit "As-Built" water main record drawings to the Engineer for approval, at the completion of each installation. Drawings submitted at the completion of the entire contract after all installations shall not be accepted. Approved "As-Built" drawings shall be delivered to the Department of Environmental Protection, Chief of Emergency Construction, 59-17 Junction Boulevard, 6th Floor - High Rise, Corona, New York, 11368, Tel No. (718) 227-1868. The following guideline is provided for the preparation of "As-Built" water main record drawings:

(A) Drawings shall be prepared for each individual unrelated location. The Contractor shall prepare the "As-Built" drawings on AutoCAD and shall provide to the City two (2) sets of Mylar and AutoCAD files on a CD for each location drawing. For Trunk Mains - The drawings shall be on CD's and the plotted Mylar's shall conform to the standard size of 22" x 36" (559-mm. x 914-mm.) using a 1"=30' (1:360) horizontal and 1"=10' (1:120) vertical scale. The Mylar shall be 3-mil in thickness. For Distribution Mains - The drawings shall be on CD's and the plotted Mylar's shall be field card size 6" x 4". The Mylar shall be 3-mil in thickness. Two (2) copies on regular field card stock paper shall also be provided.

(B) The "As-Built" drawings shall conform to Department of Environmental Protection (DEP) Emergency Construction Drawings (ECD). A sample of the ECD may be obtained at the above office together with DEP guidelines. These guidelines are summarized below:

(1) Drawings shall consist of the same legend and layout of title boxes shown on the contract drawings.
(2) Each plotted Mylar drawing shall contain the signature and stamp of the Contractor's NYS Professional Engineer/Registered Architect.
(3) The drawings shall include:
(a) street name and crossing street(s) or distance from;
(b) north arrow;
(c) property lines and widths;
(d) legal and existing street widths, street alignment and grades;
(e) "new" curb lines and widths;
(f) water main center line measured off the "new" curb line;

(g) horizontal stationing for all valves, hydrants, outlets, blow-offs, house service connections, etc., measured on a horizontal line as established by the Borough Office Bureau of Topographic;
(h) alignment and appurtenance location stationing, and deflection angles;
(i) cover and elevations (Datum used shall be that of the Borough where work is located);
(j) location of pipe joints;
(k) profile of all piping;
(l) complete details of all outlet piping roundabouts;
(m) complete details of all blow-off connections to the sewer;
(n) complete details of all air cocks;
(o) location of taps and access manholes;
(p) location of all cathodic protection stations;
(q) Venturi sensing lines plans and profiles;
(r) all appropriate notes.

(C) The cost of preparing and submitting "As Built" approved drawings shall be deemed included in the prices bid for all scheduled bid items in the contract. No separate or additional payment will be made for this work.

(12)Any spot repair shall mean that the existing sewer at locations shall be replaced in the kind to the extent as specified by the Engineer.

(13)The cost of sewer replacement under spot repair shall be deemed included in the price bid for item Nos. 1.A50.31PC08 - 8" E.S.V.P. SEWER, ON CONCRETE CRADLE (MINIMUM 15 FEET LENGTHS), Item No. 1.B50.31PC08 - 8" E.S.V.P. SEWER, ON CONCRETE CRADLE (ADDITIONAL LENGTH BEYOND THE MINIMUM 15 FEET) (FIXED UNIT PRICE TO BE 70% OF UNIT PRICE BID FOR ITEM NO. 1.A50.31PC08), Item No. 1.C50.31PC10 - 10" E.S.V.P. SEWER, ON CONCRETE CRADLE (MINIMUM 15 FEET LENGTHS) (FIXED UNIT PRICE TO BE $5.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.A50.31PC08), Item No. 1.D50.31PC10 - 10" E.S.V.P. SEWER, ON CONCRETE CRADLE (ADDITIONAL LENGTH BEYOND THE MINIMUM 15 FEET TO A MAXIMUM OF 100 FEET) (FIXED UNIT PRICE TO BE $5.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.B50.31PC08), Item No. 1.E50.31PC10 - 10" E.S.V.P. SEWER, ON CONCRETE CRADLE (ADDITIONAL LENGTH BEYOND 100 FEET) (FIXED UNIT PRICE TO BE 90% OF UNIT PRICE BID FOR ITEM NO. 1.D50.31PC10), Item No. 1.F50.31PC12 - 12" E.S.V.P. SEWER, ON CONCRETE CRADLE (MINIMUM 15 FEET LENGTHS) (FIXED UNIT PRICE TO BE $10.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.A50.31PC08), Item No. 1.G50.31PC12 - 12" E.S.V.P. SEWER, ON CONCRETE CRADLE (ADDITIONAL LENGTH BEYOND THE MINIMUM 15 FEET TO A MAXIMUM OF 100 FEET) (FIXED UNIT PRICE TO BE $10.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.B50.31PC08), Item No. 1.H50.31PC12 - 12" E.S.V.P. SEWER, ON CONCRETE CRADLE (ADDITIONAL LENGTH BEYOND 100 FEET) (FIXED UNIT PRICE TO BE $10.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.E50.31PC10), Item No. 1.I50.31PC15 - 15" E.S.V.P. SEWER, ON CONCRETE CRADLE (MINIMUM 15 FEET LENGTHS) (FIXED UNIT PRICE TO BE $15.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.A50.31PC08), Item No. 1.J50.31PC15 - 15" E.S.V.P. SEWER, ON CONCRETE CRADLE (ADDITIONAL LENGTH BEYOND THE MINIMUM 15 FEET TO A MAXIMUM OF 100 FEET) (FIXED UNIT PRICE TO BE $15.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.B50.31PC08), Item No. 1.K50.31PC15 - 15" E.S.V.P. SEWER, ON CONCRETE CRADLE (ADDITIONAL LENGTH BEYOND 100 FEET) (FIXED UNIT PRICE TO BE $15.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.E50.31PC10), Item No. 1.L50.31PC18 - 18" E.S.V.P. SEWER, ON CONCRETE CRADLE (MINIMUM 15 FEET LENGTHS) (FIXED UNIT PRICE TO BE $25.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.A50.31PC08), Item No. 1.M50.31PC18 - 18" E.S.V.P. SEWER, ON CONCRETE CRADLE (ADDITIONAL LENGTH BEYOND THE MINIMUM 15 FEET TO A MAXIMUM OF 100 FEET) (FIXED UNIT PRICE TO BE $20.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.B50.31PC08), Item No. 1.N50.31PC18 - 18" E.S.V.P. SEWER, ON CONCRETE CRADLE (ADDITIONAL LENGTH BEYOND 100 FEET) (FIXED UNIT PRICE TO BE $20.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.E50.31PC10), Item No. 1.O50.21P3C024D - 24" R.C.P. CLASS III SEWER, ON CONCRETE CRADLE (MINIMUM 15 FEET LENGTHS) (FIXED UNIT PRICE TO BE $35.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.A50.31PC08), Item No. 1.P50.21P3C024D - 24" R.C.P. CLASS III SEWER, ON CONCRETE CRADLE (ADDITIONAL LENGTH BEYOND THE MINIMUM 15 FEET TO A MAXIMUM OF 100 FEET) (FIXED UNIT PRICE TO BE $30.00 PLUS UNIT PRICE BID FOR ITEM NO.

1.B50.31PC08), Item No. 1.Q50.21P3C024D - 24" R.C.P. CLASS III SEWER, ON CONCRETE CRADLE (ADDITIONAL LENGTH BEYOND 100 FEET) (FIXED UNIT PRICE TO BE $30.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.E50.31PC10), Item No. 1.R50.21P3C030D - 30" R.C.P. CLASS III SEWER, ON CONCRETE CRADLE (MINIMUM 15 FEET LENGTHS) (FIXED UNIT PRICE TO BE $40.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.A50.31PC08), Item No. 1.S50.21P3C030D - 30" R.C.P. CLASS III SEWER, ON CONCRETE CRADLE (ADDITIONAL LENGTH BEYOND THE MINIMUM 15 FEET TO A MAXIMUM OF 100 FEET) (FIXED UNIT PRICE TO BE $35.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.B50.31PC08), Item No. 1.T50.21P3C030D - 30" R.C.P. CLASS III SEWER, ON CONCRETE CRADLE (ADDITIONAL LENGTH BEYOND 100 FEET) (FIXED UNIT PRICE TO BE $35.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.E50.31PC10), Item No. 1.U50.21P3C036D - 36" R.C.P. CLASS III SEWER, ON CONCRETE CRADLE (MINIMUM 15 FEET LENGTHS) (FIXED UNIT PRICE TO BE $45.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.A50.31PC08), Item No. 1.V50.21P3C036D - 36" R.C.P. CLASS III SEWER, ON CONCRETE CRADLE (ADDITIONAL LENGTH BEYOND THE MINIMUM 15 FEET TO A MAXIMUM OF 100 FEET) (FIXED UNIT PRICE TO BE $40.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.B50.31PC08), Item No. 1.W50.21P3C036D - 36" R.C.P. CLASS III SEWER, ON CONCRETE CRADLE (ADDITIONAL LENGTH BEYOND 100 FEET) (FIXED UNIT PRICE TO BE $40.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.E50.31PC10), Item No. 1.X50.21P3C042D - 42" R.C.P. CLASS III SEWER, ON CONCRETE CRADLE (MINIMUM 15 FEET LENGTHS) (FIXED UNIT PRICE TO BE $50.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.A50.31PC08), Item No. 1.Y50.21P3C042D - 42" R.C.P. CLASS III SEWER, ON CONCRETE CRADLE (ADDITIONAL LENGTH BEYOND THE MINIMUM 15 FEET TO A MAXIMUM OF 100 FEET) (FIXED UNIT PRICE TO BE $45.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.B50.31PC08), Item No. 1.Z50.21P3C042D - 42" R.C.P. CLASS III SEWER, ON CONCRETE CRADLE (ADDITIONAL LENGTH BEYOND 100 FEET) (FIXED UNIT PRICE TO BE $45.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.E50.31PC10), Item No. 1.AA50.21P3C048D - 48" R.C.P. CLASS III SEWER, ON CONCRETE CRADLE (MINIMUM 15 FEET LENGTHS) (FIXED UNIT PRICE TO BE $55.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.A50.31PC08), Item No. 1.BB50.21P3C048D - 48" R.C.P. CLASS III SEWER, ON CONCRETE CRADLE (ADDITIONAL LENGTH BEYOND THE MINIMUM 15 FEET TO A MAXIMUM OF 100 FEET) (FIXED UNIT PRICE TO BE $50.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.B50.31PC08), and Item No. 1.CC50.21P3C048D - 48" R.C.P. CLASS III SEWER, ON CONCRETE CRADLE (ADDITIONAL LENGTH BEYOND 100 FEET) (FIXED UNIT PRICE TO BE $50.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.E50.31PC10).

(14)The Contractor shall be required to televise the condition of existing sewers between the adjoining existing/new manholes before and after the spot repair work is completed. The cost of the TV inspection shall be deemed included in the price bid for item No. 53.11DR – TELEVISION INSPECTION AND DIGITAL AUDIO-VISUAL RECORDING OF SEWERS.

