



**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 1 OF 3

LAW

BID BOOKLET

FOR FURNISHING ALL LABOR AND MATERIALS NECESSARY AND REQUIRED FOR:

PROJECT ID: MED598B

**TRUNK WATER MAINS IN WEST 30TH STREET BETWEEN 10TH AVENUE
AND 9TH AVENUE, ETC., TO CONNECT SHAFT 26B TO THE
DISTRIBUTION SYSTEM**

**INCLUDING SEWER, WATER MAIN, STREET LIGHTING AND TRAFFIC
WORK**

Together With All Work Incidental Thereto
**BOROUGH OF MANHATTAN
CITY OF NEW YORK**

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

June 19, 2014



4-125



April 16, 2015

CERTIFIED MAIL - RETURN RECEIPT REQUEST
MFM CONTRACTING CORP.
335 CENTER AVENUE
MAMARONECK, NY 10543

RE: FMS ID: MED-598B
E-PIN: 85014B0161001
DDC PIN: 8502014WM0003C
TRUNK WATER MAINS IN WEST 30TH STREET
BETWEEN 10TH AVENUE AND 9TH AVENUE,
ETC. TO CONNECT TO SHAFT 26B TO THE
DISTRIBUTION SYSTEM - BOROUGH OF
MANHATTAN
NOTICE OF AWARD

Dear Contractor:

You are hereby awarded the above referenced contract based upon your bid in the amount of \$37,683,676.33 submitted at the bid opening on October 17, 2014. Within ten (10) days of your receipt of this notice of award, you are required to take the actions set forth in Paragraphs (1) through (3) below. For your convenience, attached please find a copy of Schedule A of the General Conditions to the Contract, which sets forth the types and amounts of insurance coverage required for this contract.

- (1) Execute four copies of the Agreement in the Contracts Unit, 30-30 Thomson Avenue, 1st Floor, Long Island City, New York (IDCNY Building). A Commissioner of Deeds will be available to witness and notarize your signature. The Agreement must be signed by an officer of the corporation or a partner of the firm.
- (2) Submit to the Contracts Unit four properly executed performance and payment bonds. If required for this contract, copies of performance and payment bonds are attached.
- (3) Submit to the Contracts Unit the following insurance documentation: (a) original certificate of insurance for general liability in the amount required by Schedule A, and (b) original certificates of insurance or other proof of coverage for workers' compensation and disability benefits, as required by New York State Law. The insurance documentation specified in this paragraph is required for registration of the contract with the Comptroller's Office.





Department of
Design and
Construction

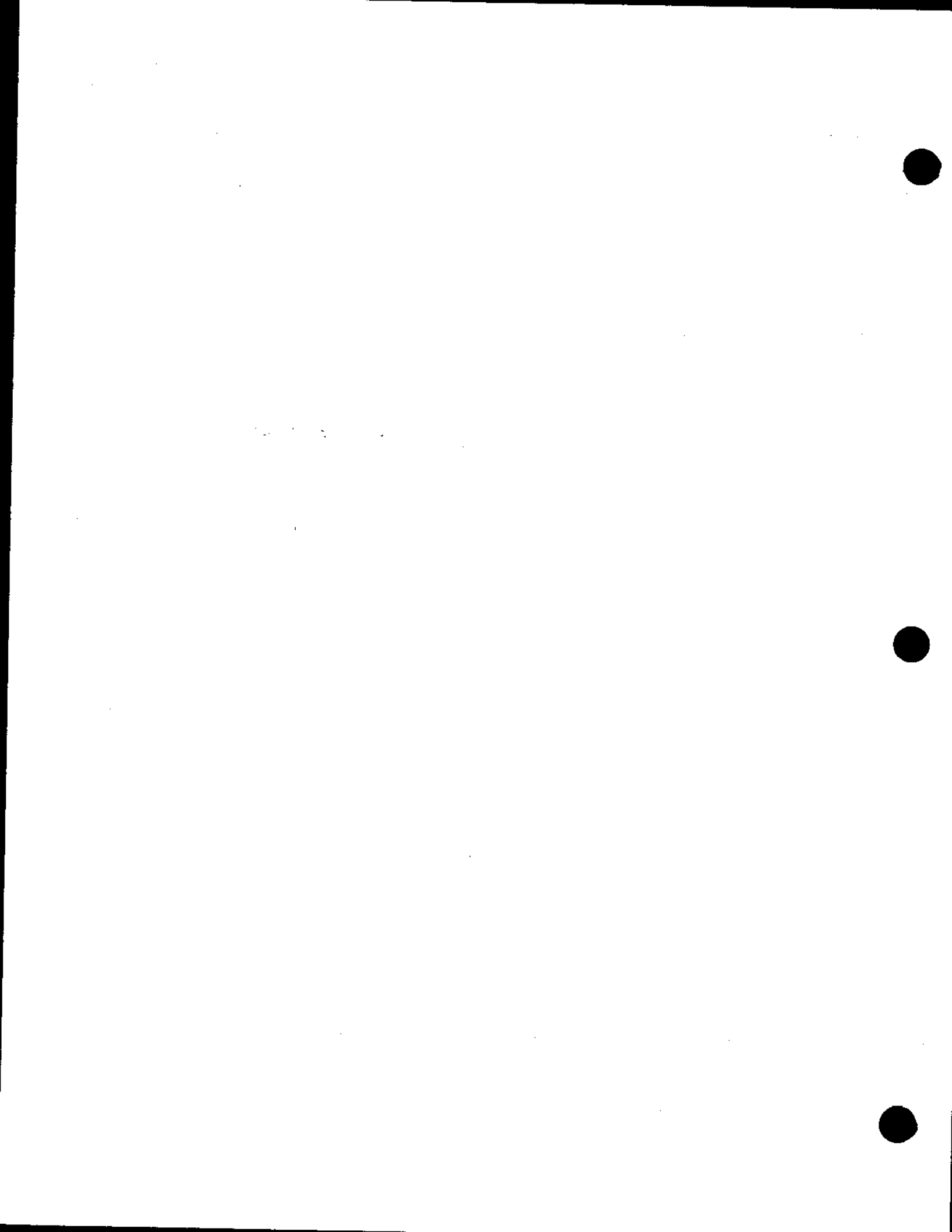
On or before the contract commencement date, you are required to submit all other certificates of insurance and/or policies in the types and amounts required by Schedule A. Such certificates of insurance and/or policies must be submitted to the Agency Chief Contracting Office, Attention: Risk Manager, Fourth Floor at the above indicated department address.

Your attention is directed to the section of the Information for Bidders entitled "Failure to Execute Contract". As indicated in this section, in the event you fail to execute the contract and furnish the required bonds within the (10) days of your receipt of this notice of award, your bid security will be retained by the City and you will be liable for the difference between your bid price and the price for which the contract is subsequently awarded, less the amount of the bid security retained.

Sincerely,

A handwritten signature in black ink that reads "Lorraine Holley". The signature is written in a cursive, flowing style.

Lorraine Holley



**BID FORM
THE CITY OF NEW YORK
DEPARTMENT OF DESIGN AND CONSTRUCTION
DIVISION OF INFRASTRUCTURE**

**BID FOR FURNISHING ALL LABOR AND
MATERIAL NECESSARY AND REQUIRED FOR:**

PROJECT ID: MED598B

**TRUNK WATER MAINS IN WEST 30TH STREET BETWEEN 10TH AVENUE AND 9TH AVENUE,
ETC., TO CONNECT SHAFT 26B TO THE DISTRIBUTION SYSTEM**

INCLUDING SEWER, WATER MAIN, STREET LIGHTING AND TRAFFIC WORK

**Together With All Work Incidental Thereto
BOROUGH OF MANHATTAN**

Name of Bidder: MFM Contracting Corp.

Date of Bid Opening: 9/30/14

Bidder is: (Check one, whichever applies) Individual () Partnership () Corporation ()

Place of Business of Bidder: 335 Center Avenue, Mamaroneck, N.Y. 10543

Bidder's Telephone Number: 914-777-8292 Fax Number: 914-777-0194

Bidder's E-Mail Address: mvpe@petramfm.com

Residence of Bidder (If Individual): _____

If Bidder is a Partnership, fill in the following blanks:

Names of Partners

Residence of Partners

If Bidder is a Corporation, fill in the following blanks:

Organized under the laws of the State of New York

Name and Home Address of President: Michael V. Petrillo - 10 Orchard
Drive, Purchase, N.Y. 10577

Name and Home Address of Secretary: Felix J. Petrillo - 68 Muchmore Road
Harrison, N.Y. 10528

Name and Home Address of Treasurer: Same as Secretary

BID FORM

The above-named Bidder affirms and declares:

1. The said bidder is of lawful age and the only one interested in this bid; and no person, firm or corporation other than hereinbefore named has any interest in this bid, or in the Contract proposed to be taken.
2. By submission of this bid, each bidder and each person signing on behalf of any bidder certifies, and in the case of a joint bid each party thereto certifies as to its own organization, under penalty of perjury, that to the best of its knowledge and belief: (1) the prices in this bid have been arrived at independently without collusion, consultation, communication or agreement, for the purpose of restricting competition, as to any matter relating to such prices with any other bidder or with any competitor; (2) unless otherwise required by law, the prices quoted in this bid have not been knowingly disclosed by the bidder and will not knowingly be disclosed by the bidder prior to opening, directly or indirectly, to any other bidder or to any competitor; and (3) No attempt has been made or will be made by the bidder to induce any other person, partnership or corporation to submit or not to submit a bid for the purpose of restricting competition.
3. No councilman or other officer or employee or person whose salary is payable in whole or in part from the City Treasury is directly or indirectly interested in this bid, or in the supplies, materials, equipment, work or labor to which it relates, or in any of the profits thereof.
4. The bidder is not in arrears to the City of New York upon debt or contract or taxes, and is not a defaulter, as surety or otherwise, upon any obligation of the City of New York, and has not been declared not responsible, or disqualified, by any agency of the City of New York or State of New York, nor is there any proceeding pending relating to the responsibility or qualification of the bidder to receive public contracts except as set forth on the Affirmation included as page C-6 of this Bid Booklet.

The bidder hereby affirms that it has paid all applicable City income, excise and other taxes for all years it has conducted business activities in New York City.
5. The bidder, as an individual, or as a member, partner, director or officer of the bidder, if the same be a firm, partnership or corporation, executes this document expressly warranting and representing that should this bid be accepted by the City and the Contract awarded to him, he and his subcontractors engaged in the performance: (1) will comply with the provisions of Section 6-108 of the Administrative Code of the City of New York and the non-discrimination provisions of Section 220a of the New York State Labor Law, as more expressly and in detail set forth in the Agreement; (2) will comply with Section 6-109 of the Administrative Code of the City of New York in relation to minimum wages and other stipulations as more expressly and in detail set forth in the Agreement; (3) have complied with the provisions of the aforesaid laws since their respective effective dates, and (4) will post notices to be furnished by the City, setting forth the requirements of the aforesaid laws in prominent and conspicuous places in each and every plant, factory, building and structure where employees engaged in the performance of the Contract can readily view it, and will continue to keep such notices posted until the supplies, materials and equipment, or work labor and services required to be furnished or rendered by the Contractor have been finally accepted by the City. In the event of any breach or violation of the foregoing, the Contractor may be subject to damages, liquidated or otherwise, cancellation of the Contract and suspension as a bidder for a period of three years. (The words, "the bidder", "he", "his", and "him" where used herein shall mean the individual bidder, firm, partnership or corporation executing the bid).

BID FORM
MFM CONTRACTING Corp

PROJECT ID: MED598B

TOTAL BID PRICE: In the space provided below, the Bidder shall indicate its Total Bid Price in figures. Such Total Bid Price is set forth on the final page of the Bid Schedule.

TOTAL BID PRICE:
(a/k/a BID PROPOSAL)

\$ ~~37,400,401~~ ⁰⁰ (2)
\$ ~~37,400,335~~ (2)
\$ 37,683,335 ⁰⁰
(2) 10/17/14

BIDDER'S SIGNATURE AND AFFIDAVIT

Bidder: MFM Contracting Corp.

By: Michael V. F.
(Signature of Partner or corporate officer)

Attest: [Signature] Secretary of Corporate Bidder
(Corporate Seal)

Affidavit on the following page should be subscribed
and sworn to before a Notary Public



BID FORM (TO BE NOTARIZED)
MFM CONTRACTING CORP

AFFIDAVIT WHERE BIDDER IS AN INDIVIDUAL

STATE OF NEW YORK, COUNTY OF _____ SS:

I am the person described in and who executed the foregoing bid, and the several matters therein stated are in all respects true. _____ being duly sworn says:

Subscribed and sworn to before me this _____ day of _____ (Signature of the person who signed the Bid)

Notary Public

AFFIDAVIT WHERE BIDDER IS A PARTNERSHIP

STATE OF NEW YORK, COUNTY OF _____ SS:

I am a member of _____ the firm described in and which executed the foregoing bid. I subscribed the name of the firm thereto on behalf of the firm, and the several matters therein stated are in all respects true. _____ being duly sworn says:

Subscribed and sworn to before me this _____ day of _____ (Signature of Partner who signed the Bid)

Notary Public

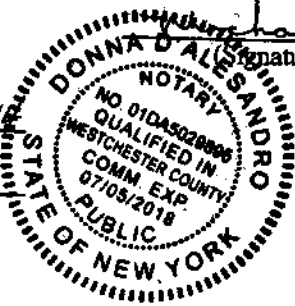
AFFIDAVIT WHERE BIDDER IS A CORPORATION

STATE OF NEW YORK, COUNTY OF Westchester SS:

I am the President of the above named corporation whose name is subscribed to and which executed the foregoing bid. I reside at Purchase, N.Y. 10577 _____ being duly sworn says:
I have knowledge of the several matters therein stated, and they are in all respects true.

