

# 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 5

FOR FURNISHING ALL LABOR AND MATERIALS NECESSARY AND REQUIRED FOR:

# **PROJECT ID: GE353**

# DISTRIBUTION WATER MAIN EXTENSION AND REPLACEMENT ADJACENT TO T.A. FACILITIES IN:

# **BROOKLYN:**

FLATBUSH AVENUE BETWEEN ATLANTIC AVENUE AND 5TH AVENUE; DRIGGS AVENUE BETWEEN LORIMER STREET AND NORTH 12TH STREET; UNION AVENUE BETWEEN NORTH STREET AND RICHARD STREET;

# **SOUTH QUEENS:**

ROCKAWAY FREEWAY BETWEEN BEACH 98TH STREET AND BEACH 101ST STREET; BEACH 98TH STREET BETWEEN ROCKAWAY BEACH BOULEVARD AND BEACH CHANNEL DRIVE; BEACH 100TH STREET BETWEEN ROCKAWAY BEACH BOULEVARD AND ROCKAWAY FREEWAY; BEACH 101ST STREET BETWEEN ROCKAWAY BEACH BOULEVARD AND BEACH CHANNEL DRIVE; JAMAICA AVENUE BETWEEN 116TH STREET AND 123RD STREET;

# Together With All Work Incidental Thereto BOROUGH OF BROOKLYN AND QUEENS CITY OF NEW YORK



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

October 22, 2014



#### SPECIFICATIONS AND STANDARDS OF NEW YORK CITY

The following New York City Department of Transportation (NYCDOT) reference documents are available on-line at: <u>http://www.nyc.gov/html/ddc/html/pubs/pubs infrastdts.shtml</u> 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: <a href="http://www.nyc.gov/html/ddc/html/pubs/pubs\_infrastdts.shtml">http://www.nyc.gov/html/ddc/html/pubs/pubs\_infrastdts.shtml</a> 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: <a href="http://www.nyc.gov/html/ddc/html/pubs/pubs\_infrastdts.shtml">http://www.nyc.gov/html/ddc/html/pubs/pubs\_infrastdts.shtml</a> 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: <u>http://www.nyc.gov/html/dep/pdf/green infrastructure/bioswales-</u> 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"

# (<u>GENERAL CONDITIONS TO CONSTRUCTION CONTRACT</u>) (<u>INCLUDING GENERAL CONDITIONS RELATED TO ARTICLE 22 - INSURANCE</u>)

# 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
<u>CONTRACT ARTICLE 15.</u> <u>LIQUIDATED DAMAGES</u> 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 Substantial Completion Time: <u>\$1000.00</u>
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 <u>40%</u> of the <b>Contract</b> 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.	<u>5%</u> of the Value of the <b>Work</b>
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.	<u>1%</u> of <b>Contract</b> Price
<u>CONTRACT ARTICLE 24.</u> <u>PERIOD OF GUARANTEE</u> 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
<u>CONTRACT ARTICLE 75.</u> <u>COMPENSATION TO BE PAID TO CONTRACTOR</u> 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 6.40 LIQUIDATED DAMAGES FOR ENGINEER'S FIELD OFFICE         If the Contractor fails to satisfactorily provide the field office and all equipment specified in Section 6.40 - Engineer's Field Office, and/or if a cited deficiency exceed seventy two (72) hours after notice from the Engineer in writing, or is permitted to recur, liquidated damages will be assessed in the amount specified herein for each subsequent calendar day or part thereof that a cited deficiency resulting in nonpayment, as described in Section 6.40.5, is not corrected.	For Each Calendar Day of Deficiency: <u>\$200.00</u>
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: <u>\$250.00</u>
	For each and every hour of failing to open the entire width of roadway to traffic the morning following a night/weekend work operation: <u>\$500.00</u>
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: <u>\$250.00</u>

### 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
Мау	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

<u>Note</u>: 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

<u>TYPES OF INSURANCE</u> (per Article 22 in its entirety, including listed para	ph)
(per Article 22 in its entirety, including listed para ■ Commercial General Liability Art. 2	<ul> <li>MiNIMOM LIMITS AND SPECIAL CONDITIONS</li> <li>1.1 The minimum limits shall be \$3,000,000 per Occurrence and \$6,000,000 per Project Aggregate applicable to this Contract.</li> <li>Additional Insureds: <ol> <li>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.</li> <li>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 10 and 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).</li> <li>The Long Island Railroad (LIRR), Metropolitan Transportation Authority (MTA), its subsidiaries and affiliated companies. The Contractor shall furnish two (2) certificates of insurance (see pages SA-11 and SA-12) to the LIRR. Attention: MTA Risk and Insurance Management, Long Island Rail Road, 2 Broadway, New York, New York 10004.</li> <li>The New York City Transit Authority (MTA), its subsidiaries and affiliated and Bronx Surface Transit Operation Authority (SIRTOA), Metropolitan Transportation Authority (MTA), its subsidiaries and affiliated and Bronx Surface Transit Operation Authority (SIRTOA), Metropolitan Transportation Authority (MTA), its subsidiaries and affiliated companies. The Contractor shall furnish two (2) certificates of insurance to and the policy shall be endorsed to provide thirty (30) days advance notice to the Director, Risk Management, MTA Risk and Insurance Management</li> </ol> </li> </ul>
	Standards, Enforcement and Claims Unit, 2 Broadway, 21 <sup>s</sup> Floor, New York, NY 10004, of any material change and/or cancellation. (5) <u>National Grid</u>

Workers' Compensation	Art. 22.1.2	Workers' Compensation, Employers' Liability, and Disability Benefits Insurance: Statutory per New York State law without
Disability Benefits Insurance	Art. 22.1.2	regard to jurisdiction.
Employers' Liability	Art. 22.1.2	Note: The following forms are acceptable: (1) New York State Workers' Compensation Board Form No. C-105.2, (2)
Jones Act	Art. 22.1.3	State Insurance Fund Form No. U-26.3, (3) New York State Workers' Compensation Board Form No. DB-120.1 and (4) Beguest for WC/DB Exemption Form No. CE 200. The City
U.S. Longshoremen's and Harbor Workers Compensation Act	Art. 22.1.3	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) <u>NYCTA &amp; LIRR "OUTSIDE CONTRACT" INSURANCE</u> <u>REQUIREMENTS: Workers' Compensation Insurance</u> (including Employer's Liability Insurance) with limits of not less than \$2,000,000, which limit may be met by a combination of primary and excess insurance meeting the statutory limits of New York State.
		(2) <u>Two (2) certificates of such insurance (see pages SA- 11 and SA-12) shall be furnished to the LIRR, Attention:</u> <u>MTA Risk and Insurance Management, Long Island Rail</u> <u>Road, 2 Broadway, New York, New York 10004.</u>
		(3) <u>Two (2) certificates of such insurance shall be</u> furnished to the Director, Risk Management, MTA Risk and <u>Insurance Management Standards</u> , Enforcement and <u>Claims Unit, 2 Broadway, 21<sup>st</sup> Floor, New York, NY 10004</u> .
Builders' Risk	Art. 22.1.4	<u>100%</u> of Total Value of <b>Work</b>
Builders' Risk	Art. 22.1.4	<u>100%</u> of Total Value of <b>Work</b> <b>Contractor</b> the Named Insured; the <b>City</b> both an Additional Insured and one of the loss payees as its interests may appear.
Builders' Risk	Art. 22.1.4	<ul> <li><u>100%</u> of Total Value of Work</li> <li>Contractor the Named Insured; the City both an Additional Insured and one of the loss payees as its interests may appear.</li> <li>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.</li> </ul>
Builders' Risk	Art. 22.1.4	<ul> <li><u>100%</u> of Total Value of Work</li> <li>Contractor the Named Insured; the City both an Additional Insured and one of the loss payees as its interests may appear.</li> <li>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.</li> <li>Note: Builders Risk Insurance may terminate upon Substantial Completion of the Work in its entirety.</li> </ul>
Builders' Risk           Commercial Auto Liability	Art. 22.1.4	<u>100%</u> of Total Value of <b>Work</b> <b>Contractor</b> the Named Insured; the <b>City</b> both an Additional Insured and one of the loss payees as its interests may appear. If the <b>Work</b> does not involve construction of a new building or gut renovation work, the <b>Contractor</b> may provide an installation floater in lieu of Builders Risk insurance. Note: Builders Risk Insurance may terminate upon <b>Substantial Completion</b> of the <b>Work</b> in its entirety. <b>\$2,000,000</b> per accident combined single limit
<ul> <li>Builders' Risk</li> <li>Commercial Auto Liability</li> </ul>	Art. 22.1.4 Art. 22.1.5	<ul> <li><u>100%</u> of Total Value of Work</li> <li>Contractor the Named Insured; the City both an Additional Insured and one of the loss payees as its interests may appear.</li> <li>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.</li> <li>Note: Builders Risk Insurance may terminate upon Substantial Completion of the Work in its entirety.</li> <li>\$2,000,000 per accident combined single limit</li> <li>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.</li> </ul>
<ul> <li>Builders' Risk</li> <li>Commercial Auto Liability</li> </ul>	Art. 22.1.4 Art. 22.1.5	<ul> <li><u>100%</u> of Total Value of Work</li> <li>Contractor the Named Insured; the City both an Additional Insured and one of the loss payees as its interests may appear.</li> <li>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.</li> <li>Note: Builders Risk Insurance may terminate upon Substantial Completion of the Work in its entirety.</li> <li>\$2,000,000 per accident combined single limit</li> <li>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.</li> <li>Additional Insureds:</li> </ul>
<ul> <li>Builders' Risk</li> <li>Commercial Auto Liability</li> </ul>	Art. 22.1.4 Art. 22.1.5	<ul> <li><u>100%</u> of Total Value of Work</li> <li>Contractor the Named Insured; the City both an Additional Insured and one of the loss payees as its interests may appear.</li> <li>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.</li> <li>Note: Builders Risk Insurance may terminate upon Substantial Completion of the Work in its entirety.</li> <li><u>\$2,000,000</u> per accident combined single limit</li> <li>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.</li> <li>Additional Insureds:</li> <li>(1) City of New York, including its officials and employees.</li> </ul>
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Builders' Risk Commercial Auto Liability	Art. 22.1.4	<ul> <li><u>100%</u> of Total Value of Work</li> <li>Contractor the Named Insured; the City both an Additional Insured and one of the loss payees as its interests may appear.</li> <li>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.</li> <li>Note: Builders Risk Insurance may terminate upon Substantial Completion of the Work in its entirety.</li> <li><u>\$2,000,000</u> per accident combined single limit</li> <li>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.</li> <li>Additional Insureds:</li> <li>(1) City of New York, including its officials and employees.</li> <li>(2) The Long Island Railroad (LIRR), Metropolitan Transportation Authority (MTA), its subsidiaries and affiliated companies.</li> <li>(3) The New York City Transit Authority (NYCTA), Manhattan</li> </ul>
Builders' Risk Commercial Auto Liability	Art. 22.1.4	<ul> <li><u>100%</u> of Total Value of Work</li> <li>Contractor the Named Insured; the City both an Additional Insured and one of the loss payees as its interests may appear.</li> <li>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.</li> <li>Note: Builders Risk Insurance may terminate upon Substantial Completion of the Work in its entirety.</li> <li><u>\$2,000,000</u> per accident combined single limit</li> <li>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.</li> <li>Additional Insureds:</li> <li>(1) City of New York, including its officials and employees.</li> <li>(2) The Long Island Railroad (LIRR), Metropolitan Transportation Authority (MTA), its subsidiaries and affiliated companies.</li> <li>(3) The New York City Transit Authority (NYCTA), Manhattan and Bronx Surface Transit Operation Authority (SIRTOA), Staten Island Rapid Transit Operation Authority (SIRTOA),</li> </ul>

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)	<u>\$</u> 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
		<u>\$</u> 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 I	Liability Policy	<u>\$2,000,000</u> per occurrence
<ul> <li>(ISO-RIMA or eq Permittor covering to designated site a damages arising of physical damage to including damage to and conforming to to Policy Endorsen Exclusion Ame endorsed onto to related work and</li> <li>Indicate the N Contractor to per Number and the where the work Agency Permit.</li> <li>Evidence of I Insurance, must</li> </ul>	uivalent form) approved by he work to be performed at the ind affording protection for out of bodily injury or death, o or destruction of property, o the Insured's own property he following: ment CG 28 31 - Pollution ndment is required to be he policy when environmental- /or exposures exist. Jame and address of the erform the work, the Contract name of the railroad property is being performed and the Railroad Protective Liability be provided in the form of the	<ul> <li>\$6,000,000 annual aggregate</li> <li>Named Insureds:</li> <li>(1) The Long Island Railroad (LIRR) Metropolitan Transportation Authority (MTA), its subsidiaries and affiliated companies, the City of New York and all other indemnified parties.</li> <li>(2) The New York City Transit Authority (NYCTA), Manhattan and Bronx Surface Transit Operation Authority (MaBSTOA), Staten Island Rapid Transit Operation Authority (SIRTOA), MTA Capital Construction Company, Metropolitan Transportation Authority (MTA), including its subsidiaries and affiliates, and the City of New York (as Owner) and all other indemnified parties.</li> </ul>
Original Policy. (ACORD or Man pending issuanc must be provide Binder Approval.	A detailed Insurance Binder uscript Form) will be accepted e of the Original Policy, which d within thirty (30) days of the	
	, ,	Art. 22.1.8
A. The Contractor's in the minimum at the liability assur professional serv Engineer or anyor	Professional Engineer shall mai mount of <u>\$1,000,000</u> per claim. med by the Contractor under ices or caused by an error, he employed by the Contractor's	intain and submit evidence of Professional Liability Insurance The policy or policies shall include an endorsement to cover this Contract arising out of the negligent performance of omission or negligent act of the Contractor's Professional Professional Engineer.
B. Claims-made poli extended reportin option, the Contra cancellation or ter at least the last po	cies will be accepted for Profe g period option or automatic o ictor's Professional Engineer sh rmination of such insurance unl blicy year.	essional Liability Insurance. All such policies shall have an coverage of not less than two (2) years. If available as an all purchase extended reporting period coverage effective on ess a new policy is secured with a retroactive date, including
[OTHER]	Art. 22.1.8	
Engineer's Field Offi Section 6.40, Standa	ce ard Highway Specifications	Fire insurance, extended coverage and vandalism, malicious mischief and burglary, and theft insurance coverage in the amount of <u>\$40,000</u>
[OTHER]	onal Insurance Must Be Provide	Art. 22.1.8 d:
Umbrella/Excess Li minimum amount of should be at least as provision as outlined York, including its of project.	ability Insurance - The Contra \$10,000,000 per Occurrence an broad as the underlying policie by the contract. Defense cost fficials and employees, should	actor shall provide Umbrella/Excess Liability Insurance in the ad \$10,000,000 in Aggregate. The policy terms and condition as. The underlying policies should comply with the insurance should be in addition to the limit of liability. The City of New be included as additional insured as respects to the noted

# 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

Standard Construction Contract Schedule A December 2013

# 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

□ · (	CAPITAL CONTRACT		ong	Isla	and Rai	il Road		
	DPERATING CONTRACT	CE	RTIF		TE OF INS	SURANCE		
	NOT FOR BENEFIT", Including INTRY PERMITS/FILM	-						
AGREE	EMENT or CONTRACT NO.:			AGRE	EMENT or CON	TRACT Name/Descri	iption:	
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PRODU	JCER:			С	ERTIFICATE ISS	SUANCE DATE:	RECEIVI	ED BY MTA RIM:
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CERTI	FICATE Long Island Rail Road/MT	A		D				· · ·
	IN. AUTO NISK & INSURANCE MA	mayernent		E				
ADURI	21 <sup>st</sup> Floor New York NY 10004			F				
	New 1018, 111 10004			G				
CO		POLICY	EFFEC	TIVE	EXPIRATION			
LTR		NUMBER	DA	TE	DATE			
	Underground Expl. & Collarse Hazard						GE OCC.	\$
	Products/Completed Operation     Contractual					B.I. & P.D. COMBI		\$
	Independent Contractors     Broad Form Property Damage					B.I. & P.D. COMBI	NED AGG.	\$
	Personal Injury Deductible \$					PERSONAL INJU	RY AGG.	\$
						BODILY INJURY (	Per Person)	\$
						BODILY INJURY (	Per Accident)	\$
	Owned Autos Hired Autos					PROPERTY DAMA	AGE	\$
	Non-Owned Autos					BODILY INJURY & DAMAGE COMBI	& PROPERTY NED	\$
	GARAGE LIABILITY					AUTO ONLY - EAG		\$
						OTHER THAN	EACH ACC.	\$
						AUTO ONLY:	AGGREGATE	\$
						EACH OCCURREN	NCE	\$
	Other Than Umbrella Form					AGGREGATE		\$
	WORKER'S COMPENSATION AND EMPLOYER'S LIABILITY						LIMITS	
						EMPLOYER'S LIA	BILITY	\$
	BUILDER'S RISK					FULL CONTRACT	VALUE OF	\$
	PROFESSIONAL LIABILITY Deductible \$ Includes Pollution	•			L			\$
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	OTHER							\$
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	(Continued) Page 2
ADDITIONAL INSUREDS (See Note 3) (√ all that apply): Coverage: Commercial Liability, Garage Liability, Excess/Umbrella Liability, Contractor's Pollution Liability Pollution Legal Liability, etc.	<ul> <li>LOSS PAYEES (See Note 3) (√ all that apply): Coverage: Crime Insurance, Valuable Papers Builder's Risk, etc.</li> <li>NAMED INSUREDS (See Note 4) (√ all that apply):</li> </ul>
	Coverage: Property, etc.
For LIRR Agreements:	For LIRR Agreements:
<ul> <li>Long Island Rall Road (LIRR), Metropolitan Transportation Authority (MTA) and It's subsidiaries and affiliates</li> <li>New York &amp; Atlantic Rallway Company</li> </ul>	Long Island Rail Road (LIRR), Metropolitan Transportation Authority     (MTA) and it's subsidiaries and affiliates     New York & Atlantic Railway Company
National Railroad Passenger Corp. (Amtrak)     NJ Transit Rail Operations, Inc.     The Port Authority of NY and NJ	National Railroad Passenger Corp. (Amtrak)           NJ Transit Rail Operations, Inc.           The Port Authority of NY and NJ
□ Other	□ Other
NOTE 1: The subscribing insurance company(s), authorized to do business in th Liability herein stated, covering the Agreement/Contract herein design and effect for the period listed on the front of this Certificate of Insura limits for General Liability Insurance are not amended by deductible Island Rail Road; and that coverage is afforded for the insured's oblig of the Indemnified Parties, including the Long Island Rail Road, nan requirements follows form of the underlying policy and will "drop dov Any exclusion applying to construction or demolition operations on voided. Any employer liability exclusion, which may otherwise oper insured, shall be voided.	The State of New York, certifies that insurance of the kinds and types and for Limits of ated, has been procured by and furnished on behalf of the insured and is in full force ance. In addition, the subscribing insurance company(s) certifies that the insurance clauses of any nature except as has been disclosed to and approved by the Long ations under that provision of the Agreement/Contract providing for indemnification ned therein. Further, any Umbrella/Excess Policy used to meet minimum contract m" to become primary in the event the Contractor's underlying policy is exhausted. or within fifty (50) feet of railroad property (stations, yards, tracks, etc.) has been rate to exclude claims for bodily injury asserted by an employee of an additional
NOTE 2: The subscribing company(s), shall endeavor to provide thirty (30) days MTA Risk and insurance Management Dept., 2 Broadway, 21 <sup>st</sup> Floor, Ne	s written notice of any material changes or cancellation to Long Island Rail Road c/o w York, NY 10004.
NOTE 3: All references to Additional Insureds, Named Insureds and Loss Payees and affiliates.	s include those entities' directors, officers, employees, partners, agents, subsidiaries
NOTE 4: This certificate is issued to the Certificate Holder in consideration of agreed that the Certificate Holder relies on the certificate as a basis for	the Agreement/Contract entered into with the named insured. It is understood and continuing such Agreement/Contracts with the named insured.
AUTHORIZED INSURER/PRODUCER	
BY	(signature of authorized Insurer/Producer)
STATE OF )	
COUNTY OF )	
On this day of 20, before me	e personally came, to me known, who
being duly sworn, did depose and say that he/she resides in	, that he/she is the
of the corporation and describe	d in and which executed the foregoing Certificate of Insurance, that he/she is
fully authorized to execute the foregoing Certificate of Insurance.	
(No	otary Public)
CERTIFICATES OF INSURANCE must be completed by	AUTHORIZED INSURANCE REPRESENTATIVES ONLY.

#### ATTACH TO CONTRACT DOCUMENTS

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

#### PROJECT ID: GE353

# DISTRIBUTION WATER MAIN EXTENSION AND REPLACEMENT ADJACENT TO T.A. FACILITIES IN:

#### BROOKLYN:

FLATBUSH AVENUE BETWEEN ATLANTIC AVENUE AND 5TH AVENUE; DRIGGS AVENUE BETWEEN LORIMER STREET AND NORTH 12TH STREET; UNION AVENUE BETWEEN NORTH STREET AND RICHARD STREET;

#### SOUTH QUEENS:

ROCKAWAY FREEWAY BETWEEN BEACH 98TH STREET AND BEACH 101ST STREET; BEACH 98TH STREET BETWEEN ROCKAWAY BEACH BOULEVARD AND BEACH CHANNEL DRIVE; BEACH 100TH STREET BETWEEN ROCKAWAY BEACH BOULEVARD AND ROCKAWAY FREEWAY; BEACH 101ST STREET BETWEEN ROCKAWAY BEACH BOULEVARD AND BEACH CHANNEL DRIVE; JAMAICA AVENUE BETWEEN 116TH STREET AND 123RD STREET;

#### Together With All Work Incidental Thereto BOROUGHS OF BROOKLYN AND QUEENS 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. <u>Refer</u> 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. <u>Refer</u> to Page 240, Subsection 4.16.5.(B) STUMP REMOVAL; <u>Delete</u> 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."

02/24/2014

#### [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. <u>Refer</u> to Page 14, Subsection 1.06.23.(A) PERMITS; <u>Delete</u> 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. <u>Refer</u> to Page 37, **Subsection 1.06.46.(A) 6. Sign Graphics**; <u>Delete</u> 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. <u>Refer</u> to Page 36, Subsection 1.06.46. Project Sign; <u>Delete</u> the words "Unless otherwise specified in the Special Provisions of the contract, the following shall apply:"; <u>Substitute</u> 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. <u>Refer</u> to Page 200, **Subsection 4.11.2.(B)**, first paragraph, sixth line;

Delete the word "porcelain,".

8. <u>Refer</u> 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. <u>Refer</u> to Page 202, Subsection 4.11.3.(E) GLASS; <u>Add</u> the following new Subsection 4.11.3.(F) RECYCLED PORCELAIN <u>AGGREGATE (RPA)</u>:

### "(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. <u>Refer</u> 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. <u>Refer</u> 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. <u>Refer</u> 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. <u>Refer</u> to page 116, second paragraph up from the bottom of the page, first line;
  - <u>Change</u> 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);

<u>Delete</u> the last two lines of text beginning with the words "The proportion of reclaimed asphalt pavement permitted within each mix ...";

<u>Substitute</u> 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. <u>Refer</u> 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**."

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

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

17. <u>Refer</u> 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. <u>Refer</u> to Page 113, second paragraph beginning with the words "The Contractor may substitute Portland cement . . ."; <u>Delete</u> 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. <u>Refer</u> to Page 115, **TABLE 3.05-III INGREDIENT MATERIALS**; <u>Change</u> in the third row, second column, the type of Portland Cement from "Type III\*" to read "Type II or Type III\*"
- 20. <u>Refer</u> to page 132, **Subsection 3.06.3.(D)**; <u>Change</u> 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. <u>Refer</u> to page 133, **Subsection 3.07.3.(D)**; <u>Change</u> 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. <u>Refer</u> to page 134, **Subsection 3.08.4.(D)**; <u>Change</u> 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."

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23. <u>Refer</u> to Page 166, **Subsection 4.05.2.(A)**; <u>Delete</u> **Subsection 4.05.2.(A)**, in their entirety; <u>Substitute</u> 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. <u>Refer</u> 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. <u>Refer</u> to Page 170, **Subsection 4.05.5.(A) GENERAL**; <u>Insert</u> 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, 4<sup>th</sup> 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. <u>Refer</u> to Page 183, Subsection 4.05.9. PRICES TO COVER; <u>Insert</u> 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."

02/24/2014

Al-lh

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. Monitor: 22" W, 23.0 Inch VIS, Widescreen, (i) VGA/DVI LCD Monitor." Software Requirements: Microsoft Windows 7 Professional "(m) 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." 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. One (1) 600 DPI HP Color Laser Jet all-in-one "(b) Printer/Scanner/Copier/Fax (twelve (12) pages per minute or faster) with one (1) Extra Paper Tray (Legal Size) networked to all office computers."

02/24/2014

3. <u>Refer</u> to Page 367, Subsection 6.40.3. SPECIFIC REQUIREMENTS FOR ENGINEERS FIELD OFFICE (TYPE A, B, C, CU, D OR DU), first paragraph;

<u>Delete</u> 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:

<ul> <li><u>Refer</u> to Page 368, TABLE 6.40-I, ADDITIC REQUIREMENTS;</li> <li><u>Delete</u> the requirements for a Photocopy row of TABLE 6.40-I, in its entirety <u>Substitute</u> the following revised require</li> </ul>	ONAL REQUIR Machine sh 7; ements:	EMENT	n the	CIFIC 15th	
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

5. <u>Refer</u> 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. <u>Refer</u> 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. <u>Refer</u> to Page 365, Subsection 6.40.2.(C)(c)(1) "Personal Computer(s) - Workstation Configuration"; <u>Delete</u> the text under Subsections (g) and (k), in their entirety; <u>Substitute</u> 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. <u>Refer</u> to Page 366, Subsection 6.40.2.(C)(c)(2) "All field offices requiring computers shall be provided with the following:"; <u>Delete</u> the text under Subsection (a), in its entirety; <u>Substitute</u> 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 Spe <b>eds</b> ( <i>Minimum</i> )
1 - 5	5 Mbps
6 - 10	10 Mbps
11 - 15	15 Mbps
<b>16</b> - 20	20 Mbps

This account will be active for the life of the project. The email 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. <u>Refer</u> to Page 366, Subsection 6.40.2.(C) (c) (2) (b), as amended by Article 2 on page A1-2 of this Addendum; <u>Delete</u> 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;

<u>Delete</u> the requirements for a Photocopy Machine shown in the 15th row of TABLE 6.40-I, as modified by Article 4 on page Al-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	1	1	1	1	1	1
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.						

[Added 11-26-2012]

11. <u>Refer</u> to Pages 504 through 508, **SECTION 7.88 - Rodent and Waterbug Pest Control**;

Delete Section 7.88, in its entirety;

<u>Substitute</u> 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 <u>not</u> 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) <u>Prior to Construction</u> - 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) <u>During Construction</u> - 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) <u>Wetlands, Woodlands and Areas Within Seventy-five (75') feet of a</u> <u>Stream</u>. 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) <u>Outside Wetland Areas, Woodland Areas and Beyond Seventy-five (75')</u> <u>feet of a Stream</u>. 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 <u>one month prior</u> 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. <u>During Construction</u> 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) <u>Prior to Construction</u> – 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) <u>During Construction</u> - 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

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#### [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 A1-20.

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# 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. <u>REFERENCES</u>.

- 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 ∆E < 1.5
Color stability	ASTM G-155 QUV 2,000 hours (CIE units)	Brick color ∆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	
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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. <u>METHODS</u>. 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.

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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. <u>MEASUREMENT</u>. 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.** <u>PRICES TO COVER</u>. 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, 4<sup>th</sup> paragraph, beginning with the words "The
Contractor shall maintain the traveled way . . .;
Delete the 4<sup>th</sup> 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: GE353**

# DISTRIBUTION WATER MAIN EXTENSION AND REPLACEMENT ADJACENT TO T.A. FACILITIES IN:

# **BROOKLYN:**

FLATBUSH AVENUE BETWEEN ATLANTIC AVENUE AND 5<sup>TH</sup> AVENUE; DRIGGS AVENUE BETWEEN LORIMER STREET AND NORTH 12<sup>TH</sup> STREET; UNION AVENUE BETWEEN NORTH STREET AND RICHARD STREET;

# SOUTH QUEENS:

ROCKAWAY FREEWAY BETWEEN BEACH 98<sup>TH</sup> STREET AND BEACH 101<sup>ST</sup> STREET; BEACH 98<sup>TH</sup> STREET BETWEEN ROCKAWAY BEACH BOULEVARD AND BEACH CHANNEL DRIVE; BEACH 100<sup>TH</sup> STREET BETWEEN ROCKAWAY BEACH BOULEVARD AND ROCKAWAY FREEWAY; BEACH 101<sup>ST</sup> STREET BETWEEN ROCKAWAY BEACH BOULEVARD AND BEACH CHANNEL DRIVE; JAMAICA AVENUE BETWEEN 116<sup>TH</sup> STREET AND 123<sup>RD</sup> STREET;

Together With All Work Incidental Thereto

# **BOROUGHS OF BROOKLYN AND QUEENS**

ADDENDUM NO. 2

DATED: October 20, 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. NOTICE TO BIDDERS
- B. AMENDMENTS TO THE STANDARD HIGHWAY SPECIFICATIONS
- C. AMENDMENTS TO THE STANDARD SEWER AND WATER MAIN SPECIFICATIONS
- D. AMENDMENTS TO THE SPECIFICATIONS FOR TRUNK MAIN WORK

# A. NOTICE TO BIDDERS

(1) (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, 3<sup>rd</sup> 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

- (2) 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.
- (3) 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.
- (4) All utility locations and invert elevations are not guaranteed, nor is there any guarantee that all existing utilities, whether functional or abandoned within the project area are shown.
- (5) All existing house connections shall be maintained and supported during construction. The Contractor shall replace any existing house connection damaged as a result of the Contractor's construction operations as ordered by the Engineer at no cost to the City.
- (6) The Contractor is advised that any City owned light poles, traffic signals, street name signs, traffic signs and encumbrances including, but not limited to, underground conduit displaced as the result of the installation of the new sewers, water mains, catch basins, catch basin connections and appurtenances shall be replaced in kind and as directed by the Engineer. The cost of such work shall be deemed included in the prices bid for all items of work under this contract.
- (7) 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.
- (8) 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.

- (9) 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 <a href="http://www.eia.gov/petroleum/gasdiesel/">http://www.eia.gov/petroleum/gasdiesel/</a>. 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 1<sup>st</sup>, April 1<sup>st</sup>, July 1<sup>st</sup> and September 1<sup>st</sup>) 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.
- (10)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.

- (11)The Contractor shall exercise extreme caution and take all necessary precautions in placing sheeting and excavating to prevent any damage to the existing NYC TRANSIT'S subway structures and its appurtenances during construction work throughout the project area. The Contractor shall take full responsibility to protect the said NYC TRANSIT'S subway structures and its appurtenances and any damage caused by the Contractor's operations shall be made good by the Contractor to the satisfaction of the Engineer at no additional cost to the City.
- (12)The Contractor shall submit shop drawings to NYC Transit Authority showing all the details and methods of construction, such as, sheeting and bracing, including the Contractor's procedure and sequence of construction, supporting and/or protection of the existing TA's structures and its appurtenances, with necessary design calculations for approval prior to starting of the construction. The design shall be made by a New York State Licensed Professional Engineer skilled in this type of construction and as further evidenced by the imprint of Professional Engineer's seal and signature on all drawings. The cost of this work shall be deemed included in the price bid for all items of work under this contract.
- (13)The Contractor shall exercise extreme caution and take all necessary precautions in placing sheeting and excavating to prevent any damage to the existing LIRR structures and its appurtenances during construction work throughout the project area. The Contractor shall take full responsibility to protect the said LIRR structures and its appurtenances and any damage caused by the Contractor's operations shall be made good by the Contractor to the satisfaction of the Engineer at no additional cost to the City.
- (14)The Contractor shall submit shop drawings to LIRR showing all the details and methods of construction, such as, sheeting and bracing, including the Contractor's procedure and sequence of construction, supporting and/or protection of the existing LIRR structures and its appurtenances, with necessary design calculations for approval prior to starting of the construction. The design shall be made by a New York State Licensed Professional Engineer skilled in this type of construction and as further evidenced by the imprint of Professional Engineer's seal and signature on all drawings. The cost of this work shall be deemed included in the price bid for all items of work under this contract.
- (15)The Contractor shall contact the LIRR prior to the start of construction so as to obtain any permit(s) that may be required when performing sewer and water main work within the area of influence of LIRR structure or property. No work shall commence on this project until such permit(s) have been

obtained from the LIRR (if required). No separate or additional payment will be made for the work required to obtain and update such permit(s) or for complying with the requirements of such permit(s), the cost shall be deemed included in the prices bid for all contract items of work.

ADDENDUM NO. 2

# B. AMENDMENTS TO THE STANDARD HIGHWAY SPECIFICATIONS

(NO TEXT)

## ADDENDUM NO. 2

# C. AMENDMENTS TO THE STANDARD SEWER AND WATER MAIN SPECIFICATIONS

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

(1) CONSOLIDATED EDISON COMPANY OF NEW YORK (CON EDISON)

There are CON EDISON facilities in the area of construction. The Contractor shall notify CON EDISON at least seventy-two (72) hours prior to the start of construction by contacting Mr. Joseph Bedell at (718) 802-3031 located in Brooklyn and Mr. Andrew Feehan at (718) 425-6777 located in Queens.

#### (2) NATIONAL GRID

There are NATIONAL GRID facilities in the area of construction. The Contractor shall notify NATIONAL GRID at least seventy-two (72) hours prior to the start of construction by contacting Mr. Neville Jacobs Jr. at (718) 963-5612.

(3) VERIZON

There are VERIZON facilities in the area of construction. The Contractor shall notify VERIZON at least seventy-two (72) hours prior to the start of construction by contacting Mr. Rohan Eccles at (718) 977-8142 and Mr. Aubrey Makhanlall at (718) 977-8165

(4) TIME WARNER CABLE OF NEW YORK CITY

There are TIME WARNER CABLE facilities in the area of construction. The Contractor shall notify TIME WARNER CABLE at least seventy-two (72) hours prior to the start of construction by contacting Mr. Mark Larm at (917) 335-9181.

(5) PSEG

There are PSEG facilities in the area of construction. The Contractor shall notify PSEG at least seventy-two (72) hours prior to the start of construction by contacting Mr. Kevin Rodgers at (516) 949-8444.

(2) <u>Refer</u> 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, at least thirty (30) days prior to the start of construction.

(2) NEW YORK CITY FIRE DEPARTMENT

The Contractor shall notify the Bureau of Fire Communications at least thirty (30) days prior to the start of construction by contacting Mr. Edward Durkin at (718) 624-3752.

# (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 Blvd., Long Island City, N.Y. 11101 at (718) 786-3550, at least seventy-two (72) hours prior to the start of construction.

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

The Contractor shall notify the Parks Department at least seventy-two (72) hours prior to the start of construction by contacting Brooklyn Forestry Mr. Kean Eng at (718) 965-7705 and Queens Forestry Mr. John Mueller at (718) 393-7373.

- (5) N.Y.C. TRANSIT AUTHORITY
  - (a) The Contractor shall notify Outside Projects at least seven (7) days prior to the start of construction.

The Contractor shall contact:

Mr. Mohamed Adam, P.E. Project Engineer-Outside Projects New York City Transit 2 Broadway, 7th Floor New York, N.Y. 10004 Attention Ms. Alina Avadanei Telephone No. (646) 252-3641

(b) The Contractor is advised that bus routes as well as bus stops, within the scope of this project may be affected during construction operations. The Contractor shall notify the Transit Authority at least two (2) weeks prior to the start of construction, in order to make the necessary arrangements as required under the NYC TRANSIT GENERAL NOTES included in Section 10.25, paragraph (A), Section 10.25 paragraph (B), and Section 10.25 paragraph (C) of this addendum.

Arrangements shall be made through:

Ms. Sarah Wyss Director Of Short Range, Bus Service Planning (SRB) New York City Transit 2 Broadway, 17<sup>th</sup> Floor New York, N.Y. 10004 Telephone No. (646) 252-5517 sarah.wyss@nyct.com

- (c) In addition, the Contractor is advised that construction operations might affect subway lines and stations; and NYCT facilities (i.e. manholes, ducts, etc.). The Contractor shall notify the Transit Authority as required and specified in Section 10.25 paragraph (A), Section 10.25 paragraph (B), and Section 10.25 paragraph (C) of this addendum.
- (6) LONG ISLAND RAIL ROAD (LIRR)

There are LIRR facilities in the area of construction. The Contractor shall notify LIRR at least two (2) weeks prior to the start of construction by contacting Mr. Matthew Kane at (516) 523-5580. The Contractor shall comply with the requirements as specified in Section 10.25, paragraph (D), Section 10.25 paragraph (E), and Section 10.25 paragraph (F) of this addendum.

(3) <u>Refer</u> to Subsection 10.25 - Contractor To Carry Out Agreement Between City And Railroad Company Or Property Owner(s), Page I-14: Add the following to Subsection 10.25:

(A) NYC TRANSIT GENERAL NOTES

For NYC TRANSIT notes see the contract drawings.