(15)The Contractor is notified that at some locations there presently exists sewers, manholes, water mains, etc., which are to remain undisturbed and are in close proximity to the line of the proposed work. The Contractor shall exercise extreme care, minimize the trench width of the proposed sewers and take all necessary precautions in placing sheeting and during excavation of the trenches to prevent any damage to the existing structures, pavement, curbs, and sidewalks that are to remain while working adjacent to them. Should any damage occur to any portion of the existing structures that are to remain due to the Contractor's operations, the Contractor shall make all repairs to the existing structures to the satisfaction of and as directed by the Engineer. The cost of such repair shall be borne by the Contractor, at no cost to the City.

C. AMENDMENTS TO THE STANDARD HIGHWAY SPECIFICATIONS

(1) Refer to Standard Highway Specifications Volume II (November 1, 2010), Page 544:
Add the following new **Section 9.32**:

SECTION 9.32 - Reinforced Silt Fence

9.32.1. DESCRIPTION OF WORK. The Contractor shall furnish all materials, labor, equipment and incidentals necessary to construct a reinforced silt fence, comprised of a construction (limiting) fence, filter fabric, and staked hay bales, as specified herein.

Upon furnishing and installing the approved reinforced silt fence but prior to commencing any other work on-site, the Contractor shall notify the Engineer and arrange for an on-site inspection.

The reinforced silt fence shall be maintained in good condition and repaired as necessary by the Contractor during the construction and post-construction/site stabilization phases as directed by the Engineer.

9.32.2. MATERIALS AND METHODS.

(1) Construction (Limiting) Fence: The construction (limiting) fence shall be a welded wire fence with a minimum height of six (6) feet. The fence shall be constructed of wire fabric fastened to the middle rails and to vertical line posts.

Wire fabric shall be of No. 6 gauge wire with a mesh of approximately 2-inches. The upper edge of the fabric shall be twisted and barbed. The fabric shall be securely fastened to vertical line posts and middle rails by means of ties and spaced not more than 12-inches apart on rails and not more than 14 inches apart on line posts.

Post shall have the following nominal outside diameters and minimum weights per linear foot:

(a) Line posts 2-1/2-inches @ 3.7-lbs.
(b) End and corner posts 3-inches @ 5.8-lbs.
(c) Middle rails 1-5/8-inches @ 2.3-lbs.

The construction (limiting) fence shall be located where directed. The fence shall be adjusted to avoid interference with trees and to maintain access.

Line posts shall be spaced not more than 6-feet on centers. Posts shall be securely set in the ground. Line posts shall extend at least 4-feet below finished grade. Post locations shall be adjusted to avoid tree roots as appropriate.

(2) Filter Fabric: Filter fabric shall be securely attached to the vertical line posts and wire fabric, and shall be situated between the wire fabric and staked hay bales.

The filter fabric shall be purchased and delivered in a continuous roll and cut on-site to the length of the barrier(s) to avoid the use of joints. Dimensions of the roll shall be thirty-six (36) inches by one hundred (100) feet in length. When joints are necessary, filter cloth shall be spliced together only at a line post, with a minimum 6-inch overlap, and securely sealed. The filter fabric shall meet NYSDOT specifications on same, and shall be fabric #2130 as manufactured by Mutual Industries Inc., 707 W. Grange Street, Philadelphia, PA 19120, or approved equivalent.

A trench shall be excavated approximately 4-inches wide and 4-inches deep along the line of posts and up slope from the barrier. The filter fabric shall be extending into the trench, the trench backfilled, and the soil compacted over the filter fabric.

Siltation fences shall be removed when they have served their useful purpose, but not before the up slope area has been permanently stabilized.

(3) Hay Bales: All hay bales shall be of straw, and shall be standard sized bales. Bales shall be placed in a single row, with ends of adjacent bales tightly abutting one another. Bales shall be placed up slope of the filter fabric, and shall at all times run parallel to the construction (limiting) fence and abut the filter fabric.

All bales shall be fiber-bound. No string bound hay bales are accepted. Hay bales shall be installed so that bindings are oriented around the sides rather than along the tops and bottoms of the bales in order to prevent deterioration of the bindings.

The hay bale barrier shall be entrenched and backfilled. A trench shall be excavated the width of a bale and the length of the proposed barrier to a depth of 4-inches. After the bales are staked and chinked, the excavated soil shall be backfilled against the barrier. Backfill soil shall conform to the ground level on the downhill side and shall be built up to 4-inches against the uphill side of the hay bale barrier.

Each bale shall be securely anchored by at least two stakes or steel reinforcing bars driven through the bale. The first stake in each bale shall be driven toward the previously laid bale to force the bales together. Stakes or reinforcing bars shall be driven deep enough into the ground to securely anchor the bales.

The gaps between bales shall be chinked (filled by wedging) with straw to prevent water from escaping between the bales. The Contractor shall scatter loose hay over the area immediately uphill from the straw bale barrier to increase barrier efficiency.

Hay bale barriers shall be removed when they have served their usefulness, but not before the up slope areas have been permanently stabilized.

9.32.3. MAINTENANCE. The reinforced silt fence shall be inspected periodically (at least once per week), or as directed by the Engineer. Any required repairs shall be made immediately.

Filter fabric shall be inspected at least once per week and immediately after each rainfall and at least daily during prolonged rainfall. Any required repairs shall be made immediately. Should the fabric decompose or become ineffective prior to the end of the expected usable life while the barrier is still necessary, the fabric shall be replaced promptly.

Hay bales shall be inspected at least once per week and immediately after each rainfall and at least daily during prolonged rainfall. Close attention shall be paid to the repair of damaged bales, end runs and undercutting beneath bales. Necessary repairs to barriers or replacement of bales shall be accomplished promptly. Sediment deposits should be removed after each rainfall. They must be removed when the level of deposition reaches approximately one-half foot deep in front of the hay bale. Any sediment deposits remaining in place after the hay bale barrier is no longer required shall be dressed to conform to the existing grade.

9.32.4. MEASUREMENT. The quantity to be measured for payment under this section shall be the total number of linear feet of Reinforced Silt Fence installed and maintained in accordance with the plans, specifications and directions of the Engineer. Each linear foot of Reinforced Silt Fence shall be comprised of the following three elements: a construction (limiting) fence, filter fabric and staked hay bales.

9.32.5. PRICE TO COVER. The unit bid price shall constitute full compensation for all labor, materials, equipment, and incidentals necessary to complete the work, including but not limited to the furnishing of all samples and tests as required, in accordance with the plans and specifications and to the satisfaction of the Engineer.

Payment will be made under:

Item No.	Item Description	Pay Unit
9.32	REINFORCED SILT FENCE WITH STAKED HAY BALES	L.F.

D. AMENDMENTS TO THE STANDARD SEWER AND WATER MAIN SPECIFICATIONS

(1) Refer to **Subsection 10.15 - Notice To Utility Companies, Etc., To Remove Structures Occupying Place Of Sewers, Water Mains Or Appurtenances**, Page I-11:
Add the following to **Subsection 10.15**:

(1) CONSOLIDATED EDISON COMPANY OF NEW YORK

There are CON EDISON facilities in the areas of reconstruction. The existing systems are comprised of underground ducts, service boxes, manholes, street lighting, utility poles, underground transformer vaults, etc. The Contractor shall notify CON EDISON within the initial response time specified at time of notification of the task order at each ordered location by contacting Mr. Donald Soldiviero (The Bronx), at (212) 460-4834.

(2) EMPIRE CITY SUBWAY

There are EMPIRE CITY SUBWAY facilities in the areas of reconstruction. The Contractor shall notify EMPIRE CITY SUBWAY within the initial response time specified at time of notification of the task order at each ordered location by contacting Mr. Al Petrizzi, Governmental Liaison, 140 West Street, 18th Floor, New York, NY 10007, (The Bronx) at (212) 941-8407.

(3) CABLEVISION

There are CABLEVISION facilities in the areas of reconstruction. The Contractor shall notify CABLEVISION within the initial response time specified at time of notification of the task order at each ordered location by contacting Mr. Jeffrey Stigers or Mr. Ed Lepinsky (The Bronx) at (718) 861-7361.

(2) Refer to **Subsection 10.21 - Contractor To Notify City Departments**, Page I-13:
Add the following to **Subsection 10.21**:

(1) N.Y.C.D.E.P., BUREAU OF WATER AND SEWERS OPERATIONS

The Contractor shall notify Mr. James Garin, P.E., Director, Engineering at the Department of Environmental Protection, 59-17 Junction Blvd., 3rd floor low rise, Corona N.Y. 11368, within the initial response time specified at time of notification of the task order at each ordered location.

(2) NEW YORK CITY FIRE DEPARTMENT

Special New York City Fire Department Requirements:

(a) Access must be maintained for emergency vehicles at all times.

(b) Hydrants should be retained in service and accessible to the fullest extent feasible.

(c) The Fire Department must be notified by the Bureau of Water Supply and Wastewater Collection forthwith when water mains and/or hydrants are placed out of service and in service.

(d) If alarm boxes or alarm facilities are affected, the Bureau of Fire Communications must be notified immediately by the Contractor.

(e) During the course of the work at several locations, the Contractor may be required to relocate and/or protect existing Fire Department subsurface facilities. The approximate location of Fire Department Facilities can be obtained by contacting the Bureau of Fire Communications.

(f) All work on Fire Department facilities is to be done under direct Fire Department supervision, to the satisfaction of the Fire Department.

(g) Standards and specifications for the work of replacing Fire Communications system are available for reference at the:

New York City Fire Department
Bureau of Fire Communications
9 Metrotech Center, 7th Floor
Brooklyn, N.Y. 11201-3857
Attention: Stephen M. Gregory
Assistant Commissioner
Bureau of Fire Communications

(3) N.Y.C. DEPARTMENT OF TRANSPORTATION

The Contractor shall notify Mr. Steve Galgano, P.E., Chief of Signal/Street Lighting Operations, 34-02 Queens Boulevard, Long Island City, N.Y. 11101 at (718) 786-3550, within the initial response time specified at time of notification of the task order at each ordered location.

(4) N.Y.C. DEPARTMENT OF PARKS AND RECREATION

Special Department Of Parks And Recreation Requirements:

Department of Parks and Recreation requirements for this contract are as follows and are considered as part of this contract. The Contractor's special attention is directed to the following:

(a) Care shall be taken to protect all existing trees. The Contractor shall ensure that all trees are protected from construction damage, and shall perform all work as directed by the Borough Forester, the Engineer and the Tree Consultant. Trees damaged as a result of the Contractor's negligent construction operation shall be replaced in accordance with Subsection 10.06. The Contractor shall be liable for such damages and shall repair and replace such trees at own expense.

(b) The Contractor shall prune all trees shown, specified or ordered before excavation begins. All pruning of limbs and roots of existing trees shall be performed by an Arborist or firm recognized as a tree surgery or pruning specialist with three (3) years experience. The Contractor must submit the qualifications of the Arborist or firm for approval by the Borough Forestry prior to the pruning operation. The Contractor is notified that a permit for pruning is required. All work shall be performed in accordance with Subsection 10.06.

(c) Trees shall be protected in accordance with Subsection 10.06.

(d) The Contractor shall not be permitted to operate auxiliary equipment that generates exhaust or other heat upward (i.e. generators and compressors), under the branches of trees where the branches are less than twenty-five (25) feet above the ground. The Contractor shall not be permitted to store, stockpile, lay down or store any construction material within any existing tree pit within the canopy of any tree, or within ten (10) feet of the tree trunk, whichever is greater.