Subscribed and sworn to before me this _____ day of _____ (Signature of Partner who signed the Bid)

2018 day of September, 2018
Donna Aleksandro
Notary Public



AFFIRMATION

The undersigned bidder affirms and declares that said bidder is not in arrears to the City of New York upon debt, contract or taxes and is not a defaulter, as surety or otherwise, upon obligation to the City of New York, and has not been declared not responsible, or disqualified, by any agency of the City of New York, nor is there any proceeding pending relating to the responsibility or qualification of the bidder to receive public contracts except: NONE

(If none, the bidder shall insert the word "None" in the space provided above.)

Full Name of Bidder: MFM Contracting Corp.
Address: 335 Center Avenue
City Mamaroneck State N.Y. Zip Code 10543

CHECK ONE BOX AND INCLUDE APPROPRIATE NUMBER:

A - Individual or Sole Proprietorship*
SOCIAL SECURITY NUMBER

B - Partnership, Joint Venture or other unincorporated organization
EMPLOYER IDENTIFICATION NUMBER

C - Corporation
EMPLOYER IDENTIFICATION NUMBER

13-4130805

By: Richard V. F.
Signature

Title: President

If a corporation, place seal here

This affirmation must be signed by an officer or duly authorized representative.

*Under the Federal Privacy Act the furnishing of Social Security Numbers by bidders on City contracts is voluntary. Failure to provide a Social Security Number will not result in a bidder's disqualification. Social Security Numbers will be used to identify bidders, proposers or vendors to ensure their compliance with laws, to assist the City in enforcement of laws, as well as to provide the City a means of identifying of businesses which seek City contracts.

(NO TEXT ON THIS PAGE)

Qualification Form

List previous projects completed to meet the special experience requirements for this contract. Please photocopy this form for submission of all required projects.

Name of Contractor: MFM Contracting Corp.

Name of Project: Reconstruction of Peck Slip

Location of Project: Peck Slip, Manhattan

Owner or Owner's representative (Architect or Engineer) who is familiar with the work performed:

Name: Shahram Jaroni

Title: Director of Construction - Lower Manhattan Phone Number: 212-233-7181

Brief description of the Project completed or the Project in progress: Complete reconstruction of Peck Slip and surrounding streets, including, but not limited to, water main installation, private utilities, and restoration.

Was the Project performed as a prime, a subcontractor or a sub-subcontractor: Prime

Amount of Contract, Subcontract or Sub-subcontract: \$14MM

Start Date and Completion Date: 7/1/11 to 1/1/14

Name of Contractor: MFM Contracting Corp.

Name of Project: BED 790

Location of Project: Brooklyn, N.Y.

Owner or Owner's representative (Architect or Engineer) who is familiar with the work performed:

Name: Jeff Vollmuth - Vollmuth + Brush

Title: Principal - Engineer Phone Number: 631-363-2683

Brief description of the Project completed or the Project in progress: Installation of 48" x 36" welded steel water main + 20" x 12" distribution ductile iron water main and associated restoration.

Was the Project performed as a prime, a subcontractor or a sub-subcontractor: Prime

Amount of Contract, Subcontract or Sub-subcontract: \$5M

Start Date and Completion Date: 8/2010 to 3/2012

(NO TEXT ON THIS PAGE)



9/5/2014 12:00 AM

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

CONTRACT PIN: 8502014WM0003C
PROJECT ID: MED598B

BID SCHEDULE

- NOTE:**
- (1) The Agency may reject a bid if it contains unbalanced bid prices. An unbalanced bid is considered to be one containing lump sum or unit items which do not reflect reasonable actual costs plus a reasonable proportionate share of the Bidder's anticipated profit, overhead costs, and other indirect costs, anticipated for the performance of the items in question.
 - (2) The following bid prices on Unit Price Contracts are to be paid for the actual quantities of the item numbers in the completed work or structure, and they cover the cost of all work, labor, material, tools, plant and appliances of every description necessary to complete the entire work, as specified, and the removal of all debris, temporary work and appliances.
 - (3) **PLEASE BE SURE A LEGIBLE BID IS ENTERED, IN INK, FOR EACH ITEM.**
Alterations must be initialed in ink by the bidder.
 - (4) The Extended Amount entered in Column 6 shall be the product of the Estimated Quantity in Column 3 times the Unit Price Bid in Column 5.
 - (5) Prospective bidders must examine the Bid Schedule carefully and, before bidding, must advise the Commissioner, in writing, if any pages are missing, and must request that such missing pages be furnished them. The pages of this Bid Schedule are numbered consecutively, as follows: B - 3 Through B - 50
REVISION # 11

**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 # 11

9/5/2014 12:00 AM

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

PROJECT ID: MED598B
 CONTRACT PIN: 8502014WMM0003C

BID SCHEDULE FORM

SEQ. NO.	ITEM NUMBER and DESCRIPTION	ENGINEER ESTIMATE QUANTITY	UNIT	UNIT PRICE (IN FIGURES)	EST. QUANTITY	EST. AMOUNT (IN FIGURES)
001	4.02 AF-R ASPHALTIC CONCRETE WEARING COURSE, 2" THICK	2,567.00	S.Y.	30.00	00	77,010.00
002	4.02 AG ASPHALTIC CONCRETE WEARING COURSE, 3" THICK	19,503.00	S.Y.	5.00	00	97,515.00
003	4.02 CA BINDER MIXTURE	7,455.00	TONS	1.00	00	7,455.00
004	4.04 H CONCRETE BASE FOR PAVEMENT, VARIABLE THICKNESS FOR TRENCH RESTORATION, (HIGH-EARLY STRENGTH)	154.00	C.Y.	250.00	00	38,500.00
005	4.04 HD CONCRETE BASE FOR PAVEMENT, 9" THICK (HIGH-EARLY STRENGTH)	5,339.00	C.Y.	50.00	00	266,950.00
006	4.05 AX HIGH-EARLY STRENGTH REINFORCED CONCRETE PAVEMENT (BUS STOPS)	85.00	C.Y.	50.00	00	4,250.00

B-4
 REVISION # 11

9/5/2014 12:00 AM

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

PROJECT ID: MED598B
 CONTRACT PIN: 8502014WMM0003C

BID SCHEDULE FORM

ITEM NO.	DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	TOTAL PRICE	REMARKS
007	4.07 BA RESET GRANITE CURB	L.F.	1	60.00	60.00	
008	4.08 BA CONCRETE CURB (21" DEEP)	L.F.	0	530.00	265.00	
009	4.09 AD STRAIGHT STEEL FACED CONCRETE CURB (18" DEEP)	L.F.	1	1,120.00	1,120.00	
010	4.09 AE STRAIGHT STEEL FACED CONCRETE CURB (21" DEEP)	L.F.	1	3,797.00	5,695.00	
011	4.09 BD DEPRESSED STEEL FACED CONCRETE CURB (18" DEEP)	L.F.	1	120.00	120.00	
012	4.09 BE DEPRESSED STEEL FACED CONCRETE CURB (21" DEEP)	L.F.	1	2,041.00	3061.00	

9/5/2014 12:00 AM

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

PROJECT ID: MED598B
 CONTRACT PIN: 8502014WWM0003C

BID SCHEDULE FORM

QTY	DESCRIPTION	ESTIMATE QUANTITY	UNIT	UNIT PRICE (DOLLARS)	EXTENDED AMOUNT (DOLLARS)
013	4.09 CD CORNER STEEL FACED CONCRETE CURB (18" DEEP)	265.00	L.F.	150	39,750
014	4.09 CE CORNER STEEL FACED CONCRETE CURB (21" DEEP)	240.00	L.F.	200	48,000
015	4.13 AAS 4" CONCRETE SIDEWALK (UNPIGMENTED)	24,770.00	S.F.	200	4,954,000
016	4.13 BAS 7" CONCRETE SIDEWALK (UNPIGMENTED)	1,550.00	S.F.	800	1,240,000
017	4.13 BR 7" REINFORCED CONCRETE SIDEWALK (UNPIGMENTED)	7,073.00	S.F.	900	6,365,700
018	4.13 DE EMBEDDED PREFORMED DETECTABLE WARNING UNITS	630.00	S.F.	1500	9,450,000

B-6
 REVISION # 11

9/5/2014 12:00 AM

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

PROJECT ID: MED598B
 CONTRACT PIN: 8502014WMM0003C

BID SCHEDULE FORM

SEQ. NO.	DESCRIPTION	UNIT	QTY	UNIT PRICE	TOTAL PRICE
019	4.15 TOPSOIL	C.Y.	44	00	1850 00
020	4.16 AAT TREES TRANSPLANTED, UP TO 4" CALIPER, ALL TYPES	EACH	950	00	3800 00
021	4.18 A MAINTENANCE TREE PRUNING (UNDER 12" CAL.)	EACH	275	00	8250 00
022	4.18 B MAINTENANCE TREE PRUNING (12" TO UNDER 18" CAL.)	EACH	47	00	94 00
023	4.21 TREE CONSULTANT	P/HR	0	01	1 92
024	50.11CS056090 5.6" W X 9.0" H SINGLE BARREL FLAT TOP REINFORCED CONCRETE COMBINED SEWER	L.F.	5,200	00	182,000 00

9/5/2014 12:00 AM

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

PROJECT ID: MED598B
 CONTRACT PIN: 8502014WMM0003C

BID SCHEDULE FORM

SEQ. NO.	ITEM NUMBER AND DESCRIPTION	ENGINEERS ESTIMATE OF QUANTITY	UNIT	UNIT PRICE (IN FIGURES) DOLLARS	EXPENDITURE (IN FIGURES) DOLLARS
025	50.21C3E048D 48" R.C.P. CLASS III COMBINED SEWER, ENCASED IN CONCRETE	160.00	L.F.	1500	240,000
026	50.21C4C090D 90" R.C.P. CLASS IV COMBINED SEWER, ON CONCRETE CRADLE	352.00	L.F.	2500	880,000
027	50.31CC15 15" E.S.V.P. COMBINED SEWER, ON CONCRETE CRADLE	382.00	L.F.	600	229,200
028	50.41C6E16 16" D.I.P. CLASS 56 COMBINED SEWER, ENCASED IN CONCRETE	35.00	L.F.	730	25,550
029	50.62C90R5 DIRECT JACKED 90" R.C.P. CLASS V COMBINED SEWER	456.00	L.F.	15,602	6,840,925
030	50.72C0208VB0400 RECONSTRUCTION OF EXISTING 2'-8" W X 4'-0" H VERTICAL ELLIPTICAL BRICK COMBINED SEWER USING SHOTCRETE METHOD	75.00	L.F.	500	37,500

B - 8
 REVISION # 11

9/5/2014 12:00 AM

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

PROJECT ID: MED598B
 CONTRACT PIN: 8502014WMM0003C

BID SCHEDULE FORM

LINE NO.	ITEM NUMBER & DESCRIPTION	QTY	UNIT	UNIT PRICE	TOTAL PRICE	EST. PRICE	EST. PRICE
031	50.72C0400DDC0000 RECONSTRUCTION OF EXISTING 4'-0" DIAMETER CIRCULAR CONCRETE COMBINED SEWER USING SHOTCRETE METHOD	249.00	L.F.	500	124,500		
032	51.11C001 CHAMBER NO. 1	1.00	EACH	150,000	150,000		
033	51.11C002 CHAMBER NO. 2	1.00	EACH	213,000	213,000		
034	51.21L001000V SPECIAL MANHOLE NO. 1	1.00	EACH	81,000	81,000		
035	51.21L002000V SPECIAL MANHOLE NO. 2	1.00	EACH	75,000	75,000		
036	51.21L003000V SPECIAL MANHOLE NO. 3	1.00	EACH	76,000	76,000		

9/5/2014 12:00 AM

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

PROJECT ID: MED598B
 CONTRACT PIN: 8502014WMM0003C

BID SCHEDULE FORM

COL 1 SEQ NO	COL 2 ITEM NUMBER AND DESCRIPTION	COL 3 ENGINEERS ESTIMATE OF QUANTITY	COL 4 UNIT	COL 5 UNIT PRICE (FIGURES)	COL 6 EXTENDED AMOUNT (FIGURES)	COL 7 VOLARS	COL 8 CTS
037	51.21L004000V SPECIAL MANHOLE NO. 4	1.00	EACH	90,000.00	90,000.00		
038	51.21S0A1000V STANDARD MANHOLE TYPE A-1	3.00	EACH	6,000.00	18,000.00		
039	51.21S0D1090R STANDARD MANHOLE TYPE D-1 ON 90" R.C.P. SEWER	1.00	EACH	57,800.00	57,800.00		
040	51.22RS RECONSTRUCTION OF EXISTING MANHOLE ON EXISTING SHOTCRETED SEWER	4.00	EACH	1,500.00	6,000.00		
041	51.23RF REPLACEMENT OF EXISTING MANHOLE FRAME AND COVER	2.00	EACH	1,250.00	2,500.00		
042	51.41S001 STANDARD CATCH BASIN, TYPE 1	23.00	EACH	93,000.00	2,139,900.00		

B - 10
 REVISION # 11

9/5/2014 12:00 AM

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

PROJECT ID: MED598B
 CONTRACT PIN: 8502014WM0003C

BID SCHEDULE FORM

COL 1 ITEM NO.	COL 2 DESCRIPTION	COL 3 QUANTITY	COL 4 UNIT	COL 5 UNIT PRICE	COL 6 TOTAL PRICE	COL 7 TOTAL PRICE
043	52.11D12 12" DUCTILE IRON PIPE BASIN CONNECTION	1,150.00	L.F.		5,1450	00
044	52.31V08C15 8" E.S.V.P. SPUR FOR HOUSE CONNECTION ON 15" E.S.V.P. COMBINED SEWER	6.00	EACH		6	00
045	52.41D08R 8" D.I.P. HOUSE CONNECTION DRAIN ON CONCRETE CRADLE (RECONNECTION)	50.00	L.F.		50	00
046	52.41V08R 8" E.S.V.P. HOUSE CONNECTION DRAIN ON CONCRETE CRADLE (RECONNECTION)	50.00	L.F.		50	00
047	53.11DR TELEVISION INSPECTION AND DIGITAL AUDIO-VISUAL RECORDING OF SEWERS	901.00	L.F.		9,010	00
048	54.11SC SEWER CLEANING	375.00	L.F.		17,500	00