# (B) NYC TRANSIT INSURANCE REQUIREMENTS

<u>N.Y.C. TRANSIT INSURANCE</u>: The Contractor (Permittee) shall indemnify and save harmless the City of New York and the New York City Transit (Permittor) in accordance with the following "Insurance Requirements" and proof that the necessary insurance is in effect will be required before work can commence:

# NYCT "OUTSIDE CONTRACT" INSURANCE REQUIREMENTS

(1) The Permittee at its sole cost and expense shall carry or cause to carried and shall maintain at all times during the period of performance under this Agreement policies of insurance as herein set forth below:

- (A) <u>Workers' Compensation Insurance</u> (including Employer's Liability Insurance) with limits as specified in Schedule "A", which limit may be met by a combination of primary and excess insurance meeting the statutory limits of New York State. The policy shall be endorsed to include Longshoreman's and Harbor Workers' Compensation Act/Maritime Coverage Endorsement and/or Jones Act Endorsement when applicable.
- (B) <u>Commercial General Liability Insurance</u> (I.S.O. 2001 Form or equivalent) approved by Permittor in the Permittee's name with limits of liability as specified in Schedule "A" for each occurrence on a combined single limit basis for injuries to persons (including death) and damages to property. The limits may be provided in the form of a primary policy or combination of primary and umbrella/excess policy. When the minimum contract amounts can only be met when applying the umbrella/excess policy; the Umbrella/Excess Policy must follow form of the underlying policy and be extended to "drop down" to become primary in the event primary limits are reduced or aggregate limits are exhausted. Such insurance shall be primary and non-contributory to any other valid and collectable insurance and must be exhausted before implicating any Permittor/MTA policy available.

Such policy should be written on an occurrence form; and shall include:

- Contractual coverage for liability assumed by the Permittee under this agreement;
- Personal and Advertising Injury Coverage;
- Products-Completed. Operations;
- Independent Contractors Coverage;
- "XCU" coverage (Explosion, Collapse, and Underground Hazards) where necessary;
- Contractual Liability Exclusion, applicable to construction or demolition operations to be performed within 50-feet of railroad tracks, must be voided, where necessary; and,
- Additional Insured Endorsement (I.S.O. Form CG 20 26 07/04 version or equivalent) approved the Permittor naming:

New York City Transit Authority (NYCTA), the Manhattan and Bronx Surface Transit Operating Authority (MaBSTOA), the Staten Island Rapid Transit Operating Authority (SIRTOA), MTA Capital Construction Co., the Metropolitan Transportation Authority (MTA) including its subsidiaries and affiliates, and the City of New York (as Owner).

(C) <u>Business Automobile Liability Insurance Policy</u> - (I.S.O. Form CA 00 01 10 01 or equivalent) approved by the Permittor is required if Permittee's vehicle enters Permittor property. The insurance must be in the name of the Permittee or its contractor entering the Permittor property with limits of liability in the amount specified in Schedule "A" for claims for bodily injuries (including death) to persons and for damage to property arising out of the ownership, maintenance or use of any owned, hired or non-owned motor vehicle.

- (D) Railroad Protective Liability Insurance policy shall be required as specified in Schedule "A".
- (E) Environmental/Pollution Exposures:

In the event environmental or pollution exposures exist, the Permittee shall require the environmental contractor or sub-contractor to provide the applicable insurance covering such exposure. The limits and type of insurance provided shall be satisfactory to the Permittor and will be confirmed to the parties prior to the start of the work.

- (2) General Requirements Applicable To Insurance Policies:
  - (a) All of the insurance required by this Article shall be with Companies licensed or authorized to do business in the State of New York with an A.M. Best Company rating of not less than A-/VII or better and reasonably approved by the Permittor/MTA and shall deliver evidence of such policies.
  - (b) Except for Workers Compensation, all references to forms and coverages referred to above shall be the most recent used by the Insurance Services Office, Inc. (ISO") or equivalent forms approved by the Insurance Department of the State of New York, provided, however, that excess coverages may be written on forms reasonably acceptable to Permittor containing provisions other than those contained in ISO forms but otherwise conforming in substance to the requirements of this Article.
  - (c) The Permittee or its Contractor performing the work shall furnish evidence of all policies before any work is started to the permittor:

For NYCT Contract Inspection C/O Mr. John Malvasio Director, MOW Engineering 130 Livingston Street, Room 8044F Brooklyn, NY 11201 Telephone: (718) 694-1358

These policies must: (i) be written in accordance with the requirements of the paragraphs above, as applicable; (ii) be endorsed in form acceptable to include a provision that the policy will not be canceled, materially changed, or not renewed, unless otherwise indicated herein, at least thirty (30) days prior written notice to the Permittor c/o MTA Risk and Insurance Management (MTA RIM) Department - Standards, Enforcement & Claims Unit, 2 Broadway -21st floor, New York, NY 10004; and (iii) state or be endorsed to provide that the coverage afforded under the contractor's policies shall apply on a primary and not on an excess or contributing basis with any policies which may be available to the Permittor/MTA, and also that the contractor's policies, primary and excess, must be exhausted before implicating any Permittor/MTA policy available. (iv) In addition, contractor's policies shall state or be endorsed to provide that, if a subcontractor's policy contains any provision that may adversely affect whether contractor's policies are primary and must be exhausted before implicating any Permittor/MTA policy available, contractor's and subcontractor's policies shall nevertheless be primary and must be exhausted before implicating any Permittor/MTA policy available. Except for Professional Liability, policies written on claims made basis are not acceptable. At least two (2) weeks prior to the expiration of the policies, contractor shall endeavor to provide evidence of renewal or replacement policies of insurance, with terms and limits no less favorable than the expiring policies. Except as otherwise indicated in the detailed coverage paragraphs below, self insured retentions and policy deductibles shall not exceed \$100,000, unless such increased deductible or retention is approved by Permittor/MTA. The Permittee shall be responsible for all claim expense and loss payments within the deductible or selfinsured retention. The insurance monetary limits required herein may be met through the combined use of the insured's primary and umbrella/excess policies.

- (d) Certificates of Insurance may be supplied as evidence of policies of the above policies, except for Policy (D) Railroad Protective Liability Insurance Policy. However, if requested by the Permittor, the Permittee shall deliver to the Authority, within forty-five (45) days of be request, a copy of such policies, certified by the insurance carrier as being true and complete. The Railroad Protective Liability Insurance Policy must be provided in the form of the Original Policy. A detailed Insurance Binder may be provided, ACORD or Manuscript Form, pending issuance of the Original Policy. The Original Policy must be submitted to MTA RIM within thirty (30) days of the Binder Approval.
- (e) If a Certificate of Insurance is submitted, it must: (1) be provided on the Permittor Certificate of Insurance Form or MTA Certificate of Insurance Form for Joint Agency Agreements; (2) be signed by an authorized representative of the insurance carrier or producer and notarized; (3) disclose any deductible, self-insured retention, sub-limit, aggregate limit or any exclusions to the policy that materially change the coverage; (4) indicate the Additional Insureds and Named Insureds as required herein, along with a <u>physical copy</u> of the Additional Insured Endorsement (I.S.O. Form CG 20 26 07/04 version or equivalent), as applicable and the endorsement(s) must include policy number(s); (5) reference the Contract by number on the face of the certificate; and (6) expressly reference the inclusion of all required endorsements.
- (f) The minimum amounts of insurance required in the detail description of policies (A), (B), (C), and (D) above shall not be construed to limit the extent of the Permittee's liability under this Agreement.
- (g) If, at any time during the period of this Agreement, insurance as required is not in effect, or proof thereof is not provided to the Permittor, the Permittor shall have the options to: (i) direct the Permittee to suspend work or operation with no additional cost or extension of time due on account thereof; or (ii) treat such failure as an Event of Default.

# (C) NYC TRANSIT CURRENT AND FUTURE PROJECTS

The Contractor is notified of the following:

(1) The following subway lines are within the area of this project:

(a) The IRT Eastern Parkway Line - No. 2, No. 3 and No. 5 Trains and the BMT Brighton Beach Line B and Q Trains are running along Flatbush Avenue

- (b) The IND Crosstown Line G Train is running along Manhattan Avenue
- (c) The IND Rockaway Line A Train is running along Rockaway Freeway
- (d) The BMT Jamaica Line J and Z Train are running along Jamaica Avenue
- (2) The Contactor can obtain NYC Transit Structural Drawings by contacting Mr. Gopalakrishnan Chenthitta at (646) 252-3614.

The Contractor shall also obtain from Mr. Gopalakrishnan Chenthitta the following Drawing showing Power Engineering Activities for the area of this project:

- Drawing No. P-645 Duct Assignment Vicinity of Ashland Place and Fulton Street -Brighton Line - BMT - Brooklyn
- Drawing No. P-646 Duct Assignment Vicinity of Atlantic Avenue Station Brighton Line
   BMT Brooklyn
- Drawing No. P-671 Duct Assignment Vicinity of Pacific Street Station -- 4th Avenue Line -- BMT -- Brooklyn
- Drawing No. P-381 Duct Assignment Vicinity of Greenpoint Avenue Station Crosstown Line - IND – Brooklyn
- Drawing No. P-382 Duct Assignment Vicinity of Lorimer Street Station Crosstown Line - IND – Queens

# ADDENDUM NO. 2

- Drawing No. P-633 Duct Assignment Vicinity of Holland Station Rockaway Line IND – Queens
- Drawing No. P-634 Duct Assignment Vicinity of Rockaway Park Station Rockaway Line - IND – Queens
- (3) The project might have an impact at the following stations:
  - (a) Atlantic Avenue Barclays Center Station for the Eastern Parkway Line IRT
  - (b) Atlantic Avenue Barclays Center Station for the Brighton Line BMT
  - (c) The Beach 98th Station for the Rockaway Line IND / Queens

Should it become necessary to close any of the entrances for the above station, see Note No. 35 from the General Notes that are made part of the contract drawings.

(4) (a) The following tables showing NYC Transit's current and planned projects that may impact and/or interfere with this project might require the Contractor to coordinate construction work with NYCT contractors. These tables are for information only:

# Atlantic Avenue - Barclays Center Station / Eastern Parkway Line -- IRT / Brooklyn

Contract	Project Title	Design Manager/ Telephone No.	Construction Manager/ Telephone No.	Resident Engineer/ Telephone No.
ST04-17151	Station Access-ADA ADA: Plat Gap, Ph1-14 Stn	V. Patel/ (646) 252-4249	N/A	N/A
ST01-0563 A37573	Stations SAID@26 Loc	D. Willemann/ (646) 252-3865	D. Willemann/ (646) 252-3865	N/A
ST18-7129 C43026	Stat Comm Rms HVAC: 5 Loc	K. Asamoah/ (646) 252-4064	M. Menno/ (646) 252-3458	G. Homatas/ (646) 372-1850
ST21-7326 A36158	Stat Components 181 &Celling/BW7 EMERG	S. Moy/ (646) 252-4320	O. Adewolu/ (646) 252-4199	B.Shah/ (212) 692-0070

# Atlantic Avenue - Barclays Center Station / Brighton Line - BMT / Brooklyn

Contract	Project Title	Design Manager/ Telephone No.	Construction Manager/ Telephone No.	Resident Engineer/ Telephone No.
S-32333	Automatic Train Supervision (ATS)	S. Kwa (646) 252-3189	C. Fraser (212) 883-74283	M. Desko (212) 883-7464
W-32622-2	Police Radio Communication System	R. Ruffo (646) 252-3060	K. Majmudar (646) 252-3773	M. Islam (646) 252-3784
W-32648	Sonet/ATM Comm Network System Ph I	R. Ruffo (646) 252-3060	N/A	D. Patel (646) 252-3014
W-32658	Public Address System IRT Stations	R. Ruffo (646) 252-3060	N/A	N/A
S-32184	Replace 845 Emergency Alarm Units	N/A	N/A	N/A

# Playland - Beach 98 Street Station / Rockaway Line -- IND / Queens

Contract	Project Title	Design Manager/ Telephone No.	Construction Manager/ Telephone No.	Resident Engineer/ Telephone No.
ST01-1615	Stations Help Point: Phase 2	D. Wesley/ (646) 252-3061	S. Davoodi/ (646) 252-2504	N/A
ST012-7386 W-32695	Publ Addr/Cust Info PA/CIS: 43 Stns: Cabinets	D. Wesley/ (646) 252-3061	J. Diaz/ (646)790-2101	N/A



# ADDENDUM NO. 2

# PROJECT ID.: GE353

ST012-7386 W-32694	Publ Addr/Cust Info PA/CIS: 43 Stns: Cabinets	D. Wesley/ (646) 252-3061	J. Diaz/ (646)790-2101	E. Kakkanatt/ (646) 252-2070
MW49-6573 C34768	Elevated Struc Rehab VSR: RKY & FAR	L. Powerman/ (646) 252-4569	C. Velenovsky/ (718) 643-1954	D. Bishop/ (347) 672-0671
ST01-1615	Stations Help Point: Phase 2	D. Wesley/ (646) 252-3061	S. Davoodi/ (646) 252-2504	

#### (D) LIRR GENERAL NOTES

For LIRR notes see the contract drawings.

# (E) LIRR INSURANCE REQUIREMENTS

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

- (a) LONG ISLAND RAIL ROAD INSURANCE: The Contractor shall procure, at its sole cost and expense, and shall maintain in force at all times during the term of this Agreement, policies of insurance as herein below set forth, written by companies with an A.M. Best Company rating of Aor better and approved by the LIRR/MTA. The Contractor shall deliver to the LIRR/MTA evidence of such policies. These policies must: (i) be written in accordance with the requirements of the paragraphs below, as applicable; (ii) be endorsed in form acceptable to the LIRR/MTA to include a provision that the policy will not be canceled, materially changed, or not renewed without at least thirty (30) days prior written notice to the LIRR, Attention: Carol Berlingieri, MTA Risk and Insurance Management, Long Island Rail Road, 2 Broadway, New York, New York 10004, Telephone No. (646) 252-1429, by certified mail/return receipt requested; and (iii) state or be endorsed to provide that the coverage afforded under the policies shall apply on a primary and not on an excess or contributing basis with any policies which may be available to the LIRR/MTA. Except as otherwise provided herein, policies written on a "claims-made" basis are not acceptable. At least two (2) weeks prior to the expiration of the policies, evidence of renewal or replacement policies of insurance, with terms and limits no less favorable than the expiring policies, shall be delivered to the LIRR/MTA. Deductibles or self-insured retentions above those shown on Schedule "A" will require approval from the LIRR/MTA. The Contractor shall be responsible for all claim expense and loss payments within the deductible or self-insured retention.
  - (1) <u>Commercial General Liability Insurance</u> (I.S.O. Form CG 00 01 01 96 or equivalent approved by the Railroad) in the Contractor's name with limits of liability in the amount of <u>shown on</u> <u>Schedule "A"</u> on a combined single limit basis for injuries to persons (including death) and for damage to property. If the policy is subject to an aggregate limit, replacement insurance will be required if it is likely such aggregate will be exceeded.

Such policies shall include:

- (a) Contractual coverage for liability assumed by the Contractor;
- (b) "XCU" coverage (Explosion, Collapse, and Underground Hazards) where necessary;
- (c) Products-Completed Operations Coverage;
- (d) Independent Contractors Coverage;
- (e) Coverage for claims for bodily injury asserted by an employee of an additional insured and any Employer Liability Exclusion which may otherwise operate to exclude such coverage shall be voided in this respect; and,
- (f) Additional Insured Endorsement (latest I.S.O. Form CG 20 10 or equivalent approved by the Railroad) naming Long Island Rail Road and Metropolitan Transportation Authority (LIRR/MTA) including its subsidiaries and affiliates, City of New York and New York City Department of Design and Construction.
- (2) <u>Worker's Compensation Insurance</u> (including Employer's Liability Insurance) meeting the statutory limits of New York State.

- (3) <u>An Automobile Liability Insurance</u> Policy (I.S.O. Form CA 00 01 07 97 or equivalent approved by the Railroad) in Contractor's name with the Long Island Rail Road (LIRR), Metropolitan Transportation Authority (MTA), its subsidiaries and affiliated companies, the City of New York and all other indemnified parties included in the contract as Additional Insured with limits of liability in the amount of <u>shown on Schedule "A"</u> for claims for bodily injuries (including death) to persons and for damage to property arising out of the ownership, maintenance or use of any owned, hired or non-owned motor vehicle. The policy shall be extended to include employees of any insured acting in the scope of their employment. If the policy is subject to an aggregate limit, replacement insurance will be required if it is likely such aggregate will be exceeded.
- (4) <u>Railroad Protective Liability Insurance</u> (ISO-RIMA or equivalent form approved by the Railroad), covering the work to be performed at the designated job site and affording protection for damages arising out of bodily injuries or death, injury to or destruction of property, including damage to the insureds own property and conforming to the following:
  - (a) The Long Island Rail Road Company and Metropolitan Transportation Authority are the "Named Insureds."
  - (b) The limit of liability shall be <u>as shown on Schedule "A"</u>. If policy is subject to an aggregate limit, replacement insurance will be required if it is likely such aggregate will be exceeded.
  - (c) Evidence of Railroad Protective Liability Insurance, must be provided in the form of the original Policy or a detailed Binder pending issuance of the original Policy.
  - (d) Definition of "<u>Physical Damage to Property</u>" must be amended to mean direct and accidental loss of or damage to "all property of any Named Insured and all property in any Named Insured's care, custody or control".
- (b) The Contractor shall furnish evidence of all policies, before any work is started, to:

Carol Berlingieri MTA Risk and Insurance Management Long Island Rail Road 2 Broadway New York, New York 10004 Telephone No. (646) 252-1429

- (c) Certificates of Insurance may be supplied as evidence of policies in paragraph numbers (1), (2), and (3) above, however, if requested by the Agency, the Contractor shall deliver to the Agency, within forty-five (45) days of the request, a copy of such policies, certified by the insurance carrier as being true and complete.
  - If a Certificate of Insurance is submitted it must:
    - (A) Be provided on the Long Island Rail Road Certificate of Insurance Form (see Schedule "A");
    - (B) Be signed by an authorized representative of the insurance carrier or producer and notarized;
    - (C) Disclose any deductible, self-insured retention, aggregate limit or any exclusions to the policy that materially change the coverage;
    - (D) Indicate the Additional Insureds and Named Insureds as required herein;
    - (E) Reference the Contract by number on the face of the certificate; and,
    - (F) Expressly reference the inclusion of all required endorsements.
- (d) Evidence of policy in paragraph number (4) above, Railroad Protective Liability Insurance, requires submittal of the original Policy. The original Binder will be accepted pending issuance of the original policy. Railroad Protective Liability Insurance cannot be submitted on insurance certificate forms. It must be provided as follows:
  - (A) A detailed Binder, pending issuance of the actual policy, or the actual policy itself;

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# ADDENDUM NO. 2

# PROJECT ID.: GE353

- (B) Named Insureds: Long Island Rail Road/Metropolitan Transportation Authority;
- (C) "Physical Damage to Property" definition <u>must be amended</u> as stated above in requirements.
- (e) If, at any time during the period of this Agreement, insurance as required is not in effect, or proof thereof is not provided to the LIRR/MTA, the LIRR/MTA shall have the option to: (i) direct the Contractor to suspend work with no additional cost or extension of time due on account thereof, or (ii) treat such failure as an Event of Default.

# (F) LIRR MINIMUM JACKING REQUIREMENTS FOR UNDERGROUND UTILITIES

The Contractor's attention is directed to the Long Island Rail Road MINIMUM JACKING REQUIREMENTS FOR UNDERGROUND UTILITIES; and, drawing titled "MINIMUM ROADWAY CLEARANCE", (three (3) pages) that are attached to the end of this addendum.

- (4) <u>Refer</u> to Subsection 10.30 Contractor To Provide For Traffic, Page I-15: <u>Add</u> the following to Subsection 10.30:
  - (1) Traffic Stipulations:

The Contractor shall refer to the Traffic Stipulations (six (6) pages) that are attached to the end of this addendum, and as directed by the Engineer.

# (5) <u>Refer</u> to Subsection 71.41.4 - Specific Pavement Restoration Provisions, Page VII-67: <u>Add</u> the following to Subsection 71.41.4:

- (E) Specific Pavement Restoration Provisions:
  - (1) In street areas requiring sewer and water main work the 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.
  - (2) The following requirements apply:
    - (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 Specifications.
    - (c) At locations requiring the installation of a concrete base course, a reflective cracking membrane shall be installed over joints prior to restoration. Payment for this work shall be made under Item No. 6.91 - REFLECTIVE CRACKING MEMBRANE (18" WIDE). 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 Proctor analyses, in-place soil density tests, tack coating, eradication of temporary roadway markings, stripping or milling of pavement keys and adjustment of city-owned castings for all roadway work shall be deemed included in the prices bid for all pavement restoration items.
- (f) Payment for placement of temporary pavement marking shall be made under Item No. 6.49 TEMPORARY PAVEMENT MARKINGS (4" WIDE).
- (g) Payment for removal of existing pavement markings shall be made under Item No. 6.53 REMOVE EXISTING LANE MARKINGS (4"WIDE).
- (h) Payment for placement of permanent pavement marking with thermoplastic reflectorized pavement markings (crosswalk and lane dividers) shall be made under Item No. 6.44 - THERMOPLASTIC REFLECTORIZED PAVEMENT MARKINGS (4" WIDE).

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

<u>ltem No.</u>	Item	Payment Description
4.02 AB-R	Asphaltic Concrete Wearing Course, 1-1/2" Thick	(For asphaltic concrete wearing course top course when <u>no</u> 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 <u>no</u> overlay is required; binder mixture top course when overlay is required; binder mixture in Type A and B Keys; and binder mixture to fill in roadway depressions and to provide a leveling course prior to overlay where ordered.)
4.04 H	Concrete Base For Pavement, Variable Thickness For Trench Restoration, (High-Early Strength)	(For concrete base course over trenches and cutbacks.)
4.05 AX	High-Early Strength Reinforced Concrete Pavement (Bus Stop)	(For reinforced concrete pavement at bus stops.)



# D. AMENDMENTS TO THE SPECIFICATIONS FOR TRUNK MAIN WORK

1) <u>Refer</u> 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 sixteen (16) pages plus nine (9) pages of attachments.



# Department of Transportation

POLLY TROTTENBERG, Commissioner

# **OCMC TRAFFIC STIPULATIONS**

September 26, 2014

OCMC FILE NO:	CEC 14-297
A	

CONTRACT NO: GE353 PROJECT: DISTRIBUTION WATER MAINS EXTENSION REPLACEMENT; ADJACENT TO TA FACILITIES; BOROUGH OF BROOKLYN AND QUEENS

LOCATION(S): VARIOUS LOCATIONS

PERMISSION IS HEREBY GRANTED TO THE **CITY OF NEW YORK DEPARTMENT OF DESIGN AND CONSTRUCTION** AND ITS DULY AUTHORIZED AGENT, TO ENTER UPON AND RESTRICT THE FLOW OF TRAFFIC AT THE ABOVE LOCATION(S) FOR THE PURPOSE OF CARRYING OUT THE ABOVE NOTED PROJECT, SUBJECT TO THE STIPULATIONS, AS NOTED BELOW:

## A. SPECIAL STIPULATIONS

- 1. <u>EMBARGOES</u> A CONSTRUCTION EMBARGO WILL APPLY TO THOSE LOCATIONS BELOW WHICH FALL WITHIN THE <u>HOLIDAY</u> <u>EMBARGO</u> OR ANY OTHER SPECIAL EVENT EMBARGOES SUCH AS PUBLISHED BY THE BUREAU OF PERMIT MANAGEMENT AND CONSTRUCTION CONTROL.
- 2. <u>BIKE LANES</u> IF WORK IS IN OR AFFECTING A BIKE LANE, THE PERMITTEE MUST POST ADVANCE WARNING SIGNS 350 FEET AND 200 FEET PRIOR TO THE WORK ZONE STATING "CONSTRUCTION IN BIKE LANE AHEAD PROCEED WITH CAUTION", AND ALSO POST A SIGN AT THE WORK ZONE STATING "CONSTRUCTION IN BIKE LANE PROCEED WITH CAUTION". SUCH SIGNS SHALL BE ORANGE, 3' X 3', DIAMOND-SHAPED WITH 4" BLACK LETTERING, SIGNS SHALL BE POSTED IN ACCORDANCE WITH THE FEDERAL MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
- 3. <u>BIKE SHARE STATIONS</u>: THE PERMITTEE SHALL NOT REMOVE, RELOCATE, DAMAGE OR DISRUPT THE OPERATION OF EXISTING BIKE SHARE STATIONS WITHOUT FIRST CONTACTING NYC BIKE SHARE AT 855-245-3311 FOR THEIR REQUIREMENTS PRIOR TO COMMENCING WORK.
- 4. <u>BUS STOPS</u> THE PERMITTEE SHALL PROVIDE WRITTEN NOTICE TO NYC DOT OCMC AND NEW YORK CITY TRANSIT (NYCT) A MINIMUM OF FIVE (5) WEEKS IN ADVANCE FOR LANE/STREET CLOSURES THAT AFFECT BUS ROUTES/BUS STOPS.
- 5. <u>STREET LIGHTS / TRAFFIC SIGNALS</u>: THE PERMITTEE SHALL NOT REMOVE OR RELOCATE EXISTING STREET LIGHTS OR TRAFFIC SIGNALS WITHOUT FIRST OBTAINING APPROVAL FROM NYCDOT STREET LIGHTING / TRAFFIC SIGNALS UNIT.
- 6. TRAFFIC CAMERAS, DETECTION/COMMUNICATION EQUIPMENT: IF AT ANY TIME DURING THE APPROVED WORK, THE PERMITTEE ENCOUNTERS TRAFFIC SURVEILLANCE CAMERAS, DETECTION EQUIPMENT OR ANY TYPE OF COMMUNICATION EQUIPMENT (WIRELESS OR HARD-WIRED) ON ANY NYC DOT FACILITY, THAT IS NOT INCLUDED ON THE DESIGN/BUILD DRAWINGS, THE PERMITTEE SHALL IMMEDIATELY NOTIFY NYC DOT TRAFFIC MANAGEMENT BY PHONE AT 718-433-3390 OR 718-433-3340 AND VIA EMAIL AT <u>IMC@DOT.NYC.GOV</u> AND AWAIT DIRECTION PRIOR TO CONTINUING WORK.
- 7. METERS THE PERMITTEE SHALL NOT REMOVE OR RELOCATE PARKING METERS WITHOUT FIRST OBTAINING APPROVAL FROM NYCOOT PARKING METER DIVISION AT 718 894 8651.
- 8. <u>TEST PITS</u> THE BELOW TRAFFIC STIPULATIONS DO NOT APPLY TO TEST PIT WORK RELATED TO THIS CONTRACT. WORK HOURS AND OTHER REQUIREMENTS FOR TEST PIT OPERATIONS MAY DIFFER FROM THE STIPULATIONS IDENTIFIED BELOW. THE PERMITTEE SHALL BE REQUIRED TO OBTAIN SEPARATE PERMITS RELATED TO TEST PITS.
- 9. TEMPORARY PARKING REGULATIONS/PAVEMENT MARKINGS THE PERMITTEE IS REQUIRED TO INSTALL, MAINTAIN AND REMOVE ALL NECESSARY TEMPORARY PARKING AND REGULATORY SIGNS AND PAVEMENT MARKINGS, AND RESTORE THEIR ORIGINAL CONDITION PER NYC DOT STANDARDS, PRIOR TO EXPIRATION OF THEIR PERMITS. THE PERMITTEE OR AGENCY PERFORMING PUBLIC OUTREACH SHALL POST AND MAINTAIN ADVISORY SIGNS A MINIMUM OF 48 HOURS PRIOR TO CHANGING EXISTING PARKING REGULATION SIGNS TO APPROVED TEMPORARY CONSTRUCTION PARKING REGULATION SIGNS. THE ADVISORY SIGNS SHOULD BE POSTED ON ALL POLES AND DRIVE RAILS ON THE SEGMENT AFFECTED, INDICATING THE DATE OF THE CHANGE, THE NEW REGULATIONS AND A TELEPHONE NUMBER TO OBTAIN MORE INFORMATION.
- 10. ACCESS TO ABUTTING PROPERTIES THE PERMITTEE SHALL COORDINATE ALL ACTIVITIES WITH ABUTTING PROPERTY OWNERS TO ENSURE ACCESS IS PROVIDED TO/FROM ENTRANCES/DRIVEWAYS AT ALL TIMES.
- 11. <u>AUTHORIZED PARKING</u> PRIOR TO PERFORMING WORK WHICH IMPACTS AUTHORIZED PARKING, THE PERMITTEE SHALL SUBMIT IN WRITING, AND COPY OCMC-STREETS, A REQUEST TO OCCUPY SPACE CURRENTLY USED BY AUTHORIZED VEHICLES. APPROVAL MUST BE RECEIVED FROM AUTHORIZED PARKING PRIOR TO OCCUPYING THESE AREAS.

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#### NYC Department of Transportation

Bureau of Permit Management and Construction Control 55 Water Street – 7<sup>th</sup> Floor, New York, NY 10041

T: 212.839.9621 F: 212-839-8970 www.nyc.gov/dot

- 12. NOTIFICATION THE PERMITTEE MUST AT LEAST TWO (2) WORKING DAYS BEFORE THE START OF CONSTRUCTION NOTIFY THE NYC FIRE DEPARTMENT, NYC POLICE DEPARTMENT, NYCEMS, LOCAL COMMUNITY BOARD, BOROUGH PRESIDENT'S OFFICE-CHIEF ENGINEER, NYCDOT OCMC OFFICE, AND ALL ABUTTING PROPERTY OWNERS.
- CONSTRUCTION INFORMATIONAL SIGNS THIS PROJECT REQUIRES A CONSTRUCTION PROJECT INFORMATIONAL SIGN (CPIS) IN ACCORDANCE WITH NYCDOT HIGHWAY RULE SECTION 2-02 (4) AND (5). CRITERIA AND A PROTOTYPE FOR THIS SIGN MAY BE FOUND ON THE NYCDOT WEBSITE AT:

HTTP://WWW.NYC.GOV/HTML/DOT/DOWNLOADS/PDF/DOT\_CPIS\_DIRECTIONS.PDF

- 14. ENHANCED MITIGATIONS
  - O <u>"NO STANDING ANYTIME-TEMPORARY CONSTRUCTION" SIGNS AND TEMPORARY PAVEMENT MARKINGS SHALL BE</u> INSTALLED AND MAINTAINED AS WARRANTED BY THE MAINTENANCE AND PROTECTION OF TRAFFIC (MPT) REQUIRED TO FACILITATE TRAFFIC MOVEMENTS THROUGH THE WORK ZONE. ALL TEMPORARY SIGNS AND PAVEMENT MARKINGS SHALL BE REMOVED UPON COMPLETION OF THE PROJECT.
  - COMMUNITY OUTREACH SHALL BE PROVIDED FOR THE DURATION OF THE PROJECT.

#### B. MAINTENANCE AND PROTECTION OF TRAFFIC

# <u>BROOKLYN</u>

SPECIAL NOTE:

• THERE WILL BE NO LANES CLOSURES PERMITTED TWO HOURS PRIOR TO BARCLAY S CENTER EVENTS THROUGH TWO HOURS AFTER THE EVENT HAS ENDED.

## SOUTHBOUND FLATBUSH AVENUE BETWEEN ATLANTIC AVENUE AND 57H AVENUE

- Work hours shall be as follows: 7:00 AM to 3:00 PM, Monday Friday
  - 8:00 AM to 6:00 PM, Saturday
  - 9:00 AM to 6:00 PM, Sunday
- The contractor shall maintain two 11 foot travel lanes during working hours, northbound Flatbush Avenue not affected.
- The contractor shall restore full width of the roadway after working hours.
- The contractor shall maintain 8-foot clear sidewalk for pedestrians at all times.

#### INTERSECTION OF FLATBUSH AVENUE AND PACIFIC STREET

- Work hours shall be as follows: 7:00 AM to 3:00 PM, Monday Friday
  - 8:00 AM to 6:00 PM, Saturday
  - 9:00 AM to 6:00 PM, Sunday
- The contractor shall maintain on southbound Flatbush Avenue two 11 foot travel lanes and two 10 foot travel lanes on Pacific Street during working hours.
- The contractor shall restore full width of the roadway after working hours.
- The contractor shall maintain 8-foot clear sidewalk for pedestrians at all times.

#### INTERSECTION OF FLATBUSH AVENUE AND 5TH AVENUE

Work hours shall be as follows: 7:00 AM to 3:00 PM, Monday - Friday

8:00 AM to 6:00 PM, Saturday

#### 9:00 AM to 6:00 PM, Sunday

- The contractor shall maintain on southbound Hatbush Avenue two 11 foot travel lanes. And two 10 foot travel lanes on Pacific Street, one lane in each direction during working hours.
- The contractor shall restore full width of the roadway after working hours.
- The contractor shall maintain 8-toot clear sidewalk for pedestrians at all times.

#### SPECIAL NOTE:

 IF WORK IS AFFECTING BIKE ROUTE/LANE, CONTRACTOR MUST POST ADVANCE WARNING SIGNS PRIOR TO WORK ZONE AND ALSO POST SIGN AT WORK ZONE,

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#### DRIGGS AVENUE BETWEEN LORIMER STREET AND NORTH 12th STREET

- Work hours shall be as follows: 7:00 AM to 6:00 PM, Monday thru Friday
- 8:00 AM to 6:00 PM, Saturday
   The contractor shall maintain one 11 foot travel lane for traffic during working hours.
- The contractor shall restore all travel lanes after working hours.
- The contractor shall maintain 5-foot clear sidewalk for pedestrians at all times.

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## INTERSECTION OF DRIGGS AVENUE AND LORIMER STREET

- Work hours shall be as follows: 9:00 AM to 4:00 PM, Monday thru Friday
  - The contractor shall maintain on Lorimer Street two 11 foot travel lanes, one 11 foot lane in each direction and maintain one 11 foot lane on Driggs Avenue during working hours.
- The contractor shall restore full width of the roadway after working hours.
- The contractor shall maintain 5-foot clear sidewalk for pedestrians at all times.

#### INTERSECTION OF DRIGGS AVENUE AND NORTH 12TH STREET

- Work hours shall be as follows: 9:00 AM to 4:00 PM, Monday thru Friday
- The contractor shall maintain on Lorimer Street and North 12th Street one 11 foot travel lane during . working hours
- The contractor shall restore full width of the roadway after working hours.
- The contractor shall maintain 5-foot clear sidewalk for pedestrians at all times.

## UNION AVENUE BETWEEN NORTH 12TH STREET AND RICHARDSON STREET

- Work hours shall be as follows: 7:00 AM to 6:00 PM, Monday Friday
- The contractor shall maintain two 11 foot lanes, one 11 foot lane in each direction during working hours. .
- The contractor shall restore all travel lanes after working hours.
- The contractor shall maintain 5-foot clear sidewalk for pedestrians at all times.

# INTERSECTION OF UNION AVENUE AND NORTH 12TH STREET INTERSECTION OF UNION AVENUE AND BAYARD STREET INTERSECTION OF UNION AVENUE AND RICHARDSON STREET Work hours shall be as follows: 7:00 AM to 6:00 PM, Monday – Friday

- - The contractor shall maintain on Union Avenue two 11 foot travel lanes, one 11 foot lane in each direction and maintain one 11 foot lane on cross streets during working hours.
- The contractor shall restore full width of the roadway after working hours.
- The contractor shall maintain 5-foot clear sidewalk for pedestrians at all times.

# QUEENS

#### ROCKAWAY FREEWAY BETWEEN BEACH 98TH STREET AND BEACH 101ST STREET

- Work hours shall be as follows: 7:00 AM to 6:00 PM, Monday Friday
- The contractor shall maintain two 11 foot travel lanes, one 11 foot lane on each side of the existing center mall during working hours.
- The contractor shall restore all travel lanes after working hours.
- The contractor shall maintain 5-foot clear sidewalk for pedestrians at all times.

### INTERSECTION OF ROCKAWAY FREEWAY AND BEACH 98th STREET

- Work hours shall be as follows: 7:00 AM to 6:00 PM, Monday Friday
- The contractor shall maintain on Rockaway Freeway two 11 foot travel lanes, one 11 foot lane on each side of the existing center mall and maintain one 11 foot lane on Beach 98th Street during working hours.
- The contractor shall restore full width of the roadway after working hours.
- The contractor shall maintain 5-foot clear sidewalk for pedestrians at all times.

#### INTERSECTION OF ROCKAWAY FREEWAY AND BEACH 99TH STREET INTERSECTION OF ROCKAWAY FREEWAY AND BEACH 100TH STREET INTERSECTION OF ROCKAWAY FREEWAY AND BEACH 1015T STREET

- Work hours shall be as follows: 7:00 AM to 6:00 PM. Monday Friday
- The contractor shall maintain on Rockaway Freeway two 11 foot travel lanes, one 11 foot lane on each side of the existing center mail and maintain cross streets one 12 foot lane for local and emergency traffic during working hours.
- The contractor shall restore full width of the roadway after working hours.
- The contractor shall maintain 5-foot clear sidewalk for pedestrians at all times.