(e) All tree work requires a permit from the Parks Departments.

(f) Hand excavation shall be required around existing fire hydrants to be removed, if the Borough Forester or the Engineer determines that such work shall cause damage to tree roots. No separate or additional payment will be made for this hand excavation the cost shall be deemed included in the prices bid for all scheduled items.

(g) The Director of Borough Forestry of the Department of Parks and Recreation shall be notified at time of notification of the task order when such task order impacts trees and their root and canopy system. The applicable Borough Forestry Office is as follows:

Central Forestry: - 1234 Fifth Avenue, New York, NY 10029, Tel. No. (212) 360-1400

(5) N.Y.C. TRANSIT AUTHORITY

The Contractor shall notify the Transit Authority within the initial response time specified at time of notification of the task order by contacting Mr. John Malvasio, P.E., Director of Maintenance-Of-Way, 30 Livingston Street, Room 8044D, Brooklyn, New York, 11201, at (718) 694-1358 if any T.A. facility is within fifty (50) feet of the reconstruction work.

(3) **Refer** to **Subsection 10.30 - Contractor To Provide For Traffic**, Page I-15:
Add the following to **Subsection 10.30**:

(A) TRAFFIC STIPULATIONS:

The Contractor shall obtain all permits and traffic requirements from the Office of Construction Mitigation and Coordination (OCMC) prior to the start of work at any ordered location. The Contractors shall contact Nicolas Dagher at 212-839-9637 or John Martin at 212-839-9639, NYC Department of Transportation, Division of Engineering Control, 55 Water Street, 7th Floor, New York, NY 10041.

(4) **Refer** to **Subsection 10.32 - Photographs**, Page I-16:
Delete paragraphs number (7), (8) and (9) in their entirety:
Substitute the following new paragraphs:

(7) The cost of the Photographer and for the taking and providing of all required photographs, negatives, etc., shall be deemed included in the unit price bid for Item No. 10.32A - PHOTOGRAPHS.

(8) No separate payment will be made for the expense of furnishing the required binders; the cost thereof shall be deemed included in the unit price bid for Item No. 10.32A - PHOTOGRAPHS.

(9) The Engineer reserves the right to reject any and all views that are not reasonably clear and definitive. No payment will be made for any rejected photographs, payment under Item No. 10.32A - PHOTOGRAPHS, shall be made only for those photographs that are accepted by the Engineer.

(5) **Refer** to **Section 40.06 - Backfilling**, Page IV-18:
Delete from this section, **Subsection 40.06.2(D) - CLEAN FILL** in its entirety:
Substitute the following new **Subsection 40.06.2(D)**:

(D) CLEAN FILL

(1) Clean fill material for this contract shall be select granular fill ordered in writing by the Engineer where there is a deficiency of acceptable backfill. Select granular fill material shall be required in order to fill voids in the trenches and excavations, (For Sewers Trenches - from a point not less than two (2) feet above the top of sewers to the underside of the pavement as it existed at the start of the work; and, For Water Main Trenches - from a point not less than twelve (12) inches above the top of the barrel of the water main pipe to the underside of the pavement as it existed at the start of the work), caused by the removal of boulders, unsuitable backfill materials, existing sewers and associated sewer structures, and any other underground facilities or structures, and shall be approved clean earth or sand of low silt and clay content (less than eight (8) percent passing No. 200 sieve), free from bricks, blocks, excavated pavement materials and debris, stumps, roots and other organic matter, as well as ashes, oil and other perishable or foreign matter and shall not contain particles larger than one quarter (1/4) inch in diameter.

(2) This backfill shall be exclusive of the normal backfill required in the trenches and excavations for proposed sewers and associated sewer structures for which payment is included therein. Payment shall be made in accordance with **Subsection 40.06.6**.

(6) **Refer** to **Section 40.06 - Backfilling**, Page IV-18:
Delete from this section, paragraphs (B) and (C) of **Subsection 40.06.6 - Deficiency Of Backfill Material** in their entirety:
Substitute the following new paragraphs:

(B) For providing acceptable select granular fill (whether natural or processed) to satisfy the requirements of **Subsection 40.06.2(D)** to fill voids left by the removal of ledge rock payment shall be made under Item No. 70.61RE - ROCK EXCAVATION. The Contractor's attention is directed to **Section 70.61 - Rock Excavation** of the specifications, and that all references to clean fill therein, shall mean select granular fill.

(C) For providing acceptable select granular fill (whether natural or processed) to satisfy the requirements of **Subsection 40.06.2(D)** payment shall be made under Item No. 73.41AG - ADDITIONAL SELECT GRANULAR BACKFILL. The Contractor's attention is directed to **Section 73.41 - Additional Select Granular Backfill** of the specifications, with the addition that the conditions for use as specified in **Subsection 73.41.1** shall be expanded to include those specified in **Subsection 40.06.2(D)** as amended hereinbefore.

(7) **Refer** to **Section 70.51 - Excavation Of Boulders In Open Cut**, Page VII-37:
Add the following new **Subsection 70.51.6**:

70.51.6 EXISTING SEWER ENCASED IN CONCRETE

The Contractor is advised that at certain locations, the existing sewer to be removed may be encased in concrete. Where this condition is encountered, the Contractor shall remove the concrete encasement from the site. The quantity, in cubic yards, to be measured for payment shall be determined by taking the total volume of the encased sewer including the cradle portion less the volume of the sewer pipe. Payment shall be made at the unit price bid for Item No. 70.51EO - EXCAVATION OF BOULDERS IN OPEN CUT and shall cover the cost of all labor, materials, plant, equipment and insurance necessary to remove the concrete encasement, together with all work incidental thereto, as directed by the Engineer. The cost of any additional backfilling required to be done in connection with this work shall be deemed included in the unit price bid for Item No. 70.51EO - EXCAVATION OF BOULDERS IN OPEN CUT.

(8) **Refer** to **Subsection 71.41.4 - Specific Pavement Restoration Provisions**, Pages VII-67 and VII-68:
Add the following to **Subsection 71.41.4**:

(E) Specific Pavement Restoration Provisions:

Upon completion, at each and every ordered location, of installation of water mains and the reconstructed collapsed or otherwise defective storm, sanitary or combined sewers and the backfill and compaction of all sewer and water main trenches, the Contractor shall permanently restore all roadways, sidewalks and curbs within the ordered limits of the trench width and cutbacks as follows:

(1) In all streets requiring sewer and water main work, the permanent pavement restoration shall be as follows:

(a) The permanent roadway restoration over the **trench widths and cutbacks only** shall consist of a top course of one and one-half (1-1/2) inches of asphaltic concrete wearing course on a base course of a minimum of four and one-half (4-1/2) inches of binder mixture, or a top

course of one and one-half (1-1/2) inches of asphaltic concrete wearing course on a minimum of one and one-half (1-1/2) inches of binder mixture on a base course of a minimum of six (6) inches of high-early strength concrete, to match the existing pavement as directed by the Engineer.

(2) Sidewalk And Curb Restoration:

(a) The permanent sidewalk restoration over **the trench width and cutbacks only** shall consist of 4" concrete sidewalk (unpigmented) outside driveway and 7" concrete sidewalk (unpigmented) inside driveway and pedestrian ramps, as directed by the Engineer. All sidewalks shall be restored in full flag units.

(b) Since all sidewalks shall be restored in full flag units, the cutbacks for sidewalk restoration shall be defined as the distances beyond the edges of the trenches that require removal in order to get to an adjacent undisturbed full flag unit. For the purpose of this contract sidewalk shall be saw-cut, removed and restored in full flag units up to a maximum overall width of ten (10) feet (two (2) full flag units).

(c) The permanent restoration of curbs over **the trench width only** shall consist of concrete curb, straight steel faced concrete curb, depressed steel faced concrete curb and corner steel faced concrete curb, as directed by the Engineer.

(d) The cost of all labor, materials, equipment, samples and tests required and necessary to permanently restore the curbs over the trench width and cutbacks only shall be deemed included in the prices bid for Item No. 1.A50.31PC08 - 8" E.S.V.P. SEWER, ON CONCRETE CRADLE (MINIMUM 15 FEET LENGTHS), Item No. 1.B50.31PC08 - 8" E.S.V.P. SEWER, ON CONCRETE CRADLE (ADDITIONAL LENGTH BEYOND THE MINIMUM 15 FEET) (FIXED UNIT PRICE TO BE 70% OF UNIT PRICE BID FOR ITEM NO. 1.A50.31PC08), Item No. 1.C50.31PC10 - 10" E.S.V.P. SEWER, ON CONCRETE CRADLE (MINIMUM 15 FEET LENGTHS) (FIXED UNIT PRICE TO BE $5.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.A50.31PC08), Item No. 1.D50.31PC10 - 10" E.S.V.P. SEWER, ON CONCRETE CRADLE (ADDITIONAL LENGTH BEYOND THE MINIMUM 15 FEET TO A MAXIMUM OF 100 FEET) (FIXED UNIT PRICE TO BE $5.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.B50.31PC08), Item No. 1.E50.31PC10 - 10" E.S.V.P. SEWER, ON CONCRETE CRADLE (ADDITIONAL LENGTH BEYOND 100 FEET) (FIXED UNIT PRICE TO BE 90% OF UNIT PRICE BID FOR ITEM NO. 1.D50.31PC10), Item No. 1.F50.31PC12 - 12" E.S.V.P. SEWER, ON CONCRETE CRADLE (MINIMUM 15 FEET LENGTHS) (FIXED UNIT PRICE TO BE $10.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.A50.31PC08), Item No. 1.G50.31PC12 - 12" E.S.V.P. SEWER, ON CONCRETE CRADLE (ADDITIONAL LENGTH BEYOND THE MINIMUM 15 FEET TO A MAXIMUM OF 100 FEET) (FIXED UNIT PRICE TO BE $10.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.B50.31PC08), Item No. 1.H50.31PC12 - 12" E.S.V.P. SEWER, ON CONCRETE CRADLE (ADDITIONAL LENGTH BEYOND 100 FEET) (FIXED UNIT PRICE TO BE $10.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.E50.31PC10), Item No. 1.I50.31PC15 - 15" E.S.V.P. SEWER, ON CONCRETE CRADLE (MINIMUM 15 FEET LENGTHS) (FIXED UNIT PRICE TO BE $15.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.A50.31PC08), Item No. 1.J50.31PC15 - 15" E.S.V.P. SEWER, ON CONCRETE CRADLE (ADDITIONAL LENGTH BEYOND THE MINIMUM 15 FEET TO A MAXIMUM OF 100 FEET) (FIXED UNIT PRICE TO BE $15.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.B50.31PC08), Item No. 1.K50.31PC15 - 15" E.S.V.P. SEWER, ON CONCRETE CRADLE (ADDITIONAL LENGTH BEYOND 100 FEET) (FIXED UNIT PRICE TO BE $15.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.E50.31PC10), Item No. 1.L50.31PC18 - 18" E.S.V.P. SEWER, ON CONCRETE CRADLE (MINIMUM 15 FEET LENGTHS) (FIXED UNIT PRICE TO BE $25.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.A50.31PC08), Item No. 1.M50.31PC18 - 18" E.S.V.P. SEWER, ON CONCRETE CRADLE (ADDITIONAL LENGTH BEYOND THE MINIMUM 15 FEET TO A MAXIMUM OF 100 FEET) (FIXED UNIT PRICE TO BE $20.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.B50.31PC08), Item No. 1.N50.31PC18 - 18" E.S.V.P. SEWER, ON CONCRETE CRADLE (ADDITIONAL LENGTH BEYOND 100 FEET) (FIXED UNIT PRICE TO BE $20.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.E50.31PC10), Item No. 1.O50.21P3C024D - 24" R.C.P. CLASS III SEWER, ON CONCRETE CRADLE (MINIMUM 15