9/5/2014 12:00 AM

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

PROJECT ID: MED598B
 CONTRACT PIN: 8502014WMM0003C

BID SCHEDULE FORM

COL. 1 SEQ. NO.	COL. 2 ITEM NUMBER AND DESCRIPTION	COL. 3 ENGINEER'S ESTIMATE OF QUANTITY	COL. 4 UNIT	COL. 5 UNIT PRICE (IN FIGURES) DOLLARS	COL. 6 EXTENDED AMOUNT (IN FIGURES) DOLLARS
049	54.21PC PORTLAND CEMENT (TYPE V) - INJECTION GROUTING	100.00	BAGS	50	5,000
050	54.31SR SHOTCRETE FOR REPAIR WORK	500.00	C.F.	10	5,000
051	6.02 AAN UNCLASSIFIED EXCAVATION	7,545.00	C.Y.	44	558,330
052	6.06 GS RESET GRANITE SLAB SIDEWALK (ON MORTAR SETTING BED)	100.00	S.Y.	22	2,200
053	6.23 AB REMOVE EXISTING FIRE ALARM POST	1.00	EACH	440	440
054	6.23 BA FURNISH AND INSTALL FIRE ALARM POST AND SUBBASE IN ACCORDANCE WITH F.D. STD. DWG. #141	1.00	EACH	1660	1660

B - 12
 REVISION # 11

9/5/2014 12:00 AM

NEW YORK CITY DEPARTMENT OF DESIGN AND CONSTRUCTION PROJECT ID: MED598B
 DIVISION OF INFRASTRUCTURE - BUREAU OF DESIGN CONTRACT PIN: 8502014WMM0003C

BID SCHEDULE FORM

COL 1 SEC. NO.	COL 2 ITEM NUMBER AND DESCRIPTION	COL 3 QTY	COL 4 UNIT	COL 5 EST. PRICE	COL 6 GTS	COL 7 EST. PRICE	COL 8 GTS
055	6.23 BD FURNISH AND INSTALL 4-PAIR FIRE ALARM CABLE	110.00	L.F.	7	50	825	00
056	6.23 BFC FURNISH AND INSTALL FIRE DEPARTMENT 12 WIRE TERMINAL BOX AND TERMINATE FIRE ALARM CABLES	1.00	EACH	1270	00	1270	00
057	6.23 BGSE FURNISH AND INSTALL 4" P.V.C. CONDUIT, SCHEDULE 40, U.L. 651 (WITH PAVEMENT EXCAVATION)	25.00	L.F.	14	00	350	00
058	6.23 BHE FURNISH AND INSTALL 4" 90-DEGREE P.V.C. WIDE BEND, SCHEDULE 40, U.L. 651 (WITH PAVEMENT EXCAVATION) IN ACCORDANCE WITH F.D. STD. DWG. #111 OR #145AA	1.00	EACH	300	00	300	00
059	6.23 BP FURNISH AND INSTALL FIRE ALARM PEDESTAL BUMPERS (2 REQUIRED PER SET) IN ACCORDANCE WITH F.D. STD. DWG. #168	1.00	SETS	1501	26	1501	26
060	6.25 RS TEMPORARY SIGNS	3,290.00	S.F.	5	00	16,450	00

B-13
REVISION # 11

9/5/2014 12:00 AM

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

PROJECT ID: MED598B
 CONTRACT PIN: 8502014WMM0003C

BID SCHEDULE FORM

COI	COI	COI	COI	COI	COI	COI	
SECTION	ITEM NUMBER AND DESCRIPTION	ENGINEERS ESTIMATE QUANTITY	UNIT	UNIT PRICE (IN FIGURES)	EXTENSION AMT (IN FIGURES)	TOTAL	
061	6.26 TIMBER CURB	10,980.00	L.F.	10	60	109,800	00
062	6.28 AA LIGHTED TIMBER BARRICADES	1,520.00	L.F.	1	60	1520	00
063	6.28 ME LIGHTED TIMBER FENCING FOR USE IN LOWER MANHATTAN PROJECTS	1,030.00	L.F.	0	61	10	30
064	6.29 TTM TEMPORARY TUBULAR MARKERS	315.00	EACH	5	60	1575	00
065	6.34 ACT TEMPORARY CHAIN LINK FENCE, 6-0" HIGH	13,420.00	L.F.	15	60	201,300	00
066	6.34 ACTP TEMPORARY CHAIN LINK FENCE, 6-0" HIGH (WITH TOP AND BOTTOM RAILS AND POSTS MOUNTED ON STEEL PLATES)	13,420.00	L.F.	15	60	201,300	00

B - 14
 [REVISION # 1]

9/5/2014 12:00 AM

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

PROJECT ID: MED598B
 CONTRACT PIN: 8502014WMM0003C

BID SCHEDULE FORM

SEQ. NO.	ITEM NUMBER	QUANTITY	UNIT	ESTIMATE	PRICE	PAID
067	6.40 DC ENGINEER'S FIELD OFFICE WITH CONFERENCE ROOM	42.00	MONTH		5000	210,000
068	6.44 THERMOPLASTIC REFLECTORIZED PAVEMENT MARKINGS (4" WIDE)	7,925.00	L.F.		90	7,132
069	6.49 TEMPORARY PAVEMENT MARKINGS (4" WIDE)	15,850.00	L.F.		25	3,962
070	6.50 CLEANING OF DRAINAGE STRUCTURES	10.00	EACH		385	3,850
071	6.52 CG CROSSING GUARD	6,695.00	P/HR		50	334,750
072	6.53 REMOVE EXISTING LANE MARKINGS (4" WIDE)	15,850.00	L.F.		40	6,340

9/5/2014 12:00 AM

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

PROJECT ID: MED598B
 CONTRACT PIN: 8502014WM0003C

BID SCHEDULE FORM

COL 1 SEQ. NO.	COL 2 ITEM NUMBER and DESCRIPTION	COL 3 ESTIMATE OF QUANTITY	COL 4 UNIT	COL 5 UNIT PRICE (IN FIGURES, IN DOLLARS)	COL 6 EXTENDED AMOUNT (IN FIGURES, IN DOLLARS)
073	6.59 P TEMPORARY CONCRETE BARRIER	5,400.00	L.F.	1.00	5,400.00
074	6.59 PF TEMPORARY CONCRETE BARRIER WITH FENCE	5,400.00	L.F.	1.00	5,400.00
075	6.84 B LOLLIPOP TYPE BUS STOP SIGNS PRICE BID SHALL BE FOR THE FIXED SUM OF \$ 3,500.00	1.00	F.S.	3,500.00	3,500.00
076	6.85 A TRAFFIC ENFORCEMENT AGENTS PRICE BID SHALL BE FOR THE FIXED SUM OF \$ 6,326,027.55	1.00	F.S.	6,326,028.55	6,326,028.55
077	6.87 PLASTIC BARRELS	1,940.00	EACH	3	485

B - 16
 [REVISION # 1]

9/5/2014 12:00 AM

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

PROJECT ID: MED598B
 CONTRACT PIN: 8502014WMM0003C

BID SCHEDULE FORM

ITEM NO.	ITEM DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL AMOUNT	EST. AMOUNT
078	6.91 REFLECTIVE CRACKING MEMBRANE (18" WIDE)	14,800.00	L.F.	2	50	37,000.00
079	6.97 A EXTRA-HIGH-EARLY STRENGTH CONCRETE	200.00	C.Y.	25	60	5,000.00
080	60.11R520 FURNISHING AND DELIVERING 20-INCH DUCTILE IRON RESTRAINED JOINT PIPE (CLASS 55)	3,039.00	L.F.	201	60	616,889.00
081	60.11R524 FURNISHING AND DELIVERING 24-INCH DUCTILE IRON RESTRAINED JOINT PIPE (CLASS 55)	58.00	L.F.	225	60	13,050.00
082	60.11R536 FURNISHING AND DELIVERING 36-INCH DUCTILE IRON RESTRAINED JOINT PIPE (CLASS 55)	45.00	L.F.	450	60	20,250.00
083	60.11R606 FURNISHING AND DELIVERING 8-INCH DUCTILE IRON RESTRAINED JOINT PIPE (CLASS 56)	700.00	L.F.	574	60	39,960.00

9/5/2014 12:00 AM

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

PROJECT ID: MED598B
 CONTRACT PIN: 8502014WMM0003C

BID SCHEDULE FORM

COL. 1 SEQUENCE	COL. 2 ITEM NUMBER AND DESCRIPTION	COL. 3 ENGINEERS ESTIMATE OF QUANTITY	COL. 4 UNIT	COL. 5 UNIT PRICE (IN FIGURES) DOLLARS	COL. 6 TOTAL QUANTITY (IN FIGURES) DOLLARS	COL. 7 TOTAL QUANTITY (IN FIGURES) DOLLARS
084	60.11R612 FURNISHING AND DELIVERING 12-INCH DUCTILE IRON RESTRAINED JOINT PIPE (CLASS 56)	3,687.00	L.F.	163	60	379,761
085	60.12D06 LAYING 6-INCH DUCTILE IRON PIPE AND FITTINGS	875.00	L.F.	170	60	198,750
086	60.12D12 LAYING 12-INCH DUCTILE IRON PIPE AND FITTINGS	3,798.00	L.F.	180	60	683,640
087	60.12D20 LAYING 20-INCH DUCTILE IRON PIPE AND FITTINGS	3,155.00	L.F.	240	60	757,200
088	60.12D24 LAYING 24-INCH DUCTILE IRON PIPE AND FITTINGS	65.00	L.F.	1	60	65
089	60.12D36 LAYING 36-INCH DUCTILE IRON PIPE AND FITTINGS	65.00	L.F.	1	60	65

B - 18
 REVISION # 11

9/5/2014 12:00 AM

NEW YORK CITY DEPARTMENT OF DESIGN AND CONSTRUCTION
 DIVISION OF INFRASTRUCTURE - BUREAU OF DESIGN
 PROJECT ID: MED598B
 CONTRACT PIN: 8502014WM0003C

BID SCHEDULE FORM

SEQ. NO.	DESCRIPTION	QUANTITY	UNIT	EST. PRICE	EST. TOTAL	EST. TOTAL	EST. TOTAL
090	60.13M0A24 FURNISHING AND DELIVERING DUCTILE IRON MECHANICAL JOINT 24-INCH DIAMETER AND SMALLER FITTINGS, INCLUDING WEDGE TYPE RETAINER GLANDS	61.00	TONS	2	122		
091	60.13M5R36 FURNISHING AND DELIVERING 36-INCH DUCTILE IRON MECHANICAL JOINT REDUCERS (CLASS 55)	3.00	EACH	5,000	15,000		
092	60.13M5S36 FURNISHING AND DELIVERING 36-INCH DUCTILE IRON MECHANICAL JOINT SLEEVES (CLASS 55)	1.00	EACH	5,000	5,000		
093	60.18BJC20E FURNISHING, DELIVERING AND INSTALLING BELL JOINT CLAMPS, COMPLETE FOR 30-INCH PIPE AND LESS	8.00	EACH	1135	9,080		
094	60.21SP3T36 FURNISHING, DELIVERING AND LAYING 36-INCH STRAIGHT STEEL PIPE, 3/8-INCH WALL THICKNESS	1,138.00	L.F.	1496	1,762,448		
095	60.21SP4T48 FURNISHING, DELIVERING AND LAYING 48-INCH STRAIGHT STEEL PIPE, 1/2-INCH WALL THICKNESS	2,337.00	L.F.	1579	3,650,123		

B - 19
 REVISION # 11

9/5/2014 12:00 AM

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

PROJECT ID: MED598B
 CONTRACT PIN: 8502014WMM0003C

BID SCHEDULE FORM

SEQ. NO.	ITEM NUMBER AND DESCRIPTION	ESTIMATE QUANTITY	UNIT	UNIT PRICE (DOLLARS)	EXTENSION (DOLLARS)	UNIT PRICE (DOLLARS)	EXTENSION (DOLLARS)
096	60.22BR3T36 FURNISHING, DELIVERING AND LAYING 36-INCH STEEL BENDS AND REDUCERS, 3/8-INCH WALL THICKNESS	183.00	L.F.	1225	224,175		
097	60.22BR4T48 FURNISHING, DELIVERING AND LAYING 48-INCH STEEL BENDS AND REDUCERS, 1/2-INCH WALL THICKNESS	279.00	L.F.	1258	350,982		
098	60.23ST36T36 FURNISHING, DELIVERING AND INSTALLING 36-INCH X 36-INCH STEEL TEE	2.00	EACH	25,000	50,000		
099	60.23ST36T48 FURNISHING, DELIVERING AND INSTALLING 48-INCH X 36-INCH STEEL TEE	2.00	EACH	27,000	54,000		
100	60.23ST48T48 FURNISHING, DELIVERING AND INSTALLING 48-INCH X 48-INCH STEEL TEE	3.00	EACH	30,000	90,000		
101	60.24SB48 FURNISHING, DELIVERING AND INSTALLING 48-INCH DIAMETER STEEL BULKHEAD	1.00	EACH	11,100	11,100		