# BEACH 98TH STREET BETWEEN ROCKAWAY BEACH BOULEVARD AND BEACH CHANNEL DRIVE BEACH 100<sup>TH</sup> STREET BETWEEN ROCKAWAY BEACH BOULEVARD AND ROCKAWAY FREEWAY BEACH 101<sup>ST</sup> STREET BETWEEN ROCKAWAY BEACH BOULEVARD AND ROCKAWAY FREEWAY BEACH 1015T STREET BETWEEN ROCKAWAY FREEWAY AND BEACH CHANNEL DRIVE

- Work hours shall be as follows: 7:00 AM to 6:00 PM, Monday Friday
- The contractor shall maintain one 12 foot lane for local and emergency traffic during working hours.
- The contractor shall restore all travel lanes after working hours.
- The contractor shall maintain 5-foot clear sidewalk for pedestrians at all times.

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#### INTERSECTION OF BEACH 98<sup>TH</sup> STREET AND ROCKAWAY BEACH BOULEVARD INTERSECTION OF BEACH 100<sup>TH</sup> STREET AND ROCKAWAY BEACH BOULEVARD INTERSECTION OF BEACH 101<sup>ST</sup> STREET AND ROCKAWAY BEACH BOULEVARD

- Work hours shall be as follows: 9:00 AM to 4:00 PM, Monday thru Friday
  - The contractor shall maintain on Rockaway Beach Boulevard two 11 foot travel lanes, one 11 foot iane in each direction and on cross streets maintain one 12 foot lane for local and emergency traffic during working hours.
  - The contractor shall restore full width of the roadway after working hours.
  - The contractor shall maintain 5-foot clear sidewalk for pedestrians at all times.

#### INTERSECTION OF BEACH 1015" STREET AND BEACH CHANNEL DRIVE INTERSECTION OF BEACH 981H STREET AND BEACH CHANNEL DRIVE

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- Work hours shall be as follows: 9:00 AM to 4:00 PM, Monday thru Friday
- The contractor shall maintain on Beach Channel Drive four 11 foot travel lanes, two 11 foot lanes on each side of the existing center mall and on cross streets maintain one 12 foot lane for local and emergency traffic during working hours.
- The contractor shall restore full width of the roadway after working hours.
- The contractor shall maintain 5-foot clear sidewalk for pedestrians at all times.

#### JAMAICA AVENUE BETWEEN 116<sup>TH</sup> STREET AND 117<sup>TH</sup> STREET JAMAICA AVENUE BETWEEN 117<sup>TH</sup> STREET AND 118<sup>TH</sup> STREET JAMAICA AVENUE BETWEEN 118<sup>TH</sup> STREET AND MYRTLE AVENUE JAMAICA AVENUE BETWEEN MYRTLE AVENUE AND LEFFERTS BOULEVARD JAMAICA AVENUE BETWEEN LEFFERTS BOULEVARD AND 120<sup>TH</sup> STREET JAMAICA AVENUE BETWEEN 120<sup>TH</sup> STREET AND 121<sup>ST</sup> STREET JAMAICA AVENUE BETWEEN 121<sup>ST</sup> STREET AND 122<sup>ND</sup> STREET JAMAICA AVENUE BETWEEN 121<sup>ST</sup> STREET AND 122<sup>ND</sup> STREET JAMAICA AVENUE BETWEEN 122<sup>ND</sup> STREET AND 123<sup>RD</sup> STREET

- Work hours shall be as follows: 9:00 AM to 4:00 PM, Monday Friday
  - 8:00 AM to 6:00 PM, Saturday
    - 9:00 AM to 6:00 PM. Sunday
  - The contractor shall maintain two 11 foot lanes, one 11 foot lane in each direction during working hours.
  - The contractor shall restore all travel lanes after working hours.
  - The contractor shall maintain 5-foot clear sidewalk for pedestrians at all times.

#### INTERSECTION OF JAMAICA AVENUE AND 116<sup>TH</sup> STREET INTERSECTION OF JAMAICA AVENUE AND 117<sup>TH</sup> STREET INTERSECTION OF JAMAICA AVENUE AND 118<sup>TH</sup> STREET INTERSECTION OF JAMAICA AVENUE AND 120<sup>TH</sup> STREET INTERSECTION OF JAMAICA AVENUE AND 121<sup>ST</sup> STREET INTERSECTION OF JAMAICA AVENUE AND 122<sup>ND</sup> STREET INTERSECTION OF JAMAICA AVENUE AND 123<sup>RD</sup> STREET

- Work hours shall be as follows: 9:00 AM to 4:00 PM, Monday Friday
- 8:00 AM to 6:00 PM, Saturday
  - 9:00 AM to 6:00 PM, Sunday
- The contractor shall maintain on Jamaica Avenue two 11 foot lanes, one 11 foot lane in each direction
- and maintain one 11 foot lane on cross streets during working hours.
- The contractor shall restore full width of the roadway after working hours.
- The contractor shall maintain 5-foot clear sidewalk for pedestrians at all times.

#### INTERSECTION OF JAMAICA AVENUE AND LEFFERTS BOULEVARD INTERSECTION OF JAMAICA AVENUE AND MYRTLE AVENUE

- Work hours shall be as follows: 9:00 AM to 4:00 PM, Monday Friday
  - 8:00 AM to 6:00 PM, Saturday

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#### 9:00 AM to 6:00 PM, Sunday

- The contractor shall maintain on Jamaica Avenue two 11 foot lanes, one 11 foot lane in each direction and maintain one 11 foot lane on one-way streets and two 11 foot lanes on two-way streets during working hours.
- The contractor shall restore full width of the roadway after working hours.
- The contractor shall maintain 5-foot clear sidewalk for pedestrians at all times.

#### C. GENERAL NOTES

- 1. THIS IS NOT A PERMIT. THIS STIPULATION SHEET MUST BE SUBMITTED WITH ALL REQUESTS FOR PERMITS PERTAINING TO THE ABOVE CONTRACT AND PRESENT AT THE WORK SITE ALONG WITH ALL ACTIVE CONSTRUCTION PERMITS WHEN THE APPROVED WORK IS BEING PERFORMED.
- 2. THE CONTRACTOR MUST COMPLY WITH ALL CONSTRUCTION EMBARGOS ISSUED BY THE NYCDOT INCLUDING THE HOLIDAY EMBARGO.
- 3. THE CONTRACTOR SHALL COMPLY WITH ALL REQUIREMENTS OF THE NYCDOT SPECIAL EVENTS UNIT AS IDENTIFIED BELOW:

#### A. STREET FAIRS / FESTIVALS

- ALL EXCAVATIONS MUST BE PLATED WITH SKID RESISTANT PLATES.
- PLATES MUST BE RECESSED AND FLUSH WITH PAVEMENT.
- ALL PAVEMENT DEFECTS MUST BE CORRECTED WITHIN OR ADJACENT TO THE WORK ZONE.
- THE CONTRACTOR IS RESPONSIBLE FOR ANY DEFECTS WITHIN THE IMMEDIATE VICINITY IF NYCDOT STREET & ARTERIAL MAINTENANCE CANNOT MAKE REPAIRS DUE TO PROJECT INTERFERENCE (AS DETERMINED BY NYCDOT).
- ALL EQUIPMENT, TRAILERS AND MATERIAL STORAGE MUST BE REMOVED.

#### B. RUNNING / WALKING / BIKING EVENTS

- ALL EXCAVATIONS MUST BE BACKFILLED AND PAVED OR PLATES MUST BE RECESSED AND PAVED OVER FLUSH WITH PAVEMENT.
- ALL PAVEMENT DEFECTS MUST BE CORRECTED WITHIN OR ADJACENT TO THE WORK ZONE.
- THE CONTRACTOR IS RESPONSIBLE FOR ANY DEFECTS WITHIN THE IMMEDIATE VICINITY IF NYCDOT STREET & ARTERIAL MAINTENANCE CANNOT MAKE REPAIRS DUE TO PROJECT INTERFERENCE (AS DETERMINED BY NYCDOT).
- ALL EQUIPMENT, TRAILERS AND MATERIAL STORAGE MUST BE REMOVED.

#### C. PARADES

- ALL EXCAVATIONS MUST BE BACKFILLED AND PAVED OR PLATES MUST BE RECESSED AND PAVED OVER FLUSH WITH PAVEMENT.
- FORMATION AND DISPERSAL AREA PLATES MUST BE RECESSED AND FLUSH WITH PAVEMENT (PLATES MUST BE SKID RESISTANT).
- ALL PAVEMENT DEFECTS MUST BE CORRECTED WITHIN OR ADJACENT TO THE WORK ZONE.
- THE CONTRACTOR IS RESPONSIBLE FOR ANY DEFECTS WITHIN THE IMMEDIATE VICINITY IF NYCDOT STREET & ARTERIAL MAINTENANCE CANNOT MAKE REPAIRS DUE TO PROJECT INTERFERENCE (AS DETERMINED BY NYCDOT).
- ALL EQUIPMENT, TRAILERS AND MATERIAL STORAGE MUST BE REMOVED.

#### D. MAYORAL EVENTS

- ALL EXCAVATIONS MUST BE BACKFILLED AND PAVED OR PLATES MUST BE RECESSED AND PAVED OVER FLUSH WITH PAVEMENT.
- ALL PAVEMENT DEFECTS MUST BE CORRECTED WITHIN OR ADJACENT TO THE WORK ZONE.
- THE CONTRACTOR IS RESPONSIBLE FOR ANY DEFECTS WITHIN THE IMMEDIATE VICINITY IF NYCDOT STREET & ARTERIAL MAINTENANCE CANNOT MAKE REPAIRS DUE TO PROJECT INTERFERENCE (AS DETERMINED BY NYCDOT).
- ALL EQUIPMENT, TRAILERS AND MATERIAL STORAGE MUST BE REMOVED.
- 4. ALL RELOCATION WORK BY THE UTILITIES SUCH AS; CON EDISON, TELEPHONE, GAS AND CABLE COMPANIES SHALL PRECEDE THE CONTRACTORS' START OF WORK ON ALL AFFECTED ROADWAYS IN THE IMPACTED CONTRACT AREA.
- 5. THE CONTRACTOR IS ADVISED THAT OTHER CONTRACTORS MAY BE WORKING IN THE GENERAL AREA DURING THE TERM OF THIS STIPULATION. IN WHICH EVENT, THE CONTRACTOR MAY REQUIRE MODIFICATIONS BY THE OCMC-STREETS.
- 6. THE PERMITTEE IS NOT AUTHORIZED TO ENTER, OCCUPY OR USE ANY PUBLICLY-OWNED OR PRIVATELY OWNED, NON-PAVED, LANDSCAPE OR NON-LANDSCAPED LOCATION WITHOUT SPECIFIC WRITTEN PERMISSION. WHEN THE LOCATION IS WITHIN THE RIGHT-OF-WAY OF A LIMITED-ACCESS ARTERIAL HIGHWAY, WRITTEN APPROVAL FROM THE NYCDOT OCMC-HIGHWAYS IS REQUIRED. WHEN THE LOCATION IS WITHIN THE RIGHT-OF-WAY OF A PUBLIC STREET OR PUBLIC PARK, WRITTEN APPROVAL FROM THE NEW YORK CITY DEPARTMENT OF TRANSPORTATION OR NEW YORK CITY DEPARTMENT OF PARKS AND RECREATION IS REQUIRED. WHEN THE LOCATION IS WITHIN THE RIGHT-OF-WAY OF ANY OTHER JURISDICTION SUCH AS PRIVATE PROPERTY, STATE, FEDERAL ETC., IT IS THE PERMITTEE'S RESPONSIBILITY TO DETERMINE THE PROPERTY OWNER AND OBTAIN THE WRITTEN APPROVAL.
- 7. THE PERMITTEE SHALL ADHERE TO THE NYCDOT BUREAU OF BRIDGES' SPECIAL PROVISIONS FOR LANDSCAPE PROTECTION, MAINTENANCE AND RESTORATION, ITEMS 1.18.15 THROUGH 1.18.19, WHENEVER AND WHEREVER ANY OF THE PERMITTEE'S ACTIVITIES OCCUR WITHIN A LIMITED ACCESS ARTERIAL HIGHWAY RIGHT - OF - WAY.
- 8. NO DEVIATION OR DÉPARTURE FROM THESE STIPULATIONS WILL BE PERMITTED WITHOUT THE PRIOR WRITTEN APPROVAL FROM THE OCMC-STREETS. REQUEST FOR SUCH MODIFICATIONS SHALL BE SUBMITTED TO THE OFFICE OF THE OCMC-STREETS, NEW YORK CITY DEPARTMENT OF TRANSPORTATION, A MINIMUM OF TWENTY (20) DAYS IN ADVANCE FOR CONSIDERATION.
- 9. FOR ANY CONSTRUCTION ACTIVITY RESULTING IN THE FULL CLOSURE OF A ROADWAY FOR MORE THAN 180 CONSECUTIVE CALENDAR DAYS, THE CONTRACTOR MUST PRODUCE AND SUBMIT A COMMUNITY REASSESSMENT, IMPACT AND AMELIORATION (CRIA) STATEMENT TO NYCDOT PLANNING AND OBTAIN THEIR APPROVAL BEFORE APPLYING FOR PERMITS, IN COMPLIANCE WITH THE PROVISIONS OF LOCAL LAW 24 STREET CLOSURE LAW.
- 10. FOR THIS PROJECT THE CONTRACTOR SHALL FURNISH, INSTALL AND MAINTAIN ALL NECESSARY ADVANCE WARNING AND DETOUR SIGNS, TEMPORARY CONTROL DEVICES, BARRICADES, LIGHTS AND FLASHING ARROW BOARDS IN ACCORDANCE WITH THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES," THE TYPICAL SCHEMES INCLUDED IN THIS SPECIFICATION; AND AS ORDERED BY THE ENGINEER-IN-CHARGE AND THE OCMC-STREETS.

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- 11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR IDENTIFYING HIS CONSTRUCTION SIGNAGE. THE IDENTIFICATION SHALL INCLUDE THE CONTRACTOR'S NAME, SPONSORING AGENCY NAME AND THE CONTRACT NUMBER. THE IDENTIFICATION SHALL BE PLACED ON THE BACK OF THE SIGN. THE LETTERING SHALL BE THREE (3) INCHES HIGH.
- 12. THE OCMC-STREETS RESERVES THE RIGHT TO VOID OR MODIFY THESE STIPULATIONS SHOULD CONSTRUCTION FAIL TO COMMENCE WITHIN TWO (2) YEARS OF THE SIGNED DATE OF THESE STIPULATIONS.

**OCMC-STREETS** 

TOR

١ AGUILERA XIOMARA PROJECT MANAGER

# Long Island Rail Road

# MINIMUM JACKING REQUIREMENTS FOR UNDERGROUND UTILITIES

All work must be in accordance with current American Railway Engineering Association (A.R.E.A.) specifications Part 5, Pipelines and as referenced below.

# 1. All parties are notified that pipe jacking or directional boring under LIRR tracks without LIRR flagmen present is a violation of Federal Law.

- 2. Jacking & Receiving Pits located on LIRR property- Details and calculations of the jacking and receiving pits, sheathing and bracing to be submitted to the LIRR for review. All details and calculations must include original seal and signature of a Licensed Professional Engineer, Licensed in the State of New York. Jacking & Receiving Pits located off of LIRR property- Details of the jacking and receiving pits, sheathing and bracing to be submitted to the LIRR for review. The utility and/or the contractor is responsible to assure the design of all sheathing and bracing complies with New York State Building codes and New York State Engineering Law.
- 3. The casing pipe shall not be less than 7'-0" from the base of the railroad tie to the top of the casing pipe at their closest point.
- 4. When the jacking operation is underway, the void from the soil material being removed shall not proceed in advance of the casing.
- 5. Once the jacking operation has commenced, the jacking procedure shall be carried on continuously until it is complete.
- 6. Open excavations on/or adjacent to the LIRR Right of Way (ROW) must be secured safely with fencing, barricades and flashing lights or other methods as deemed necessary by the LIRR.
- 7. The contractor must comply with all applicable maintenance and protection of traffic control standards during construction.
- 8. The contractor must keep the LIRR ROW clean of construction material, equipment and debris at all times.
- 9. The contractor shall satisfy LIRR insurance requirements prior to commencement of work. Further the contractor shall satisfy the requirements of Federal Law and LIRR requirements for Roadway Worker Protection training.

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- 10. An Entry Permit or Force Account Agreement will be necessary to ensure the reimbursement of railroad costs associated with design review and construction monitoring.
- 11. The LIRR must be given two (2) weeks notice prior to the commencement of work. No work shall be performed without a representative of the Long Island Rail Road Engineering Department and LIRR flagman being present. Contact Managing Engineer- 3<sup>rd</sup> Party Inspection at 718-558-3229 with two (2) week notification.
- 12. A utility markout must be performed by LIRR utility departments and other agencies prior to any excavation on or adjacent to the LIRR Right of Way.
- 13. The cost incurred by the LIRR to correct settlement or upheaval of the railroad tracks resulting from jacking operations will be reimbursed to the LIRR directly by the permittee.
- 14. The cost incurred by the LIRR resulting from damage to LIRR facilities (grade crossing, overhead wires, signal systems, underground utilities, structures, etc) caused by jacking operations will be reimbursed to the LIRR directly by the permittee.
- 15. All references and notes to jacking operations shall also apply to directional boring operations.



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# ATTACH TO CONTRACT DOCUMENTS

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

# PROJECT ID: GE353

# DISTRIBUTION WATER MAIN EXTENSION AND REPLACEMENT ADJACENT TO T.A. FACILITIES IN:

**BROOKLYN:** 

FLATBUSH AVENUE BETWEEN ATLANTIC AVENUE AND 5TH AVENUE; DRIGGS AVENUE BETWEEN LORIMER STREET AND NORTH 12TH STREET; UNION AVENUE BETWEEN NORTH STREET AND RICHARD STREET;

**SOUTH QUEENS:** 

ROCKAWAY FREEWAY BETWEEN BEACH 98TH STREET AND BEACH 101ST STREET; BEACH 98TH STREET BETWEEN ROCKAWAY BEACH BOULEVARD AND BEACH CHANNEL DRIVE; BEACH 100TH STREET BETWEEN ROCKAWAY BEACH BOULEVARD AND ROCKAWAY FREEWAY; BEACH 101ST STREET BETWEEN ROCKAWAY BEACH BOULEVARD AND BEACH CHANNEL DRIVE; JAMAICA AVENUE BETWEEN 116TH STREET AND 123RD STREET;

> Together With All Work Incidental Thereto BOROUGHS OF BROOKLYN AND QUEENS

> > ADDENDUM NO. 3

DATED: October 22, 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

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

# 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 "<u>UTL-GCS-2WS - GAS INTERFERENCES AND ACCOMMODATIONS</u>" (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 "<u>UTL-GCS-2WS - GAS INTERFERENCES AND ACCOMMODATIONS</u>". When EP-7 bid item "<u>UTL-GCS-2WS - GAS INTERFERENCES AND ACCOMMODATIONS</u>" 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, <u>except</u> 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 main/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 "<u>UTL-</u>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 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 Paragraph No. 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 ail 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 payement 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











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### 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.

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### 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
- IF ADDITIONAL INFORMATION IS NEEDED REGARDING THE FACILITY OPERATOR'S RELOCATION WORK, THE CONTRACTOR IS ADVISED TO CONTACT THE GAS COMPANY REPRESENTATIVE:

NATIONAL GRID 287 MASPETH AVE BROOKLYN, NY 11201 GERARD P. LUNDQUIST TEL: (718) 963-5506

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# national**grid**

### **PROJECT: GE353**

SHEET 1 OF 3

ITEM#	SHEET	ON STREET	SIZE	PRESSURE	MATERIAL	LENGTH	REIM / NON- REIM 👻	
1	1-2	FLATBUSH AVE.	8"	6WC	PE	400	REIMB.	INSTALL
2	1	PACIFIC ST.	6"	6WC	CI	92	REIMB.	RETIRE
3	1	FLATBUSH AVE.	6"	6WC	ST	155	REIMB.	RETIRE
4	1	FLATBUSH AVE.	8"	6WC	CI	103	REIMB.	RETIRE
5	1-2	FLATBUSH AVE.	8"	6WC	ST	52	REIMB.	RETIRE
6	3-5	DRIGGS AVE.	10"	6WC	Cl	846	NON-REIMB.	RETIRE
7	3-5	DRIGGS AVE.	12"	6WC	PE	870	NON-REIMB.	INSTALL
8	4	LORIMER ST.	8"	6WC	PE	120	NON-REIMB.	INSTALL
9	4	LORIMER ST.	8"	6WC	PE	80	NON-REIMB.	INSTALL
10	4	LORIMER ST.	4"	6WC	ST	31	NON-REIMB.	RETIRE
11	4	LORIMER ST.	6"	6WC	PE	24	NON-REIMB.	RETIRE
12	4	LORIMER ST.	4"	6WC	CI	15	NON-REIMB.	RETIRE
13	4	LORIMER ST.	6"	6WC	CI	109	NON-REIMB.	RETIRE
14	5	DRIGGS AVE.	10"	6WC	ST	24	NON-REIMB.	RETIRE
15	6-10	JAMAICA AVE.	8"	6WC	PE	1,920	REIMB.	INSTALL
16	6	116th ST.	8"	6WC	PE	55	REIMB.	INSTALL
17	6-7	JAMAICA AVE.	8"	6WC	CI	425	REIMB.	RETIRE
18	6	116th ST.	6"	6WC	ST	45	REIMB.	RETIRE
19	7	117th ST.	6"	6WC	CI	72	REIMB.	RETIRE
20	7	JAMAICA AVE.	8"	6WC	ST	17	REIMB.	RETIRE

## national**grid PROJECT: GE353**

SHEET 2 OF 3

ITEM#	SHEET	ON STREET	SIZE	PRESSURE	MATERIAL	LENGTH	REIM / NON- REIM	ACTIVITY
21	7	JAMAICA AVE.	8"	6WC	CI	69	REIMB.	RETIRE
22	7	117th ST.	6"	6WC	ST	40	REIMB.	RETIRE
23	7	JAMAICA AVE.	10"	6WC	CI	50	REIMB.	RETIRE
24	7	JAMAICA AVE.	12"	6WC	CI	127	REIMB.	RETIRE
25	7-8	JAMAICA AVE.	8"	6WC	PE	58	REIMB.	RETIRE
26	7	JAMAICA AVE.	8"	6WC	PE	60	REIMB.	INSTALL
27	7	JAMAICA AVE.	12"	6WC	PE	215	REIMB.	INSTALL
28	8	JAMAICA AVE.	8"	6WC	ST	142	REIMB.	RETIRE
29	8	JAMAICA AVE.	8"	6WC	CI	78	REIMB.	RETIRE
30	8	JAMAICA AVE.	8"	6WC	PE	30	REIMB.	RETIRE
31	8	JAMAICA AVE.	8"	6WC	CI	75	REIMB.	RETIRE
32	8	JAMAICA AVE.	6"	6WC	ST	90	REIMB.	RETIRE
33	8	JAMAICA AVE.	8"	6WC	CI	60	REIMB.	RETIRE
34	8-9	JAMAICA AVE.	8"	6WC	PE	32	REIMB.	RETIRE
35	8	118th ST.	6"	6WC	ST	22	REIMB.	RETIRE
36	9	JAMAICA AVE.	8"	6WC	CI	512	REIMB.	RETIRE
37	9	JAMAICA AVE.	8"	6WC	ST	13	REIMB.	RETIRE
38	9	120th ST.	6"	6WC	CI	, 117	REIMB.	RETIRE
39	9 ,	121st ST.	8"	6WC	Cl	65	REIMB.	RETIRE
40	9	JAMAICA AVE.	12"	6WC	CI	80	REIMB.	RETIRE

## national**grid PROJECT: GE353**

SHEET 3 OF 3

ITEM#	SHEET	ON STREET	SIZE	PRESSURE	MATERIAL	LENGTH	REIM / NON- REIM	ACTIVITY
41	9	JAMAICA AVE.	8"	6WC	CI	18	REIMB.	RETIRE
42	9	JAMAICA AVE.	8"	6WC	PE	55	REIMB.	INSTALL
43	9	JAMAICA AVE.	12"	6WC	PE	105	REIMB.	INSTALL
44	9	120th ST.	8"	6WC	PE	125	REIMB.	INSTALL
45	9	JAMAICA AVE.	6"	6WC	CI	32	REIMB.	RETIRE
46	10	JAMAICA AVE.	8"	6WC	PE	55	REIMB.	RETIRE
47	10	JAMAICA AVE.	8"	6WC	CI	123	REIMB.	RETIRE
48	10	JAMAICA AVE.	8"	6WC	PE	15	REIMB.	RETIRE
49	7	117th ST.	8"	6WC	PE	65	REIMB.	INSTALL
50	7	117th ST.	8"	6WC	Cl	58	REIMB.	RETIRE
51	7	117th ST.	6"	6WC	CI	36	REIMB.	RETIRE
52	10	122nd ST.	8"	6WC	PE	125	REIMB.	INSTALL
53	10	122nd ST.	8"	6WC	CI	116	REIMB.	RETIRE













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# national**grid**

CONTRACT# GE353

## **GAS MAIN INSTALLATION**

ITEM#	ON STREET	<b>1ST X-STREET</b>	2ND X-STREET	SIZE/MAT'L	FOOTAGE	PRESSURE	REMB
	B.101 St	Beach Channel Dr	Rockaway Frwy	2" PI	363	Н	· Y
					÷ -		
	B.98 St	Rockaway Freeway		6" Pl	40	L	Y
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A3-22N

ITEM#ON STREET1ST X-STREET2ND X-STREETSIZE/MAT'LFOOTAGEPRESSUREIB.101 StBeach Channel DrRockaway Frwy6" Cl457LB.98 StRockaway Freeway6" Cl40LImage: Street	
B.101 St Beach Channel Dr Rockaway Frwy 6" Cl 457 L   B.98 St Rockaway Freeway 6" Cl 40 L 1   Image: Store St	REMB
B.98 St Rockaway Freeway 6" Cl 40 L   Image: St Image: St<	Y
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Image: Sector	
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# GE-353 GAS MAIN RETIREMENT



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

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### SCOPE OF WORK SUPPORT AND PROTECTION FOR CONTRACT GE-353

The City of New York Department of Design and Construction is proposing 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.

#### 6.01.8 - Gas Services Crossing Trenches And / Or Excavations. (Ea.)

20 in Various Locations as Required.

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

1 in Driggs Ave bet N 12 St & Union Ave. 2 in Jamaica Ave @ 116 St. 1 in Flatbush Ave @ Pacific St. 2 in BCD @ B 101 St. 1 in Rockaway Frwy @ B 101 St. 1 in Rockaway Frwy @ B 98 St. 2 in BCD @ B 98 St. 1 in Jamaica Ave @ 122 St. 2 in Jamaica Ave @ 120 St. 3 in Jamaica Ave @ Lefferts Blvd. 1 in Jamaica Ave @ Myrtle Ave. 3 in Driggs Ave @ Lorimer St. 3 in Driggs Ave @ N 12 St. 1 in Bayard St bet Union Ave & Lorimer St. 4 in Union Ave @ Bayard St. 4 in Union Ave @ Richardson St. 2 in Flatbush Ave bet Pacific St & 5 Ave. 1 in Jamaica Ave @ 118 St. 1 in Jamaica Ave bet 116 St & 117 St.

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

2100 in Various Locations as Required.

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

100 in Various Locations as Required.

### SCOPE OF WORK SUPPORT AND PROTECTION FOR CONTRACT GE-353

The City of New York Department of Design and Construction is proposing 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/Adaptors (Street Repaving). (Ea.)

25 in Various Locations as Required.

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

25 in Various Locations as Required.

#### 6.06 - Special Care Excavation And Backfill. (C.Y.)

700 in various locations as required, including but not limited to all gas services crossing unsheeted water main trenches.

#### 6.06A - Special Care Excavation And Backfilling For Transmission Mains. (C.Y.)

150 in Lorimer St @ Diggs Ave.

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

100 in Various Locations as Required.

SECTION 6.06A - Special Care Excavation and Backfilling for Transmission Mains. (Transmission Main is described as any gas main with a MAOP greater than 124 psig)

#### 1. Description:

Under this section, the contractor shall provide all labor, materials (except for sand to be utilized for backfill of a one foot envelope around the facility to be furnished by the facility operator), equipment, and incidentals required to support and protect the integrity of Gas Transmission Main during excavations. This facility is owned by the gas company operating in the area, hereafter referred to as facility operator. 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 Transmission Main of various sizes located within any excavation sheeted or unsheeted (excavation refers to any excavation performed for city work and includes excavations performed that are to be subsequently unsheeted/sheeted using approved shoring methods and paralleling, encroaching and crossing any excavation. Parallel facilities are not exposed at any time during excavation (within 2' of edge of excavation)). Encroaching facilities are partially/fully exposed inside the limit of excavation. This section shall also apply to gas facility crossing catch basins excavation and catch basins sewer connections (chutes), water mains, fire hydrant branch connections, sanitary sewer, storm sewer, combination sewer, house sewer and/or water service connections excavations. The excavation around fully exposed live gas facilities along and within limits of excavation shall be covered by this section also, 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:

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 the General Provisions for Gas Cost Sharing (Para. No.8) cannot be maintained, the excavation shall be abandoned and the contractor shall be compensated as per the provisions specified in Paragraphs Nos. 5 and 6 of this item (6.06A).

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#### 4. Method of Construction:

All excavations in the vicinity of gas facilities shall be as required by NYS Industrial Code 753. No saw cutting of pavement or masonry for gas mains having less than 2 feet of cover to break asphalt/concrete as determined by the facility operator. The contractor shall use power excavation for the removal of pavement or masonry but only to the depth of such pavement or masonry (breaking of pavement or masonry shall be done by means of hand held pneumatic breaking equipment). Upon removal of pavement or masonry the contractor shall use hand excavation methods only (pick and shovel; no 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 and the facility operator the contractor shall then proceed with hand only within the zone of protection described as 2 feet from the face of the facility in all directions of the facility as required to preserve the integrity of the facility. Once outside of the zone of protection as described above the contractor may use a combination of hand and machine to complete the excavation.

#### 5. Method of Payment:

The unit price for this work item shall be based on cubic yard (CY) of average excavation with special 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 facility, multiplied by, the width measured as two (2) feet 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 Only hand excavation shall be utilized within the zone of protection identified as 2 feet from face of facility, beyond 2 feet from the face of facility the contractor can use a combination of hand and machine.

#### **B.** For Encroaching Facilities:

Volume calculated as: Depth as measured from existing street surface to the bottom of facility, multiplied by, the width measured as two (2) feet plus the exposed facility toward the center of excavation, multiplied by the length of the encroached facility, divided by twenty-seven (27) cubic feet per cubic yard Only hand excavation shall be utilized within the zone of protection identified as 2 feet from face of facility, beyond 2 feet from the face of facility the contractor can use a combination of hand and machine.

#### C. Fully Exposed Gas Facilities:

Volume calculated as: Depth as measured from existing street surface to the bottom of facility, multiplied by, the width measured as two (2) feet from the face of the facility on

### GE-353

either side plus the facility, multiplied by the length of the facility, divided by 27 cubic feet per cubic yard. Only hand excavation shall be utilized within the zone of protection identified as 2 feet from face of facility in all directions, beyond 2 feet from the face of facility in all directions the contractor can use a combination of hand and machine.

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").

#### 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, sanitary sewer, storm sewer, combination sewer and water connections under or over gas facilities; loss of productivity due to slower rate of excavation (special care) during excavation, compaction, removal of sheeting from the facilities, extra roadway base restoration and temporary pavement, associated maintenance of traffic, barricades, and traffic plates that may be required to temporarily close and/or complete the work. Breaking shall be done by means of hand held pneumatic breaking equipment. Inspection of exposed mains shall be performed by facility operator in a timely fashion and shall not unduly impede contractor's progress or productivity.

End of Addendum No.3 This addendum consists of fifty-one (SI) pages.

A3-23E

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

#### **PROJECT ID: GE353**

DISTRIBUTION WATER MAIN EXTENSION AND REPLACEMENT ADJACENT TO T.A. FACILITIES IN:

#### BROOKLYN

FLATBUSH AVENUE BETWEEN ATLANTIC AVENUE AND 5<sup>TH</sup> AVENUE; DRIGGS AVENUE BETWEEN LORIMER STREET AND NORTH 12<sup>TH</sup> STREET; UNION AVENUE BETWEEN NORTH 12<sup>TH</sup> STREET AND RICHARDSON STREET; SOUTH OUEENS

ROCKAWAY FREEWAY BETWEEN BEACH 98<sup>TH</sup> STREET AND BEACH 101ST STREET; BEACH 98<sup>TH</sup> STREET BETWEEN ROCKAWAY BEACH BOULEVARD AND BEACH CHANNEL DRIVE; BEACH 100TH STREET BETWEEN ROCKAWAY BEACH BOULEVARD AND ROCKAWAY FREEWAY; BEACH 101ST STREET BETWEEN ROCKAWAY BEACH BOULEVARD AND BEACH CHANNEL DRIVE; JAMAICA AVENUE BETWEEN 116<sup>TH</sup> STREET AND 123<sup>RD</sup> STREET;

TOGETHER WITH ALL WORK INCIDENTAL THERETO

#### BOROUGH OF BROOKLYN AND QUEENS CITY OF NEW YORK

#### ADDENDUM NO.4

#### DATED: October 6, 2014

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 A4-31)
  - D. Section U-3 Page A4-32 (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 (17) consisting of:
    - \* Con Edison Overhead Condition Report, (2 Sheets)
    - \* Con Edison Low Tension Main and Service Plates (7 Sheets)
    - \* Con Edison Conduit and Ducts Occupancy Plates (8 Sheets) attached to the Plans.
- 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,  $\P2$ , 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:

#### 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.

#### 1. 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.

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

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 Section U November 1, 2010

A4-4

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 Section U

November 1, 2010

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 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 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 Section U

November 1, 2010

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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 7<sup>th</sup> day after receipt of the arbitrator's decision, or on the 30<sup>th</sup> 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.
- (1) 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.