FEET LENGTHS) (FIXED UNIT PRICE TO BE $35.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.A50.31PC08), Item No. 1.P50.21P3C024D - 24" R.C.P. CLASS III SEWER, ON CONCRETE CRADLE (ADDITIONAL LENGTH BEYOND THE MINIMUM 15 FEET TO A MAXIMUM OF 100 FEET) (FIXED UNIT PRICE TO BE $30.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.B50.31PC08), Item No. 1.Q50.21P3C024D - 24" R.C.P. CLASS III SEWER, ON CONCRETE CRADLE (ADDITIONAL LENGTH BEYOND 100 FEET) (FIXED UNIT PRICE TO BE $30.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.E50.31PC10), Item No. 1.R50.21P3C030D - 30" R.C.P. CLASS III SEWER, ON CONCRETE CRADLE (MINIMUM 15 FEET LENGTHS) (FIXED UNIT PRICE TO BE $40.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.A50.31PC08), Item No. 1.S50.21P3C030D - 30" R.C.P. CLASS III SEWER, ON CONCRETE CRADLE (ADDITIONAL LENGTH BEYOND THE MINIMUM 15 FEET TO A MAXIMUM OF 100 FEET) (FIXED UNIT PRICE TO BE $35.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.B50.31PC08), Item No. 1.T50.21P3C030D - 30" R.C.P. CLASS III SEWER, ON CONCRETE CRADLE (ADDITIONAL LENGTH BEYOND 100 FEET) (FIXED UNIT PRICE TO BE $35.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.E50.31PC10), Item No. 1.U50.21P3C036D - 36" R.C.P. CLASS III SEWER, ON CONCRETE CRADLE (MINIMUM 15 FEET LENGTHS) (FIXED UNIT PRICE TO BE $45.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.A50.31PC08), Item No. 1.V50.21P3C036D - 36" R.C.P. CLASS III SEWER, ON CONCRETE CRADLE (ADDITIONAL LENGTH BEYOND THE MINIMUM 15 FEET TO A MAXIMUM OF 100 FEET) (FIXED UNIT PRICE TO BE $40.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.B50.31PC08), Item No. 1.W50.21P3C036D - 36" R.C.P. CLASS III SEWER, ON CONCRETE CRADLE (ADDITIONAL LENGTH BEYOND 100 FEET) (FIXED UNIT PRICE TO BE $40.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.E50.31PC10), Item No. 1.X50.21P3C042D - 42" R.C.P. CLASS III SEWER, ON CONCRETE CRADLE (MINIMUM 15 FEET LENGTHS) (FIXED UNIT PRICE TO BE $50.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.A50.31PC08), Item No. 1.Y50.21P3C042D - 42" R.C.P. CLASS III SEWER, ON CONCRETE CRADLE (ADDITIONAL LENGTH BEYOND THE MINIMUM 15 FEET TO A MAXIMUM OF 100 FEET) (FIXED UNIT PRICE TO BE $45.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.B50.31PC08), Item No. 1.Z50.21P3C042D - 42" R.C.P. CLASS III SEWER, ON CONCRETE CRADLE (ADDITIONAL LENGTH BEYOND 100 FEET) (FIXED UNIT PRICE TO BE $45.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.E50.31PC10), Item No. 1.AA50.21P3C048D - 48" R.C.P. CLASS III SEWER, ON CONCRETE CRADLE (MINIMUM 15 FEET LENGTHS) (FIXED UNIT PRICE TO BE $55.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.A50.31PC08), Item No. 1.BB50.21P3C048D - 48" R.C.P. CLASS III SEWER, ON CONCRETE CRADLE (ADDITIONAL LENGTH BEYOND THE MINIMUM 15 FEET TO A MAXIMUM OF 100 FEET) (FIXED UNIT PRICE TO BE $50.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.B50.31PC08), Item No. 1.CC50.21P3C048D - 48" R.C.P. CLASS III SEWER, ON CONCRETE CRADLE (ADDITIONAL LENGTH BEYOND 100 FEET) (FIXED UNIT PRICE TO BE $50.00 PLUS UNIT PRICE BID FOR ITEM NO. 1.E50.31PC10), Item No. 60.12D20 - LAYING 20-INCH DUCTILE IRON PIPE AND FITTINGS, Item No. 60.12D12 - LAYING 12-INCH DUCTILE IRON PIPE AND FITTINGS, Item No. 60.12D08 - LAYING 8-INCH DUCTILE IRON PIPE AND FITTINGS, and Item No. 60.12D06 - LAYING 6-INCH DUCTILE IRON PIPE AND FITTINGS.

(3) The following requirements apply to subsection (1) above only:

(a) Before the top course is installed, an additional width of asphalt beyond the edge of new base course shall be saw-cut and removed from all edges of trenches to a depth to accommodate the specified top course and the entire area restored. This additional removal shall be in accordance with paragraph (b) below.

(b) Pavement excavation along with saw cutting of pavements for sewer and water main trenches shall be in accordance with **Section 71.21 - Pavement Excavation** of the Standard Sewer And Water Main Specification. Payment for this work will be made under item no. 6.02 AAN – UNCLASSIFIED EXCAVATION.

(c) At locations requiring the installation of a concrete base course, a reflective cracking membrane shall be installed over joints prior to restoration, the cost of which shall be deemed included in the prices bid for all pavement restoration items. Additionally, appropriate pavement keys as described below shall be used.

(d) Pavement keys **Type B-1** shall be used to insure a desired four (4) inch curb reveal (two and one-half (2-1/2) inch absolute minimum). Pavement key **Type A** shall be used in all intersections. Both keys are to be per Bureau of Highways Operations Specifications and Standard Details of Construction.

(e) Unless otherwise specified, the cost for tack coating, removal of pavement markings and replacement with thermoplastic reflectorized pavement markings (crosswalks and lane dividers), placement and eradication of temporary roadway markings, stripping or milling of pavement keys and adjustment of city-owned castings shall be deemed included in the prices bid for all pavement restoration items.

(f) Payment for pavement restoration shall be made under the following items:

Item No.	Item	Payment Description
4.02 AB-R	Asphaltic Concrete Wearing Course, 1-1/2" Thick	(For asphaltic concrete wearing course top course when no overlay is required.)
4.02 CA	Binder Mixture	(For binder mixture base course over trenches and cutbacks; binder mixture top filler course under asphaltic concrete wearing course when no overlay is required; binder mixture in Type A and B Keys.)
4.04 H	Concrete Base For Pavement, Variable Thickness For Trench Restoration, (High-Early Strength)	(For concrete base course over trenches and cutbacks.)

(4) The cost for excavation of pavements, curbs and sidewalks within limits of sewer and water trenches and cutbacks, and as ordered by the Engineer, shall be deemed included in the price bid for item No. 6.02 ANN – UNCLASSIFIED EXCAVATION.

(5) All Sidewalks; Driveways; Curbs; Corner Curbs; Pedestrian Ramps; and Roadway base courses, within the ordered limits of work and as directed by the Engineer, top courses and wearing courses shall be installed in conformance with the latest Department of Transportation Specifications and Standard Details, except as amended herein.

(6) The Contractor shall exercise caution during the construction operation, so as to prevent damage and/or disturbance to sidewalks, curbs and roadways outside the ordered reconstruction limits of trench width and cutbacks.

(7) All disturbed grass sidewalk areas over the trench width and cutbacks only shall be restored in conformance with the **New York City Department of Transportation (NYCDOT) Standard Highway Specifications Section 4.19 - Sodding**. The cost of all labor, materials, equipment, samples and tests required and necessary to install sod in grass sidewalk areas over the trench width and cutbacks shall be deemed included in the prices bid. No separate or additional payment will be made for this work.

(8) Should granite block, asphalt block or brick pavement be encountered over the trench width and cutbacks only, five (5) inches of binder mixture shall be substituted for the blocks and bricks removed. The binder mixture shall be installed on a base course of a minimum of six (6) inch of high-early strength concrete and topped with a top course of one and one-half (1-1/2) inches of asphaltic concrete wearing course on a minimum of one and one-half (1-1/2) inches of binder mixture to match the existing pavement as directed by the Engineer. All granite or brick removed shall be delivered to the designated City Yard. The cost of all labor, materials, equipment, samples and tests required and necessary to install new pavement as described herein to replace granite block, asphalt block or brick pavement over the trench width and cutbacks shall be paid for as per subsection (3)(f) above.

(9) If additional roadway restoration is required and ordered in writing by the Engineer outside the ordered limits of trench widths and cutbacks the cost of all labor, materials, equipment, samples and tests required and necessary to perform this additional roadway restoration work shall be deemed included in the prices bid for Item No. 4.02 CA - BINDER MIXTURE, Item No. 4.02 CB - ASPHALTIC CONCRETE MIXTURE, and Item No. 4.04 H - CONCRETE BASE FOR PAVEMENT, VARIABLE THICKNESS FOR TRENCH RESTORATION, (HIGH-EARLY STRENGTH). Included in the prices bid for these items shall be the cost for all excavation of pavements, tack coating, removal of pavement markings and replacement with thermoplastic reflectorized pavement markings (crosswalks and lane dividers), placement and eradication of temporary roadway markings, stripping or milling of pavement keys and adjustment of city owned castings. No separate or additional payment will be made for this work.

(10) All sidewalk restoration work within the limits of the trench and cutbacks and as directed by the Engineer shall be deemed included in the prices bid for Item No. 4.13 AAS - 4" CONCRETE SIDEWALK (UNPIGMENTED), and Item No. 4.13 BAS - 7" CONCRETE SIDEWALK (UNPIGMENTED).

(9) Refer to Page VII-104:
Add the following new **DIVISION VIII**:

DIVISION VIII
DETAILED SPECIFICATION FOR RECONSTRUCTION OF COLLAPSED OR OTHERWISE DEFECTIVE STORM, SANITARY OR COMBINED SEWERS

DSS-1 INTENT

It is intent of this contract, at all locations and areas ordered under this contract as determined by the New York City Department of Environmental Protection and as directed by the Engineer to reconstruct sections of existing collapsed or otherwise defective Storm, Sanitary or Combined Sewers in roadways, sidewalks, malls, medians, pedestrianways, easements or other non-roadway areas including the reconnection of all existing house sewers, basin connections, and the construction of new manholes as required.

The sections of existing collapsed or otherwise defective Storm, Sanitary or Combined Sewers shall be removed and reconstructed with Extra Strength Vitrified Clay Pipe on Concrete Cradle and/or Precast Reinforced Concrete Pipe on Concrete Cradle, complete, as shown, specified or required.