B - 20
 REVISION # 11

9/5/2014 12:00 AM

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

PROJECT ID: MED598B
 CONTRACT PIN: 8502014WMM0003C

BID SCHEDULE FORM

SEQ. NO.	ITEM NUMBER AND DESCRIPTION	QUANTITY	UNIT	PRICE	TOTAL	UNIT PRICE	TOTAL
102	60.25PSO FURNISHING, DELIVERING AND INSTALLING PLATE STEEL OUTLETS ON STEEL PIPE, ACCESS MANHOLE OUTLETS WITH COVERS, AND NUTS AND BOLTS COMPLETE	14,030.00	LBS.	10	140,300	10	140,300
103	60.27RSC36 FURNISHING, DELIVERING AND INSTALLING 36-INCH DIAMETER BOLTED, SPLIT SLEEVE-TYPE RESTRAINED COUPLING	2.00	EACH	20,800	41,600	20,800	41,600
104	60.27RSC48 FURNISHING, DELIVERING AND INSTALLING 48-INCH DIAMETER BOLTED, SPLIT SLEEVE-TYPE RESTRAINED COUPLING	2.00	EACH	29,100	58,200	29,100	58,200
105	60.29CP FURNISHING, INSTALLING AND TESTING CORROSION CONTROL AND/OR CATHODIC PROTECTION SYSTEM	1.00	L.S.	36,115	36,115	36,115	36,115
106	61.11DFM06 FURNISHING AND DELIVERING 6-INCH FLANGED-MECHANICAL JOINT DUCTILE IRON GATE VALVE COMPLETE WITH WEDGE TYPE RETAINER GLAND	12.00	EACH	1,550	18,600	1,550	18,600

9/5/2014 12:00 AM

NEW YORK CITY DEPARTMENT OF DESIGN AND CONSTRUCTION
 DIVISION OF INFRASTRUCTURE - BUREAU OF DESIGN
BID SCHEDULE FORM
 PROJECT ID: MED598B
 CONTRACT PIN: 8502014WMM0003C

COL NO	ITEM NUMBER and DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL PRICE	UNIT PRICE	TOTAL PRICE
107	61.11DFM12 FURNISHING AND DELIVERING 12-INCH FLANGED-MECHANICAL JOINT DUCTILE IRON GATE VALVE COMPLETE WITH WEDGE TYPE RETAINER GLAND	1.00	EACH	3,875	3,875		
108	61.11DFM20 FURNISHING AND DELIVERING 20-INCH FLANGED-MECHANICAL JOINT DUCTILE IRON GATE VALVE COMPLETE WITH WEDGE TYPE RETAINER GLAND	4.00	EACH	18,400	73,600		
109	61.11DMM06 FURNISHING AND DELIVERING 6-INCH MECHANICAL JOINT DUCTILE IRON GATE VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	29.00	EACH	1050	29,050		
110	61.11DMM12 FURNISHING AND DELIVERING 12-INCH MECHANICAL JOINT DUCTILE IRON GATE VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	22.00	EACH	3100	68,200		
111	61.11DMM20 FURNISHING AND DELIVERING 20-INCH MECHANICAL JOINT DUCTILE IRON GATE VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	14.00	EACH	16,950	237,300		

B - 22
 REVISION # 11

9/5/2014 12:00 AM

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

PROJECT ID: MED598B
 CONTRACT PIN: 8502014WMM0003C

BID SCHEDULE FORM

SEQ. NO.	ITEM NUMBER	QUANTITY	UNIT	UNIT PRICE	TOTAL PRICE	UNIT PRICE	TOTAL PRICE
112	61.11TWC03 FURNISHING AND DELIVERING 3-INCH WET CONNECTION TAPPING VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	6.00	EACH	1	∞	6	∞
113	61.11TWC04 FURNISHING AND DELIVERING 4-INCH WET CONNECTION TAPPING VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	6.00	EACH	1	∞	6	∞
114	61.11TWC06 FURNISHING AND DELIVERING 6-INCH WET CONNECTION TAPPING VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	4.00	EACH	1	∞	4	∞
115	61.11TWC08 FURNISHING AND DELIVERING 8-INCH WET CONNECTION TAPPING VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	4.00	EACH	1	∞	4	∞
116	61.12DFM06 SETTING 8-INCH FLANGED-MECHANICAL JOINT DUCTILE IRON GATE VALVE COMPLETE WITH WEDGE TYPE RETAINER GLAND	12.00	EACH	712	∞	8,544	∞
117	61.12DFM12 SETTING 12-INCH FLANGED-MECHANICAL JOINT DUCTILE IRON GATE VALVE COMPLETE WITH WEDGE TYPE RETAINER GLAND	1.00	EACH	890	∞	890	∞

B - 23
 REVISION # 11

9/5/2014 12:00 AM

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

PROJECT ID: MED5988
 CONTRACT PIN: 8502014WMM0003C

BID SCHEDULE FORM

COL 1 SEQ. NO.	COL 2 ITEM NUMBER	COL 3 ESTIMATE QUANTITY	COL 4 UNITS	COL 5 UNIT PRICE (IN FIGURES) DOLLARS	COL 6 BID AMOUNT (IN FIGURES) DOLLARS
118	61.12DFM20 SETTING 20-INCH FLANGED-MECHANICAL JOINT DUCTILE IRON GATE VALVE COMPLETE WITH WEDGE TYPE RETAINER GLAND	4.00	EACH	1068	4272
119	61.12DMM06 SETTING 6-INCH MECHANICAL JOINT DUCTILE IRON GATE VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	29.00	EACH	412	26648
120	61.12DMM12 SETTING 12-INCH MECHANICAL JOINT DUCTILE IRON GATE VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	22.00	EACH	896	19,586
121	61.12DMM20 SETTING 20-INCH MECHANICAL JOINT DUCTILE IRON GATE VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	14.00	EACH	1068	14,952
122	61.12TWC03 SETTING 3-INCH WET CONNECTION TAPPING VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	6.00	EACH	1	6
123	61.12TWC04 SETTING 4-INCH WET CONNECTION TAPPING VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	6.00	EACH	1	6

B - 24
 REVISION # 11

9/5/2014 12:00 AM

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

PROJECT ID: MED598B
 CONTRACT PIN: 8502014WMM0003C

BID SCHEDULE FORM

ITEM NUMBER	DESCRIPTION	QUANTITY	UNIT	ESTIMATED PRICE	ESTIMATED TOTAL	ESTIMATED TOTAL
124	61.12TWC06 SETTING 8-INCH WET CONNECTION TAPPING VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	4.00	EACH	1	00	4
125	61.12TWC08 SETTING 8-INCH WET CONNECTION TAPPING VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	4.00	EACH	1	00	4
126	61.21BVB36 FURNISHING, DELIVERING AND INSTALLING 36-INCH BUTTERFLY VALVE WITH BY-PASS ARRANGEMENT AND OUTLET, COMPLETE	2.00	EACH	108,225	00	216,450
127	61.21BVB48 FURNISHING, DELIVERING AND INSTALLING 48-INCH BUTTERFLY VALVE WITH BY-PASS ARRANGEMENT AND OUTLET, COMPLETE	3.00	EACH	162,512	00	487,536
128	61.21EJB48 FURNISHING, DELIVERING AND INSTALLING 48-INCH EXPANSION JOINT FOR BUTTERFLY VALVE INCLUDING 8-INCH BY-PASS OUTLET	1.00	EACH	1500	00	1500
129	62.11SD FURNISHING AND DELIVERING HYDRANTS	35.00	EACH	1475	00	49,875

9/5/2014 12:00 AM

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

PROJECT ID: MED598B
 CONTRACT PIN: 8502014WMM0003C

BID SCHEDULE FORM

COL 1 SEQ. NO.	COL 2 ITEM NUMBER AND DESCRIPTION	COL 3 QUANTITY	COL 4 UNIT	COL 5 UNIT PRICE (IN FIGURES)	COL 6 TOTAL (IN FIGURES)	COL 7 UNIT PRICE (IN FIGURES)	COL 8 TOTAL (IN FIGURES)
130	62.12SG SETTING HYDRANTS COMPLETE WITH WEDGE TYPE RETAINER GLANDS	35.00	EACH	1350	47,250.00		
131	62.13RH REMOVING HYDRANTS	26.00	EACH	0	0.00		
132	62.14FS FURNISHING, DELIVERING AND INSTALLING HYDRANT FENDERS	84.00	EACH	750	63,000.00		
133	63.11MH FURNISHING, DELIVERING AND INSTALLING 36-INCH CAST IRON MANHOLE HEADS AND COVERS	12.00	TONS	1300	15,600.00		
134	63.11MS FURNISHING, DELIVERING AND INSTALLING MANHOLE STEPS TYPE PS2-PF	362.00	EACH	25	9,050.00		
135	63.11VC FURNISHING AND DELIVERING VARIOUS CASTINGS	70.00	TONS	200	14,000.00		

B - 26
 REVISION # 11

9/5/2014 12:00 AM

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

PROJECT ID: MED598B
 CONTRACT PIN: 8502014WMM0003C

BID SCHEDULE FORM

SEQ. NO.	ITEM AND DESCRIPTION	ESTIMATE OF QUANTITY	UNIT	NO. OF BIDDERS	MINIMUM BID	MAXIMUM BID
136	64.11EL WITHDRAWING AND REPLACING HOUSE SERVICES USING 1-1/2-INCH OR LARGER SCREW TAPS	5.00	EACH	2	16	6
137	64.11ST WITHDRAWING AND REPLACING HOUSE SERVICES USING SMALLER THAN 1-1/2-INCH SCREW TAPS	3.00	EACH	2	6	6
138	64.12COEG CUTTING AND OFFSETTING HOUSE SERVICE WATER CONNECTIONS (EQUAL TO OR GREATER THAN 3-INCH DIAMETER)	90.00	L.F.	2	150	60
139	64.12COLT CUTTING AND OFFSETTING HOUSE SERVICE WATER CONNECTIONS (LESS THAN 3-INCH DIAMETER)	40.00	L.F.	2	80	60
140	64.12ESEG EXTENDING HOUSE SERVICE WATER CONNECTIONS (EQUAL TO OR GREATER THAN 3-INCH DIAMETER)	90.00	L.F.	2	180	60
141	64.12ESLT EXTENDING HOUSE SERVICE WATER CONNECTIONS (LESS THAN 3-INCH DIAMETER)	40.00	L.F.	2	80	60

9/5/2014 12:00 AM

NEW YORK CITY DEPARTMENT OF DESIGN AND CONSTRUCTION
 DIVISION OF INFRASTRUCTURE - BUREAU OF DESIGN
BID SCHEDULE FORM
 PROJECT ID: MED598B
 CONTRACT PIN: 8502014WMM0003C

SEQ. NO.	ITEM NUMBER and DESCRIPTION	ESTIMATE OF QUANTITY	UNIT	UNIT PRICE (IN FIGURES) DOLLARS	TOTAL (IN FIGURES) DOLLARS	ESTIMATE OF QUANTITY	UNIT	UNIT PRICE (IN FIGURES) DOLLARS	TOTAL (IN FIGURES) DOLLARS
142	64.13WC12 FURNISHING, DELIVERING AND INSTALLING WET CONNECTION SLEEVE ON 12-INCH WATER MAIN PIPE WITH VARIOUS OUTLETS	12.00	EACH	2	24				
143	64.13WC20 FURNISHING, DELIVERING AND INSTALLING WET CONNECTION SLEEVE ON 20-INCH WATER MAIN PIPE WITH VARIOUS OUTLETS	8.00	EACH	2	16				
144	65.11BR FURNISHING, DELIVERING AND INSTALLING BANDS, RODS, WASHERS, ETC., COMPLETE, FOR RESTRAINING JOINTS	4,691.00	LBS.	2	9,382				
145	65.21PS FURNISHING AND PLACING POLYETHYLENE SLEEVE Unit price bid shall not be less than: \$ 0.50	7,797.00	L.F.	3	3,898				
146	65.31FF FURNISHING, DELIVERING AND PLACING FILTER FABRIC Unit price bid shall not be less than: \$ 0.10	199,294.00	S.F.	10	19,929				
147	65.41PS06 FURNISHING, DELIVERING AND INSTALLING 6-INCH PIPE-TO-WALL PENETRATION SEAL, INCLUDING STEEL SLEEVE AND ANCHOR/WATER STOP PLATE	10.00	EACH	18	18,000				

B - 28
 [REVISION # 1]

9/5/2014 12:00 AM

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

PROJECT ID: MED598B
 CONTRACT PIN: 8502014WMM0003C

BID SCHEDULE FORM

ITEM NUMBER	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL	EST. AMOUNT	EST. AMOUNT
148	65.41PS12 FURNISHING, DELIVERING AND INSTALLING 12-INCH PIPE-TO-WALL PENETRATION SEAL, INCLUDING STEEL SLEEVE AND ANCHOR/WATER STOP PLATE	2.00	EACH	865	1730	1616	1616
149	65.41PS20 FURNISHING, DELIVERING AND INSTALLING 20-INCH PIPE-TO-WALL PENETRATION SEAL, INCLUDING STEEL SLEEVE AND ANCHOR/WATER STOP PLATE	8.00	EACH	3436	27488	27440	27440
150	65.41PS36 FURNISHING, DELIVERING AND INSTALLING 36-INCH PIPE-TO-WALL PENETRATION SEAL, INCLUDING STEEL SLEEVE AND ANCHOR/WATER STOP PLATE	12.00	EACH	4955	59460	59460	59460
151	65.41PS48 FURNISHING, DELIVERING AND INSTALLING 48-INCH PIPE-TO-WALL PENETRATION SEAL, INCLUDING STEEL SLEEVE AND ANCHOR/WATER STOP PLATE	16.00	EACH	4385	69960	76160	76160
152	65.51PC FURNISHING AND PLACING CAST-IN-PLACE CONCRETE CLASS 40 AND PRECAST CONCRETE CLASS 50	445.00	C.Y.	1160	516200	489500	489500

9/5/2014 12:00 AM

NEW YORK CITY DEPARTMENT OF DESIGN AND CONSTRUCTION
 DIVISION OF INFRASTRUCTURE - BUREAU OF DESIGN
BID SCHEDULE FORM
 PROJECT ID: MED598B
 CONTRACT PIN: 8502014WWM0003C