A4-10

#### 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 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.

Section U November 1, 2010

#### A4-11

#### 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: <u>City Work Performed in the Presence of Private Utility Facilities</u> 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

GE353

#### DISTRIBUTION WATER MAIN EXTENSION/REPLACEMENT; ADJACENT TO T.A. FACILITIES IN: BROOKLYN AND SOUTH QUEENS

#### SCHEDULE U-1 LISTING OF COMPANIES NAMED FOR THIS CONTRACT

#### COMPANY NAME

### CONTACT NAME

### <u>CONTACT TELEPHONE</u>

CON EDISON	THERESA KONG	212-460-4834
VERIZON	AUBREY MAKHANLAL	718- 877-8165
TIME WARNER	JOHN PIAZZA	718- 888-4261

### SCHEDULE U-2

### FOR INFORMATION ONLY ENGINEER'S ESTIMATE OF QUANTITY AND TYPES OF INTERFERENCE FOR CONSOLIDATED EDISON

### GE353

CET ITEM	ET ITEM DESCRIPTION		
CET 108.1	UTILITIES CROSSING TRENCH FOR WATERMAIN UP TO AND INCL. 12" DIAMETER (TYPE .1)	EA	13
CET 109.1	UTILITIES CROSSING TRENCH FOR WATERMAIN OVER 12" AND UP TO 24" (TYPE .1)	EA	1
CET 300	SPECIAL CARE EXCAVATION AND BACKFILING	Сү	147
CET 304 A	FURNISH, DELIVER AND INSTALL CONCRETE ROAD BASE	СҮ	46
CET 305	FURNISH AND INSTALL ASPHALT PAVING MIXTURE	TONS	25
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	287
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	85
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	90
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	56
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	538
CET 350	OVERHEAD ACCOMMODATION, PROTECTION OF OVERHEAD FACILITIES AND APPURTENANCES	LS	1
CET 400	TEST PITS FOR UTILITY FACILITIES	СҮ	80
CET 401	TRENCH EXCAVATION FOR ADJUSTMENT OF UTILITIES	СҮ	147
CET 402.1	EXISTING OCCUPIED CONCRETE ENCASED CONDUITS PLACED IN FINAL POSITION W/O CONCRETE ENCASEMENT	LF	760
CET 402.2	EXISTING OCCUPIED NON-CONCRETE ENCASED CONDUITS PLACED IN FINAL POSITION W/O CONCRETE ENCASEMENT	LF	1,185
CET 402.V1	EXISTING VACANT CONCRETE ENCASED CONDUITS PLACED IN FINAL POSITION W/O CONCRETE ENCASEMENT	LF	955
CET 402.V2	EXISTING VACANT NON-CONCRETE ENCASED CONDUITS PLACED IN FINAL POSITION W/O CONCRETE ENCASEMENT	LF	980

### SCHEDULE U-2 FOR INFORMATION ONLY ENGINEER'S ESTIMATE OF QUANTITY AND TYPES OF INTERFERENCE FOR CONSOLIDATED EDISON

#### GE353

	DESCRIPTION	UNITS	
CET 450.2	CONSTRUCTION FIELD SUPPORT REQUIRING AVERAGE SMALL SIZE CREW CAPABLE OF PERFORMING VARIOUS TASKS (TYPE .2)	CRHRS	40
CET 500	REMOVAL OF ABANDONED UTILITY CONDUITS (NON-CONCRETE ENCASED)	LF	35
CET 636 RM	REBUILDING & MODIFICATIONS OF UTILITY STRUCTURE	Сү	3
CET 1006V	6" VERTICAL OR ROLLED WATER MAIN OFFSET	EA	6
CET 1008V	8" VERTICAL OR ROLLED WATER MAIN OFFSET	EA	14
CET 1012V	12" VERTICAL OR ROLLED WATER MAIN OFFSET	EA	12
CET 1020V	20" VERTICAL OR ROLLED WATER MAIN OFFSET	EA	11

#### GE353

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	At the following locations:	
	E/S Int. of Union Ave. and Richardson St.	
	N/S Int. of Jamaica Ave. and 116 St.	
	S/S Jamaica Ave, and 116 St. S/S Jamaica Ave, Bat 116 St. and 117 St. 5/O 116 10	
	N/S Jamaica Ave., bet. 110 St. and 117 St. F/O 110-10	
	S/S Jamaica Ave. and 117 St.	
	S/S Jamaica Ave. and 118 St.	
	N/E/ Int. of Jamaica Ave. and Lefferts Blvd.	
	S/S Jamaica Ave., Bet. 120 St. and 121 St.	
	S/S Jamaica Ave., Bet. 116 St. and 117 St. F/O 116-15 S/S. Jamaica Ave. and 117 St. E/O 117-06	
	W/S Int. of Jamaica Ave. and Lefferts Blvd.	
	Total Quantity for CET 108.1 = 13	
CET 109.1	UTILITIES CROSSING TRENCH FOR WATERMAIN OVER 12" AND UP TO 24" (TYPE .1)	EA
	At the following locations:	
	S/E/C Union Ave. and Richarson St.	
	Total Quantity for CET 109.1 = 1	
CET 300	SPECIAL CARE EXCAVATION AND BACKFILING	CY
	At the following locations:	
	N/E/C Union Ave. and Richarson St.	
	N/S Driggs Ave., Bet. Union Ave. and Lorimer St.	
	N/S Jamaica Ave. and 117 St. S/S Int. of Jamaica Ave. and Lefferts Blud	
	S/S Int. Of Jamaica Ave. and Lenens Bivo.	
	Total Quantity for CET 300 = 147	
	•	

### CON EDISON SCOPE OF WORK

#### SUPPORT AND PROTECTION

#### GE353

CET 304 A	FURNISH, DELIVER AND INSTALL CONCRETE ROAD BASE	СҮ
	At the following locations:	
	Int. of Driggs Ave. and Lorimer St.	
	W/S Int. of Union Ave. and No. 11th St.	
	S/W/C of Flatbush Ave. and Pacific St.	
	Flatbush Ave., Bet. Pacific St. and 5th Ave.	
	N/W/C Flatbush Ave. and 5th Ave.	
	N/S Jamaica Ave. and 117 St.	
	Total Quantity for CET 304 A = 46	
CET 305	FURNISH AND INSTALL ASPHALT PAVING MIXTURE	TONS
	At the following locations:	
	Int. of Driggs Ave. and Lorimer St.	
	W/S Int. of Union Ave. and No. 11th St.	
	S/W/C of Flatbush Ave. and Pacific St.	
	Flatbush Ave., Bet. Pacific St. and 5th Ave.	
	N/W/C Flatbush Ave. and 5th Ave.	
	N/S Jamaica Ave. and 117 St.	
	Total Quantity for CET 305 = 25	
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:	
	S/S Jamaica Ave., Bet. 122 St. and 123 St.	
	N/S Int. of Jamaica Ave. and 116 St.	
	Total Quantity for CET 330E-A.1 = 287	
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:	
	N/E/S Lorimer St. and Driggs Ave.	
	N/S Jamaica Ave. and 117 St.	
	Total Quantity for CET 330E-A.2 = 85	

#### GE353

DISTRIBUTION WATER MAIN EXTENSION/REPLACEMENT ADJACENT TO T.A. FACILITIES

CET 401	TRENCH EXCAVATION FOR ADJUSTMENT OF UTILITIES	C
	At the following locations:	
	S/W/C of Flatbush Ave. and Pacific St.	
	Int. of Driggs Ave. and Lorimer St.	
	W/S Int. of Union Ave. and No. 11th St.	
	Flatbush Ave., Bet. Pacific St. and 5th Ave.	
	N/W/C Flatbush Ave. and 5th Ave.	
	N/S Jamaica Ave. and 117 St.	
	AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE	
	Total Quantity for CET 401 = 147	
CET 402.1	EXISTING OCCUPIED CONCRETE ENCASED CONDUITS PLACED IN FINAL POSITION W/O CONCRETE ENCASEMENT	L
	At the following locations:	
	S/W/C of Flatbush Ave. and Pacific St.	
	Int. of Driggs Ave. and Lorimer St.	
	W/S Int. of Union Ave. and No. 11th St.	
	Flatbush Ave., Bet. Pacific St. and 5th Ave.	
:	N/W/C Flatbush Ave. and 5th Ave.	
	N/S Jamaica Ave. and 117 St.	
	AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE	
	Total Quantity for CET 402.1 = 760	
CET 402.2	EXISTING OCCUPIED NON-CONCRETE ENCASED CONDUITS PLACED IN FINAL POSITION W/O CONCRETE ENCASEMENT	I
	At the following locations:	
	S/W/C of Flatbush Ave. and Pacific St.	
	Int. of Driggs Ave. and Lorimer St.	
	W/S Int. of Union Ave. and No. 11th St.	
	Flatbush Ave., Bet. Pacific St. and 5th Ave.	
	N/W/C Flatbush Ave. and 5th Ave.	
	N/S Jamaica Ave. and 117 St.	
	AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE	

### GE353

CET 402.V1	EXISTING VACANT CONCRETE ENCASED CONDUITS PLACED IN FINAL POSITION W/O CONCRETE ENCASEMENT	LF
	At the following locations:	
	S/W/C of Flatbush Ave, and Pacific St. Int. of Driggs Ave. and Lorimer St. W/S Int. of Union Ave. and No. 11th St. Flatbush Ave., Bet. Pacific St. and 5th Ave. N/W/C Flatbush Ave. and 5th Ave. N/S Jamaica Ave. and 117 St. AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE Total Quantity for CET 402.V1 = 955	·
CET 402.V2	EXISTING VACANT NON-CONCRETE ENCASED CONDUITS PLACED IN FINAL POSITION W/O CONCRETE ENCASEMENT	LF
	At the following locations:	
	W/S Int. of Union Ave. and No. 11th St. S/W/C of Flatbush Ave. and Pacific St. Flatbush Ave., Bet. Pacific St. and 5th Ave. N/W/C Flatbush Ave. and 5th Ave. AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE	
	Total Quantity for CET 402.V2 = 980	
CET 450.2	CONSTRUCTION FIELD SUPPORT REQUIRING AVERAGE SMALL SIZE CREW CAPABLE OF PERFORMING VARIOUS TASKS (TYPE .2) At the following locations: As Encountered and Directed By A Con Edison Representative Total Quantity for CET 450.2 = 40	CRHRS
		TE
CET 500	REMOVAL OF ABANDONED UTILITY CONDUITS (NON-CONCRETE ENCASED) At the following locations: N/S Int. of Jamaica Ave. and 120 St. AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE Total Quantity for CET 500 = 35	LK

#### GE353

#### DISTRIBUTION WATER MAIN EXTENSION/REPLACEMENT ADJACENT TO T.A. FACILITIES

#### CET 1012V 12" VERTICAL OR ROLLED WATER MAIN OFFSET

At the following locations:

Int. of Union Ave. and Richarson St.

W/S Int. of Union Ave. and No. 11th St.

E/S Int. of Union Ave. and Richardson St.

W/S Int. of Union Ave. and Bayard St.

E/S Int. of Union Ave. and Bayard St.

N/S Int. of Union Ave. and Driggs Ave.

N/S Driggs Ave., Bet. Union Ave. and Lorimer St.

S/S Jamaica Ave. and 117 St.

S/S Int. of Jamaica Ave. and Lefferts Blvd.

#### AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE

Total Quantity for CET 1012V = 12

CET 1020V

#### 20" VERTICAL OR ROLLED WATER MAIN OFFSET

At the following locations:

Flatbush Ave., Bet. Atlantic Ave. and Pacific St. N/W/C of Flatbush Ave. and Pacific St. S/W/C of Flatbush Ave. and Pacific St. Flatbush Ave., Bet. Pacific St. and 5th Ave. N/W/C Flatbush Ave. and 5th Ave. S/W/C of Flatbush Ave. and 5th Ave. N/W/S Int. Driggs Ave. and Lorimer St.

AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE

Total Quantity for CET 1020V = 11

EA

EA

AUGUST 2014

## GE353- Distribution Water Main Extension / Replacement; Adjacent to T.A. Facilities

### Boroughs of Brooklyn and Queens

Schedule U-2: Scope of Work for CET items

CET ITEM	UNITS	TOTAL	DESCRIPTION
108.1	EACH	23	UTILITIES CROSSING TRENCH FOR WATER MAIN UP TO AND INCLUDING 12" DIAMETER (TYPE .1)
	· · · · · · · · · · · · · · · · · · ·	1	
108.2	EACH	9	UTILITIES CROSSING TRENCH FOR WATER MAIN UP TO AND INCLUDING 12" DIAMETER (TYPE .2)
108.3	EACH	4	UTILITIES CROSSING TRENCH FOR WATER MAIN UP TO AND INCLUDING 12" DIAMETER (TYPE .3)
108.4	EACH	1	UTILITIES CROSSING TRENCH FOR WATER MAIN UP TO AND INCLUDING 12" DIAMETER (TYPE .4)
109.1	EACH	2	UTILITIES CROSSING TRENCH FOR WATER MAIN OVER 12" AND UP TO 24" DIAMETER (TYPE .1)
109.2	EACH	7	UTILITIES CROSSING TRENCH FOR WATER MAIN OVER 12" AND UP TO 24" DIAMETER (TYPE .2)
300	CY	22	SPECIAL CARE EXCAVATION AND BACKFILLING
330T1	LF	431	SUPPORT AND PROTECTION OF COMMUNICATION UTILITY FACILITIES DURING EXCAVATION OF CITY TRENCH WHEN FACILITIES LIE IN IOR 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	499	TRENCH EXCAVATION FOR ADJUSTMENT OF UTILITY FACILITIES
402T.1A	LF	7,350	EXISTING CONCRETE ENCASED TELECOMMUNICATION CONDUITS PLACED IN FINAL POSITION WITH CONCRETE ENCASEMENT
402T.V1A	LF	735	EXISTING VACANT CONCRETE ENCASED TELECOMMUNICATION CONDUITS PLACED IN FINAL POSITION WITH CONCRETE ENCASEMENT
402T.2	LF	220	EXISTING NON-CONCRETE ENCASED TELECOMMUNICATION CONDUITS
			PLACED IN FINAL POSITION WITHOUT CONCRETE ENCASEMENT
402T.V2A	LF	22	EXISTING VACANT NON-CONCRETE ENCASED TELECOMMUNICATION CONDUITS PLACED IN FINAL POSITION WITHOUT CONCRETE ENCASEMENT
500	LF	50	REMOVAL OF ABANDONED UTILITY CONDUITS (NON-CONCRETE ENCASED)

VERIZON

**AUGUST 2014** 

## GE353- Distribution Water Main Extension / Replacement; Adjacent to T.A. Facilities Boroughs of Brooklyn and Queens

Schedule U-2: Scope of Work for CET items

CET ITEM	UNITS	TOTAL	DESCRIPTION
501	EA	10	REMOVAL OF ABANDONED MASONRY FOR UTILITY FACILITIES
636 RM	CY	3	REBUILDING AND MODIFICATIONS TO UTILITY STRUCTURES
8.03	LF	100	LINE CUT BY PNEUMATIC TOOLS IN LIEU OF SAW CUT ASSOCIATED
			WITH ROADWAY REMOVAL OPERATIONS
1006	EA	1	6" VERTICAL OR ROLLED WATER MAIN OFFSET
1008V	EA	2	8" VERTICAL OR ROLLED WATER MAIN OFFSET
1020V	EA	2	20" VERTICAL OR ROLLED WATER MAIN OFFSET

VERIZON

For Information Only

**AUGUST 2014** 

## GE353- Distribution Water Main Extension / Replacement; Adjacent to T.A. Facilities Boroughs of Brooklyn and Queens

Schedule U-2: Scope of Work for CET items

CET 108.1 UTILITIES CROSSING TRENCH FOR WATER MAIN UP TO AND INCLUDING 12" DIAMETER (TYPE .1)

@ THE FOLLOWING LOCATIONS		QTY(EA)
SWC OF INT OF BEACH CHANNEL DR & B 98TH ST		1
S SIDE OF BEACH CHANNEL DR BTWN B 98TH ST & B 100TH ST		1
NCW OF INT OF B 98TH ST & ROCKAWAY BEACH BLVD		1
S SIDE OF BEACH CHANNEL DR BTWN B 101ST ST & 102ND ST		1
SEC OF INT OF BEACH CHANNEL DR & B 101ST ST		1
NWC OF INT OF JAMAICA AVE & 116TH ST		3
SWC OF INT OF JAMAICA AVE & 117TH ST		2
SEC OF INT OF JAMAICA AVE & 117TH ST		2
E SIDE OF JAMAICA AVE BTWN 117TH ST & 118TH ST		1
NEC OF INT OF JAMAICA AVE & 118TH ST		2
NEC OF INT OF JAMAICA AVE & LEFFERTS BLVD		2
NWC OF INT OF JAMAICA AVE & 120TH ST		3
SEC OF INT OF JAMAICA AVE & 120TH ST		1
NEC OF INT OF JAMAICA AVE & 120TH ST		1
NEC OF INT OF JAMAICA AVE & 122ND ST		1
CET 108.1	TOTAL	23

#### CET 108.2

UTILITIES CROSSING TRENCH FOR WATER MAIN UP TO AND INCLUDING 12" DIAMETER (TYPE .2)

@ THE FOLLOWING LOCATIONS	QTY(EA)
SWC OF INT OF BEACH CHANNEL DR & B 98TH ST	2
S SIDE OF BEACH CHANNEL DR BTWN B 98TH ST & B 100TH ST	1
NCW OF INT OF B 98TH ST & ROCKAWAY BEACH BLVD	1
S SIDE OF BEACH CHANNEL DR BTWN B 101ST ST & 102ND ST	1
NWC OF INT OF JAMAICA AVE & 116TH ST	1
NEC OF INT OF JAMAICA AVE & LEFFERTS BLVD	1
NWC OF INT OF JAMAICA AVE & 120TH ST	1
NEC OF INT OF JAMAICA AVE & 122ND ST	1
CET 108.2 TOTAL	9

CET 108.3

VERIZON

For Information Only

AUGUST 2014

## GE353- Distribution Water Main Extension / Replacement; Adjacent to T.A. Facilities Boroughs of Brooklyn and Queens

Schedule U-2: Scope of Work for CET items

UTILITIES CROSSING TRENCH FOR WATER MAIN UP TO AND INCLUDING 12" DIAMETER (TYPE .3)

<b>@ THE FOLLOWING LOCATIONS</b>	QTY(EA)
SWC OF INT OF JAMAICA AVE & MYRTLE AVE	1
NWC OF INT OF JAMAICA AVE & LEFFERTS BLVD	1
NWC OF INT OF JAMAICA AVE & 120TH ST	<b>1</b>
NEC OF INT OF JAMAICA AVE & 122ND ST	1
CET 108.3	TOTAL 4

#### 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 VERIZON FIELD REPRESENTATIVE	1
CET 108.4 TOTAL	1

#### **CET 109.1**

UTILITIES CROSSING TRENCH FOR WATER MAIN OVER 12" AND UP TO 24" DIAMETER (TYPE .1)

@ THE FOLLOWING LOCATIONS	QTY(EA)
SWC OF INT OF FLATBUSH AVE & 5TH AVE	1
NWC OF INT OF DRIGGS AVE & LORIMER ST	1
CET 109.1 TOTA	L 2

#### CET 109.2

UTILITIES CROSSING TRENCH FOR WATER MAIN OVER 12" AND UP TO 24" DIAMETER (TYPE .2)

@ THE FOLLOWING LOCATIONS	QTY	(EA)
SWC OF INT OF FLATBUSH AVE & 5TH AVE	2	
NWC OF INT OF DRIGGS AVE & LORIMER ST	3	
NEC OF INT OF DRIGGS AVE & LORIMER ST	2	
CET 109.2	TOTAL 7	

#### CET 109.3

UTILITIES CROSSING TRENCH FOR WATER MAIN OVER 12" AND UP TO

VERIZON	For Information Only	AUGUST 201	4
GE353- Distri Be Sci	bution Water Main Extension / Re Adjacent to T.A. Facilities proughs of Brooklyn and Queens hedule U-2: Scope of Work for CET items	placement;	
24" DIAMETER (TY	PE .3)		
NWC OF INT OF DRIC CET 109.3	@ THE FOLLOWING LOCATIONS GGS AVE & LORIMER ST	TOTAL	QTY(EA) 1 1
CET 300 SPECIAL CARE EXC	CAVATION AND BACKFILLING		
NWC OF INT OF DRIC NWC OF INT OF JAM N SIDE OF 118TH ST CET 300	@ THE FOLLOWING LOCATIONS GGS AVE & LORIMER ST AICA AVE & 116TH ST BTWN JAMAICA AVE & 89TH AVE	TOTAL	QTY(CY) 5 6 11 22
CET 330T1 SUPPORT AND PRO DURING EXCAVATI IN CLOSE PROXIMI	TECTION OF COMMUNICATION UTILITY F ON OF CITY TRENCH WHEN FACILITIES L TY TO TRENCH LIMITS	ACILITIES IE IN OR	
SWC OF INT OF FLAT NWC OF INT OF DRIG N SIDE OF DRIGGS A S SIDE OF INT OF BE S SIDE OF INT OF BE NWC OF INT OF JAM N SIDE OF LEFFERTS	@ THE FOLLOWING LOCATIONS TBUSH AVE & 5TH AVE GGS AVE & LORIMER ST VE BTWN LORIMER ST & MANHATTAN AVE ACH CHANNEL DR & B 98TH ST ACH CHANNEL DR & B 101ST ST AICA AVE & 116TH ST S BLVD BTWN JAMAICA AVE & 89TH AVE		QTY(LF) 20 36 80 110 110 15 60
CET 330T1 CET 350 OVERHEAD ACCOM FACILITIES, POLES	IMODATION PROTECTION OF OVERHEAD AND APPURTENANCES	TOTAL	431
AS ENCOUNTERED & CET 350	@ THE FOLLOWING LOCATIONS & DIRECTED BY THE VERIZON FIELD REPRES	ENTATIVE TOTAL	QTY(LS) 1 1
<b>CET 400</b>			

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For Information Only

AUGUST 2014

# GE353- Distribution Water Main Extension / Replacement; Adjacent to T.A. Facilities Boroughs of Brooklyn and Queens

Schedule U-2: Scope of Work for CET items

# **TEST PITS FOR UTILITY FACILITIES**

@ THE FOLLOWING LOCATIONS		QTY(CY)
AS ENCOUNTERED & DIRECTED BY THE VERIZON FIELD REPRESENTAT	IVE	10
CET 400	TOTAL	10

## CET 401

#### TRENCH EXCAVATION FOR ADJUSTMENT OF UTILITY FACILITIES

@ THE FOLLOWING LOCATIONS		QTY(CY)
NWC OF INT OF DRIGGS AVE & LORIMER ST		38
SEC OF INT OF BEACH CHANNEL DR & B 98TH ST		38
S SIDE OF INT OF BEACH CHANNEL DR & B 101ST ST		50
NWC OF INT OF JAMAICA AVE & 116TH ST	:	76
SWC OF INT OF JAMAICA AVE & 117TH ST	•	76
SWC OF INT OF MYRTLE AVE & JAMAICA AVE		76
NWC OF INT OF JAMAICA AVE & LEFFERTS BLVD		50
NWC OF INT OF JAMAICA AVE & 120TH ST		50
NEC OF INT OF JAMAICA AVE & 122ND ST		45
CET 401	TOTAL	499

#### **CET 402T.1A**

EXISTING CONCRETE ENCASED TELECOMMUNICATION CONDUITS PLACED IN FINAL POSITION WITH CONCRETE ENCASEMENT

@ THE FOLLOWING LOCATIONS		QTY(LF)
NWC OF INT OF DRIGGS AVE & LORIMER ST		360
SEC OF INT OF BEACH CHANNEL DR & B 98TH ST		360
NWC OF INT OF JAMAICA AVE & 116TH ST		1400
NWC OF INT OF JAMAICA AVE & 117TH ST		1200
SWC OF INT OF MYRTLE AVE & JAMAICA AVE		1200
NWC OF INT OF JAMAICA AVE & LEFFERTS BLVD		630
NWC OF INT OF JAMAICA AVE & 120TH ST		1000
NEC OF INT OF JAMAICA AVE & 122ND ST		1200
СЕТ 402Т.1А ТО	TAL	7350

### CET 402T.V1A

EXISTING VACANT CONCRETE ENCASED TELECOMMUNICATION CONDUITS PLACED IN FINAL POSITION WITH CONCRETE ENCASEMENT

VERIZON	For Information Only	AUGUST 2014	4
GE353- Distrib Bo Scho	oution Water Main Extension Adjacent to T.A. Facilitie roughs of Brooklyn and Q edule U-2: Scope of Work for CE	on / Replacement; es ueens CT items	
AS ENCOUNTERED & CET 402T.V1A	@ THE FOLLOWING LOCATIONS DIRECTED BY THE VERIZON FIELD	S DREPRESENTATIVE TOTAL	QTY(LF) 735 <b>735</b>
CET 402 EXISTING NON-CON PLACED IN FINAL PC	T.2 CRETE ENCASED TELECOMMUNI DSITION WITHOUT CONCRETE EN	CATION CONDUITS NCASEMENT	
S SIDE OF INT OF BEA CET 402T.2	@ THE FOLLOWING LOCATION: CH CHANNEL DR & B 101ST ST	S TOTAL	QTY(LF) 220 220
CET 402 EXISTING VACANT N CONDUITS PLACED I AS ENCOUNTERED &	T.V2A NON-CONCRETE ENCASED TELEC IN FINAL POSITION WITHOUT CON @ THE FOLLOWING LOCATIONS DIRECTED BY THE VERIZON FIELD	OMMUNICATION NCRETE ENCASEMENT S REPRESENTATIVE	QTY(L F) 22
CET 402T.V2A		TOTAL	22
CET 500 REMOVAL OF ABAN (NON-CONCRETE EN	DONED UTILITY CONDUITS ICASED)		
AS ENCOUNTERED & CET 500	@ THE FOLLOWING LOCATION DIRECTED BY THE VERIZON FIELD	S DREPRESENTATIVE TOTAL	QTY(LF) 50 <b>50</b>
CET 501 REMOVAL OF ABAN	DONED MASONRY FOR UTILITY I	FACILITIES	
AS ENCOUNTERED & CET 501	@ THE FOLLOWING LOCATION DIRECTED BY THE VERIZON FIELD	S D REPRESENTATIVE TOTAL	QTY(CY) 10 10
CET 636 REBUILDING AND M	RM ODIFICATIONS TO UTILITY STRU	ICTURES	

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For Information Only

**AUGUST 2014** 

# GE353- Distribution Water Main Extension / Replacement; Adjacent to T.A. Facilities Boroughs of Brooklyn and Queens

Schedule U-2: Scope of Work for CET items

@ THE FOLLOWING LOCATIONS		QTY(CY)
NWC OF INT OF DRIGGS AVE & LORIMER ST		3
CET 636 RM	TOTAL	3

### CET 8.03 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 VERIZON FIELD REPRESENTATIVE	100
CET 8.03 TOTAL	100

# CET 1006V

## **6"VERTICAL OR ROLLED WATER MAIN OFFSET**

@ THE FOLLOWING LOCATIONS	QTY(EA)
AS ENCOUNTERED & DIRECTED BY THE VERIZON FIELD REPRESENTATIVE	
CET 1006V TOTAL	1

# **CET 1008V**

## **8" VERTICAL OR ROLLED WATER MAIN OFFSET**

@ THE FOLLOWING LOCATIONS	QTY(EA)
AS ENCOUNTERED & DIRECTED BY THE VERIZON FIELD REPRESENTATIVE	2
CET 1008V TOTAL	2

## **CET 1020V**

### 20" VERTICAL OR ROLLED WATER MAIN OFFSET

@ THE FOLLOWING LOCATIONS	QTY(EA)
AS ENCOUNTERED & DIRECTED BY THE VERIZON FIELD REPRESENTATIVE	2
CET 1020V TOTAL	2

#### FOR INFORMATION ONLY ENGINEER'S ESTIMATE OF QUANTITIES AND TYPES OF INTERFERENCE TIME WARNER CABLE OF NEW YORK CITY GE353 Water Mains Extension Replacement Boroughs of Brooklyn & Queens

	DESCRIPTION	UNITS	ESTIMATED QUANTITY
108.1	UTILITIES CROSSING TRENCH FOR WATER MAIN UP TO & INCLUDING 12" DIAMETER	EA	5
109.1	UTILITIES CROSSING TRENCH FOR WATER MAIN OVER 12" TO 24" DIAMETER	EA	2
330	SUPPORT AND PROTECTION OF UTILITY IN CITY TRENCH	LF	347
350	OVERHEAD ACCOMMODATION, PROTECTION OF OVERHEAD FACILITIES, POLES & APPURTENANCES	LS	1

#### TIME WARNER CABLE SUPPORT & PROTECTION GE353 Water Mains Extension Replacement Boroughs of Brooklyn & Queens

CET 108.1	UTILITIES CROSSING TRENCH FOR WATER MAIN UP TO & INCLUDING 12" DIAMETER At the following locations:		EA
	SEC Jamaica Ave. & Lefferts Bivd.		1
	NWC Flatbush Ave. & Pacific Street		1
	NEC Union Ave. & Bayard Street Intersection of Union Ave. & N. 12th Street		1
	SWC Driggs Ave. & N. 12th Street		1
		Total quantity for CET 108.1	5
CET 109.1	UTILITIES CROSSING TRENCH FOR WATER MAIN OVER 12" TO		EA
	24" DIAMETER		
	SEC Driggs Ave. & Lorimer Street		1
	NWC Flatbush Ave. & Pacific Street		1
		Total quantity for CET 109.1	2
	¢		
CET 330	SUPPORT AND PROTECTION OF UTILITY IN CITY TRENCH		LF
	E/S Lefferts Blvd. S/O Jamalca Ave.		60
	Jamaica Ave. between Lefferts Bivd. & 120th Street		110
	NWC Flatbush Ave. & Pecific Street		52
	E/S Union Ave. Detween Bayard Street & N. 12th Street		125
		Total quantity for CET 330	347
CET 350	OVERHEAD ACCOMMODATION, PROTECTION OF OVERHEAD		LS
	FACILITIES, POLES & APPURTENANCES		
	AS ENCOUNTERED		1

Total quantity for CET 350 1

# **SECTION U-3**

# (NO TEXT IN THIS SECTION)

END OF ADDENDUM No.4 This Addendum consists of Thirty-Three (33) pages And Seventeen (17) sheets of Contract Drawings

#### ATTACH TO CONTRACT DOCUMENTS

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

#### PROJECT ID: GE353

# DISTRIBUTION WATER MAIN EXTENSION AND REPLACEMENT ADJACENT TO T.A. FACILITIES IN:

**BROOKLYN:** 

FLATBUSH AVENUE BETWEEN ATLANTIC AVENUE AND 5TH AVENUE; DRIGGS AVENUE BETWEEN LORIMER STREET AND NORTH 12TH STREET; UNION AVENUE BETWEEN NORTH STREET AND RICHARD STREET;

**SOUTH QUEENS:** 

ROCKAWAY FREEWAY BETWEEN BEACH 98TH STREET AND BEACH 101ST STREET; BEACH 98TH STREET BETWEEN ROCKAWAY BEACH BOULEVARD AND BEACH CHANNEL DRIVE; BEACH 100TH STREET BETWEEN ROCKAWAY BEACH BOULEVARD AND ROCKAWAY FREEWAY; BEACH 101ST STREET BETWEEN ROCKAWAY BEACH BOULEVARD AND BEACH CHANNEL DRIVE; JAMAICA AVENUE BETWEEN 116TH STREET AND 123RD STREET; Together With All Work incidental Thereto

> BOROUGHS OF BROOKLYN AND QUEENS CITY OF NEW YORK

> > ADDENDUM NO. 5

DATED: October 22, 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.

Specifications For

Abatement of Transit Authority Duct Insulation Asbestos Containing Materials ASSOCIATED WITH DISTRIBUTION WATER MAIN EXTENSION AND REPLACEMENT ADJACENT TO T.A. FACILITIES BOROUGHS OF BROOKLYN AND QUEENS



Prepared By:

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#### **SECTION 79.11**

#### ALLOWANCE FOR ASBESTOS ABATEMENT WORK PERFORMED ON EXISTING TRANSIT AUTHORITY DUCT INSULATION (REMOVAL OF ASBESTOS-CONTAINING MATERIALS, REPLACEMENT WITH NON-ASBESTOS-CONTAINING MATERIALS, AND SUPPORT AND PROTECTION OF EXISTING TRANSIT AUTHORITY DUCT, COMPLETE)

#### 79.11.1 GENERAL

#### 79.11.1.1 DESCRIPTION

- (A) The contract documents are as defined in the "Standard Construction Contract". The General Construction Provisions of the Standard Sewer And Water Main Specifications shall apply to all work of this section.
- (B) Work specified herein shall be as follows:
  - (1) The removal and disposal of Asbestos-Containing Materials (ACM) and asbestos-contaminated duct insulation from existing Transit Authority duct that are exposed due to other contract work.
  - (2) The replacement of the removed ACM insulation with a Transit Authority approved non-asbestoscontaining materials insulation.
  - (3) The support and protection of the existing Transit Authority duct that are exposed and to remain in service at all times.
- (C) The phasing and scheduling of work for this project shall be coordinated with and approved by the Engineer. The Engineer will make the final determination on all issues under this contract covered by this specification in coordination with NYC Department of Design and Construction's Bureau of Environmental and Geotechnical Services (BEGS).

#### 79.11.1.2 SCOPE OF WORK

(A) The Contractor is to provide all labor, materials, equipment, services, testing, appurtenances, permits and agreements necessary to perform the work required for the removal and disposal of ACM and asbestos-contaminated duct insulation from existing Transit Authority duct that are exposed, the replacement of the removed ACM insulation with a Transit Authority approved non-asbestos containing materials insulation, and the support and protection of the existing Transit Authority duct that are exposed and to remain in service at all times as required by these contract documents.

All work shall be performed in accordance with this specification, EPA regulations, OSHA regulations, New York City Local Law 70, Title 15, Chapter 1 RCNY, New York State Industrial Code 56, NIOSH recommendations, and any other applicable federal, state or local government regulations. Whenever there is a conflict or overlap of the above references the most stringent provisions are applicable.

The work to be performed in order to replace the removed ACM insulation with a Transit Authority approved non-asbestos containing materials insulation, and to support and protection the existing Transit Authority duct that are exposed and to remain in service at all times shall be done in accordance with Transit Authority specifications, standards and requirements.

(B) The intent of this section is to ensure that the Contractor is responsible for the following:

- (1) Abatement of all exposed ACM.
- (2) Cleaning and decontamination of the entire affected area.
- (3) Removal of sections of ACM duct insulation, as necessary. The Contractor shall dispose of all debris associated with such removal activities as ACM waste.
- (4) Removal and disposal of all exposed ACM found within these areas such as soil within excavated area, and duct insulation, etc.

- (5) Replacement of the removed ACM insulation with a Transit Authority approved non-asbestoscontaining materials insulation.
- (6) Support and protection of the existing Transit Authority duct that are exposed and to remain in service at all times.
- (7) Provide all scaffolding, platform installation, equipment, tools, transportation and any other equipment required and/or necessary to complete all work described in the contract documents.
- (8) The Contractor shall be responsible for acquiring all permits required to perform this work, and paying any and all fees or changes imposed by Local, State or Federal Law, Rule or Regulation applicable to the work specified herein.
- (C) The extent of the work areas requiring this work shall be as ordered by the Engineer. The Contractor shall perform the following work as described below:

WORK AREA EXCAVATION:

- (1) Remove and dispose of asbestos-containing duct insulation within the work area. Asbestos-containing duct insulation shall be removed utilizing the approved NYCDEP procedure outlined below. Variance for utilizing this procedure within the work area shall be applied for by the Contractor and approved by the New York City Department of Environmental Protection (NYCDEP) prior to the start of abatement activities. In areas where duct insulation is to be removed, the Contractor shall be responsible to remove all duct insulation material within the soil below the area where the duct insulation has to be removed. All duct insulation and associated materials as well as impacted soil shall be disposed of as contaminated waste.
- (2) Replacement of the removed ACM insulation with a Transit Authority approved nonasbestos-containing materials insulation, including all inspection, testing, etc. required.
- (3) Support and protection of the existing Transit authority duct that are exposed and to remain in service at all times, including the design and submittal of all support and protection drawings required for approval by all appropriate agencies.
- (D) The Contractor's attention is directed to the fact that patents cover certain methods of asbestos abatement indicated in the specifications. To date, patents have been issued with regard to negative pressure enclosures or negative or reduced pressure and glove-bag.
- (E) The Contractor shall be solely responsible for and shall hold the City of New York Department of Design and Construction and the City harmless from any and all damages, losses and expenses resulting from any infringement by Contractor of any patent including, but not limited to, the patents described above, used by Contractor during performance of this agreement.
- (F) Prior to starting abatement work, the Contractor must notify the Commissioner of the City of New York Department of Design and Construction if the Contractor anticipates any difficulty in performing the work as directed and required by these specifications. The Contractor shall be required to attend an on-site job meeting with the Engineer prior to start of abatement work to examine conditions of the site for removal and plan the sequence for removal operations.
- (G) The Contractor is responsible for amending the Asbestos Inspection Report (ACP-7) and resubmitting it to the NYCDEP Asbestos Control Program prior to abatement work as per Title 15, Chapter 1 of RCNY for any changes in quantities and/or starting date.
- (H) If more than one (1) year has elapsed since the original ACP-7 was submitted to the Department of Environmental Protection, the Contractor is responsible for preparing and submitting a new ACP-7 to

the Department of Environmental Protection as well as providing all other notifications to various regulatory agencies as required.

- In addition, the Contractor is also responsible for preparing, amending and submitting any Asbestos Variance Applications (ACP-9) that may be required for the completion of the contract or incidental work.
- (J) The Contractor is also responsible for preparing and submitting all filings, notifications, etc. required by all City, State and Federal regulatory agencies having jurisdiction.
- (K) For coordination with other contractors, see the General Provisions governing all contracts.
- (L) Related Asbestos Removal Work Under Other Contracts:
  - (1) Each contractor shall be responsible for the removal of incidental asbestos not identified in this section and found prior to or during the work.
  - (2) Incidental asbestos is defined as ACM that is discovered during the course of their work that must be abated to enable contractors to perform the work of their contract.

(M) Work Hours:

- (1) The Contractor shall establish the Contractor's work schedule in a way that avoids interference or conflict with the normal activities of the area.
- (2) All work shall be done during regular working hours unless the Contractor <u>requests</u> authorization to work in other than regular working hours and such authorization is granted by the Commissioner. (Regular working hours are those during which any given facility in which work is to be done is customarily open and functioning).
- (3) The order of phases and start dates associated with each will be determined by the Engineer.
- (4) Waste transfer must be approved by the Engineer.
- (N) Stages Of Asbestos Removal Work:

The Abatement Contractor or Subcontractor will be required to perform the work and it is the intent of this specification to remove all asbestos-containing and asbestos contaminated materials from the work area impeding and/or impacting the installation of any portion of the trunk water main connection. The Contractor shall inform the Engineer prior to start of this work in order that the Engineer can verify all work and quantities. No payment for this work will be made unless verified by the Engineer in writing.

(O) Certain equipment in the work area may need to remain operational during removal. Therefore, the removal of ACM from this equipment shall be performed as the last removal activities within the work area. The Contractor shall coordinate the scheduling for the removal of ACM on functioning equipment with the Engineer.

#### 79.11.1.3 SPECIAL EXPERIENCE REQUIREMENTS FOR ASBESTOS ABATEMENT

(A) <u>General</u>: The special experience requirements set forth in Paragraph (B) below apply to the contractor who will be performing the Asbestos Abatement work under this contract. If the bidder intends to perform such work itself, it must demonstrate compliance with the special experience requirements. If the bidder intends to subcontract this work, the proposed subcontractor must demonstrate compliance with the special experience requirements. Once approved, no substitution will be permitted, unless the qualifications of the proposed replacement have been approved in writing in advance by the City.