The Contractor, when so ordered by the Engineer, will be required to substitute the use of Ductile Iron Pipe on Stone Bedding in lieu of Extra-Strength Vitrified Clay Pipe on Concrete Cradle for the various sized pipes indicated in the Bid Schedule. The Ductile Iron Pipe shall meet all of the requirements, standards and specifications of the Department of Environmental Protection. The payment for Ductile Iron Pipe on Stone Bedding will be made under the applicable unit prices bid for the various sizes of Extra-Strength Vitrified Clay Pipe on Concrete Cradle. The substitution of 15-inch Extra-Strength Vitrified Clay Pipe will be made with 16-inch Ductile Iron Pipe.

At each ordered location the length of existing collapsed or otherwise defective Storm, Sanitary or Combined Pipe Sewer to be reconstructed will vary; however, the length will generally not be less than fifteen (15) feet per trench opening. The actual length at each ordered location and the area of reconstruction will be determined by the New York City Department of Environmental Protection and as directed by the Engineer. For each reconstruction less than a manhole length, the trench opening shall be at least one and one-half (1-1/2) feet longer at the ends of the reconstruction to permit proper jointing.

DSS-2 STANDARD SEWER AND WATER MAIN SPECIFICATION

Unless otherwise specified, all work and materials shall conform to the applicable sections of the Standard Sewer And Water Main Specifications of the Department of Environmental Protection (dated July 1, 2014), Sewer Design Standards of the Department of Environmental Protection (dated (September 2007) Revised January 2009), Water Main Standard Drawings of the Department of Environmental Protection (latest revisions), and the Standard Highway Specifications (Volumes I and II) of the Department of Transportation (dated November 1, 2010) of The City of New York.

DSS-3 DEFINITIONS

Whenever the following pronoun appears in this contract, the meaning and intent shall be interpreted as follows unless a different meaning is clear from the context: "Engineer" shall mean the Director, Bureau of Water and Sewer Operations, Department of Environmental Protection, or a designated representative to act as such in relation to this contract.

DSS-4 ISSUANCE OF TASK ORDERS

(A) General: The Contractor shall, for the duration of this contract, provide services as directed by the Engineer for the reconstruction of existing sewers or portions thereof, in accordance with the terms and conditions set forth herein. The services to be provided by the Contractor shall include both Initial Services and Reconstruction Services, as described below.

(B) Transmission of Task Orders:

(1) The Engineer shall advise the Contractor of the need for services hereunder through Task Orders, as set forth in **Paragraph (C)** below. The Engineer shall send Task Orders to the Contractor by e-mail, fax, or by telephone promptly confirmed by e-mail and/or fax.

(2) The Contractor shall, for the duration of this contract, provide and maintain at its place of business a dedicated telephone line, a dedicated e-mail address and a dedicated fax line for the receipt of Task Orders hereunder. The e-mail and fax machine shall be in operation twenty-four (24) hours per day, seven (7) days per week, for the duration of this contract. The Contractor shall not be entitled to any compensation for the provision of such equipment. All expenses for the required telephone, e-mail and fax lines shall be deemed included in the Contractor's overhead.

(C) Task Order: When the need for services arises, the Engineer shall issue a Task Order to the Contractor. The Task Order shall specify the items set forth below:

(1) Description and Location of the Project
(2) Length of Reconstruction Work
(3) Reconstruction Services to be performed
(4) Reconstruction Time - Time for commencement and completion of work

(D) Reconstruction Services: The Engineer shall specify the services necessary and required for reconstruction. The Contractor shall perform such reconstruction services within the reconstruction time, as set forth below.

(E) Reconstruction Time: The Reconstruction Time shall mean the period of time within which the Contractor must complete the required Reconstruction Services. The Reconstruction Time shall be specified in the Task Order. The Contractor is advised that the Reconstruction Time shall be determined by the Department of Environmental Protection, in its sole discretion.

Time is of the essence as the public health and safety are involved. Accordingly, the Contractor shall perform the work at each and every ordered location promptly and diligently, using such means and methods of construction as will assure its expeditious and satisfactory completion without delay.

(F) Personnel: The Contractor shall provide adequate personnel and equipment at each ordered location. Prior to the start of work the Engineer shall approve such personnel and equipment. The Engineer reserves the right to determine the personnel and equipment required to adequately and properly carry out the intent of this contract and to order personnel and equipment in excess of that normally required for the work to be done, off the job site. No payment will be made for such excess personnel and equipment. The Contractor must be prepared to provide adequate personnel and equipment to perform the services specified in **Paragraphs (C) and (D)** above at up to three (3) concurrent reconstruction sites.

(G) No Right To Refuse: The Contractor shall have no right to reject or decline to perform any Task Order issued under this contract. However, if the Contractor is unable to begin the work of reconstruction for any reason, the Contractor shall so notify the Engineer by telephone as soon as possible, such notifications to be followed by an explanation in writing as to the reasons why the Contractor is unable to begin the required work.

(H) Supplementary Task Orders: The Contractor shall perform only the work specifically ordered by the Engineer in the written Task Order. The Department of Environmental Protection reserves the right to order additional work through Supplementary Task Orders issued by the Engineer, as the work on the original Task Order progresses.

DSS-5 WORK INCLUDED

The Contractor shall at each and every ordered location, furnish all labor, equipment, materials and supervision, and shall perform all the work called for within each item ordered including any incidental work required for a complete and satisfactory job.

All labor, equipment and materials necessary for the proper execution and completion of each item of work called for are to be furnished and delivered by and at the cost and expense of the Contractor, and the work executed and completed in every detail whether specifically mentioned or not.

The Contractor must be prepared to do this work without prepared plans.

At each ordered location the Contractor shall remove and clean the sewer of any debris up to and including manholes on both sides of the section of sewer being reconstructed during and after the completion of the work.

DSS-6 EXISTING CONDITIONS

The Contractor is advised that the Engineer will furnish to the Contractor, where available, plans of the existing collapsed or otherwise defective Storm, Sanitary or Combined Sewers.

The Contractor is further advised that since the reconstructed sewer is to be within the same trench where the existing collapsed or otherwise defective pipe sewer was constructed, it is assumed that the original trench was backfilled with acceptable materials and that no exceptionally large boulders, or other obstructions would hinder or delay the excavation work. If boulders, rip-rap and other large objects as herein before specified in excess of one-half (1/2) cubic yard in volume are encountered during the excavation down to the top of the existing collapsed or otherwise defective pipe sewer, payment for the removal of same will be paid for at the unit price bid for Item No. 70.51EO - EXCAVATION OF BOULDERS IN OPEN CUT. The entire boulder shall be measured where practicable. The resultant void shall be backfilled and paid for under Item No. 73.41AG - ADDITIONAL SELECT GRANULAR BACKFILL.

The average depth to be excavated to subgrade for the reconstructed sewer is eight (8) to nine (9) feet, varying from a minimum depth of four (4) feet to a maximum depth of twelve (12) feet. Deeper sewer excavations to a maximum depth of twenty (20) feet, shall be paid for under Item No.73.31AE2 - ADDITIONAL EARTH EXCAVATION INCLUDING TEST PITS (OVER 12' TO 16' DEPTH) and Item No. 73.31AE3 - ADDITIONAL EARTH EXCAVATION INCLUDING TEST PITS (OVER 16' TO 20' DEPTH).

DSS-7 PAYMENT FOR WORK PERFORMED

The Contractor shall include in the unit price bid for each item of work, the cost of all labor, equipment, materials, supervision, overhead, profit, insurance, and all other services required to execute and complete each item of work.

Payment will be made at the unit price bid for the various items of work ordered in writing by the Engineer and actually performed and incorporated into the work. The Contractor is advised that the payment for each increment of length of sewer to be replaced will be made at the unit prices bid for each increment of length of sewer to be replaced according to the following schedule:

(a) Minimum fifteen (15) linear feet.
(b) Additional length beyond the minimum fifteen (15) linear feet to a maximum of one hundred (100) linear feet. Fixed unit price as listed in the contract document - bid schedule of prices.
(c) Additional length beyond one hundred (100) linear feet. Fixed unit price as listed in the contract document - bid schedule of prices.

DSS-8 PROCEDURAL ORDERS TO CONTRACTOR

The Contractor shall either give personal attention to the work or employ and retain a competent superintendent or foreman at each and every ordered location while the work is in progress. Instructions given to the superintendent or foreman shall be considered as having been given to the Contractor.

DSS-9 CITY TO NOTIFY CITY DEPARTMENT

At the time the Engineer orders the Contractor to proceed with the work, the Department of Environmental Protection shall notify and transmit a copy of the order to start work to all public and private agencies concerned. These notifications shall be in addition to the Contractors required notifications of public and private agencies as specified herein.

At the start of the work, the Contractor will be furnished with a temporary street opening permit by the Department of Environmental Protection. However, the Contractor shall obtain the prescribed permits from the Department of Transportation prior to the start of the work.

DSS-10 MEASUREMENTS

All measurements shall be made under the supervision of the Engineer. The Contractor's representative shall notify the Engineer when measurements are to be made so the Engineer may be present at that time, the Contractor shall record all measurements and give the Engineer duplicate copies of these measurements.

DSS-11 WORK ORDERED BY THE ENGINEER AND NOT OTHERWISE COVERED IN THE DETAILED SPECIFICATION.

During the course of the work being performed at any ordered location, it may be necessary for the Engineer to order, in writing, extra work not otherwise covered in the task order and in the Detailed Specifications. Payment for extra work for which there are classified bid item(s) shall be made under the unit price bid for the respective bid item(s). Payment for extra work for which there are no specific classified bid item(s) shall be made in accordance with **Articles 25 and 26** of the Contract.

DSS-12 INSPECTION OF MATERIALS FURNISHED

In lieu of the procedure for the inspection of materials to be furnished, as called for in **DIVISION III** of the Standard Sewer And Water Main Specifications, the City will accept certificates from the Contractor's materials suppliers stating that the materials furnished and incorporated in the work at each ordered location, meets the requirement of the appropriate sections of the specifications. Such

material certificates shall be provided to the Engineer by the completion date specified in the task order for each ordered location.

DSS-13 TREES TO BE REMOVED AND REPLACED

During the work of reconstructing sewers in sidewalk or mall areas, the Contractor, when ordered in writing by the Engineer and approved by the Parks Department, shall remove trees along the line of the work. The cost of all the labor and materials required to remove trees, as directed, shall be deemed included in the unit prices bid for the respective tree removal items.

Where trees along the line of the work are removed, as directed, the Contractor shall replace such trees with new trees in accordance with the requirements of the Department of Parks and Recreation. The cost of all the labor and materials required to furnish and place new trees, as directed, together with the cutting of tree pits and all work incidental thereto, shall be deemed included in the unit price bid for Item No. 4.16 CA405 - TREES PLANTED, 3" TO 3-1/2" CALIPER, ALL TYPES, IN 4' X 5' TREE PITS.

DSS-14 ADDITIONAL SIDEWALK RESTORATION

The Contractor is notified that during the work of reconstructing sewers at any ordered location, the Engineer may order additional sidewalk reconstruction outside the ordered trench and cutback restoration limits.

The cost of all the labor and materials required to perform this ordered additional existing concrete sidewalk removal and reconstruction outside the ordered sewer and water main trench and cutback restoration limits, together with all work incidental thereto, shall be deemed included in the unit prices bid for Item No.4.13 AAS - 4" CONCRETE SIDEWALK (UNPIGMENTED), and Item No. 4.13 BAS - 7" CONCRETE SIDEWALK (UNPIGMENTED).