SEQ. NO.	ITEM NUMBER AND DESCRIPTION	ENGINEERS ESTIMATE OF QUANTITY	COL. 4 UNIT	COL. 5 UNIT PRICE (IN FIGURES) DOLLARS	COL. 6 CTS	COL. 7 EXTENDED AMOUNT (IN FIGURES) DOLLARS	COL. 8 CTS
153	65.61SS FURNISHING, DELIVERING AND PLACING STRUCTURAL REINFORCING AND MISCELLANEOUS STEEL.	66,930.00	LBS.	2	60	133,860	60
154	65.71SG FURNISHING, DELIVERING AND PLACING SCREENED GRAVEL OR SCREENED BROKEN STONE BEDDING	3,630.00	C.Y.	0	50	1515	60
155	67.11AA12 INCREMENTAL COST FOR ASBESTOS ABATEMENT WORK PERFORMED ON EXISTING 12-INCH DIAMETER STEEL PIPE WATER MAIN TO BE REMOVED, COMPLETE	200.00	L.F.	51	50	10,300	60
156	67.11AA48 INCREMENTAL COST FOR ASBESTOS ABATEMENT WORK PERFORMED ON EXISTING 48-INCH DIAMETER STEEL PIPE WATER MAIN TO BE REMOVED, COMPLETE	300.00	L.F.	69	60	20,700	60
157	7.13 B MAINTENANCE OF SITE Unit price bid shall not be less than: \$ 15,000.00	36.00	MONTH	53,400	60	1,922,400	60

B - 30
 REVISION # 11

9/5/2014 12:00 AM

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

PROJECT ID: MED598B
 CONTRACT PIN: 8502014WMM0003C

BID SCHEDULE FORM

COL 1 SEQ. NO.	COL 2 ITEM NUMBER, DESCRIPTION	COL 3 ENGINEER'S ESTIMATE OF QUANTITY	COL 4 UNIT	COL 5 UNIT PRICE (IN FIGURES)	COL 6 TOTAL (IN FIGURES)	COL 7 TOTAL (IN FIGURES)
158	7.19 LOAD TRANSFER JOINT	57.00	L.F.	40	2280	00
159	7.30 A REMOVAL OF TRACK	110.00	C.Y.	10	1100	00
160	7.36 PEDESTRIAN STEEL BARRICADES	1,600.00	L.F.	12	19200	00
161	7.88 AA RODENT INFESTATION SURVEY AND MONITORING Unit price bid shall not be less than: \$ 1,750.00	1.00	L.S.	6475	6475	00
162	7.88 AB RODENT BAIT STATIONS Unit price bid shall not be less than: \$ 60.00	280.00	EACH	60	16800	00
163	7.88 AC BAITING OF RODENT BAIT STATIONS Unit price bid shall not be less than: \$ 8.50	280.00	EACH	8	2380	00

B - 31
 REVISION # 11

9/5/2014 12:00 AM

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

PROJECT ID: MED598B
 CONTRACT PIN: 8502014WMM0003C

BID SCHEDULE FORM

COL. 1 SER. NO.	COL. 2 ITEM NUMBER AND DESCRIPTION	COL. 3 ESTIMATE OF QUANTITY	COL. 4 UNIT	COL. 5 UNIT PRICE (IN FIGURES) DOLLARS	COL. 6 CTS	COL. 7 TOTAL AMOUNT (IN FIGURES) DOLLARS	COL. 8 CTS
164	7.88 AD WATERBUG BAIT APPLICATIONS Unit price bid shall not be less than: \$ 65.00	252.00	BLOCK	65	00	16,380	00
165	70.12AN CONTINUOUS FLIGHT AUGER (CFA) PILES	1,400.00	V.F.	125	00	175,000	00
166	70.12AT CONTINUOUS FLIGHT AUGER (CFA) PILES, LOAD TEST	1.00	EACH	25,000	00	25,000	00
167	70.21DK DECKING	1,200.00	S.Y.	100	00	120,000	00
168	70.31FN FENCING Unit price bid shall not be less than: \$ 2.00	10,980.00	L.F.	2	00	21,960	00

9/5/2014 12:00 AM

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

PROJECT ID: MED598B

CONTRACT PIN: 8502014WWM0003C

BID SCHEDULE FORM

SEQ. NO.	QUANTITY	UNIT	CONTRACT PRICE	ESTIMATED QUANTITY	ESTIMATED CONTRACT PRICE	CONTRACT PRICE PER UNIT	ESTIMATED QUANTITY	ESTIMATED CONTRACT PRICE	CONTRACT PRICE PER UNIT
169	70.41M007540001	SHORING, BRACING, UNDERPINNING, SUPPORTING, PROTECTING AND MAINTAINING OF BUILDING AT MANHATTAN BLOCK NO. 754, LOT NO. 1 - TWELVE (12) STORY HIGH RISE, RESIDENTIAL (363 WEST 30TH STREET)	1.00	L.S.	5000	5000	5000	5000	1.00
170	70.51EO	EXCAVATION OF BOULDERS IN OPEN CUT Unit price bid shall not be less than: \$ 75.00	160.00	C.Y.	175	12,000	12,000	12,000	75.00
171	70.61RE	ROCK EXCAVATION	1,305.00	C.Y.	500	652,500	652,500	652,500	150.00
172	70.71SB	STONE BALLAST Unit price bid shall not be less than: \$ 15.00	105.00	C.Y.	15	1575	1575	1575	15.00
173	70.81CB	CLEAN BACKFILL Unit price bid shall not be less than: \$ 15.00	9,019.00	C.Y.	15	135,285	135,285	135,285	15.00

9/5/2014 12:00 AM

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

PROJECT ID: MED598B

CONTRACT PIN: 8502014VWM0003C

BID SCHEDULE FORM

COL 1 SECTION	COL 2 ITEM NUMBER and DESCRIPTION	COL 3 ENGINEER'S QUANTITY	COL 4 SOL'S UNIT	COL 5 UNIT PRICE (IN FIGURES)	COL 6 EXTENDED AMOUNT (IN FIGURES)
174	70.91SW12 FURNISHING AND PLACING SHEETING AND BRACING IN TRENCH FOR WATER MAIN PIPE 12-INCH IN DIAMETER AND LESS	4,130.00	S.F.	1	4,130.00
175	70.91SW20 FURNISHING AND PLACING SHEETING AND BRACING IN TRENCH FOR WATER MAIN PIPE 20-INCH IN DIAMETER	2,710.00	S.F.	1	2,710.00
176	72.11HF HYDRAULIC FILL FOR ABANDONED SEWERS AND WATER MAINS	150.00	C.Y.	250	37,500.00
177	73.11AB ADDITIONAL BRICK MASONRY Unit price bid shall not be less than: \$ 62.50	47.00	C.Y.	62	2,937.00
178	73.21AC ADDITIONAL CONCRETE Unit price bid shall not be less than: \$ 75.00	195.00	C.Y.	275	53,625.00
179	73.31AE0 ADDITIONAL EARTH EXCAVATION INCLUDING TEST PITS (ALL DEPTHS) Unit price bid shall not be less than: \$ 22.50	485.00	C.Y.	400	194,000.00

9/5/2014 12:00 AM

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

PROJECT ID: MED598B
 CONTRACT PIN: 8502014WMM0003C

BID SCHEDULE FORM

QTY	DESCRIPTION	UNIT	ESTIMATED QUANTITY	UNIT PRICE	TOTAL PRICE	ESTIMATED QUANTITY	UNIT PRICE	TOTAL PRICE
180	73.41AG ADDITIONAL SELECT GRANULAR BACKFILL Unit price bid shall not be less than: \$ 15.00	C.Y.	1,015.00	15	15,225			
181	73.51AS ADDITIONAL STEEL REINFORCING BARS Unit price bid shall not be less than: \$ 1.00	LBS.	6,500.00	1	6,500			
182	76.11CR CONSTRUCTION REPORT	L.S.	1.00	166,250	166,250			
183	76.21MR MONITORING AND POST-CONSTRUCTION REPORT	L.S.	1.00	170,000	170,000			
184	8.01 C1 HANDLING, TRANSPORTING AND DISPOSAL OF NON-HAZARDOUS CONTAMINATED SOIL	TONS	18,000.00	2	36,000			
185	8.01 C2 SAMPLING AND TESTING OF CONTAMINATED/POTENTIALLY HAZARDOUS SOIL FOR DISPOSAL PURPOSES	SETS	10.00	1500	15,000			

B - 35
 REVISION # 11

9/5/2014 12:00 AM

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

PROJECT ID: MED598B
 CONTRACT PIN: 8502014WWM0003C

BID SCHEDULE FORM

COL 1 SEQ. NO.	COL 2 ITEM NUMBER and DESCRIPTION	COL 3 ESTIMATE QUANTITY	COL 4 UNIT	COL 5 UNIT PRICE (IN FIGURES)	COL 6 EXTENDED AMOUNT (IN FIGURES)
186	8.01 H HANDLING, TRANSPORTING AND DISPOSAL OF HAZARDOUS SOIL	380.00	TONS	7	2666
187	8.01 S HEALTH AND SAFETY	1.00	L.S.	5000	5000
188	8.01 W1 REMOVAL, TREATMENT, AND DISCHARGE/DISPOSAL OF CONTAMINATED WATER	30.00	DAY	1000	30,000
189	8.01 W2 SAMPLING AND TESTING OF WATER	2.00	SETS	2100	4,200
190	8.08 VARIABLE MESSAGE BOARD	4.00	EACH	17,500	70,000

B - 36
 REVISION # 11

9/5/2014 12:00 AM

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

PROJECT ID: MED598B
 CONTRACT PIN: 8502014WMM0003C

BID SCHEDULE FORM

SEQ. NO.	ITEM NUMBER AND DESCRIPTION	QTY	UNIT	EST. PRICE	EST. PRICE	EST. PRICE
191	9.04 HW ALLOWANCE FOR ANTI-FREEZE ADDITIVE IN CONCRETE PRICE BID SHALL BE FOR THE FIXED SUM OF \$ 25,000.00	1.00	F.S.	25,000.00	25,000.00	25,000.00
192	9.06 HW ALLOWANCE FOR DECORATIVE MESH FABRIC PRICE BID SHALL BE FOR THE FIXED SUM OF \$ 115,500.00	1.00	F.S.	115,500.00	115,500.00	115,500.00
193	9.99 FLASHING ARROW BOARD	8.00	EACH	4000.00	32000.00	32000.00
194	HW-900 ALLOWANCE FOR MAXIMUM INCENTIVE FOR EARLY COMPLETION PRICE BID SHALL BE FOR THE FIXED SUM OF \$ 1,000,000.00	1.00	F.S.	1,000,000.00	1,000,000.00	1,000,000.00

9/5/2014 12:00 AM

NEW YORK CITY DEPARTMENT OF DESIGN AND CONSTRUCTION
 DIVISION OF INFRASTRUCTURE - BUREAU OF DESIGN
BID SCHEDULE FORM
 PROJECT ID: MED598B
 CONTRACT PIN: 8502014WMM0003C

COL 1 SEQ. NO.	COL 2 ITEM NUMBER AND DESCRIPTION	COL 3 ESTIMATE QUANTITY	COL 4 UNIT	COL 5 UNIT PRICE (IN FIGURES) DOLLARS	COL 6 EXTENDED AMOUNT (IN FIGURES) DOLLARS
195	HW-900H ALLOWANCE FOR CITY WORK ACCELERATION PRICE BID SHALL BE FOR THE FIXED SUM OF \$ 200,000.00	1.00	F.S.	200,000.00	200,000.00
196	SL-20.02.02 FURNISH AND INSTALL STANDARD TYPE ANCHOR BOLT FOUNDATION, AS PER DRAWING E-3788	10.00	EACH	900.00	9000.00
197	SL-20.02.18 FURNISH AND INSTALL STANDARD TYPE ANCHOR BOLT FOUNDATION AS PER DRAWING J-3788A FOR INSTALLING TYPE 30' DAVIT LAMPPOST	3.00	EACH	1420.00	4260.00
198	SL-21.03.02 FURNISH AND INSTALL TYPE 2S, 4S, 6S, 8S OR 12S LAMPPOST WITH TRANSFORMER BASE	10.00	EACH	2690.00	26900.00
199	SL-21.04.32 FURNISH AND INSTALL TYPE "GRAND CENTRAL" LAMPPOST WITH OCTAGONAL TRANSFORMER BASE.	3.00	EACH	9640.00	28920.00

B - 38
 REVISION # 11

9/5/2014 12:00 AM

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

PROJECT ID: MED5988
 CONTRACT PIN: 8502014WM0003C

BID SCHEDULE FORM

Eq. No.	DESCRIPTION	QTY	UNIT	EST. PRICE	EST. TOTAL	EST. TOTAL
200	SL-21.09.05 REMOVE STANDARD FABRICATED STEEL, SPUN ALUMINUM NO. 10, ETC. WITH ARMS(S), LUMINAIRE(S), CONTROL(S) WITH ALL ATTACHMENTS, IF ANY.	10.00	EACH	770	00	7700 00
201	SL-21.09.06 REMOVE ORNAMENTAL LAMPPOST (TYPE "BC", "M", "F", "5TH AVENUE", "LYRE" GRAND CENTRAL) ON FOUNDATION, WITH ALL ATTACHMENTS, IF ANY. REMOVE PORTION OF FOUNDATION.	3.00	EACH	880	00	2640 00
202	SL-21.09.08 REMOVE ALL STREET LIGHTING EQUIPMENT FROM TYPE "M-2" TRAFFIC POST (ARMS), PHOTOELECTRIC CONTROLLER, LUMINAIRE (S), SHAFT EXTENSION, WIRING, ETC.)	2.00	EACH	440	00	880 00
203	SL-22.03.18 FURNISH AND INSTALL TYPE COBRA HEAD LUMINAIRE WITH 150 WATT HPS WITH SOLID STATE BALLAST AND STRAY VOLTAGE INDICATOR FOR 100 VOLT LAMP.	12.00	EACH	630	00	7560 00
204	SL-22.06.15 FURNISH AND INSTALL 250 WATT METAL-HALIDE "GRAND CENTRAL" LUMINAIRE AND PHOTOELECTRIC CONTROL RECEPTACLE.	6.00	EACH	1830	00	10980 00