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- (1) Evaluation: Compliance with the special experience requirements for Asbestos Abatement must be submitted for evaluation a minimum of thirty (30) days prior to commencement of that phase of work which may require removal of asbestos-containing duct insulation. The Contractor is advised that the Contractor will not be permitted to commence excavation work at the site for that phase of construction which may require possible removal of asbestos-containing duct insulation, should the Contractor's Asbestos Abatement contractor fail to comply with the special experience requirements. Compliance with the experience requirements set forth herein will be determined solely by the City.
- (2) <u>Compliance By The Asbestos Abatement Contractor As An Entity</u>: Compliance with the special experience requirements must be demonstrated by the Asbestos Abatement contractor. The Asbestos Abatement contractor itself must have been in existence as the same entity for the three (3) year period prior to the bid opening. During such period, the entity itself must have achieved compliance with the special experience requirements. The Asbestos Abatement contractor entity may not use or rely on the experience or credentials of any other entity regardless of any relationship such other entity may have to the Asbestos Abatement contractor.
- (B) <u>Requirements</u>: The Asbestos Abatement contractor must demonstrate compliance with the special experience requirements set forth in subparagraphs (1) through (5) below. The Asbestos Abatement contractor must submit documentation demonstrating compliance with all listed requirements. Such documentation shall include without limitation, all required licenses, certificates, and documentation.
  - (1) The Asbestos Abatement contractor must, whether an individual, corporation, partnership, joint venture or other legal entity, demonstrate for the three (3) year period prior to the bid opening, that it has been licensed by the New York State Department of Labor, as an "Asbestos Contractor".
  - (2) The Asbestos Abatement contractor must, for the three (3) year period prior to the bid opening, have been in the business of providing asbestos abatement services as a routine part of its daily operations. In addition, the Asbestos Abatement contractor must have on staff a certified Project Designer for the purpose of submitting regulatory filings with the NYSDOL and/or NYCDEP involving variances.
  - (3) The Asbestos Abatement contractor proposing to do asbestos abatement work must be thoroughly experienced in such work and must provide evidence of having successfully performed and completed in a timely fashion at least five (5) asbestos abatement projects of similar size and complexity. The aggregate cost of these projects must be at least \$1,000,000 in each of the three (3) years.
  - (4) For each project submitted to meet the experience requirements set forth above, the Asbestos Abatement contractor must submit the following information for the project: name and location of the project; name title and telephone number of the owner or the owner's representative who is familiar with the Asbestos Abatement contractor's work; brief description of the work completed as a prime or sub-contractor; amount of contract or subcontract; and, the date of completion.
  - (5) The Asbestos Abatement contractor must demonstrate that it has the financial resources, supervisory personnel and equipment necessary to carry out the work and to comply with the required performance schedule, taking into consideration other business commitments. The Asbestos Abatement contractor must submit such documentation as may be required by the Department of Design and Construction to demonstrate that it has the requisite capacity to perform the required services of this contract.
- (C) Throughout the specifications, reference is made to codes and standards which establish qualities and types of workmanship and materials, methods for testing and reporting on the pertinent characteristics thereof to provide materials or workmanship that meet or exceed the specifically named codes or standards where required by these specifications.

- (D) Site Investigation: The Contractor shall inspect all the specifications and related drawings, and will investigate and confirm the site conditions affecting the work, including, but not limited to:
  - (1) Physical considerations and conditions of both the material and structure. These considerations include any obstacles or obstructions encountered in accessing or removing the material.
  - (2) Handling, storage, transportation and disposal of the material.
  - (3) Availability of qualified and skilled labor.
  - (4) Availability of utilities.
  - (5) Exact quantities of all materials to be disturbed and/or removed.

#### 79.11.1.4 WORK BY OTHERS

The City reserves the right during the term of this contract to have work performed on asbestos abatement projects by other contractors as the situation warrants.

#### 79.11.1.5 DEFINITIONS

- (A) General Explanation: Certain terms used in this specification are defined below. Definitions and explanations of this specification are not necessarily complete or exclusive, but are general for the work to the extent they are not stated more explicitly in another element of the contract documents.
- (B) Definitions In General Use:
  - (1) Approve: Where used in conjunction with Engineer's response to submittals, requests, applications, inquiries, reports and claims by Contractor, the meaning of term "approved" will be held to limitations of Engineer's responsibilities and duties as specified in contract documents. In no case will "approval" by Engineer be interpreted as a release of Contractor from responsibilities to fulfill requirements of contract documents.
  - (2) Directed, Requested, Etc.: Where not otherwise explained, terms such as "directed," "requested," "authorized," "selected," "approved," "required," "accepted," and "permitted" mean "directed by Engineer," "requested by Engineer," and similar phrases. However, no such implied meaning will be interpreted to extend Engineer's responsibility into Contractor's responsibility for construction supervision.
  - (3) Furnish: Except as otherwise defined in greater detail, term "furnish" is used to mean supply and deliver to project site, ready for unloading, unpacking, assembly, installation, etc., as applicable in each instance.
  - (4) Indicated: The term "indicated" is a cross-reference to graphic representations, notes or schedules on drawings, to other paragraphs or schedules in the specifications, and to similar means of recording requirements in contract documents. Where terms such as "shown," "noted," "scheduled," and "specified" are used in lieu of "indicated," it is for purpose of helping reader locate crossreference, and no limitation of location is intended except as specifically noted.
  - (5) Install: Except as otherwise defined in greater detail, term "install" is used to describe operations at project site including unloading, unpacking, assembly, erection, placing, anchoring, applying, working to dimension, finishing, curing, protecting, cleaning and similar operations, as applicable in each instance.
  - (6) Installer: The term "installer" is defined as the entity (person or firm) engaged by Contractor, or its subcontractor or sub-subcontractor for performance of a particular unit of work at project site, including installation, erection, application and similar required operations. It is a general requirement that such entities (installers) be expert in operations they are engaged to perform.





- (7) Provide: Except as otherwise defined in greater detail, term "provide" means furnish and install, complete and ready for intended use, as applicable in each instance.
- (8) Testing Laboratory: The term "Testing Laboratory" is defined as an entity engaged by the City to perform specific inspections or tests of the work, either at project site or elsewhere; and to report and (if required) interpret results of those inspections or tests.
- (C) Definitions Relative To Asbestos Abatement:
  - (1) Abatement: Procedures physically taken to control fiber release from ACM. This includes removal, encapsulation, enclosure, and repair.
  - (2) Aggressive Sampling: Method of sampling in which the individual collecting the air sample creates activity by the use of mechanical equipment during the sampling period to stir up settled dust and simulate activity in that area of the building.
  - (3) AIHA: American Industrial Hygiene Association.
  - (4) Airlock: System for permitting entrance and exit while restricting air movement between a contaminated area and an uncontaminated area. It consists of two (2) curtained doorways separated by a distance of at least three (3) feet such that one passes through one doorway into the airlock, allowing the doorway sheeting to overlap and close off the opening before proceeding through the second doorway, thereby preventing flow-through contamination.
  - (5) Air Sampling: Process of measuring the fiber content of a known volume of air collected during a specific period. The procedure utilized for asbestos follows the NIOSH Standard Analytical Method 7400, or the provisional transmission electron microscopy methods developed by the US EPA which is utilized for lower detection levels and specific fiber identification.
  - (6) Amended Water: Water to which a surfactant has been added.
  - (7) ANSI: American National Standards Institute.
  - (8) Area Air Sampling: Any form of air sampling or monitoring where the sampling device is placed at some stationary location.
  - (9) Asbestos: Any hydrated mineral silicate separable into commercially usable fibers, including but not limited to chrysotile (serpentine), amosite (cumingtonite-grunerite), crocidolite (riebeckite), tremolite, anthophyllite and actinolite.
  - (10) Asbestos-Containing Material (ACM): Asbestos or any material containing more than one percent (1%) asbestos.
  - (11) Asbestos-Containing Waste Material: ACM or asbestos-contaminated objects requiring disposal.
  - (12) Asbestos Handler: Individual who disturbs, removes, repairs, or encloses friable asbestos material. This individual shall have completed approved training course(s) and be in possession of certification issued by NYCDEP and NYSDOL.
  - (13) Asbestos Handler Supervisor: Individual who supervises the handlers during an asbestos project and ensures that proper asbestos abatement procedures as well as individual safety procedures are being adhered to. This individual shall have completed approved training course(s) and be in possession of certification issued by NYCDEP and NYSDOL.
  - (14) Asbestos Handling Certificate: Certificate(s) issued to individuals who have met the criteria established by NYCDEP and/or NYSDOL.

- (15) Asbestos Inspection Report: A report on the condition of a building or structure in relation to the presence and condition of asbestos therein.
- (16) Asbestos Investigator: An individual certified by NYCDEP as having successfully demonstrated the ability to identify the presence of and evaluate the condition of asbestos in a building or structure.
- (17) Asbestos Project: Any form of work performed in connection with the alteration, innovation, modification, or demolition of a building or structure which will disturb (e.g. remove, enclose, encapsulate) more than three (3) linear feet or more than three (3) square feet of friable ACM.
- (18) ASTM: The American Society for Testing and Materials International.
- (19) Authorized Visitor: Authorized visitor shall mean the Commissioner and the Commissioner's representative, and any representative of a regulatory or other agency having jurisdiction over the project.
- (20) Certified Industrial Hygienist (CIH): Individual with a minimum of five (5) years experience as an industrial hygienist and who has successfully completed both levels of the examination administered by the American Board of Industrial Hygiene and who is currently certified by that board.
- (21) Certified Safety Professional (CSP): Individual having a bachelor's degree from an accredited college or university and a minimum of four (4) years experience as a safety professional and who has successfully completed both levels of the examination administered by the Board of Certified Safety Professionals and who is currently certified by that board.
- (22) City: Shall mean the City of New York.
- (23) Clean Room: An uncontaminated area or room that is part of worker decontamination enclosure system with provisions for storage of workers' street clothes and protective equipment.
- (24) Clearance Air Monitoring: Employment of aggressive sampling techniques with a volume of air collected to determine the airborne concentration of residual fibers and shall be performed as the final abatement activity.
- (25) Commissioner: Shall mean the head of the Agency that has entered into this contract or a duly authorized representative.
- (26) Competent Person: Shall mean the designated person as defined in OSHA 29CFR 1926.1101.
- (27) Curtained Doorway: Device that consists of at least three (3) overlapping sheets of polyethylene over an existing or temporarily framed doorway. One sheet shall be secured at the top and left side, the second sheet at the top and right side, and the third sheet at the top and left side. All sheets shall have weights attached to the bottom to ensure that the sheets hang straight and maintain a seal over the doorway when not in use.
- (28) Decontamination Enclosure System: Series of connected rooms, separated from the work area and from each other by air locks, for the decontamination of workers, materials, waste containers, and equipment.
- (29) Encapsulant (Sealant) or Encapsulating Agent: Liquid material which can be applied to ACM and which temporarily controls the possible release of asbestos fibers from the material either by creating a membrane over the surface (bridging encapsulant) or by penetrating into the material and binding its components together (penetrating encapsulant). This may also be used to seal surfaces from which ACM has been removed.
- (30) Encapsulation: Coating or spraying of ACM with a sealant.

- (31) Enclosure: Construction of airtight walls and/or ceilings between ACM and the facility environment, or around surfaces coated with ACM, or any other appropriate procedure as determined by the NYCDEP which prevents the release of asbestos fibers.
- (32) ELAP: Environmental Laboratory Approval Program administered by the New York State Department of Health.
- (33) EPA or USEPA: United States Environmental Protection Agency.
- (34) Equipment Room: Contaminated area or room that is part of the worker decontamination enclosure system with provisions for the storage of contaminated clothing and equipment.
- (35) Fixed Object: Utility or associated piping within the work area that cannot be removed from the work area.
- (36) Friable Asbestos Material: Asbestos or any ACM that can be crumbled, pulverized, or reduced to powder when dry, by hand or other mechanical pressure.
- (37) Glove-Bag Technique: Method for removing friable ACM from heating, ventilation, and air conditioning (HVAC) ducts, short piping runs, valves, joints, elbows, and other nonplanar surfaces in a noncontained work area. The glove-bag assembly is a manufactured device consisting of a glove-bag (constructed of at least 6-mil transparent polyethylene), two inward-projecting long sleeve gloves, one inward-projecting water wand sleeve, an internal tool pouch, and an attached, labeled receptacle for asbestos waste. The glove-bag is constructed and installed in such a manner that it surrounds the object or area to be decontaminated and contains all asbestos fibers released during the removal process.
- (38) HEPA-Filter: High efficiency particulate air filter capable of trapping and retaining 99.97-percent of particles (asbestos fibers) greater than 0.3-micrometers mass median aerodynamic equivalent diameter.
- (39) Holding Area: Chamber in the equipment decontamination enclosure located between the washroom and an uncontaminated area.
- (40) Homogeneous Work Area: Portion of the work area that contains one type of ACM and/or where one type of abatement is used.
- (41) Industrial Hygiene: Science and art devoted to the recognition, evaluation, and control of those environmental factors or stresses, arising in or from the work place, which may cause sickness, impaired health and well being, or significant discomfort and inefficiency among worker or among the citizens of the community.
- (42) Industrial Hygienist: Individual having a college or university degree or degrees in Engineering, Chemistry, Physics or Medicine, or related Biological Sciences who, by virtue of special studies and training, has acquired competence in industrial hygiene. Such special studies and training must have been sufficient in all of the above cognate sciences to provide the abilities:
  - (a) To recognize the environmental factors and to understand their effect on people and their well being; and,
  - (b) To evaluate, on the basis of experience and with the aid of quantitative measurement techniques, the magnitude of these stresses in terms of ability to impair people's health and well being; and,
  - (c) To prescribe methods to eliminate, control, or reduce such stresses when necessary to alleviate their efforts.

- (43) Large Asbestos Project: Asbestos project involving the disturbances (e.g. removal, enclosure, encapsulation) of 260-linear feet or more of friable ACM or 160-square feet or more of friable ACM.
- (44) Major Violation: Any action, on the job performance or lack of performance that may place any individual at risk other than the worker who commits the violation. A major violation is equivalent to two (2) violation points.
- (45) Minor Asbestos Project: Project involving the disturbance (e.g. removal, enclosure, encapsulation, repair) of more than three (3) linear feet, but not more than twenty-five (25) linear feet of friable ACM or more than three (3) square feet, but not more than ten (10) square feet of friable ACM.
- (46) Minor Violation: Any action, on the job performance or lack of performance that may place the worker at risk. A minor violation is equivalent to one (1) violation point.
- (47) Movable Object: Any equipment or utility in the work area that can be removed from the work area.
- (48) Negative Air Pressure Equipment: Portable local exhaust system equipped with HEPA filtration. The system shall be capable of creating a negative pressure differential between the outside and inside of the work area.
- (49) NESHAPS: National Emission Standards for Hazardous Air Pollutants.
- (50) NIOSH: National Institute for Occupational Safety and Health.
- (51) NYCDEP: New York City Department of Environmental Protection.
- (52) NYSDOL: New York State Department of Labor.
- (53) Occupied Area: Area of the work site where abatement is not taking place and where personnel or occupants normally function or where workers are not required to use personal protective equipment.
- (54) OSHA: Occupational Safety and Health Administration.
- (55) Person: Individual, partnership, company, corporation, association, firm, organization, governmental agency, administration, or the NYCDEP, or any other group of individuals, or any officer or employee thereof.
- (56) Personal Air Monitoring: Method used to determine employees' exposure to airborne fibers. The sample is collected outside the respirator in the worker's breathing zone.
- (57) Personal Protective Equipment (PPE): Appropriate protective clothing, gloves, eye protection, footwear, and head gear.
- (58) Physician: Person licensed or otherwise authorized under Article 131 Section 65.22 of the New York State Education Law.
- (59) Plasticize: Cover floors and walls with polyethylene sheeting as herein specified or by using spray plastics as acceptable to the NYCDEP.
- (60) Professional Engineer (PE): Individual having, at a minimum, a Bachelor's Degree in Engineering from an accredited college or university with four (4) years acceptable experience as an engineer and who has successfully completed both levels of the Professional Engineers Examination administered by the State of New York Department of Education, Division of Professional Licensing.



- (61) Qualitative Fit Test: Individual test subject's responding (either voluntarily or involuntarily) to a chemical challenge outside the respirator face-piece. Three of the most popular methods include: (1) irritant smoke test; (2) odorous vapor test; and (3) taste test.
- (62) Quantitative Fit Test: Exposing the respiratory wearer to a test atmosphere containing an easily detectable, nontoxic aerosol, vapor or gas as the test agent. Instrumentation, which samples the test atmosphere and the air inside the face-piece of the respirator, is used to measure quantitatively the leakage into the respirator. There are a number of test atmospheres, test agents, and exercises to perform during the test.
- (63) Registered Architect (RA): Individual having, at a minimum, a Bachelor's Degree in Architecture from an accredited college or university with three (3) years acceptable experience as an architect and who has successfully completed both levels of the Architects Registration Examination administered by the State of New York Department of Education, Division of Professional Licensing.
- (64) Removal: Stripping of any asbestos-containing materials from surfaces or components of a structure or taking out structural components in accordance with 40 CFR 61 Subparts A and M.
- (65) Shower Room: Room between the clean room and the equipment room in the worker decontamination enclosure with hot and cold running water controllable at the tap and arranged for complete showering during decontamination.
- (66) Small Asbestos Project: Asbestos project involving the disturbance (e.g. removal, enclosure, encapsulation) of more than 25-linear feet and less than 260-linear feet of friable ACM or more than 10-square feet and less than 160-square feet of friable ACM.
- (67) Staging Area: Work area near the waste transfer airlock where containerized asbestos waste has been placed prior to removal from the work area.
- (68) Structural Member: Load-supporting member of a facility, such as beams and load-supporting walls, or any nonload-supporting member, such as ceiling and nonload-supporting walls.
- (69) Surfactant: Chemical wetting agent added to water to improve penetration.
- (70) Visible Emissions: Emissions containing particulate material that are visually detectable without the aid of instruments.
- (71) Washroom: Room between the work area and the holding area in the equipment decontamination enclosure system where equipment and waste containers are wet cleaned and/or HEPA-vacuumed prior to disposal.
- (72) Wet Cleaning: Removal of asbestos fibers from building surfaces and objects by using cloths, mops, or other cleaning tools which have been dampened with amended water.
- (73) Work Area: Designated excavation, spaces, or areas within a trench or structure where asbestos abatement activities take(s) place.
- (74) Worker Decontamination Enclosure System: Portion of a decontamination enclosure system designed for controlled passage of workers and authorized visitors, consisting of a clean room, a shower room, and an equipment room separated from each other and from the work area by airlocks and curtained doorways.
- (75) Work Site: Area where abatement activity is being performed. May be composed of one or more work areas.

#### 79.11.1.6 STANDARD OPERATING PROCEDURES

- (A) Develop and implement a written standard procedure for abatement work to ensure maximum protection and safeguard from asbestos exposure of the workers, visitors, employees, public, and environment.
- (B) TELEPHONE PAGING DEVICE:

The Contractor or the Contractor's authorized representative shall, at all times during the normal workday or during periods of overtime work under this contract, carry a digital telephone paging device ("Beeper") and cellular telephones which can be activated by a telephone number in the 212 or 646 or 718 or 917 area code. The Contractor shall supply the Department of Design and Construction with the activation number for the device and the Contractor is liable to respond back to the calls from DDC within the next one (1) hour period after the Contractor receives calls from DDC. The cost for this device and all charges accruing shall be deemed included in all scheduled items of work.

- (C) The standard operating procedure shall ensure:
  - (1) Tight security from unauthorized entry into the workspace.
  - (2) Restriction of Contractor's personnel to the immediate work area and access/egress routes.
  - (3) Donning of proper protective clothing and respiratory protection prior to entering the work area.
  - (4) Safe work practices in the work place, including provisions for inter-room communications, exclusion of eating, drinking, smoking, or in any way breaking the respiratory protection.
  - (5) Proper exit practices from the work space to the outside through the showering and decontamination facilities.
  - (6) Removing asbestos in ways that minimize release of fibers.
  - (7) Packing, labeling, loading, transporting, and disposing of contaminated material in a way that minimize exposure and contamination.
  - (8) Emergency evacuation procedures, for medical or safety situations, to minimize the potential exposure to airborne asbestos fibers for emergency personnel, and building environment.
  - (9) Safety from accidents in the workspace, especially from electrical shocks, fall hazards associated with scaffolding, slippery surfaces, and entanglements in loose hoses and equipment.
  - (10) Provisions for effective supervision, air monitoring and personnel monitoring for exposure during the work.
  - (11) Engineering systems that minimize exposure to fibers within the workspace.
- (D) Provide an Asbestos Handler Supervisor to provide continuous supervision of all work, and to be responsible for the following:
  - (1) Ensure that individuals are using proper personal protective equipment and are trained in its use.
  - (2) Maintain entry log records and ensure that they are recorded in accordance with the provisions of Title 15, Chapter 1 of RCNY.
  - (3) Surveillance of the work areas at a minimum of twice per work shift or as required by Title 15, Chapter 1 of RCNY, to ensure that the workers personal protective equipment is not torn or ripped and that respiratory protection is worn at all times.

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- (4) Ensure that sufficient personal protective equipment is stored in the clean room.
- (5) Take precautions to prevent heat stress. Precautions include, but are not limited to, selecting lightweight protective clothing, reducing the work rate, and providing adequate fluid breaks.

(E) ENGINEERING CONTROLS:

- (1) The 8-hour time weighted average airborne concentration of fibers to which any passerby may be exposed shall not exceed 0.01-fibers per cubic centimeter of air when fibers have a physical dimension longer than 5-micrometers as determined by the method prescribed in these specifications.
- (2) All large asbestos projects shall utilize negative pressure ventilation equipment.
- (3) The negative pressure ventilation equipment shall operate continuously, 24-hours a day, from the establishment of isolation barriers through successful clearance air monitoring. If such equipment shuts off, adjacent areas shall be monitored for asbestos fibers.
- (4) On loss of negative pressure or electric power to the negative pressure ventilating units, abatement shall stop immediately and shall not resume until power is restored and negative pressure ventilation equipment is operating again.
- (5) Negative pressure ventilation equipment shall be exhausted to the outside of the tent enclosure away from passer-by and/or sidewalks.
  - (a) At no time shall the negative pressure ventilation unit exhaust with 40-feet of a receptor or adversely affect the intake ports, louvers, or entrances for the adjacent buildings.
  - (b) Heavy duty ducting of equivalent, or larger, shape and dimension as that of the negative pressure ventilation exhaust port shall be used to exhaust to the structure.
  - (c) All ducting shall be sealed and braced or supported to maintain airtight joints.
- (6) Where ducting to the outside is not possible, a second negative pressure ventilation unit compatible with the primary unit's capacity shall be connected in series. The area receiving the exhaust shall have sufficient, nonrecycling exhaust capacity to the outside of the structure. Ventilation unit exhaust ducting shall not exceed twenty five (25) feet in length due to volumetric flow rates caused by friction
- (7) In the event that there is a failure of the containment system or a breach in the Isolation Barriers, all abatement work will cease and the Contractor will immediately correct the condition. Abatement work will not resume until the work area has been smoke tested by the third party laboratory and approved by the Project Monitor.

#### (F) LOCKDOWN ENCAPSULATION PROCEDURES:

The following procedures shall be followed to seal in nonvisible residue while conducting lockdown encapsulation on all surfaces from which ACM is removed:

- (a) Only encapsulants rated as acceptable or marginally acceptable on the basis of Battelle Columbus Laboratory test procedures and rating requirements developed under the 1978 USEPA Contract shall be used for lockdown encapsulation.
- (b) The encapsulant solvent or vehicle shall not contain a volatile hydrocarbon unless reviewed and approved by DEP.
- (c) Latex paint with solids content greater than 15-percent shall be considered a lockdown sealant for coating all nonmetallic surfaces.

(d) Encapsulants shall be applied using airless spray equipment. Spraying is to occur at the lowest pressure range possible to minimize fiber release from encapsulant impact at the surface. It shall be applied with a consistent horizontal or vertical motion.

#### 79.11.1.7 NOTIFICATIONS, PERMITS, WARNING SIGNS, LABELS, AND POSTERS

- (A) Erect bilingual (English-Spanish) warning signs around the excavation and at every point of potential entry from the street level which can be viewed by the public without obstruction, in accordance with OSHA 29 CFR 1926.1101 (K) (Sign Specifications) and Title 15, Chapter 1 of RCNY. The warning signs shall be a bright color so that they will be easily noticeable. The size of the sign and the size of the lettering shall be no less than OSHA requirements.
- (B) Provide the required labels for all polyethylene bags and all drums utilized to transport contaminated material to the landfill in accordance with OSHA 29 CFR 1926.1101 (K)(2) and by 49 CFR Parts 171 and 172 of the Department of Transportation regulations.
- (C) Provide any other signs, labels, warnings, and posted instructions that are necessary to protect, inform and warn people of the hazard from asbestos exposure. Post in a prominent and convenient place for the workers a copy of the latest applicable regulations from OSHA, EPA, NIOSH, State of New York and New York City and any additional items mandated for posting by the aforementioned regulations.
- (D) Furnish all permits, variances and notices required to perform the work.

#### 79.11.1.8 EMERGENCY PRECAUTIONS

- (A) Establish emergency exit(s) from the work area. The clean side of all emergency exits shall be equipped with two full sets of protective clothing and respirators at all times.
- (B) Notify local medical emergency personnel, both ambulance crews and hospital emergency room staff prior to commencement of abatement operations as to the possibility of having to handle contaminated or injured workmen, and shall be advised on safe decontamination.
- (C) Prepare to administer first aid to injured personnel after decontamination. Seriously injured personnel shall be treated immediately or evacuated immediately for decontamination. When an injury occurs, precautions shall be taken to reduce airborne fiber concentrations (i.e. misting of the air with water) until the injured person has been removed from the work area.
- (D) Notify, before actual removal of the asbestos material, the local police and fire departments to the danger of entering the excavated area where removal is taking place. Contractor shall make every effort to help these agencies form plans of action should their personnel need to enter the contaminated area.

#### 79.11.1.9 SUBMITTALS

(A) Construction Submittals:

Five (5) business days prior to excavating within three (3) feet of existing Transit Authority ducts which may contain asbestos-containing materials, the Contractor shall submit three (3) copies of the Contractor's detailed plan of action including the following items, bound and indexed. At this time and prior to this excavation work a meeting will be scheduled by the City of New York Department of Design and Construction. This meeting shall be attended by the Contractor and the Contractor's Subcontractor(s), a designated representative of the City of New York third party air monitoring firm and the Engineer.

- (a) Contractor's scope of work, work plan and schedule.
- (b) Notifications to Government Agencies.

- (c) Copies of permits, clearance and licenses if required.
- (d) Schedules: The Contractor shall provide to the Engineer a copy of the following schedules for approval. Once approved, schedules shall be maintained and updated as received. The Contractor shall post a copy of all schedules at the site:
  - (1) A construction schedule stating critical dates of the project including, but not limited to, mobilization, work area preparation, demolition, gross removal, fine cleaning, encapsulation, inspections, clearance monitoring, and phase of refinishing and final inspections. The schedule shall be updated biweekly, at a minimum.
  - (2) A schedule of staffing stating number of workers per shift per activity, name and number of supervisor(s) per shift, shifts per day, and total days to be worked.
  - (3) Submit all changes in schedule or staffing to the Engineer prior to implementation.
  - (4) A schedule of equipment to be used including numbers and types of all major equipment such as HEPA Air Filtration Units, HEPA-vacuums, airless sprayers, Water Atomizing Devices and Type "C" compressors.
- (e) A written plan and shop drawings for preparation of work site and decontamination chamber.
- (f) Description of protective clothing and approved respirator to be used, make, model, NIOSH approval numbers.
- (g) Delineation of responsibility of work site supervision, including competent person, with names, resumes, and home telephone numbers.
- (h) Explanation of decontamination sequence and isolation techniques.
- (i) Description of specific equipment to be utilized, including make and model number of air filtration devices, vacuums, sprayers, etc.
- (j) Description of any prepared methods, procedures, techniques, or equipment other than those specified in the contract documents.
- (k) Explanation of the handling of contaminated wastes including EPA and NYCDEP identification numbers of Waste Hauler.
- (I) Description of the final clean-up procedures to be used.
- (m) Name and qualifications of Contractor's testing laboratory including AIHA accreditation, and proof of NIOSH PAT and NIST/NVLAP Bulk Quality Assurance Proficiency of OSHA samples for approval by the City of New York Department of Design and Construction.
- (n) Written description of emergency procedures to be followed in case of injury or fire. This section must include evacuation procedures, source of medical assistance (name and telephone number) and procedures to be used for access by medical personnel (examples: first aid squad and physician). NOTE: Necessary Emergency Procedures Shall Take Priority Over All Other Requirements Of These Specifications.
- (o) Material Safety Data Sheets (MSDS) for encapsulants, sealants, firestopping foam, cleaners/disinfectants, spray adhesive and any and all potentially hazardous materials that may be employed on the project. No work involving the aforementioned will be allowed to proceed until MSDS are reviewed.
- (p) Worker Training And Medical Surveillance: Contractor shall submit a list of the persons who will be employed by The Contractor and the Contractor's Subcontractors in the removal work.

Present evidence that workers have received proper training required by the regulations and the medical examinations required by OSHA 29 CFR 1926.1101.

- (q) Logs: Specimen copies of daily progress log, visitor's log, and disposal log.
  - (1) The Contractor shall provide a permanently bound log book of minimum 8-1/2" x 11" size at the entrance to the Worker and Waste Decontamination enclosure system as hereinafter specified. Log book shall contain on title page the project name, name, address and phone number of Environmental Control Representative; name, address and phone number of Abatement Contractor; name, address and phone number of Contractor and City's air testing entity; and, emergency numbers including, but not limited to local Fire/Rescue Department. Log book shall contain a list of personnel approved by the laboratory for entry into the work area.
  - (2) All entries into the log shall be made in nonwashable, permanent ink and such pen shall be strung to or otherwise attached to the log to prevent removal from the log-in area. Under no circumstances shall pencil entries be permitted. Any significant events occurring during the abatement project shall be entered into the log. Upon completion of the job, the Contractor shall submit the logbook containing a day-to-day record of personnel log entries countersigned by the Project Monitor everyday.
- (r) Worker's Acknowledgments: Submit statements signed by each employee that the employee has received training in the proper handling of ACM understands the health implications and risks involved; and understands the use and limitations of the respiratory equipment to be used.
- (B) Copies of the following items shall be submitted to the Project Monitor during the work:
  - (1) Security and safety logs showing names of person entering workspace, date and time of entry and exit, record of any accident, emergency evacuation, and any other safety and/or health incident.
  - (2) Progress logs showing the number of workers, supervisors, hours of work and tasks completed daily to the Engineer.
  - (3) Contractor's current work progress for review by the Engineer at weekly progress meetings.
  - (4) All Contractors' air monitoring and inspection results.

(C) Project Closeout Submittals:

Upon completion of the project and as a condition of acceptance, the Contractor shall present two (2) copies of the following items, bound and indexed:

- (1) Lien Waivers from Contractor, Subcontractors and Suppliers,
- (2) Daily OSHA air monitoring results,
- (3) All Waste Manifests (Asbestos and Construction Debris), seals and disposal logs,
- (4) Field Sign-In/Sign-Out Logs for every shift,
- (5) A Letter of Compliance stating that all the work on this project was performed in accordance with the specifications and all applicable Federal, State and Local regulations,
- (6) All Warranties as stated in the specifications,
- (7) Fully executed disposal certificates and transportation manifest.

#### 79.11.1.10 QUALITY ASSURANCE

- (A) All work required for the completion of this project or called for in this specification must be executed in a workmanlike manner by using the appropriate methods established by regulatory requirements and/or industrial standards. All workmanship or work methods are subject to review and acceptance by the Engineer. Throughout the specification, reference is made to codes and standards which establish qualities, levels or types of workmanship which will be considered acceptable. It is the Abatement Contractor's responsibility to comply with these codes and standards during the execution of this work.
- (B) All materials and equipment required or consumed during the work of this contract must meet the minimum acceptable criteria established by codes and standards referenced elsewhere in this specification. Materials and equipment must be submitted for prior approval as part of the Contractor's "Shop Drawings".
- (C) It is the Abatement Contractor's responsibility, when so required by the specification or upon written request from the Commissioner or the Commissioner's representative to furnish all required proof that workmanship, materials and/or equipment meet or exceed the codes and standards referenced. Such proof shall be in the form requested, typically a certified report or test conducted by a testing entity approved for that purpose by DDC.
- (D) The Contractor shall furnish proof that employees working under the Contractor's supervision have had instruction on the dangers of asbestos exposure, on respirator use, decontamination, and OSHA regulations. This proof shall be in the form of a <u>notarized</u> affidavit to the effect that the above requirements have been satisfied. In addition, the Contractor shall have posted in the clean room of the decontamination enclosure unit all state and city certification of all workers involved in the handling and removal of asbestos.
- (E) The Contractor will have at all times in the Contractor's possession and in view at the job site the OSHA regulations 29 CFR 1910.1001, and 1926.1101 Asbestos, and Environmental Protection Agency 40 CFR, Part 61, subpart B: National Emission Standard for asbestos, asbestos stripping, work practices and disposal of asbestos waste. The Contractor shall also have one copy of NYC Title 15, Chapter 1 of RCNY and NYS DOL ICR 56 at the job site at all times.
- (F) Familiarity With Pertinent Codes And Standards: In procuring all items used in this work, it is the Contractor's responsibility to verify the detailed requirements of the specifically named codes and standards and to verify that the items procured for use in this work meet or exceed the specified requirements, and are suitable for their intended use.
- (G) Rejection Of Noncomplying Items: The Commissioner reserves the right to reject items incorporated into the work that fail to meet the specified minimum requirements. The Commissioner further reserves the right, and without prejudice to other recourse that maybe taken, to accept noncomplying items subject to test and approval by the City.
- (H) Applicable Regulations, Codes And Standards: Applicable standards listed in these specifications include, but are not necessarily limited to, standards promulgated by the following agencies and organizations:
  - (1) United States Environmental Protection Agency (EPA or USEPA) Region II Asbestos NESHAPS Contact Air And Waste Management Division (Air Compliance Branch) - USEPA 290 Broadway, 21<sup>st</sup> Floor New York, New York 10007-1866 212-637-3660

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- (2) Occupational Safety and Health Administration (OSHA) Region II - Regional Office
   201 Varick Street, Room 908
   New York, New York 10014
   212-337-2378
- (3) National Electrical Code (NEC) See NFPA
- (4) National Fire Protection Association (NFPA)
  1 Batterymarch Park
  Quincy, Massachusetts 02169-7471
  617-770-3000
- (5) National Institute for Occupational Safety and Health (NIOSH) Robert A. Taft Laboratory 4676 Columbia Parkway Mailstop R12 Cincinnati, Ohio 45226 513-841-4428
- (6) Department of Health and Mental Hygiene (DOHMH) Environmental Investigation 125 Worth Street New York, New York 10013 212-442-3372
- (7) American National Standards Institute (ANSI)
  (Successor to USASI and ASA)
  25 West 43<sup>rd</sup> Street (between 5<sup>th</sup> and 6<sup>th</sup> Avenue), 4<sup>th</sup> Floor New York, New York 10036
   212-642-4900
- (8) American Society for Testing and Materials (ASTM) 100 Bar Harbor Drive West Conshohocken, Pennsylvania 19428-2959 610-832-9500
- (9) New York City Department of Environmental Protection (NYCDEP) Bureau of Environmental Compliance Asbestos Control Program 59-17 Junction Boulevard, 8<sup>th</sup> Floor Corona, New York 11368 718-595-3682
- (10) New York City Department of Sanitation 125 Worth Street, Room 714 New York, New York 10013 212-566-1066
- (11) New York State Department of Labor (NYSDOL) Division Of Safety And Health Engineering Services Unit State Office Building Campus Albany, New York 12240-0010
- Post all applicable regulations in a conspicuous place at the job site. Assure that the regulations are not altered, defaced or covered by other materials. One copy of each regulation must also be kept at the Contractor's office.

#### 79.11.1.11 CITY/CONTRACTOR RESPONSIBILITIES

- (A) The City will not enter the portions of the excavation, in which work is being performed during the entire asbestos removal operation, including completion of clean up.
- (B) The Contractor shall provide a plan for 24-hours job security both for prevention of theft and for barring entry of curious but unprotected personnel into work areas.
- (C) The Contractor shall provide own means of power if needed and the City will not be held responsible for the downtime due to faulty Contractor's equipment.
- (D) The Contractor shall provide all electrical, water, and waste connections, tie-ins, extensions, and construction materials, supplies, etc. At the end of each shift, the Contractor shall disconnect all hoses within the work zone and place in equipment room of the worker decontamination unit. The Contractor shall ensure positive shutoff of all water to work area during nonworking hours.
- (E) All temporary facilities required to be installed, shall be subject to the approval of the Commissioner. Prior to starting the work at any site; specify clearly the temporary locations of facilities preferably with sketches and submit the same to the Engineer for approval.
- (F) The Contractor shall provide water needed to conduct the required asbestos abatement. All temporary plumbing or adaptations to supply the needs of the work area shall be installed and removed by the Contractor. Shower water for the decontamination unit shall be provided hot. Heating of water, if necessary, shall be provided by the Contractor.
- (G) Any additional electrical equipment (i.e. transformers, etc.), which is necessary shall be provided by the Contractor.
- (H) The Contractor shall provide fire protection in accordance with all State and Local fire codes.
- (I) Any parts of the service lines, within the excavated work area, disturbed or damaged by the installation and/or removal of the temporary service lines, shall be restored to their original condition by the Contractor to the satisfaction of the respective utility company.
- (J) Contractor shall supply hot shower water necessary for use in the decontamination unit.