The Contractor is notified that should any damage occur to areas outside of the Engineer's ordered locations, due to the Contractor's negligence, the Contractor shall make all repairs to the satisfaction of and as directed by the Engineer. The cost of such repairs shall be borne by the Contractor, at no cost to the City.

DSS-15 ADDITIONAL ROADWAY RESTORATION

The Contractor is notified that during the work of reconstructing sewers at any ordered location, the Engineer may order additional roadway reconstruction outside the ordered trench and cutback restoration limits.

The cost of all the labor and materials required to perform this ordered additional existing roadway removal and reconstruction outside the ordered sewer and water main trench and cutback restoration limits, together with all work incidental thereto, shall be deemed included in the unit prices bid for Item No. 4.02 CA - BINDER MIXTURE, Item No. 4.02 CB - ASPHALTIC CONCRETE MIXTURE, and Item No. 4.04 H - CONCRETE BASE FOR PAVEMENT, VARIABLE THICKNESS FOR TRENCH RESTORATION, (HIGH-EARLY STRENGTH).

The Contractor is notified that should any damage occur to areas outside of the Engineer's ordered locations, due to the Contractor's negligence, the Contractor shall make all repairs to the satisfaction of and as directed by the Engineer. The cost of such repairs shall be borne by the Contractor, at no cost to the City.

DSS-16 METHOD OF PAYMENT

The following items of work herein specified are provided in order to afford the City of New York opportunity to have such work done if found necessary. It shall be understood by the Contractor that the work as specified under any one of these items may be ordered by the City of New York and in the unit quantities found necessary by the Department of Environmental Protection. The City of New

York, however, is not bound to order any of the work specified under these items. Payment will be made only for the actual number of unit quantities ordered under each item.

In the execution of any work under any of these items, the Contractor shall see that the work is progressed as quickly as possible and without delay. All labor, equipment and materials necessary for the proper execution and completion of each item of work called for are to be furnished and delivered by and at the cost and expense of the Contractor and the work executed and completed in every detail whether specifically mentioned or not.

The contract prices for Extra Strength Vitrified Pipe Sewers and/or Precast Reinforced Concrete Pipe Sewers shall be the unit price bid per linear foot for each size, kind, class and type of sewer and shall cover the cost of all labor, materials, equipment, samples and tests required and necessary to construct the extra strength vitrified pipe sewers and/or the precast reinforced concrete pipe sewers of the sizes and to the lines and grades as shown, specified, or ordered, including the earth excavation of all materials of whatever nature encountered (See **Section 40.03 - Earth Excavation** and except excavation of concrete encased sewers and other large objects as specified herein); all pumping and work required to eliminate blockages and restore and maintain sewage flow, all sheeting and bracing; pumping; fluming; bridging; decking; breaking down and filling in of abandoned sewer appurtenances; connections; concrete cradle and encasements; maintaining flow in sewers; backfilling; cleaning up; mobilization (except mobilization for dewatering purpose); temporary restoration of street surfaces; support and maintenance of existing City structures that are encountered during excavation (including curbs, stoops, fences, copings, vaults, light poles, etc.); removal of existing collapsed or otherwise defective sewers and their foundation supports of broken stone or concrete cradle; removal, reconstruction and reconnection of existing house sewer connections together with spurs and risers for existing house connections; removal, reconstruction and reconnection of existing basin connections; removing and cleaning the sewer of any debris up to and including manholes on both sides of the section of sewer being reconstructed during and after the completion of the work at any ordered location; permanent restoration of all curbs, malls, medians, pedestrianways and other non-roadway areas within the limits of trenches and cutbacks together with foundation materials; and furnishing and installing all other items necessary to complete this work and do all work incidental thereto, all in accordance with the plans, specifications and standards and as directed by the Engineer. In addition, included in the price hereunder shall be the cost of all labor and materials necessary to construct the concrete cradle so that it shall extend under the existing sewer one and one-half (1-1/2) feet beyond the pipe joints at each end of the reconstructed sewer; and to construct at both ends where the reconstructed sewer joins the existing sewer, joints that shall be encased with a four (4) inch thick concrete encasement, twelve (12) inches long on either side of the joint.

The cost for permanent restoration of all roadway top courses and base courses within the limits of trenches and cutbacks and as directed by the Engineer shall be deemed included for the prices bid for item nos. 4.02 AB-R – ASPHALTIC CONCRETE WEARING COURSE, 1-1/2" THICK, 4.02 CA – BINDER MIXTURE and 4.04 H – CONCRETE BASE FOR PAVEMENT FOR PAVEMENT VARIABLE THICKNESS FOR TRENCH RESTORATION, (HIGH EARLY STRENGTH).

The cost for permanent restoration of all sidewalks within the limits of trenches and cutbacks and as directed by the Engineer together with foundation material shall be deemed included for the prices bid for item nos. 4.13 AAS - 4" CONCRETE SIDEWALK (UNPIGMENTED), and 4.13 BAS - 7" CONCRETE SIDEWALK (UNPIGMENTED).

When additional spurs are required and ordered in writing by the Engineer for future house connections, payment shall be made for these in place additional spurs under the prices bid for Item No. 52.31V06P00 - 6" E.S.V.P. SPUR FOR HOUSE CONNECTION ON E.S.V.P. SEWER, and Item No. 52.31V08P00 - 8" E.S.V.P. SPUR FOR HOUSE CONNECTION ON E.S.V.P. SEWER.

When additional risers are required and ordered in writing by the Engineer for future house connections, payment shall be made for these in place additional risers under the prices bid for Item No. 52.21V08 - 8" E.S.V.P. RISER FOR HOUSE CONNECTION, and Item No. 52.21V10 - 10" E.S.V.P. RISER FOR HOUSE CONNECTION.

When basin connections are required and ordered in writing by the Engineer to be relayed in a new location, payment shall be made for these in place basin connections under the price bid for Item No. 52.11D12 - 12" DUCTILE IRON PIPE BASIN CONNECTION.

Payment for in place additional steel reinforcing bars required and ordered in writing by the Engineer shall be made under the price bid for Item No. 73.51AS - ADDITIONAL STEEL REINFORCING BARS.

Payment for in place additional select granular backfill required and ordered in writing by the Engineer shall be made under the price bid for Item No. 73.41AG - ADDITIONAL SELECT GRANULAR BACKFILL.

Payment for in place additional brick masonry required and ordered in writing by the Engineer shall be made under the price bid for Item No. 73.11AB - ADDITIONAL BRICK MASONRY.

Payment for in place standard manholes required and ordered in writing by the Engineer, shall be made under the prices bid for Item No. 51.21S0A1000V - STANDARD MANHOLE TYPE A-1, and Item No. 51.21S0B1000V - STANDARD MANHOLE TYPE B-1. Included in the respective prices bid shall be the cost for the removal of existing manholes. If no manhole exists where a new manhole is required and ordered, a credit will be taken for the omitted work.

Payment for in place standard catch basins required and ordered in writing by the Engineer shall be made under the price bid for Item No. 51.41S001 - STANDARD CATCH BASIN, TYPE 1. Included in the respective prices bid shall be the cost for the removal of existing catch basins. If no catch basin exists where a new catch basin is required and ordered, a credit will be taken for the omitted work.

Payment for excavation of boulders in open cut required and ordered in writing by the Engineer shall be made under the price bid for Item No. 70.51EO - EXCAVATION OF BOULDERS IN OPEN CUT.

Payment for in place planted trees required and ordered in writing by the Engineer, shall be made under the price bid for Item No. 4.16 CA405 - TREES PLANTED, 3" TO 3-1/2" CALIPER, ALL TYPES, IN 4' X 5' TREE PITS. Included in the price bid shall be the cost for tree pits, fertilizer, stakes and wire, topsoil, etc.

Payment for additional earth excavation required and ordered in writing by the Engineer, shall be made under the prices bid for Item No. 73.31AE2 - ADDITIONAL EARTH EXCAVATION INCLUDING TEST PITS (OVER 12' TO 16' DEPTH), and Item No. 73.31AE3 - ADDITIONAL EARTH EXCAVATION INCLUDING TEST PITS (OVER 16' TO 20' DEPTH). Included in the prices bid shall be the cost for additional sheeting, bracing and pumping required beyond the limits hereinbefore mentioned.

Payment for in place stone ballast required and ordered in writing by the Engineer, shall be made under the price bid for Item No. 70.71SB - STONE BALLAST. Included in the price bid shall be the cost for additional excavation for placement of stone ballast.

Payment for in place additional concrete required and ordered in writing by the Engineer, shall be made under the price bid for Item No. 73.21AC - ADDITIONAL CONCRETE.

Payment for maintenance and protection of traffic required and ordered in writing by the Engineer shall be made under the price bid for Item No. 6.70 - MAINTENANCE AND PROTECTION OF TRAFFIC. Included in this item will be payment for making the area safe for residents and for pedestrian and vehicular traffic within the initial response time.

Payment for maintenance of site required and ordered in writing by the Engineer shall be made under the price bid for Item No. 7.13 A - MAINTENANCE OF SITE.

Payment for in place fencing required and ordered in writing by the Engineer, shall be made under the price bid for Item No. 70.31FN - FENCING.

Payment for television inspection and digital audio-visual recording of sewers required and ordered in writing by the Engineer shall be made under the price bid for Item No. 53.11DR - TELEVISION INSPECTION AND DIGITAL AUDIO-VISUAL RECORDING OF SEWERS.

Payment for removal of trees required and ordered in writing by the Engineer, shall be made under the prices bid for Item No. 4.16 AA - TREES REMOVED (4" TO UNDER 12" CALIPER), Item No. 4.16 AB - TREES REMOVED (12" TO UNDER 18" CALIPER), Item No. 4.16 AC - TREES REMOVED (18" TO UNDER 24" CALIPER), and Item No. 4.16 AD - TREES REMOVED (24" CALIPER AND OVER).

Payment for maintenance tree pruning required and ordered in writing by the Engineer, shall be made under the prices bid for Item No. 4.18 A - MAINTENANCE TREE PRUNING (UNDER 12" CALIPER), Item No. 4.18 B - MAINTENANCE TREE PRUNING (12" TO UNDER 18" CALIPER), Item No. 4.18 C - MAINTENANCE TREE PRUNING (18" TO UNDER 24" CALIPER), and Item No. 4.18 D - MAINTENANCE TREE PRUNING (24" CALIPER AND OVER).

Payment for 8-inch, 12-inch and 20-inch water main offsets and replacements required and ordered in writing by the Engineer due to water mains crossing sewer trenches and water mains interfering with sewer trenches shall be made under the prices bid for the various water main items provided in the contract for water main work actually performed.

Payment for photographs required and ordered in writing by the Engineer, shall be made under the price bid for Item No. 10.32A - PHOTOGRAPHS.

Payment for Bid Schedule Item Nos. DSS014A1 - CLEANING OF SEWER (LESS THAN 24" DIAMETER) and DSS014A2 - CLEANING OF SEWER (24" TO 48" DIAMETER), will be made on a per linear foot basis for sewers successfully cleaned at the unit price bid.

Payment for Bid Schedule Item No. DSS014B - CLEANING OF MANHOLE, will be made for each manhole cleaned as directed by the Engineer at the unit price bid

DSS-17 GUARANTEED MINIMUM

In the event the Contractor is not issued any Task Orders hereunder, the City agrees to pay, and the Contractor agrees to accept, a minimum fee of two thousand dollars ($2,000.00). The Contractor further agrees that under such circumstances, the Contractor has no action for damages or for loss of profits against the City.