9/5/2014 12:00 AM

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

PROJECT ID: MED598B
 CONTRACT PIN: 8502014WWM0003C

BID SCHEDULE FORM

COL 1 SEQ. NO.	COL 2 ITEM NUMBER AND DESCRIPTION	COL 3 ENGINEER'S ESTIMATE OF QUANTITY	COL 4 UNIT	COL 5 UNIT PRICE IN FIGURES DOLLARS & CTS	COL 6 TOTAL AMOUNT IN FIGURES DOLLARS & CTS
205	SL-24.02.02 FURNISH AND INSTALL FABRICATED STEEL 8 FT. ARM ON LAMPPOST OR "M-2" TRAFFIC POLE SHAFT EXTENSION.	2.00	EACH	440 00	880 00
206	SL-24.02.16 FURNISH AND INSTALL FABRICATED STEEL 6 FT. SHAFT EXTENSION (SINGLE ARM) FOR "M-2" TRAFFIC POST AS PER DWGS H-6159 OR H-5255.	2.00	EACH	930 00	1860 00
207	SL-26.01.01 FURNISH AND INSTALL, OR FURNISH AND REPLACE A PLUG-IN SOLID STATE PHOTOELECTRIC CONTROL	15.00	EACH	90 00	1350 00
208	SL-26.06.02 FURNISH AND INSTALL LED FIRE ALARM LUMINAIRES.	2.00	EACH	450 00	900 00
209	SL-29.01.01 FURNISH, INSTALL, MAINTAIN AND REMOVE EQUIPMENT FOR TEMPORARY LIGHTING (PYLON), AS PER DRAWINGS F-5005 AND F-5005A	15.00	EACH	1420 00	21300 00

B - 40
 REVISION # 11

9/5/2014 12:00 AM

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

PROJECT ID: MED598B
 CONTRACT PIN: 8502014WMM0003C

BID SCHEDULE FORM

SECTION NUMBER AND DESCRIPTION	QUANTITY	UNIT	ESTIMATED PRICE	ESTIMATED PRICE	ESTIMATED PRICE	ESTIMATED PRICE
210 SL-31.01.06 PAINT A STANDARD STREET LIGHT LAMPPOST WITH INSULATED "SUPERHANE" PAINT APR. 7' HIGH.	10.00	EACH	270	00	2700	00
211 SL-33.02.02 FURNISH AND INSTALL NO. 6 AWG XLP COPPER CABLE OR EQUAL FOR OVERHEAD INSTALLATION	4,000.00	L.F.	7	25	29000	00
212 T-1.1 INSTALL TYPE "S" OR "T" FOUNDATION	1.00	EACH	1130	00	1130	00
213 T-1.18 REMOVE TYPE "A", "B", "S" OR "T" SERIES FOUNDATION	1.00	EACH	1099	38	1099	38
214 T-1.2 INSTALL TYPE "F-1" FOUNDATION	1.00	EACH	550	00	550	00
215 T-1.20 REMOVE TYPE "M" SERIES FOUNDATION	2.00	EACH	1099	39	2198	78

9/5/2014 12:00 AM

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

PROJECT ID: MED5988
 CONTRACT PIN: 8502014WMM0003C

BID SCHEDULE FORM

SEQ. NO.	ITEM NUMBER AND DESCRIPTION	ESTIMATE OF QUANTITY	UNITS	UNIT PRICE (DOLLARS)	TOTAL PRICE (DOLLARS)	UNIT PRICE (CENTS)	TOTAL PRICE (CENTS)
216	T-1.23 REMOVE STREET LIGHT FOUNDATION	1.00	EACH	1099	38	1099	38
217	T-1.29 RAISE OR LOWER FOUNDATION TO GRADE	1.00	EACH	890	00	890	00
218	T-1.3 INSTALL TYPE "M2-5S" FOUNDATION	2.00	EACH	1240	00	2480	00
219	T-2.1 INSTALL TYPE "S-1" OR "T-1" SERIES POST	1.00	EACH	260	00	260	00
220	T-2.16 FURNISH, INSTALL, MAINTAIN AND REMOVE TEMPORARY POST OR PYLON WITH SIGNALS	1.00	EACH	1270	00	1270	00
221	T-2.22 REMOVE TYPE "S-1" OR "T-1" SERIES POST	1.00	EACH	390	00	390	00

B - 42
 REVISION # 11

BID SCHEDULE FORM

SEQ. NO.	ITEM NUMBER AND DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL PRICE	AMOUNT	AMOUNT
222	T-2.24 REMOVE TYPE "M" SERIES POST	2.00	EACH	880	00	1760	00
223	T-2.27 REMOVE ANY OTHER TYPE POST	1.00	EACH	880	00	880	00
224	T-2.4 INSTALL TYPE "M-2" POST	2.00	EACH	1100	00	2200	00
225	T-20020 a) FURNISH 3/4" ANCHOR BOLT ASSEMBLIES FOR S-1 (EACH) (3 REQUIRED PER POST)	3.00	EACH	20	00	60	00
226	T-20021 b) FURNISH 1" ANCHOR BOLT ASSEMBLIES FOR F-1 (EACH) (4 REQUIRED PER POST)	4.00	EACH	27	00	108	00
227	T-20220 c) FURNISH 1-1/4" ANCHOR BOLT ASSEMBLIES FOR M-2 (EACH) (4 REQUIRED PER POST)	8.00	EACH	60	00	480	00

9/5/2014 12:00 AM

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

PROJECT ID: MED598B
 CONTRACT PIN: 8502014WMM0003C

SEQ. NO.	ITEM NUMBER and DESCRIPTION	ESTIMATE OF QUANTITY	UNIT	UNIT PRICE (IN FIGURES) DOLLARS	EXTENDED AMOUNT (IN FIGURES) DOLLARS
228	T-3.1 INSTALL "ONE-WAY" SIGNAL UNIT ON MAST ARM OR TOP OF TRAFFIC POST	4.00	EACH	225 00	880 00
229	T-3.18 REMOVE SIGNAL HEAD FROM ANY TYPE POST	2.00	EACH	220 00	440 00
230	T-3.2 INSTALL "ONE-WAY" SIGNAL UNIT ON THE SHAFT OF ANY POST	1.00	EACH	330 00	330 00
231	T-3.21 REMOVE PEDESTRIAN SIGNAL OR SIGN UNIT OR OTHER ILLUMINATED SIGNS FROM ANY POST	6.00	EACH	220 00	1320 00
232	T-3.6 INSTALL PEDESTRIAN SIGNAL ON ANY TYPE POST	6.00	EACH	290 00	1740 00
233	T-31200 e) "V8" ASSEMBLY *ASSEMBLY IS EQUAL TO ONE PAIR	1.00	EACH	80 00	80 00

B - 44
 REVISION # 11

9/5/2014 12:00 AM

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

PROJECT ID: MED598B
 CONTRACT PIN: 8502014WWM0003C

BID SCHEDULE FORM

COL 1 QTY	COL 2 DESCRIPTION	COL 3 UNITS	COL 4 UNIT PRICE	COL 5 TOTAL PRICE
234	T-31210 h) "HUB" ASSEMBLY *ASSEMBLY IS EQUAL TO ONE PAIR	4.00 EACH	30.00	120.00
235	T-31215 b) "2MS"	2.00 EACH	220.00	440.00
236	T-31340 f) "B-P" ASSEMBLY *ASSEMBLY IS EQUAL TO ONE PAIR	2.00 EACH	90.00	180.00
237	T-31351 g) "B-2P" ASSEMBLY *ASSEMBLY IS EQUAL TO ONE PAIR	2.00 EACH	230.00	460.00
238	T-5.1 FURNISH AND INSTALL 2" RIGID UNDERGROUND CONDUIT IN UNPAVED ROADWAY	200.00 L.F.	31.00	6200.00
239	T-5.2 FURNISH AND INSTALL 2" RIGID UNDERGROUND CONDUIT IN PAVED ROADWAY	700.00 L.F.	31.00	21700.00

9/5/2014 12:00 AM

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

BID SCHEDULE FORM

PROJECT ID: MED598B
 CONTRACT PIN: 8502014WMM0003C

COL. 1 REQ. NO.	COL. 2 ITEM NUMBER AND DESCRIPTION	COL. 3 ENGINEER'S ESTIMATE OF QUANTITY	COL. 4 UNIT	COL. 5 UNIT PRICE (IN FIGURES) DOLLARS	COL. 6 EXTENSION AMOUNT (IN FIGURES) DOLLARS
240	T-5.32 RESTORING PERMANENT ROADWAY (INCLUDING SAWCUT)	700.00	L.F.	19 58	13 706 00
241	T-6.10 REMOVE CABLE (INCLUDES OVERHEAD)	2,500.00	L.F.	3 00	7 500 00
242	T-6.2 INSTALL MULTIPLE CABLE (INCLUDES OVERHEAD)	2,500.00	L.F.	5 50	13 750 00
243	T-60000B FURNISH 2 c # 10B (BREAKDOWN = 2#10 WITH 3RD WIRE FOR GROUNDING).	2,000.00	L.F.	2 00	4 000 00
244	T-60040 e) 7 CONDUCTOR, 14 A.W.G.	1,000.00	L.F.	2 00	2 000 00
245	T-60190 e) 13 CONDUCTOR, 14 A.W.G.	2,500.00	L.F.	3 00	7 500 00

B - 46
 REVISION # 11

9/5/2014 12:00 AM

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

PROJECT ID: MED598B
 CONTRACT PIN: 8502014WM0003C

BID SCHEDULE FORM

SECTION	ITEM NUMBER, DESCRIPTION, UNIT	QUANTITY	UNIT	UNIT PRICE	TOTAL PRICE	TOTAL PRICE
246	T-8.8 INSTALL CONCRETE PYLON	3.00	EACH	880.00	2640.00	00
247	T-8.9 REMOVE CONCRETE PYLON	3.00	EACH	440.00	1320.00	00
248	T-81000 FURNISH CONCRETE PYLON	3.00	EACH	550.00	1650.00	00
249	UTL-6.01.1 GAS MAIN CROSSING SEWER UP TO 24" IN DIAMETER (\$6.01) Unit price bid shall not be less than: \$ 1,040.00	2.00	EACH	1040.00	2080.00	00
250	UTL-6.01.11 GAS MAIN CROSSING WATER MAIN 36" THRU 42" IN DIAMETER (\$6.01) Unit price bid shall not be less than: \$ 685.00	5.00	EACH	685.00	3425.00	00
251	UTL-6.01.12 GAS MAIN CROSSING WATER MAIN 48" THRU 54" IN DIAMETER (\$6.01) Unit price bid shall not be less than: \$ 810.00	5.00	EACH	810.00	4050.00	00

9/5/2014 12:00 AM

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

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BID SCHEDULE FORM

COL 1 SEQ. NO.	COL 2 ITEM NUMBER and description	COL 3 ENGINEERS ESTIMATE QUANTITY	COL 4 UNIT	COL 5 UNIT PRICE (IN FIGURES) DOLLARS	COL 6 EXTENDED AMOUNT (IN FIGURES) DOLLARS	COL 7 CIS
252	UTL-6.01.4 GAS MAIN CROSSING SEWER 48" THRU 54" IN DIAMETER (S6.01) Unit price bid shall not be less than: \$ 2,120.00	1.00	EACH	2120.00	2120.00	
253	UTL-6.01.8 GAS SERVICES CROSSING TRENCHES AND/OR EXCAVATIONS (S6.07) Unit price bid shall not be less than: \$ 465.00	5.00	EACH	465.00	2325.00	
254	UTL-6.01.9 GAS MAIN CROSSING WATER MAIN UP TO 20" IN DIAMETER (S6.07) Unit price bid shall not be less than: \$ 485.00	17.00	EACH	485.00	8245.00	
255	UTL-6.03 REMOVAL OF ABANDONED GAS FACILITIES. ALL SIZES. (S6.03) Unit price bid shall not be less than: \$ 15.00	1,500.00	L.F.	15.00	22500.00	
256	UTL-6.03.1A REMOVAL OF ABANDONED GAS FACILITIES WITH POSSIBLE COAL TAR WRAP. ALL SIZES. (S6.03) Unit price bid shall not be less than: \$ 25.00	200.00	L.F.	25.00	5000.00	
257	UTL-6.04 ADJUST HARDWARE TO GRADE USING SPACER RINGS/ADAPTORS. (STREET REPAIRING.) (S6.04) Unit price bid shall not be less than: \$ 35.00	20.00	EACH	35.00	700.00	

B - 48
 REVISION # 11

9/5/2014 12:00 AM

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

PROJECT ID: MED598B
 CONTRACT PIN: 8502014WMM0003C

BID SCHEDULE FORM

COL. 1 SEQ. NO.	COL. 2 ITEM NUMBER/DESCRIPTION	COL. 3 QTY	COL. 4 UNIT	COL. 5 UNIT PRICE (IN FIGURES) DOLLARS	COL. 6 TOTAL PRICE (IN FIGURES) DOLLARS	COL. 7 BID PRICE (IN FIGURES) DOLLARS	COL. 8 TOTAL BID PRICE (IN FIGURES) DOLLARS
258	UTL-6.05 ADJUST HARDWARE TO GRADE BY RESETTING. (ROAD RECONSTRUCTION) (\$6.05) Unit price bid shall not be less than: \$ 65.00	20.00	EACH	65	00	1300	00
259	UTL-6.06 SPECIAL CARE EXCAVATION AND BACKFILLING (\$6.06) Unit price bid shall not be less than: \$ 180.00	500.00	C.Y.	180	00	90000	00
260	UTL-6.07 TEST PITS FOR GAS FACILITIES (\$6.07) Unit price bid shall not be less than: \$ 100.00	100.00	C.Y.	450	00	45000	00
261	UTL-6.09 TRENCH EXCAVATION AND BACKFILL FOR GAS MAINS AND SERVICES. GAS INSTALLED BY OTHERS. Unit price bid shall not be less than: \$ 190.00	1,970.00	C.Y.	450	00	886500	00
262	UTL-GCS-2W8 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

9/5/2014 12:00 AM

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

PROJECT ID: MED598B
CONTRACT PIN: 8502014WM0003C

BID SCHEDULE FORM

COL 1 SEQUENCE	COL 2 ITEM NUMBER and DESCRIPTION	COL 3 ENGINEERS ESTIMATE OF QUANTITY	COL 4 UNIT PRICE (IN FIGURES) DOLLARS	COL 5 TOTAL PRICE (IN FIGURES) DOLLARS
263	6.39 A MOBILIZATION BID PRICE OF MOBILIZATION SHALL NOT EXCEED 4% OF THE ABOVE SUB-TOTAL PRICE.	1.00	L.S.	1,408,215
SUB-TOTAL: \$				36,275,461
TOTAL BID PRICE: \$				37,683,676

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 C4 OF THIS BID BOOKLET.