#### 79.11.1.12 USE OF THE AREA

- (A) The Contractor shall confine Contractor's apparatus, the storage of materials, and supplies, and the operation of the Contractor's workmen to limits established by law, ordinances, and the directions of the Engineer. All flammable or combustible materials shall be properly stored to obviate fire and in areas approved by the Engineer.
- (B) The Contractor shall assure of a clear path out of the excavated area, that appropriate safety barriers are established to prevent access, and that work areas are kept neat, clean, and safe.
- (C) All surrounding work, fixtures, soil lines, drains, water lines, gas pipes, electrical conduit, wires, utilities, etc. which are to remain in place shall be carefully protected and, if disturbed or damaged, shall be repaired or replaced as directed by the City in accordance with the terms of this contract.
- (D) Attention is specifically drawn to the fact that other contractors, performing the work of other contracts, may be (or are) brought upon any of the work sites of this contract. Therefore, the Contractor shall not have exclusive rights to any site of work and shall fully cooperate and coordinate Contractor's work with the work of other contractors who may be on (or are on) any site of the work of this contract. Regulated area exempted.
- (E)Temporary toilet facilities must be provided by the Contractor on the site. Coordinate location of such facilities with the Engineer.

#### 79.11.1.13 PROTECTION AND DAMAGE

- (A) The Contractor is responsible to cover and protect all equipment that cannot be removed from work areas.
- (B) No materials or debris shall be thrown within the excavated area.
- (C) Debris shall be removed from the work site daily. Work area shall be left neat and clean after each work shift, so that work may proceed the next regular workday without interruption. Limited bag storage may take place within the work area when approved by the Engineer.

#### 79.11.1.14 RESPIRATORY PROTECTION REQUIREMENTS

- (A) Respiratory protection shall be worn by all individuals who may be exposed to asbestos fibers from the initiation of the asbestos project until all areas have successfully passed clearance air monitoring in accordance with regulations and these specifications.
- (B) The Contractor shall develop and implement a written respiratory protection program with required site-specific procedures and elements. The program shall be administered by a properly trained individual. The written respiratory protection program shall include the requirements set forth in OSHA Standard 29 CFR 1910.134, at a minimum.
- (C) The Contractor shall provide workers with individually issued and marked respiratory equipment. Respiratory equipment shall be suitable for the asbestos exposure level(s) in the work area(s), as specified in OSHA Standards 26 CFR 1910.134 and 29 CFR 1926.1101, NIOSH Standard 42 CFR 84, or as more stringently specified otherwise, herein.
- (D) Where respirators with disposable filter parts are employed, the Contractor will provide sufficient filter parts for replacement as necessary or as required by the applicable regulation.
- (E) All respiratory protection shall be NIOSH approved. All respiratory protection shall be provided by the Contractor, and used by workers in conjunction with the written respiratory protection program.
- (F) Contractor shall provide respirators selected by an Industrial Hygienist that meet the following requirements:

AIRBORNE CONCENTRATION OF ASBESTOS OR CONDITIONS OF USE	REQUIRED RESPIRATOR
Not in excess of 1-fibers per cubic centimeter (f/cc), ten (10) times Permissible Exposure Level (PEL)	Half-mask air purifying respirator, other than a disposable respirator, equipped with high efficiency filters.
Not in excess of 5-f/cc, 50 times PEL	Full face-piece air-purifying respirator equipped with high efficiency filters.
Not in excess of 100-f/cc, 1,000 times PEL	Powered air purifying respirator equipped with equipped with high efficiency filters or any supplied air respirator operated in continuous flow mode.
Not in excess of 100-f/cc, 1,000 times PEL	Full face-piece supplied air respirator operate in pressure demand mode.
Greater than 1,000-f/cc, 10,000 times PEL, or unknown concentration	Full face-piece supplied air respirator operate in pressure demand mode, equipped with an auxiliary positive pressure self-contained breathing apparatus.

- (G) Selection of high efficiency filters:
  - (1) All high efficiency filters shall have a nominal efficiency rating of 100 (99.97-percent effective) when tested against 0.3-micrometer monodisperse diethyl-hexyl phthalate (DOP) particles.

- (2) Choose N-, R-, or P- series filters based upon the presence or absence of oil particles.
  - (a) N- series filters shall only be used for non-oil solid and water based aerosols or fumes.
  - (b) R- and P -series filters shall be used when oil aerosols or fumes (i.e., lubricants, cutting fluids, glycerin, etc.) are present. The R- series filters are oil resistant and the P- series filters are oil proof.
  - (c) Follow filter manufacture recommendations.
- (3) If a vapor hazard exists, use an organic vapor cartridge in combination with the high efficiency filter.
- (H) Historical airborne fiber level data may serve as the basis for selection of the level of respiratory protection to be used for an abatement task. Historical data provided by the Contractor shall be based on personal air monitoring performed during work operations closely resembling the processes, type of material, control methods, work practices, and environmental conditions present at the site. Documentation of aforementioned results may be requested by the City and/or Testing Laboratory for review. This will not relieve the Contractor from providing personal air monitoring to determine the time-weighted average (TWA) for the work under contract. The TWA shall be determined in accordance with 29 CFR 1926.1101.
- At no time during actual removal operations shall half-mask air purifying respirators be allowed unless a full 8-hour TWA and excursion limit have been conducted, and reviewed by the Project Monitor. Use of single use dust respirators is prohibited for the above respiratory protection.
- (J) Workers shall be provided with personally issued and individually marked respirators. Respirators shall not be marked with any equipment that will alter the fit of the respirator in any way. Only waterproof identification markers shall be used.
- (K) The Contractor shall ensure that the workers are qualitatively or quantitatively fit tested by an Industrial Hygienist initially and every 12-months thereafter with the type of respirator the Contractor will be using.
- (L) Whenever the respirator design permits, workers shall perform the positive and negative air pressure fit test each time a respirator is worn. Powered air-purifying respirators shall be tested for adequate flow as specified by the manufacturer.
- (M) No facial hairs (beards) shall be permitted to be worn when wearing respiratory protection that requires a mask-to-face seal.
- (N) If a worker wears glasses, a spectacle kit to fit their respirator shall be provided by the Contractor at the Contractor's expense.
- (O) Respiratory protection maintenance and decontamination procedures shall meet the following requirements:
  - Respirators shall be inspected and decontaminated on a daily basis in accordance with OSHA 29 CFR 1910.134 (b); and,
  - (2) High efficiency filters for negative pressure respirators shall be changed after each shower; and,
  - (3) Respiratory protection shall be the last piece of worker protection equipment to be removed. Workers must wear respirators in the shower when going through decontamination procedures as stated in **Subsection 79.11.3.3**; and,
  - (4) Airline respirators with high efficiency filtered disconnect shall be disconnected in the equipment room and worn into the shower. Powered air-purifying respirator face pieces shall be worn into

the shower. Filtered/power pack assemblies shall be decontaminated in accordance with manufacturers recommendations; and,

- (5) Respirators shall be stored in a dry place and in such a manner that the face-piece and exhalation valves are not distorted; and,
- (6) Organic solvents shall not be used for washing of respirators.
- (P) Authorized visitors shall be provided with suitable respirators and instruction on the proper use of respirators whenever entering the work area. Qualitative fit test shall be done to ensure proper fit of respirator.

#### 79.11.1.15 PROTECTIVE CLOTHING

- (A) Provide worker protection as required by the most stringent OSHA and/or EPA standards applicable to the work. Provide to all workers, foremen, superintendents, authorized visitors and inspectors, protective disposable clothing consisting of full-body coveralls, head covers, gloves and 18-inch high boot type covers or reusable footwear.
- (B) In addition to personal protective equipment for workers, the Contractor shall make available at each worksite at least four (4) additional uniforms and required respiratory equipment each day for personnel who are authorized to inspect the work site. The Contractor shall also provide, for the duration of the work at any site involving a decontamination unit for worksite access, a lockable storage locker for use by the Engineer. In addition to respiratory masks for workers, the Contractor must have on hand at the beginning of each work day, at least four (4) masks each with two (2) sets of fresh filters, for use by personnel who are authorized to inspect the worksite. The Contractor shall check for proper fit of the respirators of all City personnel authorized to enter the work area.
- (C) Asbestos handlers involved in tent procedures shall wear two (2) disposable suits, including gloves, hood and footwear, and appropriate respiratory equipment. All street clothes shall be removed and stored in a clean room within the work site. The double layer personal protective equipment shall be used for installation of the tent and throughout the procedure, if a decontamination unit (with shower and clean room) is contiguous to the work area, only one (1) layer of disposable personal protective equipment shall be required; in this case, prior to exiting the tent the worker shall HEPA vacuum and wet clean the disposable suit.

The outer disposable suit (if two (2) suits are worn) shall be removed and remain in the tent upon exiting. Following the tent disposal and work site clean up the workers shall immediately proceed to a shower at the work site. The inner disposal unit and respirator shall be removed in the shower after appropriate wetting. The disposal clothing shall be disposed of as asbestos-containing waste material. The workers shall then fully and vigorously shower with supplied liquid bath soap, shampoo, and clean dry towels.

- (D) Coveralls: Provide disposable full-body coveralls and disposable head covers. Require that they be worn by all workers in the work area. Provide a sufficient number for all required changes for all workers in the work area.
- (E) Boots: Provide work boots with non-skid soles, and where required by OSHA, foot protection, for all workers. Provide boots at no cost to workers. Paint uppers of all boots yellow with waterproof enamel. Do not allow boots to be removed from the work area for any reason after being contaminated with ACM and/or dust.
- (F) Hard Hats: Provide hard hats as required by OSHA for all workers, and provide a minimum of four (4) spares for Inspectors, visitors, etc. Label all hats with same warning label as used on disposal bags. Require hard hats to be worn at all times that work is in progress that may cause potential head injury. Provide hard hats of the type with polyethylene strap suspension. Require hats to remain in the work area throughout the work. Thoroughly clean and decontaminate and bag hard hats prior to removing them from the work area at the end of the work.

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- (G) Goggles: Provide eye protection (goggles) as required by OSHA for all workers involved in any activity that may potentially cause eye injury. Require them to be worn at all times during these activities. Thoroughly clean and decontaminate goggles before removing them from the work area.
- (H) Gloves: Provide work gloves to all workers, of the type dictated by the work and OSHA Standards. Do not remove gloves from the work area. Dispose of as asbestos-contaminated waste at the end of the work. Gloves shall be worn at all times, except during work area preparation activities that do not disturb ACM.
- (I) Reusable footwear, hard hats and eye protection devices shall be left in the contaminated Equipment Room until the end of the asbestos abatement work.
- (J) Disposable protective clothing shall be discarded and disposed of as asbestos waste every time the wearer exits from the workspace to the outside through the decontamination facility.
- (K) Respirators, disposable coveralls, head covers and foot covers shall be provided by the Contractor for the Project Monitor, Engineer and any other authorized representative who may inspect the work area. Provide two (2) respirators and six (6) respirator filter changes per day.

#### 79.11.1.16 AIR MONITORING - CONTRACTOR

- (A) The Contractor shall employ a qualified Industrial Hygiene Laboratory to analyze air samples in accordance with OSHA Regulations, 1926.1101 (Asbestos Standards for Construction) and New York City regulations.
- (B) The Industrial Hygiene Laboratory shall be a current proficient participant in the American Industrial Hygiene Association (AIHA) PAT Program. The laboratory identification number shall be submitted and approved by the City. The laboratory shall be accredited by the AIHA and New York State Department of Health Environmental Laboratory Approval Program (ELAP).
- (C) The Industrial Hygiene Laboratory shall also be a current proficient participant in the NIST/NVLAP Quality Assurance Program for the identification of bulk samples. Laboratory identification number shall be submitted to and approved by the City.
- (D) The Contractor shall require a competent person (as defined in OSHA 1926.1101) to perform the following functions and to be on-site continuously for the duration of the project:
  - Monitor the set up of the work area enclosure and ensure its integrity.
  - (2) Control entry and exit into the work enclosure.
  - (3) Ensure that employees are adequately trained in the use of engineering controls, proper work practices, proper personal protective equipment and in decontamination procedures.
  - (4) Insure that employees use proper engineering controls, proper work practices, proper personal protective equipment and proper decontamination procedures.
  - (5) The competent person (as defined in OSHA1926.1101) shall check for rips and tears in work suits, and ensure that they are mended immediately or replaced.
- (E) Air monitoring responsibilities, shall be performed by a representative of the testing laboratory retained by the Contractor.
- (F) Contractor shall submit to the City all credentials of the designated (as defined in OSHA 1926.1101) and Industrial Hygiene Laboratory representative for approval.
- (G) Air monitoring and inspection shall be conducted by the Contractor's competent person (as defined in OSHA 1926.1101).

- (H) Continuous (daily or per shift) monitoring and inspection will include work area samples, personnel samples from the breathing zone of a worker to accurately determine the employees' 8-hour TWA (unless Type C respirators are used) and decontamination unit clean room samples.
- (I) Work area samples and employee personnel samples shall be taken using pumps whose flow rates can be determined to an accuracy of ±5-percent, at a minimum of two (2) liters per minute. This must be demonstrated at the job site.
- (J) Sampling and analysis methods shall be per NIOSH 7400A.
- (K) Test Reports:
  - (1) Promptly process and distribute one (1) copy of the test results, to the Commissioner.
  - (2) Prompt reports are necessary so that if required, modifications to work methods and/or practices may be implemented as soon as possible.
  - (3) Contractor shall by facsimile notify the Commissioner within 24-hours of the results of each test, followed by written notification within three (3) days.
- (L) The Contractor's competent person shall conduct inspections and provide written reports daily. Inspections will include checking the standard operating procedures, engineering control systems, respiratory protection and decontamination systems, packaging and disposal of asbestos waste, and any other aspects of the project which may affect the health and safety of the people and environment.
- (M) The City reserves the right to conduct air and surface dust sampling in conjunction with and separate from the Testing Laboratory for the purposes of Quality Assurance.
- (N) All samples shall be accompanied by a Chain of Custody Record that shall be submitted to the Project Monitor upon completion of analysis.

#### 79.11.1.17 TESTING LABORATORY

- (A) The City, at its own expense, will employ the services of an Independent Testing Laboratory. The Testing Laboratory will perform air sampling activities at the site and perform periodic observations of the work site.
- (B) The Laboratory will perform analysis of air samples utilizing phase contrast microscopy (PCM) and/or transmission electron microscopy (TEM). This laboratory shall meet the standards stated herein.
- (C) Observations will include, but not be limited to, checking the standard operating procedures, engineering control systems, respiratory protection, decontamination systems, packaging and disposal of asbestos waste, and any other aspects of the project that may affect the health and safety of the environment, Contractor, and/or facility occupants.
- (D) The Testing Laboratory shall have access to all areas of the asbestos removal project at all times and shall continuously inspect and monitor the performance of the Contractor to verify that said performance complies with this specification. The Testing Laboratory shall be on site throughout the entire abatement operation.
- (E) The City will be responsible for costs incurred with the required laboratory work. Any subsequent additional testing required due to limits exceeded during initial testing shall be paid for by the Contractor.
- (F) At a minimum, air sampling shall be conducted in accordance with the following schedule:

ABATEMENT ACTIVITY	PRE-ABATEMENT	DURING ABATEMENT	POST-ABATEMENT
Equal to or greater than 10,000- square feet or 10,000-linear feet of ACM	РСМ	PCM	ТЕМ
Less than 10,000-square feet or 10,000-linear feet of ACM	PCM	PCM	PCM
Exceptions to the above:			
Boiler Rooms	PCM	PCM	PCM
Tent and Glovebag Procedures	PCM	PCM	PCM
Demolitions	PCM	PCM	PCM

Note: TEM is acceptable wherever PCM is required.

- (G) Prior to commencement of abatement activities, the Testing Laboratory will collect a minimum number of area samples inside each homogeneous work area.
  - (1) Samples will be taken during normal activities and circumstances at the work site.
  - (2) Samplers shall be located within the proposed work area and at all proposed isolation barrier locations.
  - (3) Samples shall be analyzed using PCM.
  - (4) The number of samples to be collected will be determined by the size of the project.
- (H) Area air sampling during abatement shall be conducted as specified in the following documents except as restricted or modified herein:
  - (1) Measuring Airborne Asbestos Following An Abatement Action, US EPA document 600/4-85-049 (Nov., 1985);
  - (2) Guidance For Controlling Asbestos-Containing Materials In Buildings; US EPA Publication 560/5-85-024 (June, 1984);
  - (3) Methodology For The Measurement Of Airborne Asbestos By Electron Microscopy, US EPA Contract No. 68-02-3266;
  - (4) Mandatory And Nonmandatory Electron Microscopy Methods, set forth in 40 CFR Part 763, Subpart E, Appendix A;
  - (5) NIOSH 7400 method using "A" counting rules.
- (I) In accordance with the above criteria, area samples (see NYCDEP Asbestos Control Program Regulations) shall conform to the following schedule:

AREA SAMPLES FOR ANALYSIS BY	MINIMUM VOLUME	FLOW RATE
PCM, 25-mm cassettes	560-liters	5 to 15-liters/minute
TEM, 25-mm cassettes	560-liters	1 to 10-liters/minute
TEM, 37-mm cassettes	1,250-liters	1 to 10-liters/minute

- (1) All costs resulting from additional air tests and observations shall be borne by the Contractor. These costs may include, but are not limited to, labor, analysis fees, materials, and expenses.
- (2) After the area has been found to be in compliance, the Contractor may remove Isolation Barriers, tents if any and perform final cleaning as specified.

- (J) Clearance And Excavation Re-entry Criteria:
  - (1) The clearance criteria shall be applied to each excavated work area independently.
  - (2) For PCM analysis, the clearance air monitoring shall be considered satisfactory when all of the samples regardless of the size of the project are less than or equal to 0.01-f/cc or the background concentrations, whichever is greater.
  - (3) For TEM analysis, the clearance air monitoring shall be considered satisfactory when the requirements stated in 40 CFR Part 763, Subpart E, Appendix A, Section IV are met.
  - (4) As soon as the air monitoring tests are completed, the Testing Laboratory will send the results of such tests to the City and notify the Contractor.
  - (5) The Contractor shall cooperate fully with all aspects of air monitoring operations.

#### 79.11.1.18 TAMPERING WITH TEST EQUIPMENT

All parties to this contract are hereby notified that any tampering with testing equipment will be considered an attempt at falsifying reports and records to federal and state agencies and each offense will be prosecuted under applicable state and federal criminal codes to the fullest extent possible.

#### 79.11.2 PRODUCTS

#### 79.11.2.1 MATERIALS

- (A) Wetting Agents: Surfactant shall consist of resin materials in a water base, that have been tested to ensure materials are nontoxic and nonhazardous. Surfactants shall be installed according to the manufacturer's written instructions.
- (B) Encapsulants (Sealants, Lockdown Encapsulants): Encapsulants shall consist of pigmented (nontransparent) liquid material which can be applied to asbestos containing materials or bare surfaces exposed after an abatement which temporarily controls the possible release of asbestos fibers from the material or surface either by creating a membrane over the surface (bridging encapsulant) or by penetrating into the material and binding its components together (penetrating encapsulant). The encapsulant shall be installed according to the manufacturer's written instructions. Sealing materials to be applied to structural members and decking assemblies scheduled to receive spray-applied fireproofing shall be approved by UL for use with the specified material.
- (C) Fire Retardant Polyethylene Sheeting: Minimum uniform thickness of 6-mil. Provide largest size possible to minimize seams.
- (D) Fire Retardant Reinforced Polyethylene Sheeting: For covering floor of decontamination units, provide translucent, nylon reinforced or woven polyethylene laminated, fire retardant polyethylene sheeting. Provide largest size possible to minimize seams, minimum uniform thickness 6-mil.
- (E) Drums: Asbestos-transporting drums, sealable and clearly marked with warning labels as required by OSHA and EPA.
- (F) Polyethylene Disposal Bags: Asbestos disposal bags, minimum of 6-mil thick. Bags shall be clearly marked with warning labels as required by OSHA and EPA.
- (G) Signs: Asbestos warning signs for posting at perimeter of work area, as required by OSHA and EPA.
- (H) Waste Container Bag Liners And Flexible Trailer Trays: One piece leak-resistant flexible tray with absorbent pad.

- (I) Tape: Provide tape which is of high quality with an adhesive that is formulated to aggressively stick to sheet polyethylene.
- (J) Spray Adhesive: Provide spray adhesive in aerosol cans which is specifically formulated to stick tenaciously to sheet polyethylene.
- (K) Flexible Duct: Spiral reinforced flex duct for air filtration devices.
- (L) Protective Clothing: Workers shall be provided with sufficient sets of properly fitting, full-body, disposable coveralls, head covers, gloves, and 18-inch high boot-type foot covers. Protective clothing shall conform to OSHA Standard 29 CFR 1926.1101.

#### 79.11.2.2 TOOLS AND EQUIPMENT

- (A) Air Filtration Device (AFD): AFDs shall be equipped with High Efficiency Particulate Air (HEPA) filtration systems and shall be approved by and listed with Underwriter's Laboratory.
- (B) Transportation Equipment: Transportation Equipment, as required, shall be suitable for loading, temporary storage, transit and unloading of contaminated waste without exposure to persons or property. Any temporary storage containers positioned outside the excavated work area for temporary storage shall be metal, closed and locked.
- (C) Vacuum Equipment: All vacuum equipment utilized in the work area shall utilize HEPA filtration systems.
- (D) Vacuum Attachments: Soft Brush Attachment, Asbestos Scraper Tool, Drill Dust Control Kit.
- (E) Electric Sprayer: An electric airless sprayer suitable for application of encapsulating material and shall be approved by and listed with Underwriters Laboratory.
- (F) Water Sprayer: The water sprayer shall be an airless or other low-pressure sprayer for amended water application.
- (G) Water Atomizer: Powered air-misting device equipped with a ground fault interrupter and equipped to operate continuously.
- (H) Brushes: All brushes shall have nylon bristles. Wire brushes are excluded from use due to their potential to shred asbestos fibers into small, fine fibers. Wire brushes may be used for cleaning duct joints within glove-bags upon written approval of the Engineer.
- (I) Hand Power Tools: Shall be equipped with HEPA-filtered local exhaust ventilation if used to drill, cut into or otherwise disturb ACM.
- (J) Other Tools And Equipment: The Contractor shall provide other suitable tools for the stripping, removal, encapsulation, and disposal activities including but not limited to: hand-held scrapers, sponges, rounded-edge shovels, brooms, and carts.
- (K) Fans And Leaf Blower: Provide Leaf Blower (one leaf blower per floor) and one 20-inch diameter fans for each 10,000-cubic feet of work area volume to be used for aggressive sampling technique for clearance air testing.
- (L) Fire Extinguishers: Provide type "A" fire extinguishers in spaces where there is minimal danger of electrical or grease-oil-flammable liquid fires. In other areas, provide type "ABC" dry chemical extinguishers of NFPA recommended types for the exposure in each case. All fire extinguishers shall comply with the applicable recommendations of NFPA Standard 10, "Standard For Portable Extinguishers." Provide a minimum of four (4) fire extinguishers in each work area; one in the equipment room of the decontamination unit, one outside the work area in the clean room or directly

outside same, and two fire extinguishers where they are most effective for their intended purpose. Do not exceed seventy-five (75) feet between fire extinguishers within the work area.

- (M) First Aid Kits: The Contractor shall maintain adequately stocked first aid kits in the clean rooms of the decontamination units and within work areas. The first aid kit shall be approved by a licensed physician for the work to be performed under this contract.
- (N) Water Service:

Water Heater: Provide UL rated 40-gallon electric water heaters to supply hot water for Personal Decontamination Enclosure System Shower. Wiring of the water heater shall comply with NEMA, NECA, and UL standards.

(O) Telephone Paging Device:

The Contractor or the Contractor's authorized representative shall, at all times during the normal workday or during periods of overtime work under this contract, carry a digital telephone paging device ("Beeper") and cellular telephones which can be activated by a telephone number in the 212 or 646 or 718 or 917 area code. The Contractor shall supply the Department of Design and Construction with the activation number for the device and the Contractor is liable to respond back to the calls from DDC within the next one (1) hour period after the Contractor receives calls from DDC. The cost for this device and all charges accruing shall be deemed included in all scheduled items of work.

#### 79.11.2.3 CLEANING

- (A) Throughout the construction period, the Contractor shall maintain the work area as described in this section.
  - (1) The Contractor shall prevent excavated areas other than the work area from becoming contaminated with asbestos-containing dust or debris. Should areas outside the work area become contaminated with asbestos-containing dust or debris as a consequence of the Contractor's work practices, the Contractor shall be responsible for cleaning these areas in accordance with the procedures appended in Title 15, Chapter 1 of RCNY and NYSDOL ICR56.
  - (2) The Contractor shall provide to all personnel and laborers the required equipment and materials needed to maintain the specified standard of cleanliness.
- (B) General:
  - (1) Waste water from asbestos removal operations, including shower water, may be discharged into the public sewer system only after filtration by an approved device capable of at least 5-micron particle size collection to remove asbestos fibers.
  - (2) Asbestos wastes shall be double bagged in six (6) mil (0.006") polyethylene bags approved for ACM disposal and shall be properly labeled and handled before disposal.
  - (3) The Contractor shall use corrugated cartons or drums for disposal of asbestos-containing waste having sharp edged components (e.g. nails, screws, metal lathe and tin sheeting) that may tear polyethylene bags and sheeting. The waste within the drums or cartons must be double bagged.
  - (4) The Contractor shall transport all bags of waste to disposal site in thirty (30) gallon capacity metal or fiber drums with tight lids, or in locked steel dumpster.
  - (5) Dumping of debris, waste or bagged waste will not be permitted.
  - (6) Cleanup of visible accumulations of loose ACM shall occur whenever there is a sufficient amount to fill a single asbestos bag.
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- (7) ACM shall be collected utilizing rubber dust pans and rubber squeegees.
- (8) HEPA vacuums shall not be used on wet materials unless specifically designed for that purpose.
- (9) Metal shovels shall not be used within the work area.
- (10) Accumulations of dust shall be cleaned off all surfaces of the work area daily.
- (11) Mastic solvent when used will be applied in moderation (e.g. by airless sprayer).
- (12) The Contractor shall retain all items in the storage area in an orderly arrangement allowing maximum access, not impeding traffic, and providing the required protection of all materials.
- (13) The Contractor shall not allow accumulation of scrap, debris, waste material, and other items not required for use in this work. Asbestos contaminated waste must not be kept on the work site overnight.
- (14) At least twice a week (more if necessary), the Contractor shall completely remove all scrap, debris and waste material from the job site.
- (15) The Contractor shall provide adequate storage space for all items awaiting removal from the job site, observing all requirements for fire protection and concerns for the environment.
- (16) All respiratory protection equipment shall be selected from the latest NIOSH Certified Equipment list.
- (17) Daily and more often, if necessary, the Contractor shall inspect the work areas and adjoining spaces, and pick up all scrap, debris, and waste material. All such items shall be removed to the place designated for their storage.
- (18) Weekly, and more often, if necessary, the Contractor shall inspect all arrangements of materials stored on the site; re-stack and tidy them or otherwise service them to meet the requirements of these specifications.
- (19) The Contractor shall maintain the site in a neat and orderly condition at all times.

#### 79.11.3 EXECUTION

#### 79.11.3.1 WORKER DECONTAMINATION FACILITY

(A) Large Asbestos Projects (Small Project Option):

Provide a worker decontamination facility in accordance with, Title 15, Chapter 1, OSHA Standard 29 CFR 1926.1101, 12NYCRR Part 56 and as specified herein. Worker decontamination shall be in accordance of the NYCDEP approved procedure for removing asbestos containing duct Insulation.

- (a) Structure:
  - (1) Use modular systems or build using wood or metal frame studs, joists, and rafters placed at a maximum of 16-inches on-center.
  - (2) When worker decontamination unit is located outdoors, in areas with public access, or in correctional facilities, frame work shall be lined with minimum 3/8" thickness plywood sheathing. Sheathing shall be caulked or taped airtight at all joints and seams.
  - (3) Interior shall be covered with two (2) layers of opaque 6-mil polyethylene sheeting, with a minimum overlap of 12-inches at seams. Seal seams airtight using tape and adhesive.

The interior floor shall be covered with two (2) layers of reinforced fire-retardant polyethylene sheeting with a minimum overlap on the walls of twelve (12) inches.

- (4) Entrances to the decontamination unit shall be secured with lockable hinged doors. Doors shall be open at all times when abatement operations are in progress. Doors shall be louvered to allow for air movement through the decontamination units into work area.
- (b) Curtained Doorways: A device to allow ingress or egress from one room to another while permitting minimal air movement between the rooms.
- (c) Air Locks: Air locks shall consist of two curtained doorways placed a minimum of three (3) feet apart.
- (d) Decontamination Enclosure System shall be placed adjacent to the work area and shall consist of three (3) totally enclosed chambers, separated from work area and each other by airlocks, as follows:
  - (1) Equipment Room: The equipment room shall have a curtain doorway to separate it from the work area, and share a common airlock with the shower room. The equipment room shall be large enough to accommodate at least one (1) worker (allowing them enough room to remove their protective clothing and footwear), and a 6-mil disposal bag for collection of discarded clothing and equipment. The equipment room shall be utilized for the storage of equipment and tools after decontamination using a HEPA-vacuum and/or wet cleaning. A one-day supply of replacement filters, in sealed containers, for HEPAvacuums and negative air machines, extra tools, containers of surfactant, and other materials and equipment required for the project shall be stored here. A walk-off pan filled with water shall be placed in the work area just outside the equipment room for persons to clean foot coverings when leaving the work area. Contaminated footwear and reusable work clothing shall be stored in this room.
  - (2) Shower Room: The shower room shall have two (2) airlocks (one that separates it from the equipment room and one that separates it from the clean room). The shower room shall contain at least one (1) shower, with hot and cold water adjustable at the tap, per eight (8) workers. Careful attention shall be given to the shower to ensure against leaking of any kind. Contractor shall supply towels, shampoo and liquid soap in the shower room at all times. Shower water shall be drained collected, and filtered through a system with at least a 5-micron particle size collection capacity. A system containing a series of several filters with progressively smaller pore sizes shall be used to avoid rapid clogging of the filters by large particles. Filtered water shall be discharged in accordance with applicable codes. Contaminated filters shall be disposed of as asbestos waste.
  - (3) Clean Room: The clean room shall share a common airlock with the shower room and shall have a curtained doorway to separate it from outside noncontaminated areas. Lockers, for storage of workers' street clothing, and shelves, for storing respirators, shall be provided in this area. Clean disposable clothing, replacement filters for respirators, and clean dry towels shall be provided in the clean room. The clean room shall not be used for the storage of tool, equipment or other materials.

#### (B) Small Asbestos Projects:

Provide a worker decontamination facility in accordance with, Title 15, Chapter 1, OSHA Standard 29 CFR 1926.1101, 12NYCRR Part 56 and as specified herein. Unless approved by NYCDEP and the City, worker decontamination facilities shall be attached to the work areas.

- (a) Structure:
  - (1) Use modular systems or build using wood or metal frame studs, joists, and rafters placed at a maximum of 16-inches on-center.

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- (2) When worker decontamination unit is located outdoors, in areas with public access, or in correctional facilities, frame work shall be lined with minimum 3/8" thickness plywood sheathing. Sheathing shall be caulked or taped airtight at all joints and seams.
- (3) Interior shall be covered with two (2) layers of opaque 6-mil polyethylene sheeting, with a minimum overlap of 12-inches at seams. Seal seams airtight using tape and adhesive. The interior floor shall be covered with two (2) layers of reinforced fire-retardant polyethylene sheeting with a minimum overlap on the walls of twelve (12) inches.
- (4) Entrances to the decontamination unit shall be secured with lockable hinged doors. Doors shall be open at all times when abatement operations are in progress. Doors shall be louvered to allow for air movement through the decontamination units into work area.
- (b) Curtained Doorways: A device to allow ingress or egress from one room to another while permitting minimal air movement between the rooms.
- (c) Air Locks: Air locks shall consist of two (2) curtained doorways placed a minimum of three (3) feet apart.
- (d) Decontamination Enclosure System shall be placed adjacent to the work area and shall consist of three (3) totally enclosed chambers, separated from work area and each other by airlocks, as follows:
  - (1) Shower Room: The shower room shall have two (2) airlocks (one that separates it from the work area and one that separates it from the clean room). The shower room shall contain at least one (1) shower, with hot and cold water adjustable at the tap, per eight (8) workers. Careful attention shall be given to the shower to ensure against leaking of any kind. The Contractor shall supply towels, shampoo and soap in the shower room at all times. Shower water shall be drained collected, and filtered through a system with at least a 5-micron particle size collection capacity. A system containing a series of several filters with progressively smaller pore sizes shall be used to avoid rapid clogging of the filters by large particles. Filtered water shall be discharged in accordance with applicable codes. Contaminated filters shall be disposed of as asbestos waste.
  - (2) Clean Room: The clean room shall share a common airlock with the shower room and shall have a curtained doorway to separate it from outside noncontaminated areas. Lockers, for storage of workers' street clothing, and shelves, for storing respirators, shall be provided in this area. Clean disposable clothing, replacement filters for respirators, and clean dry towels shall be provided in the clean room. The clean room shall not be used for the storage of tools, equipment or other materials.
- (C) Decontamination Enclosure System Utilities: Lighting, heat, and electricity shall be provided as necessary by the Contractor, and as specified herein.

#### 79.11.3.2 WASTE DECONTAMINATION FACILITY

(A) Large Asbestos Project (Small Project Option):

Provide a worker decontamination facility in accordance with, Title 15, Chapter 1, OSHA Standard 29 CFR 1926.1101, 12NYCRR Part 56 and as specified herein. Unless approved by NYCDEP and the City, worker decontamination facilities shall be attached to the work areas.

- (a) Structure:
  - (1) Use modular systems or build using wood or metal frame studs, joists, and rafters placed at a maximum of 16-inches on-center.

- (2) When worker decontamination unit is located outdoors, in areas with public access, or in correctional facilities, frame work shall be lined with minimum 3/8" thickness plywood sheathing. Sheathing shall be caulked or taped airtight at all joints and seams.
- (3) Interior walls shall be covered with two (2) layers of opaque 6-mil polyethylene sheeting, with a minimum overlap of 12-inches at seams. Seal seams airtight using tape and adhesive. The interior floor shall be covered with two (2) layers of reinforced fire-retardant polyethylene sheeting with a minimum overlap on the walls of twelve (12) inches.
- (4) Entrances to the decontamination unit shall be secured with lockable hinged doors. Doors shall be open at all times when abatement operations are in progress. Doors shall be louvered to allow for air movement through the decontamination units into the work area.
- (b) Curtained Doorways: A device to allow ingress or egress from one room to another while permitting minimal air movement between the rooms.
- (c) Air Locks: Air locks shall consist of two (2) curtained doorways placed a minimum of three (3) feet apart.
- (d) Decontamination Enclosure System shall be placed adjacent to the work area and shall consist of three (3) totally enclosed chambers, separated from the work area and each other by airlocks, as follows:
  - (1) Washroom: An equipment washroom shall have two (2) air locks (one separating the unit from the work area and one common air lock that separates it from the holding area. The washroom shall have facilities for washing material containers and equipment. Gross removal of dust and debris from contaminated material containers and equipment shall be accomplished in the work area, prior to moving to the washroom.
  - (2) Holding Area: A holding area shall share a common air lock with the equipment washroom and shall have a curtained doorway to outside areas. A hinged, lockable door shall be placed at the holding area entrance to prevent unauthorized access into the work area.
- (B) Decontamination Enclosure System Utilities: Lighting, heat, and electricity shall be provided as necessary by the Contractor, and as specified herein.

# 79.11.3.3 PERSONNEL ENTRANCE AND DECONTAMINATION PROCEDURES FOR REMOVAL OPERATIONS UTILIZING REMOTE DECONTAMINATION FACILITIES

- (A) All individuals who enter the work area shall sign the entry log, located in the clean room, upon each entry and exit. The log shall be permanently bound and shall fully identify the facility, agents, contractor(s), the project, each work area, and worker respiratory protection employed. The job supervisor shall be responsible for the maintenance of the log during the abatement activity.
- (B) Each worker shall remove street clothes in the clean room; wear two (2) disposable suits, including gloves, hoods and non-skid footwear; and put on a clean respirator (with new filters) before entering the work area.
- (C) Each worker shall, before leaving the work area or tent, clean the outside of the respirators and outer layer of protective clothing by wet cleaning and/or HEPA-vacuuming. The outer disposable suit shall be removed in the airlock prior to proceeding to the Worker Decontamination Unit. The inner disposable suit and respirator shall be wet wiped and HEPA-vacuumed thoroughly before removing and prior to aggressive shower.

(D) Following showering and drying off, each worker or authorized visitor shall proceed directly to the clean room, dress in street clothes, and exit the decontamination enclosure system immediately.

#### 79.11.4 PREPARATION OF WORK AREA AND REMOVAL PROCEDURES

#### 79.11.4.1 REMOVAL OF ASBESTOS-CONTAINING MATERIAL

(A) Contractor shall be responsible for the proper removal of ACM from the work area using standard industry techniques. The Testing Laboratory representative shall observe the work.