E. AMENDMENTS TO THE SPECIFICATIONS FOR TRUNK MAIN WORK

1) **Refer** to **Part 1 – Furnishing And Delivering Steel Pipes And Appurtenances 30 Inches In Diameter And Larger, Paragraph 13. Special Fittings:**, Page 5;
Add the following to **Paragraph 13:**

The steel reducer shall have a length of seven (7) feet for every twelve (12) inches reduction in diameter.

END OF ADDENDUM NO. 2
This Addendum consists of twenty-nine (29) pages.

CITY OF NEW YORK
DEPARTMENT OF DESIGN AND CONSTRUCTION
DIVISION OF INFRASTRUCTURE

ADDENDA CONTROL SHEET

BID OPENING DATE: MARCH 26, 2015

PROJECT NO.: HEDA001

TITLE: CONSTRUCTION OF ACCELERATED WATER MAIN REPLACEMENT AND SEWER REHABILITATION AND REPLACEMENT

ADDENDA ISSUED	No. OF DRAWINGS	DATE
#1: Amendments to Standard Highway Specs.		02/24/2014
#2: Sewer and Water Main Specifications		12/26/2014
#3: Gas Cost Sharing (EP-7) Std. Specifications		12/26/2014
#4: To CET Specifications		01/07/2015
#5: Additional Amendments		02/19/2015
#6: Additional Amendments		03/13/2015
#7: Additional Amendments		03/19/2015

ATTACH TO CONTRACT DOCUMENTS

THE CITY OF NEW YORK
DEPARTMENT OF DESIGN AND CONSTRUCTION
INFRASTRUCTURE DIVISION
BUREAU OF DESIGN

PROJECT ID: HEDA001

FOR THE CONSTRUCTION OF ACCELERATED WATER MAIN REPLACEMENT AND SEWER REHABILITATION AND REPLACEMENT

Together With All Work Incidental Thereto

BOROUGH OF THE BRONX

ADDENDUM NO. 7

DATED: March 19, 2015

This Addendum is issued for the purpose of amending the requirements of the contract documents and is hereby made part of said contract documents to the same extent as if it was originally included therein.

Refer to the Bid and Contract Documents, VOLUME 3 OF 3, ADDENDUM NO. 4 as contained on pages A4-1 through A4-53;
Delete ADDENDUM NO. 4, as contained on pages A4-1 through A4-53, in its entirety;
Substitute the words "(NO TEXT IN ADDENDUM NO. 4)".

By signing in the space provided below, the bidder acknowledges receipt of the one (1) page of this Addendum.

THIS ADDENDUM MUST BE SIGNED BY ALL BIDDERS AND ATTACHED TO THEIR BIDS.

GURDIP SAINI, P.E.
Associate Commissioner/Design I

_____
Name of Bidder

By: _____

CITY OF NEW YORK
DEPARTMENT OF DESIGN AND CONSTRUCTION
DIVISION OF INFRASTRUCTURE

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#7: Additional Amendments		03/19/2015
#8: Additional Amendments		03/19/2015

THE CITY OF NEW YORK
DEPARTMENT OF DESIGN AND CONSTRUCTION
INFRASTRUCTURE DIVISION
BUREAU OF DESIGN

PROJECT ID: HEDA001

FOR THE CONSTRUCTION OF ACCELERATED WATER MAIN REPLACEMENT AND SEWER REHABILITATION AND REPLACEMENT

Together With All Work Incidental Thereto
BOROUGH OF THE BRONX
CITY OF NEW YORK

ADDENDUM NO. 8

(SECTION U VERSION 2.0)

DATED: MARCH 19, 2015

1. The Contractor shall be responsible for compliance with all the provisions of the following Sections and Schedules, which are hereby made a part of the original contract documents:

   A. "SECTION U: Additional Contract Requirements Applying to Work Performed in the Presence of Privately Owned Utility Facilities" (Pages A8-3 through A8-13)

   B. Schedule U-1 (Page A8-14)

   C. Schedules U-2 listing scope of utility interferences is no longer included in City contract. Such information will be part of Interference Agreement between Utility Operator and Contractor.

   D. Section U-3 Page A8-15 (as per the Private Utilities reference document for SECTION U called "CET SPECIFICATIONS AND SKETCHES", dated November 2010).

2. Each facility operator shall provide inspectors at the work site to inspect methods of interference work, verify quantities and items of Utility Work, and coordinate all phases of the facility operator operations.

3. In addition, the following statements are made to provide clarification of various paragraphs under Section U:

   A. Section U, ¶3, requires the Contractor to immediately commence negotiations with each Company for an Interference Agreement under which the Company will compensate the Contractor for any Interference Work which the Company does not elect to perform with its own forces or by specialty contractors retained by the Company. Thus the Contractor is on notice that its work under the Contract may be affected by Interference Work performed by (a) the Contractor pursuant to

a separate Interference Agreement with the Company, (b) the Company, or (c) partly by each.

B. The City has no contract with any of the Companies for work on or adjacent to the site of work under this Contract, and the Companies are not "Other Contractors" as defined for the purposes of this Contract. The Contractor is reminded, however, that pursuant to Section U, ¶3, the City will not compensate the Contractor for any direct and/or indirect costs related to Interference Work, regardless of whether such Interference Work is covered by an Interference Agreement between the Contractor and the Company or is performed by the Company using its own forces or by specialty contractors retained by the Company.

C. Section U, ¶13, provides that the provisions of Section U are material provisions of the Contract and that the Contractor's failure to comply with the procedures set forth in Section U are sufficient for the Commissioner to declare the Contractor in default pursuant to Article 48 of the Contract.

Pursuant to this Addendum, the Contractor is informed that the Performance Bond required of the Contractor pursuant to the Contract is not deemed to guarantee performance of any of the Interference Work.

By signing in the space provided below, the bidder acknowledges receipt of the two (2) page of this Addendum and fourteen (14) pages of attachments.

THIS ADDENDUM MUST BE SIGNED BY ALL BIDDERS AND ATTACHED TO THEIR BIDS.

GURDIP SAINI, P.E.
Associate Commissioner/Design I

_____
Name of Bidder

By:_____

Section U: Additional Contract Requirements Applicable to Work Performed in the Presence of Privately Owned Utility Facilities

The Contractor is hereby notified that pursuant to the law and franchise agreements issued by the City, certain private utility and public service companies named in Schedule U-1 ("the Companies") own and/or operate surface and/or subsurface facilities within the limits of this contract. The existence of these facilities impacts the productivity of the City work called for in the contract. In order to improve coordination of the City construction with the private utility facilities owned and/or operated by the Companies named in Schedule U-1, Article 1.06.30 of the Standard Highway Specifications of the New York City Department of Transportation, Dated November 1, 2010; and/or Articles 10.15 through 10.18 of the Standard Sewer and Water Main Specifications of the New York City Department of Environmental Protection, Dated July 1, 2014; as applicable, are amended and will be implemented as follows:

*1. **Means and methods for City work**:*

a) The Contractor is hereby notified that the utility interferences may impact the performance of, and/or interferes with, City work. The contractor will be required to perform such utility work as directed by the Resident Engineer in order to clear all utility interferences from the project site as required for satisfactory completion of City work within specified contract schedule.

b) In areas serviced by overhead electric system, the contractor understands and by bidding for this contract agrees that he/she will be required to perform the public work in the presence of energized electrical overhead lines and appurtenances located in areas adjacent and/or within the project area. As a consequence he/she will select means and method of construction appropriate to maintain the safety clearances required or as permitted by electric operators in order to avoid damaging the insulation or shielding of these lines and also to prevent knocking them down. The duration of the contract as shown in Schedule A thus includes the time which may be necessary for the Contractor to remove, repair, protect, support, shift, relocate, temporarily remove and replace, work around and/or work in the presence of the Companies' facilities ("Interference Work") by this contract during the progress of the City work.

2. Field inspection prior to construction:

Prior to the start of any contract work in areas serviced by overhead electric lines, and after the award to the apparent low bidder for this contract, the contractor must request a field walk of the project area along with the operator of the overhead electrical facilities and the DDC Engineer-In-Charge. At that time the facility operator will confirm the type and condition of the overhead electrical lines and the sufficiency of their insulating properties with respect to the means and methods proposed by the contractor. The contractor must be prepared to describe in enough details his/her proposed means and methods of construction operations in order to anticipate the likelihood that electric lines insulation would be cut or otherwise compromised. Also such details will allow the facility operator to anticipate the need for added insulation and/or shielding of non-insulated lines.

3. Compensation for interference work:

Compensation for Interference Work is a matter of adjustment between the Contractor and each private utility company located within the limits of the project area and whose utility facilities are affected by City contract work. In particular, the City will not compensate the Contractor for any direct and/or indirect costs related to Interference Work, including, but not limited to, lost profit, increased overhead, or any other impact costs. Upon receipt of a Notice of Award from the City, the Contractor shall immediately commence negotiations with each of the Companies concerning the manner in which and the price for which the Contractor, through its own forces or by others hired by it, will perform and be paid by the Company for all necessary Interference Work as defined above, and at known locations of City contract work, that the Company(ies) choose(s) not to perform with its(their) own forces or by specialty Contractors hired by it (them) (as per "Interference Agreement"). (Specialty contractors' work is limited to (i) insulation installation and removal, (ii) live gas and steam work, (iii) cleanup and disposal of hazardous materials, (iv) splicing live electrical and telecommunications facilities, and (v) work not traditionally performed by general construction contractors.

4. Interference Agreement:

1. Although the parties may negotiate an Interference Agreement in any format or manner they deem fit, the Contractor is hereby advised that the Companies have indicated to the City that they will agree to compensate the Contractor on a unit price

basis for Types of Interferences encountered on this Contract in accordance to the Private Utilities reference document for SECTION U called "CET SPECIFICATIONS AND SKETCHES", dated November 2010, copy of which is available on demand.

2. The Contractor shall notify the City upon concluding an Interference Agreement with each of the Companies.

5. City contract work to continue without Interference Agreement :

If, prior to the start of construction, as directed by the City's Order to work / Notice To Proceed (OTW/ NTP) date any of the Companies and the Contractor have not concluded an Interference Agreement as described above, then the City shall issue a written "48 Hours notice to Public Corporation" as prescribed by the City of New York Administrative Code", commonly referred to as "Order-Outs" and City construction will proceed as ordered and the Contractor will be directed by the Resident Engineer to perform the City work on Time, Material and Equipment basis (T&M) as specified in standard City contract agreement Article 26.2. T&M records will include identification of types of utility facilities interfering with City work, utility facility owners, specifying the nature and quantity of any materials, plant and equipment furnished or used in connection with the performance of such work and crew size, such as: name and number of each worker employed on such work. T&M records will also indicate the hours of active time, standby time and idle time. The Company (ies) and the Contractor will maintain separate records of the actual quantity and cost of labor, materials, and equipment expended, and will provide copies of this information to the other party on a daily basis for reconciliation. These T&M records along with cost evaluations will be submitted daily to the Resident Engineer for review and approval. The total cost of City work will be based on quantity of work performed multiplied by unit price contract bid items. The total interference cost will be calculated as the difference between the total T&M cost and total cost for City work. The Resident Engineer will conduct a monthly reconciliation session of the daily T&M records with the affected Company (ies) and contractor. If the contractor and affected utility companies cannot reconcile their T&M records, by the last day of each month, then the Resident Engineer will submit the approved City's T&M records along with total cost evaluations to the DDC Director of Construction who will review these records and recommend approval and validity certification by the DDC Deputy Commissioner.