B - 50
REVISION # 11

Tax ID #: 13-4130805

APT E-
PIN #: 85014B0161

SCHEDULE B - MWBE Utilization Plan
Part I: MWBE Participation Goals

Part I to be completed by contracting agency

Contract Overview

APT E- Pin # 85014B0161 FMS Project ID#: MED-598B

Project Title/ Agency PIN # INSTALLATION OF TRUNK WATER MAINS/8502014WWM0003C

Bid/Proposal Response Date SEPTEMBER 12, 2014

Contracting Agency Department of Design and Construction

Agency Address 30-30 Thomson Avenue City Long Island City State NY Zip Code 11101

Contact Person Diana A. Benjamin Title MWBE Liaison & Compliance Analyst

Telephone # (718) 391-3470 Email BenjamiDi@ddc.nyc.gov

Project Description

PROJECT ID: MED598B

TRUNK WATER MAINS IN WEST 30TH STREET BETWEEN 10TH AVENUE AND 9TH AVENUE, ETC., TO CONNECT SHAFT 26B TO THE DISTRIBUTION SYSTEM

INCLUDING SEWER, WATER MAIN, STREET LIGHTING AND TRAFFIC WORK

Together With All Work Incidental Thereto

**BOROUGH OF MANHATTAN
CITY OF NEW YORK**

MWBE Participation Goals for Specific

Prime Contract Industry: Construction

Group	Percentage
Unspecified*	10%
or	
Black American	UNSPECIFIED*
Hispanic American	UNSPECIFIED*
Asian American	UNSPECIFIED*
Women	UNSPECIFIED*
Total Participation Goals	10% Line 1

*Note: For this procurement, individual ethnicity and gender goals are not specified. The Total Participation Goal for construction contracts may be met by using either Black-American, Hispanic-American, Asian American, or Women certified firms or any combination of such firms.

Tax ID #: 13-4130805

APT E-
PIN #: 85014B0161

SCHEDULE B - Part II: M/WBE Participation Plan

Part II to be completed by the bidder/proposer.
 Please note: For Non-M/WBE Prime Contractors who will NOT subcontract any services and will self-perform the entire contract, you must obtain a FULL waiver by completing the Waiver Application on pages 17 and 18 and timely submitting it to the contracting agency pursuant to the Notice to Prospective Contractors. Once a FULL WAIVER is granted, it must be included with your bid or proposal and you do not have to complete or submit this form with your bid or proposal.

Section I: Prime Contractor Contact Information

Tax ID # 13-4130805 FMS Vendor ID # _____
 Business Name MFM Contracting Corp. Contact Person Michael V. Petrillo
 Address 335 Center Avenue, Mamaroneck, N.Y. 10543
 Telephone # 914-777-8292 Email mvp@petromfm.com

Section II: M/WBE Utilization Goal Calculation: Check the applicable box and complete subsection.

PRIME CONTRACTOR ADOPTING AGENCY M/WBE PARTICIPATION GOALS

<input type="checkbox"/> For Prime Contractors (including Qualified Joint Ventures and M/WBE firms) adopting Agency M/WBE Participation Goals. Calculate the total dollar value of your total bid that you agree will be awarded to M/WBE subcontractors for services and/or credited to an M/WBE prime contractor or Qualified Joint Venture. Please review the Notice to Prospective Contractors for more information on how to obtain credit for M/WBE participation.	Total Bid/Proposal Value	Agency Total Participation Goals (Line 1, Page 13)	Calculated M/WBE Participation Amount
	\$37,683,335 X		=

PRIME CONTRACTOR OBTAINED PARTIAL WAIVER APPROVAL: ADOPTING MODIFIED M/WBE PARTICIPATION GOALS

<input checked="" type="checkbox"/> For Prime Contractors (including Qualified Joint Ventures and M/WBE firms) adopting Modified M/WBE Participation Goals. Calculate the total dollar value of your total bid that you agree will be awarded to M/WBE subcontractors for services and/or credited to an M/WBE prime contractor or Qualified Joint Venture. Please review the Notice to Prospective Contractors for more information on how to obtain credit for M/WBE participation.	Total Bid/Proposal Value	Adjusted Participation Goal (From Partial Waiver)	Calculated M/WBE Participation Amount
	\$37,683,335 \$2,400,461 X	5.5%	=

Section V: Vendor Certification and Required Affirmations

I hereby:

- 1) acknowledge my understanding of the M/WBE participation requirements as set forth herein and the pertinent provisions of Section 6-129 of the Administrative Code of the City of New York (Section 6-129), and the rules promulgated thereunder;
- 2) affirm that the information supplied in support of this M/WBE Utilization Plan is true and correct;
- 3) agree, if awarded this Contract, to comply with the M/WBE participation requirements of this Contract, the pertinent provisions of Section 6-129, and the rules promulgated thereunder, all of which shall be deemed to be material terms of this Contract;
- 4) agree and affirm that it is a material term of this Contract that the Vendor will award the total dollar value of the M/WBE Participation Goals to certified MBEs and/or WBEs unless a full waiver is obtained or such goals are modified by the Agency, and
- 5) agree and affirm, if awarded this Contract, to make all reasonable, good faith efforts to meet the M/WBE Participation Goals, or if a partial waiver is obtained or such goals are modified by the Agency, to meet the modified Participation Goals by soliciting and obtaining the participation of certified MBE and/or WBE firms.

Signature Michael V. F. Date 9/29/14
 Print Name Michael V. Petritsch Title President

Item No.	Description	Quantity	Unit Price	Total Price	Notes
1
2
3
4
5
6
7
8
9
10

SCHEDULE B - PART III - REQUEST FOR WAIVER OF M/WBE PARTICIPATION REQUIREMENT

Contract Overview

Tax ID # 13-4180005 FMS Vendor ID # MED598B
 Business Name MEM CONTRACTING CORP
 Contact Name Michael Petrello Telephone # 914-777-8292 Email MVP@PETROMEM.COM
 Type of Procurement Competitive Sealed Bids Other Bid/Response Due Date 9/12/2014

Contracting Agency

M/WBE Participation Goals as established in bid/solicitation documents

10 % Agency M/WBE Participation Goal

Proposed M/WBE Participation Goals as anticipated by vendor seeking waiver

5.5 % of the total contract value anticipated in good faith by the bidder/proposer to be subcontracted for services and/or credited to an M/WBE Prime Contractor or Qualified Joint Venture.

Basis for Waiver Request: Check appropriate box & explain in detail below (attach additional pages if needed)

- Vendor does not subcontract services, and has the capacity and good faith intention to perform all such work itself with its own employees.
- Vendor subcontracts some of this type of work but at a lower % than bid/solicitation describes, and has the capacity and good faith intention to do so on this contract. (Attach subcontracting plan outlining services that the vendor will self-perform and subcontract to other vendors or consultants.)
- Vendor has other legitimate business reasons for proposing the M/WBE Participation Goal above. Explain under separate cover.

References

References

CONTRACT NO.	AGENCY	DATE COMPLETED
<u>Hwmm1159</u>	<u>NYCDDC</u>	<u>5/2014</u>
Total Contract Amount <u>\$ 13,304,000</u>	Total Amount Subcontracted <u>\$ 1,561,621</u>	Service - <u>Trucking</u>
Item of Work Subcontracted and Value of subcontract <u>Electrical</u> <u>\$ 241,400</u>	Item of Work Subcontracted and Value of subcontract <u>Flagging - Service</u> <u>\$ 321,356</u>	Item of Work Subcontracted and Value of subcontract <u>Masonry</u> <u>\$ 451,643</u>
CONTRACT NO. <u>HwmmwTCAGA</u>	AGENCY <u>NYCDDC</u>	DATE COMPLETED <u>Active</u>
Total Contract Amount <u>\$ 41,666,000</u>	Total Amount Subcontracted <u>\$ 1,087,640</u>	
Item of Work Subcontracted and Value of subcontract <u>Electrical</u> <u>\$ 380,000</u>	Item of Work Subcontracted and Value of subcontract <u>Pest Control - service</u> <u>\$ 30,500</u>	Item of Work Subcontracted and Value of subcontract <u>Painting</u> <u>\$ 197,660</u>
CONTRACT NO. <u>HwmmwTCAGA (Cont)</u>	AGENCY	DATE COMPLETED
Total Contract Amount <u>\$</u>	Total Amount Subcontracted <u>\$</u>	
Item of Work Subcontracted and Value of subcontract <u>Stripping</u> <u>\$ 44,380</u>	Item of Work Subcontracted and Value of subcontract <u>Trucking - service</u> <u>\$ 440,800</u>	Item of Work Subcontracted and Value of subcontract



List 8 most recent contracts performed for other entities. Include information for each subcontract awarded in performance of such contracts. Add more pages if necessary.
 (Complete ONLY if vendor has performed fewer than 3 New York City contracts.)

TYPE OF Contract Utilities/Contract Sewer ENTITY Mt. Sinai Hospital DATE COMPLETED 11/2012
 Manager at entity that hired vendor (Name/Phone No./Email) Chuck Richmond (212) 241-8257
 Total Contract Amount \$ 2,062,900 Total Amount Subcontracted \$ 371,100
 Type of Work Subcontracted Paving/Stripping/Grouting/Plumbing/Trucking

TYPE OF Contract Storm Sewer AGENCY/ENTITY Columbia Univ DATE COMPLETED 11/2012
 Manager at agency/entity that hired vendor (Name/Phone No./Email) Steve Sommer (212) 597-6800
 Total Contract Amount \$ 13,968,000 Total Amount Subcontracted \$ 745,181 Post Contract - Service \$ 4545
 Item of Work Subcontracted and Value of subcontract Sewer/Grouting \$ 253,890 Item of Work Subcontracted and Value of subcontract Paving \$ 60,000 Item of Work Subcontracted and Value of subcontract Trucking - Service \$ 426,446

TYPE OF Contract Undermain AGENCY/ENTITY FCR/NYCDER DATE COMPLETED 03/2012
 Manager at entity that hired vendor (Name/Phone No./Email) Eileen Weingarten (718) 933-8595
 Total Contract Amount \$ 4,750,000 Total Amount Subcontracted \$ 611,390 Survey - Service \$ 88,798
 Item of Work Subcontracted and Value of subcontract Trucking - Service \$ 344,221 Item of Work Subcontracted and Value of subcontract Welding \$ 123,225 Item of Work Subcontracted and Value of subcontract Electric \$ 55,046

VENDOR CERTIFICATION: I hereby affirm that the information supplied in support of this waiver request is true and correct, and that this request is made in good faith.

Signature: Michael V. Petrella Date: 8/22/14
 Print Name: Michael V. Petrella Title: President



Jessie for 8/22/14
 CITY OF NEW YORK DEPARTMENT OF DESIGN AND CONSTRUCTION 13 BID BOOKLET DECEMBER 2013

Partial waiver granted: 5.5%

12/22/2011

SAFETY QUESTIONNAIRE

The bidder must include, with its bid, all information requested on this Safety Questionnaire. Failure to provide a completed and signed Safety Questionnaire at the time of bid opening may result in disqualification of the bid as non-responsive.

1. Bidder Information:

Company Name: MFM Contracting Corp.

DDC Project Number: 8502014 WM 0003C

Company Size: Ten (10) employees or less
 Greater than ten (10) employees

Company has previously worked for DDC YES NO

2. Type(s) of Construction Work

TYPE OF WORK	LAST 3 YEARS	THIS PROJECT
General Building Construction	_____	_____
Residential Building Construction	_____	_____
Nonresidential Building Construction	_____	_____
Heavy Construction, except building	_____ <input checked="" type="checkbox"/>	_____
Highway and Street Construction	_____ <input checked="" type="checkbox"/>	_____
Heavy Construction, except highways	_____ <input checked="" type="checkbox"/>	_____
Plumbing, Heating, HVAC	_____	_____
Painting and Paper Hanging	_____	_____
Electrical Work	_____	_____
Masonry, Stonework and Plastering	_____	_____
Carpentry and Floor Work	_____	_____
Roofing, Siding, and Sheet Metal	_____	_____
Concrete Work	_____	_____
Specialty Trade Contracting	_____	_____
Asbestos Abatement	_____	_____
Other (specify) <u>Water Main, Sewer, etc.</u>	_____ <input checked="" type="checkbox"/>	_____ <input checked="" type="checkbox"/>

3. Experience Modification Rate:

The Experience Modification Rate (EMR) is a rating generated by the National Council of Compensation Insurance (NCCI). This rating is used to determine the contractor's premium for worker's compensation insurance. The contractor may obtain its EMR by contacting its insurance broker or the NCCI. If the contractor cannot obtain its EMR, it must submit a written explanation as to why.