**General Requirements:** 

- (a) Removal of ACM shall be performed using wet methods. Dry removal of ACM is prohibited.
- (b) Spray ACM with amended water with sufficient frequency and quantity to enhance penetration. Sufficient time shall be allowed for amended water to penetrate the material to the substrate prior to removal. All ACM shall be thoroughly wetted while work is being conducted.
- (c) Accumulation of standing water on the floor of the work area is prohibited.
- (d) Apply removal encapsulants, when used, in accordance with the manufacturer's recommendations and guidelines.
- (e) Containerize ACM immediately upon detachment from the substrate.
- (f) Pre-Removal Inspections:
  - (1) Prior to removal of any ACM, the Contractor shall notify the Testing Laboratory and request a pre-removal inspection. Posting of warning signs, building of decontamination enclosure systems, and all other preparatory steps have been taken prior to notification of the Testing Laboratory.
  - (2) Contractor shall correct any deficiencies observed by Testing Laboratory at no additional cost to City.
  - (3) Following the Testing Laboratory's approval of the work area preparations, removal of ACM may commence.

(B) Removal of Duct Insulation shall be as follows:

Work shall be performed as outlined in the Duct Insulation removal procedures (see Appendix) approved by the New York City Department of Environmental Protection (NYCDEP).

### 79.11.4.2 MAINTENANCE OF CONTAINED WORK AREA AND DECONTAMINATION ENCLOSURE SYSTEMS

- (A) Ensure that barriers are installed in a manner appropriate to the expected weather conditions during the project and for its duration. Repair damaged barriers and remedy defects immediately upon their discovery. Visually inspect barriers at the beginning and end of each work period.
- (B) Visually inspect nonwork areas and the decontamination enclosure system for water leakage. Perform the visual inspection a minimum of two (2) times for each 8-hour work shift.

#### 79.11.5 ASBESTOS WASTE MANAGEMENT

#### 79.11.5.1 ACM WASTE REQUIREMENTS

- (A) The Contractor and all subcontractors are specifically alerted to the illegal practice of combining asbestos-containing waste (ACW) from one project with the ACW of other projects without using the services of a permitted waste transfer station as defined by 6 NYCRR Part 360 and 364. As part of the shop drawing submittals, the Contractor must submit for approval the proposed method of transportation and disposal that will be utilized to manage the ACW of this contract. If a permitted transfer station is to be used, payment for the cost shall be made under the item labeled "ALLOWANCE FOR ASBESTOS ABATEMENT WORK PERFORMED ON EXISTING TRANSIT AUTHORITY DUCT INSULATION (REMOVAL OF ACM, REPLACEMENT WITH NON-ACM, AND SUPPORT AND PROTECTION OF EXISTING TRANSIT AUTHORITY DUCT, COMPLETE)". The Contractor must submit a waste manifest consistent with whatever approved method is utilized as part of the invoicing and payment procedures.
- (B) The Contractor shall maintain compliance with the strictest set of regulations of Title 15, Chapter 1 of RCNY, NYC LL 70/85, NYS DOL ICR 56, USEPA, Asbestos Regulation 40 CFR Section 61.152, 29 CFR 1926.1101, 29 CFR 1910.1200 (F) of OSHA's Hazard Communication Standards, and other applicable standards.

<u>NOTE:</u> Any penalties incurred for failure to comply with any of the above regulations and/or fines imposed due to negligence of the Contractor will be the sole responsibility of the Contractor.

When presenting ACW for storage at the generation site, the Contractor shall:

- (1) Wet down ACW in a manner sufficient to prevent all visible emissions of dust into the air.
- (2) Seal material in a leak tight container while wet.
- (3) Keep ACW separate from any other waste.

(C) When presenting ACW for storage away from the site of generation, the Contractor shall:

- (1) Ensure that ACW has been properly packaged as per requirements above.
- (2) Examine the containers of ACW to ensure that there are no breaks in the containers and that no visible dust is being released into the air.
- (3) If examination reveals damage to a container of ACW the Contractor or person accepting the waste shall immediately wet down the ACW and repackage it into a clean leak tight container. The subsequent repackaging shall be the financial responsibility of the Contractor and occur at no cost to the City.
- (4) Keep ACW separate from any other waste.
- (D) When storing ACW The Contractor shall:
  - (1) Ensure that the ACW has been sufficiently wetted down in tight containers.
  - (2) Rewet and repackage any damaged containers.
  - (3) Maintain at storage site an adequate supply of spare leak tight containers.
  - (4) Maintain at storage site an adequate supply of amended water.
  - (5) Keep ACW separate from any other waste.
  - (6) Keep ACW in a secured, enclosed, and locked container.
  - (7) If the Contractor has intention of sorting a quantity of ACW greater than or equal to 50-cubic yards, the Contractor shall:

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Submit a written request and receive written approval from the City.

(E) When presenting for transport, the Contractor shall:

- (1) Ensure that ACW has been sufficiently wetted down.
- (2) Examine the integrity of the container's airtight seal.
- (3) Rewet and repackage any damaged containers.
- (4) Keep ACW separate from all other waste.
- (5) Ensure that a person transporting asbestos waste holds a valid permit issued pursuant to law.
- (6) Frequency of waste removal:

Properly packaged and labeled asbestos waste shall be removed from the site on a daily basis. Under no circumstance shall asbestos waste be stored on site without written approval from the City. The Waste Hauler and landfill shall be as indicated on the notifications to regulatory agencies.

- (F) Waste Load-Out Through Equipment Decontamination Enclosure (Full Decontamination Facility): Place asbestos waste in disposal bags. Large items not able to fit into disposal bags shall be insulationped in one (1) layer of 6-mil thick polyethylene sheeting. Clean outer covering of asbestos waste package by wet cleaning and/or HEPA-vacuuming in a designated part of the work area. Move insulationped asbestos waste to the equipment washroom, wet clean each bag or object and place it inside a second disposal bag, or a second layer of 6-mil polyethylene sheeting, as the item's physical characteristics demand. Air volume shall be minimized, and the bags or sheeting shall be sealed airtight with tape.
  - (1) The clean containerized items shall be moved to the equipment decontamination enclosure holding area pending load-out to storage or disposal facilities.
  - (2) Workers who have entered the equipment decontamination enclosure system from the uncontaminated nonwork area shall perform load-out of containers from the decontamination enclosure holding area. Dress workers moving asbestos waste to storage or disposal facilities in clean overalls of a color different than from that of coveralls used in the work area. Ensure that workers do not enter from uncontaminated areas into the equipment washroom or the work area. Ensure that contaminated workers do not exit the work area through the equipment decontamination enclosure system.
  - (3) Thoroughly clean the equipment decontamination enclosure system immediately upon completion of the waste load-out activities, and at the completion of each work shift.
  - (4) Labeled ACM waste containers or bags shall not be used for non-ACM debris or trash. Any materials placed in labeled containers or bags, including those turned "inside-out", shall be handled and disposed of as ACM waste.
- (G) All asbestos materials, wastes, shower water, polyethylene, disposable equipment and supplies shall be disposed of as contaminated waste, in accordance with the EPA regulation (40 CFR, Section 61.150) and those requirements of the New York Department of Environmental Conservation and New York City Department of Sanitation.
- (H) All asbestos materials shall be prepared for transportation in accordance with this specification and all applicable Federal, State, County and City Regulations. The Contractor shall submit the following documentation:

- (1) Where applicable, an EPA Generator's identification number which has been obtained from the EPA for all asbestos waste generated from the project.
- (2) Applicable State Waste Hauler license and registration numbers.
- (3) Federal Hazardous Materials Waste Hauler number.
- (4) Designated landfill EPA Permit numbers.
- (I) Prior to loading asbestos waste the enclosed cargo areas (dumpster) shall be prepared as follows:
  - (1) Clean via HEPA-vacuum and wet wipe techniques the enclosed cargo areas of all visible debris prior to preparing with polyethylene.
  - (2) Line the cargo area with two (2) layers of 6-mil polyethylene sheeting to prevent contamination from damaged or leaking containers. Floor sheeting shall be installed first and extend up the walls a minimum of 24-inches. Wall sheeting shall be overlapped and taped securely into place.
- (J) Asbestos-containing waste shall be placed on level surfaces in the cargo area of the dumpster and shall be packed tightly to prevent any shifting or tipping of the waste during transportation.
- (K) Asbestos-containing waste shall not be thrown into or dropped from the dumpster. All material shall be handled carefully to prevent rupture of the containers.
- (L) All personnel engaged in handling and loading of contaminated waste outside of the work area shall wear protective clothing. The disposable clothing shall include head, body and foot protection and color of clothing shall be different from abatement personnel in the work area. Minimum respiratory protection shall be half face, dual cartridge, air purifying respirators with HEPA-filters.
- (M) The Contractor shall immediately clean debris or residue observed on containers or surfaces outside of the work area. Cleaning shall be via HEPA equipped wet/dry vacuums only.
- (N) All asbestos-containing waste shall be transported from the abatement site to the landfill by a registered Waste Hauler. When transporting ACW:
  - (1) Ensure that the ACW has been sufficiently wetted down in a leak tight container.
  - (2) Rewet and repackage any damaged containers.
  - (3) Maintain at storage site an adequate supply of spare leak tight containers.
  - (4) Maintain at storage site an adequate supply of amended water.
  - (5) Keep ACW separate from any other waste.
- (O) Keep ACW in a secured, enclosed, and locked container.
- (P) Waste transport documents shall conform to the requirements of the U.S. Department of Transportation, Hazardous Materials Transportation Regulation, 49 CFR Part 173 and EPA 40 CFR 61.150 (d)(1)(2). Shipping documents shall be clearly marked with the required designation "RQ Asbestos". The Contractor shall provide a copy of this document to the City.
- (Q) A uniform hazardous waste manifest shall be prepared by the Contractor and signed by the Contractor each time the Contractor ships a dumpster load of Asbestos-Containing Waste Material. The uniform hazardous waste manifest shall include the site of waste generation, the names and addresses of the Transporter, the Contractor, and the landfill operator with information on the type and number of asbestos-waste containers, time and date. The Contractor shall provide the Engineer,

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Testing Laboratory or authorized designated representative with signed copies of the waste manifest before each departure.

- (R) The Contractor or the Contractor's registered hazardous Waste Hauler shall transport asbestoscontaining waste material from the abatement site directly to the specified disposal site. The Contractor or Waste Hauler shall not accept material from any other site when transporting asbestoscontaining waste material from the abatement site. The authorized DDC representative or Engineer reserves the right to travel with Contractor's Waste Hauler to the waste disposal site. No intermediate storage of waste material (i.e. Contractors warehouse) shall be permitted.
- (S) Final or progress application for payments will not be processed unless all hazardous waste manifests generated to date have been received and reviewed by the Engineer.
- (T) All asbestos materials, wastes, shower water, polyethylene disposable equipment and supplies shall be disposed of as contaminated waste, in accordance with the EPA regulation (40 CFR, Section 61.150) and those requirements of the New York State Department of Environmental Conservation and the New York Department of Sanitation.
- (U) The Contractor shall transport all sealed drums to a landfill disposal site approved by the Department of Environmental Conservation and the EPA. Transportation shall be performed by a New York State registered Waste Hauler, where required. When presenting the ACW for disposal the Contractor or subcontractor shall:
  - (1) Ensure that waste container is properly labeled according to the National Emission Standard for Hazardous Air Pollutants (NESHAP); Asbestos Revision, 40 CFR, Part 61, Subpart M. The labels shall include the name of the waste generator and the location where the waste was generated.
  - (2) Comply with all applicable orders issued pursuant to asbestos disposal.
  - (3) Ensure that ACW has been sufficiently wetted down.
  - (4) Rewet and repackage any damaged containers.
  - (5) Keep ACW separate from all other wastes.
- (V) The Contractor shall notify the waste disposal site, at least 24-hours prior to transportation of contaminated waste to be delivered. The Contractor shall determine if a larger notification period is required.
- (W) At the site, the Contractor or Waste Hauler trucks shall approach the dump location as close as possible for unloading asbestos waste. Containers shall be carefully placed in the ground. Do not throw containers from truck.
- (X) The Contractor or Waste Hauler shall inspect containers as they are unloaded at the disposal site. Material in damaged containers shall be repacked in empty containers, as necessary.
- (Y) The Contractor or Waste Hauler shall not remove asbestos-containing waste material from drums unless required to do so by the disposal site City. Used drums shall be disposed of as asbestoscontaminated waste.
- (Z) All personnel engaged in unloading of the containers at the waste site shall wear protective clothing. The disposable clothing shall include head, body and foot protection. Minimum respiratory protection shall be half face, dual cartridge, air purifying respirators with HEPA-filters. Workers shall remove their protective clothing at the disposal site, place it in labeled disposal bags and leave them with the deposited waste shipment.

- (AA) For the compaction operation, the Contractor shall ensure that disposal sites personnel have been provided with personal protective equipment by the disposal operator. If the disposal site City has not provided this protective equipment, the Contractor shall supply protective clothing and respiratory protection for the duration of this operation (PAPR respirators are mandatory).
- (BB) If containers are broken or damaged, the Contractor or Waste Hauler shall, using personnel who are properly trained and wearing proper protective equipment, shall repackage the waste in properly labeled containers. The Contractor shall then clean the entire truck and its contents using HEPA-vacuums and wet cleaning techniques until no visible residue is observed.
- (CC) Following the removal of all containerized waste, the Contractor shall decontaminate the truck cargo area using HEPA-vacuums and/or wet cleaning techniques until no residue is observed. All 6-mil polyethylene sheeting shall be removed and discarded as asbestos-containing waste material along with contaminated cleaning material and protective clothing, in containers at the disposal site.
- (DD) The transporter(s) of all asbestos waste shall not back-haul any items on returning from landfill/disposal site.
- (EE) All asbestos waste shall be disposed of in an approved Asbestos Landfill site only.
  - (1) NO PERSON UNDER ANY CIRCUMSTANCES SHALL ABANDON A.C.W. The same shall be disposed of only by certified persons in approved landfills.
  - (2) A manifest form will be signed by the Landfill documenting receipt and acceptance of the asbestos-containing waste. This manifest will be furnished to the City of New York.
  - (3) It is the responsibility of the Asbestos Contractor to determine current waste handling, transportation and disposal regulations for the work site and for each waste disposal landfill. The Asbestos Contractor must comply fully with these regulations and all appropriate U.S. Department of Transportation, EPA and other Federal, State and Local entities' regulations and all other current legal requirements.
  - (4) The Asbestos Contractor shall obtain an agreement from the transporter(s) that the practice of "Back-Hauling" will not be engaged in, with respect to any and all waste loads taken from this site during the work.
  - (5) The Asbestos Contractor will document actual disposal of the waste at the designated landfill by having completed a Disposal Certificate and will provide a copy of the same to the Department of Design and Construction.

#### 79.11.6 ACCEPTANCE

#### 79.11.6.1 ACCEPTANCE

- (A) Upon satisfactory completion of all decontamination procedures, a certificate will be issued by the Engineer with copies to all parties.
- (B) A Letter Of Compliance stating that all the work on the project was performed in accordance with the specifications and all applicable Federal, State and Local regulations.
- (C) All warranties as stated in the specifications.

#### 79.11.7 MEASUREMENT AND PAYMENT

All costs associated with the work required by this specification for the removal and disposal of ACM and asbestos-contaminated duct insulation from existing Transit Authority duct that are exposed, the replacement of the removed ACM insulation with a Transit Authority approved non-asbestos containing



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materials insulation, and the support and protection of the existing Transit Authority duct that are exposed and to remain in service at all times as required by these contract documents will be paid on a Time and Material basis in accordance with **Articles 25 and 26** of the Contract except as amended herein. Payment will be made under the item labeled "ALLOWANCE FOR ASBESTOS ABATEMENT WORK PERFORMED ON EXISTING TRANSIT AUTHORITY DUCT INSULATION (REMOVAL OF ACM, REPLACEMENT WITH NON-ACM, AND SUPPORT AND PROTECTION OF EXISTING TRANSIT AUTHORITY DUCT, COMPLETE)". This item shall be used exclusively for the costs associated with the removal and disposal of ACM and asbestos-contaminated duct insulation from existing Transit Authority duct that are exposed, the replacement of the removed ACM insulation with a Transit Authority approved non-asbestos containing materials insulation, and the support and protection of the existing Transit Authority duct that are exposed and to remain in service at all times as required by these contract documents.

No guarantee is given that this allowance for additional costs associated with the work required for the removal and disposal of ACM and asbestos-contaminated duct insulation from existing Transit Authority duct that are exposed, the replacement of the removed ACM insulation with a Transit Authority approved non-asbestos containing materials insulation, and the support and protection of the existing Transit Authority duct that are exposed and to remain in service at all times as required by these contract documents will in fact be required in this contract. The estimated price in the Bid Schedule is included in the total bid solely to insure a method of payment for performing this work as directed by the Engineer.

Payment made under this item shall be equal to the sum total of all vouchers submitted by the Contractor as payment for the cost of performing this work as approved by the Engineer. Payment under this item, including partial payments, will not be made until the Contractor has furnished satisfactory evidence to the Engineer that the Contractor has performed the work.

The voucher for the payment shall be submitted to the Engineer on a monthly basis.

The "fixed sum" in the Bid Schedule is for bidding purposes only and shall not be varied in the bid; however, the Contractor will be paid only for the actual work performed regardless of the fixed sum, which may be more or less than the amount fixed in the Bid Schedule.

Payment for Allowance For Asbestos Abatement Work Performed On Existing Transit Authority Duct Insulation (Removal Of ACM, Replacement With Non-ACM, And Support And Protection Of Existing Transit Authority Duct, Complete) will be made under the Item Number as calculated below:

The Item Number for Allowance For Asbestos Abatement Work Performed On Existing Transit Authority Duct Insulation (Removal Of ACM, Replacement With Non-ACM, And Support And Protection Of Existing Transit Authority Duct, Complete) has seven characters. (The decimal point is considered a character, the third character.)

(1) The first five characters shall define Allowance For Asbestos Abatement Work Performed On Existing Transit Authority Duct Insulation (Removal Of ACM, Replacement With Non-ACM, And Support And Protection Of Existing Transit Authority Duct, Complete): 79.11

(2) The sixth, seventh, eighth and ninth characters shall define Allowance For Asbestos Abatement Work Performed On Existing Transit Authority Duct Insulation (Removal Of ACM, Replacement With Non-ACM, And Support And Protection Of Existing Transit Authority Duct, Complete):

AATA - Allowance For Asbestos Abatement Work Performed On Existing Transit Authority Duct Insulation (Removal Of ACM, Replacement With Non-ACM, And Support And Protection Of Existing Transit Authority Duct, Complete)

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(3) The Item Number together with Description and Pay Unit as provided in the Bid Schedule is provided below:

Item No.	Description	Pay Unit
79.11AATA	ALLOWANCE FOR ASBESTOS ABATEMENT WORK PERFORMED ON EXISTING TRANSIT AUTHORITY DUCT INSULATION (REMOVAL OF ACM, REPLACEMENT WITH NON-ACM, AND SUPPORT AND PROTECTION OF EXISTING TRANSIT AUTHORITY DUCT, COMPLETE)	F.S.

#### APPENDIX

### NYCDEP ATTACHMENTS

#### NYC DEP Asbestos Control Program

VAR#\_

#### ATTACHMENT TM

#### REQUIREMENTS FOR MODIFIED TENT PROCEDURES (FOR GROSS ABATEMENT) APPLIES TO VARIANCES FROM TITLE 15, CHAPTER 1, RULES OF THE CITY OF NEW YORK, SECTIONS 1-81(m) AND 1-91(c) {15 RCNY § 1-81(m) AND § 1-91(c)}

- 1. All tent enclosures and contiguous spaces within a radius of 10 feet shall be roped off and regulated to allow only certified workers and authorized visitors to enter.
- 2. 15 RCNY § 1-106 shall be complied with except that
  - L all tents shall be lined with <u>2 layers</u> of plastic sheeting (6-mil thickness at a minimum);
  - ii. the amounts of ACM that may be abated in each modified tent shall NOT EXCEED
    (a) 160 square feet and/or (b) 260 linear feet.
  - iii. the total amount of ACM that may be abated at any one time in several modified tents shall NOT EXCEED 1,000 combined square feet plus linear feet.
- 3. All modified tents shall be fully framed (including horizontally across the top, if applicable) with 2x3 (minimum) wood or metal stude spaced not more than 36 inch center-to-center <u>vertically</u> around <u>all</u> sides (except at the entry/exit which shall not exceed 36 inch width); and

4. A minimum of one air volume change per 15 minutes through each modified tent shall be maintained.

- 5. An <u>airlock</u> having at least 3 feet length between the two curtained doorways shall be constructed at the entrance to each and every tent if the decontamination unit is <u>not</u> attached to the tents, and
- 6. If a decontamination unit is not attached to each tent, <u>located within each airlock</u> there shall be extra clean and uncontaminated disposable protective suits (e.g. Tyveks), and one such clean suit shall be worn by each worker in the airlock, immediately after removal of the outer suit as per 15 RCNY § 1-106(k), before each worker exits any airlock.
- 7. Any decontamination unit that is not attached to a tent (i.e. that is remote from a tent) shall be constructed in compliance with the requirements of Attachment D and must be located on the same floor as the modified tents.
- 8. Decontamination units that are attached to tents shall comprise at least a shower room and a clean room, with one curtained doorway separating them, and with a second curtained doorway separating the tent from the shower room.
- 9. After the ACM removal and bagging [refer 15 RCNY § 1-106(f) and (g)], the bagged waste shall be HEPA-vacuumed then wet cleaned and transferred into the airlock or into the shower room (as per Items 5 and 8 above respectively) for double bagging, and thereafter the double-bagged waste shall be transferred outside the airlock or outside the clean room for its final transfer to storage in a holding area and/or to legal means of disposal.
- 10. If the integrity of the tent is compromised and/or visible emissions are detected outside the tent and/or levels exceed 0.01 f/cc work shall stop and 15 RCNY § 1-45(a) shall be complied with immediately. Post-abatement clearance air samples shall be required in the areas outside the tent.
- 11. A minimum of 3 during area air samples and 3 post abatement clearance air samples must be taken in compliance with section 1-41 of the NYC DEP Asbestos Regulation for each modified tent.

NOTE: This attachment may be revised at any time by the Department.

TRU/JM 04/2005

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#### NYC DEP ASBESTOS CONTROL PROGRAM

VAR#\_

#### ATTACHMENT D REMOTE WORKER DECONTAMINATION UNIT

#### APPLIES TO VARIANCE FROM TITLE 15, CHAPTER 1, RULES OF THE CITY OF NEW YORK SECTIONS 1-82(a) AND 1-83(a)\* {15 RCNY § 1-82(a) AND § 1-83(a)\*}.

- 1. The remote worker decontamination unit shall be constructed outside the work area, in accordance with 15 RCNY § 1-82, and attached to individual glovebag work areas (or tents) or common space leading to individual work areas.
- 2. The remote worker decontamination unit shall consist of, at least, a shower room, and a clean room separated from each other by an airlock and from the glovebag work area.
- 3. In addition to the shower heads, the shower room shall be provided with a flexible hose for equipment and waste decontamination.
- 4. The remote holding area for the asbestos containing waste shall comply with Title 16, Chapter 8, Rules of the City of New York (16RCNY 8 ET SEQ.)
- 5. The decontamination unit shall be maintained in accordance with 15 RCNY § 1-94 (except sub-section b).
- 6. All asbestos handlers shall wear two disposable suits, including gloves, hood and footwear, and appropriate respiratory equipment, after removing street clothes in the clean room, and must exit from the shower room.
- 7. Each worker, before leaving the glovebag work area (or tent), shall clean the outside of the respirators and outer protecting clothing by wet cleaning and/or HEPA vacuuming. The outer disposable suit shall be removed in the work area and the workers shall then proceed to the shower room. The inner disposable suit and respirator shall be washed thoroughly before removing and prior to aggressive shower.
- 8. After the ACM removal and bagging {refer 15 RCNY § 1-105(c)15}, the bagged waste shall be HEPA-vacuumed and then transferred to the shower room for wet cleaning and double bagging, prior to storage and disposal.
- 9. Worker and waste decontamination cannot take place at the same time and decontamination system shall be in place for the entire duration of the abatement activities.
- 10. The following additional conditions must be complied with in order to re-use an attached decontamination enclosure system(s) as a remote decontamination unit.
  - i) Final air clearance must be achieved in the full containment area to which the decontamination enclosure system(s) is attached.
  - ii) The decontamination enclosure system(s) shall be re-plasticized in accordance with 15 RCNY § 1-82.

\*Required for projects disturbing 1,000 or more linear feet.

NOTE: This attachment may be revised at any time by the Department.

TRU/JM 4/2005

#### ATTACHMENT ASBESTOS CONTAINING DUCT INSULATION REMOVAL PROCEDURE

The work procedure to be utilized for the removal of asbestos containing duct insulation shall be as follows:

#### I. <u>Personal Protective Equipment</u>

Prior to beginning work, all workers performing the removal of the duct insulation must equip themselves with the proper personal protective equipment (PPE). The PPE required for the removal of duct insulation includes:

- (1) Tyvek suit with boot protection ("booties").
- (2) Disposable gloves (latex ornitrile).
- (3) Eye protection.
- (4) Half face respirator with HEPA cartridges.

In addition to the PPE listed above, the tools and materials which will be required for this operation shall include the following:

- (1) Amended water solution.
- (2) 6-mil plastic sheeting.
- (3) 6-mil plastic asbestos disposal bags.
- (4) Disposable rags or wipes.
- (5) Duct tape.
- (6) Hand tools (chipping hammer, chisel, scraper, putty knife).
- (7) Abrasive pads.
- (8) Asbestos barrier tape.

NOTE: No power tools, grinders, sanders, or burning apparatus can be used to remove duct insulation.

#### II. Work Procedure

(A) Removal:

The following work procedure shall be employed when removing duct insulation:

- (1) Set up the asbestos barrier tape around the perimeter of the excavation.
- (2) Place 6-mil plastic sheeting under the duct to collect loose debris.
- (3) Wet down duct insulation with amended water.
- (4) Use hand tools to break away the large chunks of duct insulation. Place the removed insulation in a plastic asbestos disposal bag.
- (5) Remove the amount of insulation around the required area of the duct necessary to perform the work associated with the installation of the trunk water main - the Engineer shall provide all markouts and make the final determination on guantities requiring removal.
- (6) Ensure that the intact duct insulation on the duct is not damaged when performing the removal of materials from the excavation.
- (7) For sections of duct left in the ground, seal all ends of exposed insulation with duct tape. Plastic insulation and duct tape on all coated duct will be removed from the site.
- (8) In the event that some insulation material did not fall onto the plastic sheeting, collect these pieces and place them on the sheeting.
- (9) Once duct insulation removal is completed and the exposed ends are sealed, fold the plastic sheeting onto itself and place it in a properly labeled asbestos bag.
- (10) Wet wipe all equipment with amended water and rags before removal from work area. Place used rags and old work gloves in asbestos disposal bags.
- (11) Ensure that bagged ACM is wet prior to transportation.



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(12) ACM shall be properly labeled in accordance with OSHA Regulations 29 CFR 1926 58K(2), and shall be kept wet until disposal in compliance with Title 15, Chapter 1, Rules of the City of New York (15RCNY 1).

#### (B) Disposal:

The following work procedure shall be employed when disposing Duct Insulation:

- (1) Double bag all waste materials. The inside and outside bags must have an asbestos label with the work location identified.
- (2) Complete an asbestos waste tracking form and attach it to the bag.
- (3) Place double bagged waste in a truck and transport it to an approved New York State asbestos landfill.
- (4) All ACM waste bags must be picked up and disposed of on a daily basis at the end of each shift.

#### END OF ADDENDUM NO.5 This Addendum consists of forty-six (46) pages.

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

# **ADDENDA CONTROL SHEET**

BID OPENING DATE: JANUARY 7, 2015

PROJECT NO.: <u>GE353</u>

### TITLE: DISTRIBUTION WATER MAIN EXTENSION AND REPLACEMENT ADJACENT TO T.A. FACILITIES

ADDENDA ISSUED	No. OF DRAWINGS	DATE
#1: Amendments to Standard Highway Specs.		02/24/2014
#2: Sewer and Water Main Specifications		10/20/2014
#3: Gas Cost Sharing (EP-7) Std. Specifications		10/22/2014
#4: To CET Specifications	· · · · · · · · · · · · · · · · · · ·	10/06/2014
#5: Hazmat Specifications		10/22/2014
#6: Additional Amendments		12/17/2014
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#### ATTACH TO CONTRACT DOCUMENTS

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

#### PROJECT ID: GE353

### DISTRIBUTION WATER MAIN EXTENSION AND REPLACEMENT ADJACENT TO T.A. FACILITIES

#### **BROOKLYN:**

#### FLATBUSH AVENUE BETWEEN ATLANTIC AVENUE AND 5TH AVENUE; DRIGGS AVENUE BETWEEN LORIMER STREET AND NORTH 12TH STREET; UNION AVENUE BETWEEN NORTH STREET AND RICHARD STREET;

#### **SOUTH QUEENS:**

ROCKAWAY FREEWAY BETWEEN BEACH 98TH STREET AND BEACH 101ST STREET; BEACH 98TH STREET BETWEEN ROCKAWAY BEACH BOULEVARD AND BEACH CHANNEL DRIVE; BEACH 100TH STREET BETWEEN ROCKAWAY BEACH BOULEVARD AND ROCKAWAY FREEWAY; BEACH 101ST STREET BETWEEN ROCKAWAY BEACH BOULEVARD AND BEACH CHANNEL DRIVE; JAMAICA AVENUE BETWEEN 116TH STREET AND 123RD STREET; Together With All Work Incidental Thereto

#### BOROUGHS OF BROOKLYN AND QUEENS CITY OF NEW YORK

#### ADDENDUM NO. 6

#### DATED: December 17, 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.

- (1) <u>Refer</u> to the Bid and Contract Documents, VOLUME 1 OF 3, SPECIAL EXPERIENCE REQUIREMENTS, pages 2 and 3; <u>Delete</u> pages 2 and 3 in its entirety; <u>Substitute</u> attached pages 2 and 3-R.
- (2) <u>Refer</u> to the Bid and Contract Documents, VOLUME 3 of 3, Addendum No. 2, Long Island Rail Road – MINIMUM JACKING REQUIREMENTS FOR UNDERGROUND UTILITIES, pages 1 to 3; <u>Delete</u> all pages in their entirety;

#### In response to a question from a bidder, please see the answer below:

Question: The Special Experience Requirements of Volume 1 indicate 5 years of micro tunneling/pipe jacking work experience will be necessary. There aren't indications of any pipe tunneling and/or jacking in the unit items and drawings, only a specification for LIRR in Volume 3. Furthermore, there doesn't appear to be any LIRR facilities adjacent to any of the proposed water main locations. Please clarify.

Answer: Please refer to item Nos. (1) and (2) of this addendum No.6 with regard to microtunneling/pipe jacking work. LIRR facilities are present in the proposed water main locations. Where it reads "approximate limit of overhead railroad" refers to LIRR properties as shown in contract drawings, sheet 12 of 12.

By signing in the space provided below, the bidder acknowledges receipt of the one (1) page of this Addendum plus one (1) page of attachment.

#### THIS ADDENDUM MUST BE SIGNED BY ALL BIDDERS AND ATTACHED TO THEIR BIDS.

ANG

GURDIP SAINI, P.E. Assistant Commissioner/Design

Name of Bidder

By:

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

#### SPECIAL NOTICE TO BIDDERS

#### BID SUBMISSION REQUIREMENTS

#### THE FOLLOWING DOCUMENTS ARE TO BE COMPLETED AND SUBMITTED WITH THE BID;

- 1. Bid Schedule and Bid Form, including Affirmation
- 2. Bid Security (if required, see Attachment 1 on Page A-1)
- 3. Schedule B: M/WBE Utilization Plan (if participation goals have been established)

#### FAILURE TO SUBMIT ITEMS (1), (2) AND (3) WILL RESULT IN THE DISQUALIFICATION OF THE BID.

- 4. Safety Questionnaire
- 5. Construction Employment Report (if bid is \$1,000,000 or more)
- 6. Contract Certificate (if bid is less than \$1,000,000)
- 7. Confirmation of Vendex Compliance
- 8. Bidder's Certification of Compliance with Iran Divestment Act
- 9. Special Experience Requirements (if applicable)
- 10. Apprenticeship Program Questionnaire (if applicable)
- 11. Any addenda issued prior to the receipt of bids

#### FAILURE TO SUBMIT ITEMS (4) THROUGH (11) MAY RESULT IN THE DISQUALIFICATION OF THE BID.

NOTES:

(1) All of the above referred to blank forms to be completed and submitted with the bid are included in the BID BOOKLET.

(2) If the bidder has any questions or requires additional information, please contact the Department of Design and Construction by phone (718-391-2601) or by fax (718-391-2615).

(3) <u>VENDEX QUESTIONNAIRES</u>: The Bidder is advised that Vendex Questionnaires and procedures have been changed. Vendex Questionnaires, as well as detailed instructions, may be obtained at <u>www.nyc.gov/vendex</u>. The bidder may also obtain Vendex forms and instructions by contacting the Agency Chief Contracting Officer or the contact person for this contract.

(4) <u>SPECIAL EXPERIENCE REQUIREMENTS</u>: The Bidder is advised that Special Experience Requirements may apply to this contract. Such requirements are set forth on pages 3, 3a, 3b, and 4 of this Bid Booklet.

#### SPECIAL NOTICE TO BIDDERS

#### SPECIAL EXPERIENCE REQUIREMENTS (Revised 03/2014)

(A) <u>SPECIAL EXPERIENCE REQUIREMENTS FOR THE BIDDER</u>: The Special Experience Requirements set forth below apply to the bidder. Compliance with such Special Experience Requirements will be determined solely by the City prior to an award of contract. Failure to comply with the Special Experience Requirements will result in rejection of the bid as non-responsive.

The requirements in this Section (A) apply to this contract where indicated by a blackened box (a).

The bidder must, within the last seven (7) consecutive years prior to the bid opening, have successfully completed in a timely fashion at least one (1) project similar in scope and type to the required work. Such prior project may have been performed as a prime contractor, subcontractor or sub-subcontractor.

The Special Experience Requirements next to the blackened box below apply to the bidder. If the bidder intends to perform such work itself, it must demonstrate compliance with the Special Experience Requirements. If the bidder intends to subcontract this work, the proposed subcontractor or sub-subcontractor must demonstrate compliance with the Special Experience Requirements. The contractor, subcontractor or sub-subcontractor or sub-subcontractor or sub-subcontractor or sub-subcontractor (hereinafter referred to as the "entity") that will perform any specific area of work indicated by the blackened box below, may have performed the required prior project(s) as a prime contractor, subcontractor or sub-subcontractor. Once approved, no substitution will be permitted, unless the qualifications of the proposed replacement have been approved in writing in advance by the City.

- Trunk Water Main Work: The entity that will perform the trunk water main work must, within the last seven (7) consecutive years prior to the bid opening, have successfully completed in a timely fashion at least one (1) project similar in scope and type to the required work.
- Best Management Practice Work: Best Management Practice ("BMP") Work is any item of work in the Bid Schedule that begins with the prefix "BMP". The entity that will perform any BMP Work must, within the last five (5) consecutive years prior to the bid opening, have successfully completed in a timely fashion at least three (3) projects similar in scope and type to the required work.

For professional services in connection with BMP Work, (i.e., monitoring and reporting services), the individual who will perform the required services must, within the last five (5) consecutive years prior to the bid opening, have successfully completed in a timely fashion at least three (3) projects similar in scope and type to the required work. Additional requirements are set forth below.

- The individual serving as the Restoration Specialist (Construction Monitor) must be a Registered Landscape Architect licensed by the state of New York, or must have equivalent professional experience.
- □ The individual serving as the Erosion and Sediment Control Licensed/Certified Professional must be a Certified Professional in Erosion and Sediment Control (CPESC), certified by CPESC, Inc.
- ☐ Micro-Tunneling/Pipe Jacking Work: The entity that will perform the micro-tunneling/pipe jacking work must, within the last five (5) consecutive years prior to the bid opening, have successfully completed in a timely fashion at least two (2) projects similar in scope and type to the required work.
- **OTHER:**

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

# **ADDENDA CONTROL SHEET**

BID OPENING DATE: JANUARY 7, 2015

PROJECT NO.: <u>GE353</u>

### TITLE: DISTRIBUTION WATER MAIN EXTENSION AND REPLACEMENT ADJACENT TO T.A. FACILITIES

ADDENDA ISSUED	No. OF DRAWINGS	DATE
#1: Amendments to Standard Highway Specs.		02/24/2014
#2: Sewer and Water Main Specifications	· · · · · · · · · · · · · · · · · · ·	10/20/2014
#3: Gas Cost Sharing (EP-7) Std. Specifications		<b>10/2</b> 2/2014
#4: To CET Specifications		10/06/2014
#5: Hazmat Specifications		10/22/2014
#6: Additional Amendments		12/17/2014
#7: Additional Amendments		12/19/2014
	· · · · · · · · · · · · · · · · · · ·	

#### ATTACH TO CONTRACT DOCUMENTS

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

#### **PROJECT ID: GE353**

#### DISTRIBUTION WATER MAIN EXTENSION AND REPLACEMENT ADJACENT TO T.A. FACILITIES IN:

#### **BROOKLYN:**

#### FLATBUSH AVENUE BETWEEN ATLANTIC AVENUE AND 5TH AVENUE; DRIGGS AVENUE BETWEEN LORIMER STREET AND NORTH 12TH STREET: UNION AVENUE **BETWEEN NORTH STREET AND RICHARD STREET;**

#### **SOUTH QUEENS:**

ROCKAWAY FREEWAY BETWEEN BEACH 98TH STREET AND BEACH 101ST STREET; BEACH 98TH STREET BETWEEN ROCKAWAY BEACH BOULEVARD AND BEACH CHANNEL DRIVE; BEACH 100TH STREET BETWEEN ROCKAWAY BEACH BOULEVARD AND ROCKAWAY FREEWAY: BEACH 101ST STREET BETWEEN ROCKAWAY BEACH BOULEVARD AND BEACH CHANNEL DRIVE; JAMAICA AVENUE BETWEEN 116TH STREET AND 123RD STREET;

#### **Together With All Work Incidental Thereto BOROUGHS OF BROOKLYN AND QUEENS CITY OF NEW YORK**

#### **ADDENDUM NO. 7**

#### DATED: December 19, 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.

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 attachment.