1. Copies of the DDC approved and certified T&M records will then be transmitted by the DDC to the contractor and the utility companies. These certified records may be used by the contractor for compensation claims against the responsible private facility owners, or may be used by any party as supporting documentation in dispute regarding compensation for performing Interference Work. The contractor will be required to perform City work while invoices are submitted by the contractor to the Utility companies for payment within 30 days, or while compensation disputes between contractor and affected company (ies) are submitted to Binding Arbitration process described in Paragraph 9.
2. All issues related to utility work and/ or delays due to compensation disputes or claims against utility companies are not allowable as justification for granting contract time extensions or delay claims against the City. The City may assess liquidated damages specified in the contract for net overall delays suffered by City contract work as a result of utility issues, disputes and claims.
3. The standard City contract dispute resolution process specified in Article 27 "Presentation of disputes to Commissioner", of the standard City contract agreement is not applicable to any disputes related to utility work and/ or compensation for such work or claim against utility companies. Utility work issues, disputes and claims may only be submitted to Binding Arbitration process described in Paragraph 9.
4. The contractor will notify the Resident Engineer when utility work that require the intervention of company utility specialty crews causes excessive contractor's labor and equipment standby or idleness and, thereby jeopardizing the City project schedule. The Resident Engineer will submit the facts to the DDC Director of construction who will recommend to the Deputy Commissioner regarding the issuance of a "48 hours notice" to the concerned utility company as authorized by the New York City administrative Code Section 19-143 and/ or Section 24-521 as applicable.
5. Utility delays caused by utility and/ or by unavailability of utility specialty crews cannot be discounted for earning any contractual bonus when such bonus clause is included in a contract. However, if such specified bonus is not earned or disallowed by the City or if the City assesses specified liquidated damages as a result of such excessive delays, the contractor may seek damages from the responsible utility company (ies).

6. Extra utility work with Utility Agreement:

If during construction the Contractor encounters utility facilities interferences or utility scope of work that it believes is not covered by the Interference Agreement as described above, then the Contractor shall immediately notify the Company in writing, with a copy to the City, describing the nature and location of the extra work in question. The Company then has five (5) business days to investigate the conditions and then:

1. Advise the Contractor and the City in writing that no interference with its facilities exists at the location in question, and hence that the Contractor may proceed with City work without providing for any impact from Company facilities;
2. Advise the Contractor and the City in writing that the Interference Agreement negotiated pursuant to Paragraph 4, provides for the scope of work encountered.
3. Advise the Contractor and the City in writing that it intends to perform the necessary utility Work with company forces or with its own contractor including, but not limited to, relocating its facility out of the way of the proposed City work. In this case, the Company shall provide a written schedule for the performance of the utility work it proposes to perform, which shall be subject to approval by the City based on its impact to the Contractor's currently approved progress schedule. Upon approval of the Company's schedule by the City, the Contractor shall provide access to the worksite to the Company and/or any contractors hired by it to perform this utility work. If necessary, the City may grant a contract time extension for delays caused by the performance of such utility work by the company.
4. Reasonably specify in writing the scope of work to be performed by the Contractor on behalf of the Company that is not covered under the Interference Agreement negotiated pursuant to Paragraph 5, including, but not limited to, relocating, supporting, and/or protecting the Company's facilities, and/or shifting the City facility if approved by the Resident Engineer, and/or otherwise changing its operations to work in the presence of the Company's facilities. Should the Company elect this option, it must adequately define and provide an initial price offer for the work required to be performed.

6. Extra utility work with Utility Agreement:

If during construction the Contractor encounters utility facilities interferences or utility scope of work that it believes is not covered by the Interference Agreement as described above, then the Contractor shall immediately notify the Company in writing, with a copy to the City, describing the nature and location of the extra work in question. The Company then has five (5) business days to investigate the conditions and then:

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4. Reasonably specify in writing the scope of work to be performed by the Contractor on behalf of the Company that is not covered under the Interference Agreement negotiated pursuant to Paragraph 5, including, but not limited to, relocating, supporting, and/or protecting the Company's facilities, and/or shifting the City facility if approved by the Resident Engineer, and/or otherwise changing its operations to work in the presence of the Company's facilities. Should the Company elect this option, it must adequately define and provide an initial price offer for the work required to be performed.

1. Copies of the DDC approved and certified T&M records will then be transmitted by the DDC to the contractor and the utility companies. These certified records may be used by the contractor for compensation claims against the responsible private facility owners, or may be used by any party as supporting documentation in dispute regarding compensation for performing Interference Work. The contractor will be required to perform City work while invoices are submitted by the contractor to the Utility companies for payment within 30 days, or while compensation disputes between contractor and affected company (ies) are submitted to Binding Arbitration process described in Paragraph 9.
2. All issues related to utility work and/ or delays due to compensation disputes or claims against utility companies are not allowable as justification for granting contract time extensions or delay claims against the City. The City may assess liquidated damages specified in the contract for net overall delays suffered by City contract work as a result of utility issues, disputes and claims.
3. The standard City contract dispute resolution process specified in Article 27 "Presentation of disputes to Commissioner", of the standard City contract agreement is not applicable to any disputes related to utility work and/ or compensation for such work or claim against utility companies. Utility work issues, disputes and claims may only be submitted to Binding Arbitration process described in Paragraph 9.
4. The contractor will notify the Resident Engineer when utility work that require the intervention of company utility specialty crews causes excessive contractor's labor and equipment standby or idleness and, thereby jeopardizing the City project schedule. The Resident Engineer will submit the facts to the DDC Director of construction who will recommend to the Deputy Commissioner regarding the issuance of a "48 hours notice" to the concerned utility company as authorized by the New York City administrative Code Section 19-143 and/ or Section 24-521 as applicable.
5. Utility delays caused by utility and/ or by unavailability of utility specialty crews cannot be discounted for earning any contractual bonus when such bonus clause is included in a contract. However, if such specified bonus is not earned or disallowed by the City or if the City assesses specified liquidated damages as a result of such excessive delays, the contractor may seek damages from the responsible utility company (ies).

7. Means and Methods for utility work:

Upon receipt of the Company's determination pursuant to paragraphs 6.2, or 6.4, above, the Contractor shall determine reasonable means and methods of performing the work defined by the Company. These means and methods are subject to approval of the Company, which shall not be unreasonably withheld. If, however, the Company objects to the Contractor's proposed means and methods then it shall define an alternate method of construction. Upon receipt of the Company's approval or its proposed alternate method of construction, the Contractor shall commence performance of the work defined by the Company as soon as possible, and shall perform the work in a good, workmanlike, and efficient manner, using the means and methods approved by the Company, in order to permit the City work to proceed in the most expeditious manner possible, but without imposing unreasonable and/or unnecessary costs on the Company. It is expressly understood by all parties that the City's rights pursuant to Article 4 of the Contract apply to Utility Work performed pursuant to this section.

8. Disputed utility work covered by a utility agreement:

The City Work will continue as described in paragraph 5 above. In the event of any dispute between the Company (ies) and the Contractor regarding any issue related to the performance of, or payment for, utility work, including, but not limited to, any indirect or impact costs incurred by the Contractor due to the Utility Work and/or to the existence of facilities owned or operated by the Company (ies) on the line of the work. The Company (ies) and the Contractor hereby agree to submit to each other a "Final Offer," in writing, by certified mail. Each party shall then have three business days to consider each other's Final Offer. In the event that neither party accepts the other's Final Offer within those three days, the Company (ies) and the Contractor agree to immediately submit the dispute to binding arbitration as described in Paragraph 9. During the pendency of any arbitration, the Company (ies) and the Contractor shall maintain separate records of the actual quantity and cost of labor, materials, and equipment expended, and to provide copies of this information to the other party on a daily basis for reconciliation. Any and all disagreement with the records maintained and provided by the other, must be documented in writing to all parties. However, these records are solely for the benefit of presentation to the arbitrator, whose decision may not necessarily be based on these records and in any event is final. Both parties should be aware that the City will not confirm or deny the accuracy of any records maintained by either party for Utility work

11. Cost of insurance:

Each of the named Companies, at their option and if an Interference Agreement is executed as specified between the concerned parties, may be named as an additional insured on all insurance policies required to be maintained under this contract. In the event that a Company opts to be so named as an additional insured, the actual incremental cost, if any, to the Contractor of providing such insurance coverage shall be borne by that Company. The Contractor shall provide a written statement from its insurance provider documenting the actual cost of this added coverage to the Company. Under no circumstances shall the cost of insurance coverage on behalf of any Company be borne by the City. Nothing in this paragraph shall be interpreted to imply the City's acceptance of any additional responsibility or liability for any matter related to the performance of Utility Work. In particular, the Company and the Contractor bear joint and full responsibility to ensure that any Utility Work performed by the Contractor is in compliance with all applicable government and Company regulations.

12. Cost of utility interference work:

The Companies, by virtue of a prior agreement with the City, have agreed to perform their obligations described in this section. It is expressly understood that the cost of Utility Work or any delays cost cause by such utility work shall not be a charge against the City, but shall be a matter for adjustment between the Contractor and the Company or Companies concerned. The City and the Contractor agree that the Companies are third party beneficiaries of this section of the contract, if a Utility Agreement is executed between the contractor and utility company (ies). The provisions of this section shall govern in all cases where Company property interferes with or is about to be disturbed by the City work, notwithstanding any other provision of the Contract, except for Natural Gas transmission/distribution facilities covered subject to the Gas Facility Cost Allocation Act (GFCAA) and covered separately in this contract.

13. Default declaration:

The Contractor agrees that the provisions of this section are material provisions of the contract, and that the Contractor's failure to comply with the procedures set forth above are sufficient for the Commissioner to declare the Contractor in default pursuant to Article 48 of the Contract.

14. NYS Labor Law:

The Contractor is hereby advised that New York State Labor Law applies to public work. The work described in this Section U of the contract performed by utility company (ies) with their own forces or vendors hired by such company (ies) is not public work.

15. Facility operators:

The insurance requirements in Paragraph 11 of this Section U apply to: (i) additional Companies, if any, who were not named in Schedule "A" but which have executed a Utility Agreement with the contractor for utility work; and (ii) additional coverage, if any, paid for by Utility Companies whose utility facilities are located within the project limits, that they may require for the utility work pursuant to an utility agreement between the contractor and such utility companies.

[End]

SECTION U-3

(NO TEXT IN THIS SECTION)

END OF ADDENDUM No. 8
This Addendum consists of Sixteen (16) pages

NEW YORK CITY DEPARTMENT OF
DESIGN + CONSTRUCTION

INFRASTRUCTURE DIVISION
BUREAU OF DESIGN

VOLUME 3 OF 3

PROJECT ID: HEDA001

FOR THE CONSTRUCTION OF ACCELERATED WATER MAIN REPLACEMENT AND SEWER REHABILITATION AND REPLACEMENT

Together With All Work Incidental Thereto
BOROUGH OF THE BRONX
CITY OF NEW YORK

_____

Contractor

_____

Dated_____, **20**___

_____