> THIS ADDENDUM MUST BE SIGNED BY ALL BIDDERS AND ATTACHED TO THEIR BIDS.

Purnune Dhares M GURDIP SAINI, P.E. Assistant Commissioner/Design

Name of Bidder

By:\_



NEW YORK CITY DEPARTMENT OF DESIGN AND CONSTRUCTION DIVISION OF INFRASTRUCTURE - BUREAU OF DESIGN CONTRACT PIN: 8502013WM0009C PROJECT ID: GE353

### **BID SCHEDULE**

<u>NOTE:</u> (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.

> B - 3 [REVISION # 1]

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

PROJECT ID: GE353 CONTRACT PIN: 8502013WM0009C

### **BID SCHEDULE FORM**

COL 1 SEQ NO	COL-2 MEN SUMBIESTIMUSESCORES	BOLLS BAREEURISHE STAARSE		COLE UNITARCE (IN ROUGESI)	Sel Sel	COLIC MUCOLA CENTERCE MUCOLA CENTER MUCOLARES COLLARES	reisi
001	<b>4.02 AB-R</b> ASPHALTIC CONCRETE WEARING COURSE, 1-1/2" THICK	9,569.00	S.Y.				
002	4.02 CA BINDER MIXTURE	2,691.00	TONS				
003	<b>4.04 H</b> CONCRETE BASE FOR PAVEMENT, VARIABLE THICKNESS FOR TRENCH RESTORATION, (HIGH-EARLY STRENGTH)	962.00	C.Y.				
004	4.05 AX HIGH-EARLY STRENGTH REINFORCED CONCRETE PAVEMENT (BUS STOPS)	500.00	C.Y.				1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
005	4.08 AA CONCRETE CURB (18" DEEP)	600.00	L.F.				
006	4.09 AD STRAIGHT STEEL FACED CONCRETE CURB (18" DEEP)	840.00	L.F.				

B - 4 [REVISION # 1]

NEW YORK CITY DEPARTMENT OF DESIGN AND CONSTRUCTION DIVISION OF INFRASTRUCTURE - BUREAU OF DESIGN PROJECT ID: GE353 CONTRACT PIN: 8502013WM0009C

## **BID SCHEDULE FORM**

COL 1		COLSI FACINEERS ESTIMATE OFCUMMIN	URIT	COL 5 Unit unites (UNITUNISES)) DOULARS	<u>ତା</u> ଙ୍କ	COL 6. LEARENDEEXAMOUNIT ((INTROURESI) DOLLARS	ICIS:
007	4.09 AE STRAIGHT STEEL FACED CONCRETE CURB (21" DEEP)	240.00	L.F.				
008	4.09 BD DEPRESSED STEEL FACED CONCRETE CURB (18" DEEP)	120.00	L.F.				
009	4.09 BE DEPRESSED STEEL FACED CONCRETE CURB (21" DEEP)	120.00	L.F.				
010	4.09 CD CORNER STEEL FACED CONCRETE CURB (18" DEEP)	40.00	L.F.				
011	4.09 CE CORNER STEEL FACED CONCRETE CURB (21" DEEP)	40.00	L.F.				
012	4.13 AAS 4" CONCRETE SIDEWALK (UNPIGMENTED)	7,100.00	S.F.				

B - 5 [REVISION # 1]

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

PROJECT ID: GE353 CONTRACT PIN: 8502013WM0009C

### **BID SCHEDULE FORM**

COL I	CEL-2 MELANUMBERTHON DESCRIPTION	COLIS ENGUNEERS ESDUMADE KOPPUA, TEEDY	cal 4 Webr	COLE MICHAICE (NURCORES) COUNTS	লঙা	U LICE ITAUOUAR CEEDAERAL (ICERUELEU)) CEEDEED	ः लज्जः
013	4.13 BAS 7* CONCRETE SIDEWALK (UNPIGMENTED)	700.00	S.F.			i į	
014	4.13 DE EMBEDDED PREFORMED DETECTABLE WARNING UNITS	100.00	<b>S</b> .F.				
015	4.18 A MAINTENANCE TREE PRUNING (UNDER 12" CAL.)	15.00	EACH				
016	<b>4.18 B</b> MAINTENANCE TREE PRUNING (12" TO UNDER 18" CAL.)	5.00	EACH				
017	<b>4.18 C</b> MAINTENANCE TREE PRUNING (18" TO UNDER 24" CAL.)	2.00	EACH				l r i i i i i i i i i i i i i i i i i i
018	<b>4.18 D</b> MAINTENANCE TREE PRUNING (24" CAL. AND OVER)	20.00	EACH				



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

PROJECT ID: GE353 CONTRACT PIN: 8502013WM0009C

# **BID SCHEDULE FORM**

COL 1 SEQ.NO		COL 5 LEXCINEERS LESTIMATE COFCL/AMARTY	COLA Unit	COL 5 Chintaride ((Infrance)) (Infrance)) COL 458 KOI	COLLO LEXTENDER/AMOUNT (INFIGURES)) STOLLARS	ACTISH
019	4.21 TREE CONSULTANT	252.00	P/HR			
020	51.41S001 STANDARD CATCH BASIN, TYPE 1	10.00	EACH			
<b>0</b> 21	52.11D12 12" DUCTILE IRON PIPE BASIN CONNECTION	500.00	L.F.			
022	6.02 AAN UNCLASSIFIED EXCAVATION	2,658.00	C.Y.			
023	<b>6.02 XHEC</b> INCREMENTAL COST FOR MODIFYING WORK METHODS NEAR (WITHIN 3 FEET OF) TRANSIT FACILITIES AND BUILDING VAULTS	850.00	C.Y.			
024	6.02 XSCW INCREMENTAL COST FOR USING SPECIAL CARE WORK METHODS NEAR (FROM 3 FEET TO 50 FEET) TRANSIT FACILITIES	250.00	C.Y.			

B - 7 [REVISION # 1]

NEW YORK CITY DEPARTMENT OF DESIGN AND CONSTRUCTION DIVISION OF INFRASTRUCTURE - BUREAU OF DESIGN PROJECT ID: GE353 CONTRACT PIN: 8502013WM0009C

### **BID SCHEDULE FORM**

	COL22	CO_S ENCINERAS ESTIMATE		COLE UXIPRIOE VIXIREVAESI		EOL G EXTENDED AMOUNT (INFGUIES))	
<u>SEO NO</u> 025	6.25 RS TEMPORARY SIGNS	<u>0700.000</u> 2,200.00	S.F.		GIS	<b>DOUBARSE CONT</b>	CS
026	6.26 TIMBER CURB	500.00	L.F.				
027	6.28 AA LIGHTED TIMBER BARRICADES	300.00	L.F.				
028	6.40 C ENGINEER'S FIELD OFFICE (TYPE C)	18.00	MONTH				
029	6.44 THERMOPLASTIC REFLECTORIZED PAVEMENT MARKINGS (4" WIDE)	4,200.00	L.F.				
030	6.49 TEMPORARY PAVEMENT MARKINGS (4" WIDE)	8,400.00	L.F.				

B-8 [REVISION # 1]



NEW YORK CITY DEPARTMENT OF DESIGN AND CONSTRUCTION DIVISION OF INFRASTRUCTURE - BUREAU OF DESIGN PROJECT ID: GE353 CONTRACT PIN: 8502013WM0009C

# **BID SCHEDULE FORM**

COLE 1 SEQ:NO			GOL 4 UNIV	(40)-5 Uumaa(45) (10)140,Uu53) (2011,435)	<u> </u> T	COLO Exiteloed Aliouxit ((III Fictures)) Coloras	CIS
031	6.50 CLEANING OF DRAINAGE STRUCTURES	10.00	EACH			· · · · · · · · · · · · · · · · · · ·	
032	6.52 CG CROSSING GUARD	2,112.00	P/HR				
033	6.53 REMOVE EXISTING LANE MARKINGS (4" WIDE)	4,200.00	L.F.				
034	6.84 B LOLLIPOP TYPE BUS STOP SIGNS PRICE BID SHALL BE FOR THE FIXED SUM OF \$ 18,000.00	1.00	F.S.	18,000	00	18,000	00
035	6.87 PLASTIC BARRELS	4,160.00	EACH	Б.			

NEW YORK CITY DEPARTMENT OF DESIGN AND CONSTRUCTION DIVISION OF INFRASTRUCTURE - BUREAU OF DESIGN PROJECT ID: GE353 CONTRACT PIN: 8502013WM0009C

### **BID SCHEDULE FORM**

COLU			QCL-4.	COLE UNITARCE (N. FECTRES)	 icol. is internation (ithination) (ithination)	
036	6.91 REFLECTIVE CRACKING MEMBRANE (18" WIDE)	20,810.00	L.F.		COLLARS	CIST
037	<b>60.11R516</b> FURNISHING AND DELIVERING 16-INCH DUCTILE IRON RESTRAINED JOINT PIPE (CLASS 55)	50.00	L.F.			
038	<b>60.11R520</b> FURNISHING AND DELIVERING 20-INCH DUCTILE IRON RESTRAINED JOINT PIPE (CLASS 55)	865.00	L.F.			
039	<b>60.11R604</b> FURNISHING AND DELIVERING 4-INCH DUCTILE IRON RESTRAINED JOINT PIPE (CLASS 56)	30.00	L.F.			
040	<b>60.11R606</b> FURNISHING AND DELIVERING 6-INCH DUCTILE IRON RESTRAINED JOINT PIPE (CLASS 56)	345.00	L.F.			
041	<b>60.11R608</b> FURNISHING AND DELIVERING 8-INCH DUCTILE IRON RESTRAINED JOINT PIPE (CLASS 56)	4,245.00	L.F.			

B - 10 [REVISION # 1]



NEW YORK CITY DEPARTMENT OF DESIGN AND CONSTRUCTION DIVISION OF INFRASTRUCTURE - BUREAU OF DESIGN PROJECT ID: GE353 CONTRACT PIN: 8502013WM0009C

### **BID SCHEDULE FORM**

COLLT SEQ NO		COLS EINCHNERRIS ESTIMANE Official Manuna	COLU AUNT	CCL-C UNITERAIDE (IINFICLAE)) COLTARE	GOLG EXENDEDIAMOUNER ((INTRICURES)) DOULARS	GIS
042	<b>60.11R612</b> FURNISHING AND DELIVERING 12-INCH DUCTILE IRON RESTRAINED JOINT PIPE (CLASS 56)	3,995.00	L.F.			
043	60.12D04 LAYING 4-INCH DUCTILE IRON PIPE AND FITTINGS	35.00	L.F.			
044	60.12D06 LAYING 6-INCH DUCTILE IRON PIPE AND FITTINGS	365.00	L.F.			
045	60.12D08 LAYING 8-INCH DUCTILE IRON PIPE AND FITTINGS	4,500.00	L.F.			
046	60.12D12 LAYING 12-INCH DUCTILE IRON PIPE AND FITTINGS	4,250.00	L.F.			
047	60.12D16 LAYING 16-INCH DUCTILE IRON PIPE AND FITTINGS	55.00	L.F.			1 5 4 7 7 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1

B - 11 [REVISION # 1]

NEW YORK CITY DEPARTMENT OF DESIGN AND CONSTRUCTION DIVISION OF INFRASTRUCTURE - BUREAU OF DESIGN PROJECT ID: GE353 CONTRACT PIN: 8502013WM0009C

### **BID SCHEDULE FORM**

COLI	COL-2	BOLIS Enclineer*S Estimate	(eq. 4	COLIS UKITAROA (UNACURES		COLIO IBATERIDEDAMOUNT (INFICURES))	
048	60.12D20 LAYING 20-INCH DUCTILE IRON PIPE AND FITTINGS	955.00	L.F.				
049	<b>60.13M0A24</b> FURNISHING AND DELIVERING DUCTILE IRON MECHANICAL JOINT 24 -INCH DIAMETER AND SMALLER FITTINGS, INCLUDING WEDGE TYPE RETAINER GLANDS	30.00	TONS				
050	<b>60.18BJC20EL</b> FURNISHING, DELIVERING AND INSTALLING BELL JOINT CLAMPS, COMPLETE FOR 20-INCH PIPE AND LESS	20.00	EACH				
051	61.11DMM06 FURNISHING AND DELIVERING 6-INCH MECHANICAL JOINT DUCTILE IRON GATE VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	33.00	EACH		2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2		
052	61.11DMM08 FURNISHING AND DELIVERING & INCH MECHANICAL JOINT DUCTILE IRON GATE VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	27.00	EACH				



NEW YORK CITY DEPARTMENT OF DESIGN AND CONSTRUCTION DIVISION OF INFRASTRUCTURE - BUREAU OF DESIGN PROJECT ID: GE353 CONTRACT PIN: 8502013WM0009C

### **BID SCHEDULE FORM**

COL 11		ECOLE ENCINEERS ESTIMATE OFCLASHINY	(ઉ૦) -ડે આંગ	COLO UNIMARICE (UNIMARICE)) (UNIMARS) COMDARS	হারে।	COLLO EXTERIDED (AMOUNT (IN) FICURESI) COLORISI	GIS
053	61.11DMM12 FURNISHING AND DELIVERING 12-INCH MECHANICAL JOINT DUCTILE IRON GATE VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	18.00	EACH				
054	<b>61.11DMM20</b> FURNISHING AND DELIVERING 20-INCH MECHANICAL JOINT DUCTILE IRON GATE VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	4.00	EACH				
055	61.11TWC03 FURNISHING AND DELIVERING 3-INCH WET CONNECTION TAPPING VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	3.00	EACH				
056	<b>61.11TWC04</b> FURNISHING AND DELIVERING 4-INCH WET CONNECTION TAPPING VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	3.00	EACH				9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9
057	61.11TWC06 FURNISHING AND DELIVERING 6-INCH WET CONNECTION TAPPING VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	2.00	EACH		-		

NEW YORK CITY DEPARTMENT OF DESIGN AND CONSTRUCTION DIVISION OF INFRASTRUCTURE - BUREAU OF DESIGN PROJECT ID: GE353 CONTRACT PIN: 8502013WM0009C

### **BID SCHEDULE FORM**

	c⊙≟2	COLLO HACINGHARS ESTEMANE	CC1	نف برفن الاللة العلاقة (الالعادلة الالهار),	COLO NEXUERIES NEXUERIES ((XIERUERIES))
<u>85EQ NO</u> 058	61.11TWC08 FURNISHING AND DELIVERING 8-INCH WET CONNECTION TAPPING VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	<u>0700.kriuv</u> 2.00	EACH	DOLLARS CAS	DOLLARS
059	61.12DMM06 SETTING 6-INCH MECHANICAL JOINT DUCTILE IRON GATE VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	33.00	EACH		
060	61.12DMM08 SETTING 8-INCH MECHANICAL JOINT DUCTILE IRON GATE VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	27.00	EACH		
061	61.12DMM12 SETTING 12-INCH MECHANICAL JOINT DUCTILE IRON GATE VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	18.00	EAGH		
062	61.12DMM20 SETTING 20-INCH MECHANICAL JOINT DUCTILE IRON GATE VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	4.00	EACH		
063	61.12TWC03 SETTING 3-INCH WET CONNECTION TAPPING VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	3.00	EACH		

**B - 14** [REVISION # 1]




PROJECT ID: GE353 CONTRACT PIN: 8502013WM0009C

COL 1-	COL-2 INTENINUUMI:[ERIant-12ESteRIPTILON]	COLC Eligiveerko Estruliane Ceculantaria	Coll 4 UNI	COLO UNITERIES (UNITERIES) DOLLARS	0153	COLIG IDATE NOED AMOUNT (IN FRIURES) IOTIDARS	শ্রিজ
064	61.12TWC04 SETTING 4-INCH WET CONNECTION TAPPING VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	3.00	EACH				
065	<b>61.12TWC06</b> SETTING 6-INCH WET CONNECTION TAPPING VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	2.00	EACH				
066	61.12TWC08 SETTING 8-INCH WET CONNECTION TAPPING VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	2.00	EACH				
067	62.11SD FURNISHING AND DELIVERING HYDRANTS	33.00	EACH				
068	62.12SG SETTING HYDRANTS COMPLETE WITH WEDGE TYPE RETAINER GLANDS	33.00	EACH				
069	62.13RH REMOVING HYDRANTS	25.00	EACH				

NEW YORK CITY DEPARTMENT OF DESIGN AND CONSTRUCTION DIVISION OF INFRASTRUCTURE - BUREAU OF DESIGN PROJECT ID: GE353 CONTRACT PIN: 8502013WM0009C

## **BID SCHEDULE FORM**

COL 1		COLS ANCINEES ANCINEES ANCINES	COLA UNR'	OULS UKIRISHES (IKIRISHESH DOLLARS	10181	COLAS EXTERDEDUMQUIN (INTECHTS)) DOLLASS	619
070	62,14FS FURNISHING, DELIVERING AND INSTALLING HYDRANT FENDERS	66.00	EACH			-	
071	63.11VC FURNISHING AND DELIVERING VARIOUS CASTINGS	40.00	TONS				
072	64.11EL WITHDRAWING AND REPLACING HOUSE SERVICES USING 1-1/2- INCH OR LARGER SCREW TAPS	85.00	EACH				
073	64.11ST WITHDRAWING AND REPLACING HOUSE SERVICES USING SMALLER THAN 1-1/2-INCH SCREW TAPS	100.00	EACH				
074	64.12COEG CUTTING AND OFFSETTING HOUSE SERVICE WATER CONNECTIONS (EQUAL TO OR GREATER THAN 3-INCH DIAMETER)	425.00	L.F.				
075	<b>64.12COLT</b> CUTTING AND OFFSETTING HOUSE SERVICE WATER CONNECTIONS (LESS THAN 3-INCH DIAMETER)	925.00	L.F.				

B - 16 [REVISION # 1]



PROJECT ID: GE353 CONTRACT PIN: 8502013WM0009C

# **BID SCHEDULE FORM**

COL 1 SEQ NO	COLLE TREMICUMBER (TRODESIGN)PRION	CODE CAREMIQUE ERAMINEE VERMANDERO	Gol 4 UNT	ellos Edheniau (Erikloska) Estalos	ভিজ	COLLU EXALECIDED AMOUNIT (INFRICULTES) <u>INFRICULTES</u>	S S S
076	64.12ESEG EXTENDING HOUSE SERVICE WATER CONNECTIONS (EQUAL TO OR GREATER THAN 3-INCH DIAMETER)	50.00	L.F.				
077	64.12ESLT EXTENDING HOUSE SERVICE WATER CONNECTIONS (LESS THAN 3- INCH DIAMETER)	100.00	L.F.				
078	<b>64.13WC08</b> FURNISHING, DELIVERING AND INSTALLING WET CONNECTION SLEEVE ON 8-INCH WATER MAIN PIPE WITH VARIOUS OUTLETS	6.00	EACH				
079	<b>64.13WC12</b> FURNISHING, DELIVERING AND INSTALLING WET CONNECTION SLEEVE ON 12-INCH WATER MAIN PIPE WITH VARIOUS OUTLETS	2.00	EACH				2 7 7 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
080	<b>64.13WC20</b> FURNISHING, DELIVERING AND INSTALLING WET CONNECTION SLEEVE ON 20-INCH WATER MAIN PIPE WITH VARIOUS OUTLETS	2.00	EACH				
081	<b>65.11BR</b> FURNISHING, DELIVERING AND INSTALLING BANDS, RODS, WASHERS, ETC., COMPLETE, FOR RESTRAINING JOINTS	3,384.00	LBS.				

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NEW YORK CITY DEPARTMENT OF DESIGN AND CONSTRUCTION DIVISION OF INFRASTRUCTURE - BUREAU OF DESIGN PROJECT ID: GE353 CONTRACT PIN: 8502013WM0009C

#### **BID SCHEDULE FORM**

COL 1 SEQ NO	COL2	COLS ENSIGEERS ESTIGATE OPECAATION	80 4 U.U.V	COLLE UNIT PRICE (INIFIDURIES) DOLLARS	COLLO SATERIOESIAMOURA (UNIFICIALESI) DOEMAS	<u>CIS</u>
<b>08</b> 2	<b>65.21PS</b> FURNISHING AND PLACING POLYETHYLENE SLEEVE Unit price bid shall not be less than: \$0.50	9,988.00	L.F.			
083	<b>65.31FF</b> FURNISHING, DELIVERING AND PLACING FILTER FABRIC Unit price bid shall not be less than: <b>\$</b> 0.15	78,860.00	S.F.			
084	65.51PC FURNISHING AND PLACING CAST-IN-PLACE CONCRETE CLASS 40 AND PRECAST CONCRETE CLASS 50	35.00	C.Y.			
085	<b>65.61SS</b> FURNISHING, DELIVERING AND PLACING STRUCTURAL, REINFORCING AND MISCELLANEOUS STEEL	40,000.00	LBS.			
086	65.71SG FURNISHING, DELIVERING AND PLACING SCREENED GRAVEL OR SCREENED BROKEN STONE BEDDING	603.00	C.Y.	:		
087	7.13 B MAINTENANCE OF SITE Unit price bid shall not be less then: \$4,000.00	12.00	MONTH			

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PROJECT ID: GE353 CONTRACT PIN: 8502013WM0009C

# **BID SCHEDULE FORM**

COL1	COL 2	SOLE LENCINEERS LESTIMATE OFICIAN INTRA	COLA UNIT	COLLS UNIT PRIOR UNACURIES) POULARS	জন্ত	COLU Harrended Adolinki (Inificieres)) DOLARS	KGTSK
088	7.19 LOAD TRANSFER JOINT	350.00	L.F.				
089	7.36 PEDESTRIAN STEEL BARRICADES	8,400.00	L.F.				
<b>0</b> 90	7.88 AA RODENT INFESTATION SURVEY AND MONITORING Unit price bid shall not be less than: \$6,750.00	1.00	L.S.				- - - - - - - - - - - - - - - - - - -
091	7.88 AB RODENT BAIT STATIONS Unit price bid shall not be less than: \$60.00	1,080.00	EACH				2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
092	7.88 AC BAITING OF RODENT BAIT STATIONS Unit price bid shall not be less than: \$9.25	1,080.00	EACH				
093	7.88 AD WATERBUG BAIT APPLICATIONS Unit price bid shall not be less than: \$65.00	324.00	BLOCK				

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NEW YORK CITY DEPARTMENT OF DESIGN AND CONSTRUCTION DIVISION OF INFRASTRUCTURE - BUREAU OF DESIGN PROJECT ID: GE353 CONTRACT PIN: 8502013WM0009C

# **BID SCHEDULE FORM**

COL 1 SEQINO		COL ENCINEERS ESSILVATE OF OF A RITHIN	COL 4 UNIT	eleo Ukimiaaide Ukimiaaide Ukimiaaide Bolmaaide	ଭାଇ	ULIOON HAUGHANGECLEIRE (ILLAUDHAU)) SAAUJON	T <u>EIS</u>
094	70.31FN FENCING Unit price bid shall not be less than: \$ 2.00	1,000.00	L.F.				
095	70.51EO EXCAVATION OF BOULDERS IN OPEN CUT Unit price bid shall not be less than: \$75.00	15.00	C.Y.				
096	70.61RE ROCK EXCAVATION	10.00	C.Y.				
097	70.81CB CLEAN BACKFILL Unit price bid shall not be less than: \$15.00	2,010.00	C.Y.				
098	70.91SW12 FURNISHING AND PLACING SHEETING AND BRACING IN TRENCH FOR WATER MAIN PIPE 12-INCH IN DIAMETER AND LESS	9,205.00	S.F.				
099	<b>70.91SW20</b> FURNISHING AND PLACING SHEETING AND BRACING IN TRENCH FOR WATER MAIN PIPE 20-INCH IN DIAMETER	955.00	S.F.				B • • • • • • • •

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NEW YORK CITY DEPARTMENT OF DESIGN AND CONSTRUCTION

**DIVISION OF INFRASTRUCTURE - BUREAU OF DESIGN** 

PROJECT ID: GE353 CONTRACT PIN: 8502013WM0009C

COL I SEC AC		COLS IANCINIARS ESTIMATE SPOULATION	COL.4) VINET	COLS Uniteración (Unitecación) Diolears	CIS.	GOL G STANOUL CERTES (GLUARS)) DOLUARS	
100	73.11AB ADDITIONAL BRICK MASONRY Unit price bid shell not be less than: \$62.50	10.00	C.Y.				
101	<b>73.21AC</b> ADDITIONAL CONCRETE <b>Unit price bid shall not be less than:</b> \$62.50	50.00	C.Y.				
102	73.31AE0 ADDITIONAL EARTH EXCAVATION INCLUDING TEST PITS (ALL DEPTHS) Unit price bid shall not be less than: \$20.00	265.00	C.Y.				
103	73.41AG ADDITIONAL SELECT GRANULAR BACKFILL Unit price bid shall not be less than: \$15.00	225.00	C.Y.				
104	75.11RT REMOVAL OF ABANDONED TRACKS	1,000.00	L.F.				

NEW YORK CITY DEPARTMENT OF DESIGN AND CONSTRUCTION DIVISION OF INFRASTRUCTURE - BUREAU OF DESIGN PROJECT ID: GE353 CONTRACT PIN: 8502013WM0009C

COLLI SEQ.NOL		COL C ENCINEERS ESTIMATE OF CUANTIEN	COLL 47	COLIS UNIX PAICE (INFICURIES) DOLLARS	GIS	COLS PARENDED AMOUNT (INIFICURES)) DOLLARS	CTS
105	79.11AATA ALLOWANCE FOR ASBESTOS ABATEMENT WORK PERFORMED ON EXISTING TRANSIT AUTHORITY DUCT INSULATION (REMOVAL OF ACM, REPLACEMENT WITH NON-ACM, AND SUPPORT AND PROTECTION OF EXISTING TRANSIT AUTHORITY DUCT, COMPLETE) PRICE BID SHALL BE FOR THE FIXED SUM OF \$ 500,000.00	1.00	F.S.	500,000	00	500,000	00
106	8.02 A SPECIAL CARE EXCAVATION AND RESTORATION FOR SIDEWALK WORK	1,000.00	S.F.				
107	8.02 B SPECIAL CARE EXCAVATION AND RESTORATION FOR CURB WORK	500.00	L.F.				
108	T-1.2 INSTALL TYPE "F-1" FOUNDATION	1.00	EACH				
109	T-1.20 REMOVE TYPE "M" SERIES FOUNDATION	1.00	EACH				2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2



PROJECT ID: GE353 CONTRACT PIN: 8502013WM0009C

# **BID SCHEDULE FORM**

COL.1	ITEMINUMBERISHOIDESCRIPTION	COLS ENGINEERS ESTUMATE OFOUNTIEN	COL 4	COLLS Ultriphicis (UNFICURESI) DOLLARS FC	IS	COLU ARIELDED AMOUNT (INFIGURES') DOLLARS	CTS
110	T-1.23 REMOVE STREET LIGHT FOUNDATION	1.00	EACH				
111	T-1.3 INSTALL TYPE "M2-5S" FOUNDATION	1.00	EACH				
112	T-2.24 REMOVE TYPE "M" SERIES POST	1.00	EACH				
113	T-2.27 REMOVE ANY OTHER TYPE POST	1.00	EACH				
114	T-2.38 INSTALL ONE STREET LIGHT POLE	1.00	EACH				
115	T-2.4 INSTALL TYPE "M-2" POST	1.00	EACH				

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

PROJECT ID: GE353 CONTRACT PIN: 8502013WM0009C

#### **BID SCHEDULE FORM**

COL-11.		COLSE EXCINEERS ESTIMATE TOTOLSTATES		COLO Unitarios (Introdates)) Colors	ODU.0 ExtraNDEDAMOUNT ((INGREDIAES)) ST DOULAES	CTS
116	T-20021 b) FURNISH 1" ANCHOR BOLT ASSEMBLIES FOR F-1 (EACH) (4 REQUIRED PER POST)	4.00	EACH			
117	T-20220 c) FURNISH 1-1/4" ANCHOR BOLT ASSEMBLIES FOR M-2 (EACH) (4 REQUIRED PER POST)	4.00	EACH			
118	T-3.1 INSTALL "ONE-WAY" SIGNAL UNIT ON MAST ARM OR TOP OF TRAFFIC POST	2.00	EACH			
119	T-3.18 REMOVE SIGNAL HEAD FROM ANY TYPE POST	1.00	EACH			
120	T-3.21 REMOVE PEDESTRIAN SIGNAL OR SIGN UNIT OR OTHER ILLUMINATED SIGNS FROM ANY POST	4.00	EACH	<i>P</i> 1		
121	T-3.6 INSTALL PEDESTRIAN SIGNAL ON ANY TYPE POST	4.00	EACH			

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PROJECT ID: GE353 CONTRACT PIN: 8502013WM0009C

# **BID SCHEDULE FORM**

COL 15		COLLE LEILOINIEERS LESILMANE SY CERCUMMIN	col d Whe	COLS UNITERISE (UNITERISE) COLARS	জ	COLCO VAUCONNEELEUS (CERTICINUS) COLLOC	CIS
122	T-31210 h) "HUB" ASSEMBLY *ASSEMBLY IS EQUAL TO ONE PAIR	2.00	EACH				
123	T-31215 b) "2MS"	1.00	EACH				
124	T-31351 g) "VB-2P" ASSEMBLY *ASSEMBLY IS EQUAL TO ONE PAIR	2.00	EACH				
125	T-5.1 FURNISH AND INSTALL 2" RIGID UNDERGROUND CONDUIT IN UNPAVED ROADWAY	100.00	L.F.				
126	T-5.2 FURNISH AND INSTALL 2" RIGID UNDERGROUND CONDUIT IN PAVED ROADWAY	50.00	L.F.				1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
127	T-5.32 RESTORING PERMANENT ROADWAY (INCLUDING SAWCUT)	50.00	L.F.				

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NEW YORK CITY DEPARTMENT OF DESIGN AND CONSTRUCTION DIVISION OF INFRASTRUCTURE - BUREAU OF DESIGN PROJECT ID: GE353 CONTRACT PIN: 8502013WM0009C

#### **BID SCHEDULE FORM**

SEQ NO	LOUAZ MEMINUMBERINGIDESOFILMION	OCLO BACINERIS ESMINICE OFRCUARDA	COLA: Cintil	OUL 5 Unitipaios (INFOURES) DOILLAS	ভায়ে	COLIU Extended Amountr (Intechatist) Dollars	CIS
128	T-6.10 REMOVE CABLE (INCLUDES OVERHEAD)	1,500.00	L.F.				
129	T-6.2 INSTALL MULTIPLE CABLE (INCLUDES OVERHEAD)	1,500.00	L.F.				
130	<b>T-60000B</b> FURNISH 2 c # 10B (SEE SPEC) (BREAKDOWN = 2#10 WITH 3RD WIRE FOR GROUNDING).	1,500.00	L.F.			-	
131	<b>T-60040</b> c) 7 CONDUCTOR, 14 A.W.G.	1,000.00	L.F.				
132	T-60190 e) 13 CONDUCTOR, 14 A.W.G.	1,500.00	L.F.		* • • • •		
133	T-8.10 RELOCATE CONCRETE PYLON WITH POST	1.00	EACH				

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PROJECT ID: GE353 CONTRACT PIN: 8502013WM0009C

SEQ NO	COL.2 มันยัง เป็นไฮ้อิล แก่ยังของเสโลตเติง	COLLE UNEILUELES ESTIMUE OF OUR WAINS	SCL4	COL 3 UNITPAICE (UNRCURES) SOUTARS	<u>.</u> 	COLUU IFARANDED AMOUNT (INTELEURAS)) DOLLARS	TOTS T
134	T-8.8 INSTALL CONCRETE PYLON	1.00	EACH				
135	T-8.9 REMOVE CONCRETE PYLON	1.00	EACH			e.	
136	T-81000 FURNISH CONCRETE PYLON	1.00	EACH				
137	UTL-6.01.8 GAS SERVICES CROSSING TRENCHES AND/OR EXCAVATIONS (S6.01) Unit price bid shall not be less than: \$465.00	20.00	EACH		- E		2 4 5 7 7 1 1 1 1 1 1 1 1 1 1 1 1 1
138	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	36.00	EACH				
139	UTL-6.03 REMOVAL OF ABANDONED GAS FACILITIES, ALL SIZES, (\$6.03) Unit price bid shall not be less than: \$15.00	2,100.00	L.F.				

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NEW YORK CITY DEPARTMENT OF DESIGN AND CONSTRUCTION DIVISION OF INFRASTRUCTURE - BUREAU OF DESIGN PROJECT ID: GE353 CONTRACT PIN: 8502013WM0009C

# **BID SCHEDULE FORM**

COL II SECINO	COL 2 ITEMINIDUBERIER DESCRIPTION	COLE ELOMEERS ESTIMATE OFCOLADATION	CCL. 4 UNT	COLLE CARTERICE CILI RICURESI JOUILARS	জাহ্	COLU PLOESINES (ILIS FLEDENI (ILIS FLEDENI COLUZES	জন্ম
140	UTL-6.03.1 REMOVAL OF ABANDONED GAS FACILITIES WITH POSSIBLE COAL TAR WRAP. ALL SIZES. (S6.03) Unit price bid shall not be less than: \$ 25.00	100.00	L.F.				
141	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	25.00	EACH				
142	<b>UTL-6.05</b> ADJUST HARDWARE TO GRADE BY RESETTING. (ROAD RECONSTRUCTION.) (S6.05) Unit price bid shall not be less than: \$ 65.00	25.00	EACH		·		
143	<b>UTL-6.06</b> SPECIAL CARE EXCAVATION AND BACKFILLING (S6.06) Unit price bid shall not be less than: \$ 180.00	700.00	C.Y.				
144	UTL-6.06A SPECIAL CARE EXCAVATION AND BACKFILLING FOR TRANSMISSION MAINS (TRANSMISSION MAIN IS DESCRIBED AS ANY GAS MAIN WITH A MAOP GREATER THAN 124-PSIG) (S6.06A) Unit price bid shall not be less than: \$ 230.00	150.00	C.Y.				
145	UTL-6.07 TEST PITS FOR GAS FACILITIES (S6.07) Unit price bid shall not be less than: \$ 100.00	100.00	C.Y.				

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NEW YORK CITY DEPARTMENT OF DESIGN AND CONSTRUCTION DIVISION OF INFRASTRUCTURE - BUREAU OF DESIGN PROJECT ID: GE353 CONTRACT PIN: 8502013WM0009C

# **BID SCHEDULE FORM**

COL 1		COL 3 IENGINHERS ESTIMATE	COL ()	Sollis Unificializă (Unificializă)		Coll 6 AntEuces (Unitedentes))	
146	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: \$

147	6.39 A	1.00	L.S.		
	MOBILIZATION				
	BID PRICE OF MOBILIZATION SHALL NOT EXCEED 4% OF THE ABOVE SUB-TOTAL PRICE.				

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.



#### INFRASTRUCTURE DIVISION BUREAU OF DESIGN

#### **VOLUME 2 OF 3**

PROJECT ID: GE353

DISTRIBUTION WATER MAIN EXTENSION AND REPLACEMENT ADJACENT TO T.A. FACILITIES IN:

BROOKLYN:

FLATBUSH AVENUE BETWEEN ATLANTIC AVENUE AND 5TH AVENUE; DRIGGS AVENUE BETWEEN LORIMER STREET AND NORTH 12TH STREET; UNION AVENUE BETWEEN NORTH STREET AND RICHARD STREET;

SOUTH QUEENS:

ROCKAWAY FREEWAY BETWEEN BEACH 98TH STREET AND BEACH 101ST STREET; BEACH 98TH STREET BETWEEN ROCKAWAY BEACH BOULEVARD AND BEACH CHANNEL DRIVE; BEACH 100TH STREET BETWEEN ROCKAWAY BEACH BOULEVARD AND ROCKAWAY FREEWAY; BEACH 101ST STREET BETWEEN ROCKAWAY BEACH BOULEVARD AND BEACH CHANNEL DRIVE; JAMAICA AVENUE BETWEEN 116TH STREET AND 123RD STREET;

> Together With All Work Incidental Thereto BOROUGHS OF BROOKLYN AND QUEENS CITY OF NEW YORK

1 Contract Corp Contractor Ma 8 . 20 / 5 Dated Red 10/29/14 APPROVED AS TO FORM CERTIFIED AS TO LEGAL AUTHORITY Acting Corporation Counsel Dated