The Contractor must indicate its Intrastate and Interstate EMR for the past three years. [Note: For contractors with less than three years of experience, the EMR will be considered to be 1.00].

YEAR	INTRASTATE RATE	INTERSTATE RATE
<u>2013</u>	<u>1.04</u>	_____
<u>2012</u>	<u>1.16</u>	_____
<u>2011</u>	<u>1.0</u>	_____

If the Intrastate and/or Interstate EMR for any of the past three years is greater than 1.00, the contractor must attach, to this questionnaire, a written explanation for the rating and identify what corrective action was taken to correct the situation resulting in that rating.

4. OSHA Information:

YES NO Contractor has received a willful violation issued by OSHA or New York City Department of Buildings (NYCDOB) within the last three years.

YES NO Contractor has had an incident requiring OSHA notification within 8 hours (i.e., fatality, or hospitalization of three or more employees).

The Occupational Safety and Health Act (OSHA) of 1970 requires employers with ten or more employees, on a yearly basis to complete and maintain on file the form entitled "Log of Work-related Injuries and Illnesses". This form is commonly referred to as the OSHA 300 Log (OSHA 200 Log for 2001 and earlier).

The OSHA 300 Log must be submitted for the last three years for contractors with more than ten employees.

The Contractor must indicate the total number of hours worked by its employees, as reflected in payroll records for the past three years.

The contractor must submit the Incident Rate for Lost Time Injuries (the Incident Rate) for the past three years. The Incident Rate is calculated in accordance with the formula set forth below. For each given year, the total number of incidents is the total number of non-fatal injuries and illnesses reported on the OSHA 300 Log. The 200,000 hours represents the equivalent of 100 employees working forty hours a week, fifty weeks per year.

$$\text{Incident Rate} = \frac{\text{Total Number of Incidents} \times 200,000}{\text{Total Number of Hours Worked by Employees}}$$

YEAR	TOTAL NUMBERS OF HOURS WORKED BY EMPLOYEES	INCIDENT RATE
<u>2011</u>	<u>79,821</u>	<u>0</u>
<u>2012</u>	<u>113,462.50</u>	<u>0</u>
<u>2013</u>	<u>137,260</u>	<u>1.45</u>

If the contractor's Incident Rate for any of the past three years is one point higher than the Incident Rate for the type of construction it performs (listed below), the contractor must attach, to this questionnaire, a written explanation for the relatively high rate.


General Building Construction	8.5
Residential Building Construction	7.0
Nonresidential Building Construction	10.2
Heavy Construction, except building	8.7
Highway and Street Construction	9.7
Heavy Construction, except highways	8.3
Plumbing, Heating, HVAC	11.3
Painting and Paper Hanging	6.9
Electrical Work	9.5
Masonry, Stonework and Plastering	10.5
Carpentry and Floor Work	12.2
Roofing, Siding, and Sheet Metal	10.3
Concrete Work	8.6
Specialty Trade Contracting	8.6

5. Safety Performance on Previous DDC Project(s)

YES NO Contractor previously audited by the DDC Office of Site Safety.
DDC Project Number(s): _____

YES NO Accident on previous DDC Project(s).
DDC Project Number(s): _____

YES NO Fatality or Life-altering Injury on DDC Project(s) within the last three years.
[Examples of a life-altering injury include loss of limb, loss of a sense (e.g., sight, hearing), or loss of neurological function].
DDC Project Number(s): _____

Date: 9/25/14 By: 
(Signature of Owner, Partner, Corporate Officer)

Title: President

(NO TEXT ON THIS PAGE)

The City of New York Department of Small Business Services
Division of Labor Services Contract Compliance Unit
110 William Street, New York, New York 10038
Phone: (212) 513 - 6323
Fax: (212) 618-8879

CONSTRUCTION EMPLOYMENT REPORT

GENERAL INFORMATION

1. Your contractual relationship in this contract is: Prime contractor Subcontractor
- 1a. Are M/WBE goals attached to this project? Yes No
2. Please check one of the following if your firm would like information on how to certify with the City of New York as a:
 Minority Owned Business Enterprise
 Women Owned Business Enterprise
 Disadvantaged Business Enterprise
 Locally Based Business Enterprise
 Emerging Business Enterprise
- 2a. If you are certified as an MBE, WBE, LBE, EBE or DBE, what city/state agency are you certified with? _____ Are you DBE certified? Yes No
3. Please indicate if you would like assistance from SBS in identifying certified M/WBEs for contracting opportunities: Yes No
4. Is this project subject to a project labor agreement? Yes No
5. Are you a Union contractor? Yes No If yes, please list which local(s) you affiliated with 731, 1010, 1536, 15, 14, 1556
6. Are you a Veteran owned company? Yes No

PART I: CONTRACTOR/SUBCONTRACTOR INFORMATION

7. 13-4130805 Employer Identification Number or Federal Tax I.D. mvp@petromfm.com Email Address
8. MFM Contracting Corp. Company Name
9. 335 Center Avenue, Mamaroneck, N.Y. 10543 Company Address and Zip Code
10. Michael v. Petrillo Chief Operating Officer 914-777-8292 Telephone Number
11. Michael Azzari Designated Equal Opportunity Compliance Officer (If same as Item #10, write "same") 914-777-8292 Telephone Number
12. Same Name of Prime Contractor and Contact Person (If same as Item #8, write "same")

13. Number of employees in your company: 85+

14. Contract information:

(a) NYCDDC
Contracting Agency (City Agency)

(b) #30MM±
Contract Amount

(c) 8502014WMM0003C
Procurement Identification Number (PIN)

(d) unknown at this time
Contract Registration Number (CT#)

(e) 3/1/15 - estimated
Projected Commencement Date

(f) 3/1/18 - estimated
Projected Completion Date

(g) Description and location of proposed contract:

Trunk Water Main In West 30th street between 10th Ave + 9th Ave, etc.
To connect to shaft 26B To distribution system, including sewer, water
main, street lighting, and traffic work. Manhattan, N.Y.

15. Has your firm been reviewed by the Division of Labor Services (DLS) within the past 36 months and issued a Certificate of Approval? Yes No

If yes, attach a copy of certificate.

16. Has DLS within the past month reviewed an Employment Report submission for your company and issued a Conditional Certificate of Approval? Yes No

If yes, attach a copy of certificate.

NOTE: DLS WILL NOT ISSUE A CONTINUED CERTIFICATE OF APPROVAL IN CONNECTION WITH THIS CONTRACT UNLESS THE REQUIRED CORRECTIVE ACTIONS IN PRIOR CONDITIONAL CERTIFICATES OF APPROVAL HAVE BEEN TAKEN.

17. Has an Employment Report already been submitted for a different contract (not covered by this Employment Report) for which you have not yet received compliance certificate? Yes No

If yes,

Date submitted: _____

Agency to which submitted: _____

Name of Agency Person: _____

Contract No: _____

Telephone: _____

18. Has your company in the past 36 months been audited by the United States Department of Labor, Office of Federal Contract Compliance Programs (OFCCP)? Yes No

If yes,

(a) Name and address of OFCCP office.

(b) Was a Certificate of Equal Employment Compliance issued within the past 36 months?
Yes ___ No ✓

If yes, attach a copy of such certificate.

(c) Were any corrective actions required or agreed to? Yes ___ No ✓

If yes, attach a copy of such requirements or agreements.

(d) Were any deficiencies found? Yes ___ No ✓

If yes, attach a copy of such findings.

19. Is your company or its affiliates a member or members of an employers' trade association which is responsible for negotiating collective bargaining agreements (CBA) which affect construction site hiring? Yes ___ No ✓

If yes, attach a list of such associations and all applicable CBA's.

PART II: DOCUMENTS REQUIRED

20. For the following policies or practices, attach the relevant documents (e.g., printed booklets, brochures, manuals, memoranda, etc.). If the policy(ies) are unwritten, attach a full explanation of the practices. See instructions.

- ___ (a) Health benefit coverage/description(s) for all management, nonunion and union employees (whether company or union administered)
- ___ (b) Disability, life, other insurance coverage/description
- ___ (c) Employee Policy/Handbook
- ___ (d) Personnel Policy/Manual
- ___ (e) Supervisor's Policy/Manual
- ___ (f) Pension plan or 401k coverage/description for all management, nonunion and union employees, whether company or union administered
- ___ (g) Collective bargaining agreement(s).
- ___ (h) Employment Application(s)
- ___ (i) Employee evaluation policy/form(s).
- ___ (j) Does your firm have medical and/or non-medical (i.e. education, military, personal, pregnancy, child care) leave policy?

N/A - see attached certificate of approval.

21. To comply with the Immigration Reform and Control Act of 1986 when and of whom does your firm require the completion of an I-9 Form?

- (a) Prior to job offer Yes ___ No ___
- (b) After a conditional job offer Yes ___ No ___
- (c) After a job offer Yes ___ No ___
- (d) Within the first three days on the job Yes ___ No ___
- (e) To some applicants Yes ___ No ___
- (f) To all applicants Yes ___ No ___
- (g) To some employees Yes ___ No ___
- (h) To all employees Yes ___ No ___

22. Explain where and how completed I-9 Forms, with their supportive documentation, are maintained and made accessible.

23. Does your firm or any of its collective bargaining agreements require job applicants to take a medical examination? Yes ___ No ___

If yes, is the medical examination given:

- (a) Prior to a job offer Yes ___ No ___
- (b) After a conditional job offer Yes ___ No ___
- (c) After a job offer Yes ___ No ___
- (d) To all applicants Yes ___ No ___
- (e) Only to some applicants Yes ___ No ___

N/A - see attached certificate of approval

If yes, list for which applicants below and attach copies of all medical examination or questionnaire forms and instructions utilized for these examinations.

24. Do you have a written equal employment opportunity (EEO) policy? Yes ___ No ___

If yes, list the document(s) and page number(s) where these written policies are located.

25. Does the company have a current affirmative action plan(s) (AAP)

- ___ Minorities and Women
- ___ Individuals with handicaps
- ___ Other. Please specify _____

26. Does your firm or collective bargaining agreement(s) have an internal grievance procedure with respect to EEO complaints? Yes ___ No ___

If yes, please attach a copy of this policy.

If no, attach a report detailing your firm's unwritten procedure for handling EEO complaints.

27. Has any employee, within the past three years, filed a complaint pursuant to an internal grievance procedure or with any official of your firm with respect to equal employment opportunity? Yes ___ No ___

If yes, attach an internal complaint log. See instructions.

28. Has your firm, within the past three years, been named as a defendant (or respondent) in any administrative or judicial action where the complainant (plaintiff) alleged violation of any anti-discrimination or affirmative action laws? Yes ___ No ___

If yes, attach a log. See instructions.

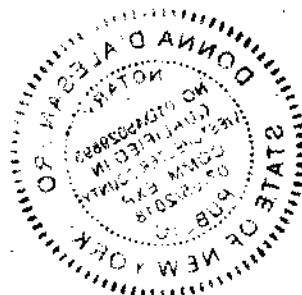
29. Are there any jobs for which there are physical qualifications? Yes ___ No ___

If yes, list the job(s), submit a job description and state the reason(s) for the qualification(s).

30. Are there any jobs for which there are age, race, color, national origin, sex, creed, disability, marital status, sexual orientation, or citizenship qualifications? Yes ___ No ___

If yes, list the job(s), submit a job description and state the reason(s) for the qualification(s).

N/A - see attached certificate of approval.



SIGNATURE PAGE

I, (print name of authorized official signing) Michael v. Petrillo hereby certify that the information submitted herewith is true and complete to the best of my knowledge and belief and submitted with the understanding that compliance with New York City's equal employment requirements, as contained in Chapter 56 of the City Charter, Executive Order No. 50 (1980), as amended, and the implementing Rules and Regulations, is a contractual obligation. I also agree on behalf of the company to submit a certified copy of payroll records to the Division of Labor Services on a monthly basis.

MFM Contracting Corp.
Contractor's Name

Michael v. Petrillo President
Name of person who prepared this Employment Report Title

Same as above same as above
Name of official authorized to sign on behalf of the contractor Title

914-772-8232
Telephone Number

Michael v. Petrillo 9/25/14
Signature of authorized official Date

If contractors are found to be underutilizing minorities and females in any given trade based on Chapter 56 Section 3H, the Division of Labor Services reserves the right to request the contractor's workforce data and to implement an employment program.

Contractors who fail to comply with the above mentioned requirements or are found to be in noncompliance may be subject to the withholding of final payment.

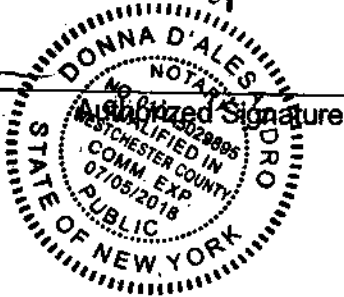
Willful or fraudulent falsifications of any data or information submitted herewith may result in the termination of the contract between the City and the bidder or contractor and in disapproval of future contracts for a period of up to five years. Further, such falsification may result in civil and/or criminal prosecution.

To the extent permitted by law and consistent with the proper discharge of DLS' responsibilities under Charter Chapter 56 of the City Charter and Executive Order No. 50 (1980) and the implementing Rules and Regulations, all information provided by a contractor to DLS shall be confidential.

Only original signatures accepted.

Sworn to before me this 25th day of SEPT 2014

Donna D'Alesandro 9-25-14
Notary Public Authorized Signature Date



FORM A CONTRACT BID INFORMATION: USE OF SUBCONTRACTORS/TRADES

1. Do you plan to subcontract work on this contract? Yes No

2. If yes, complete the chart below.

NOTE: All proposed subcontractors with a subcontract in excess of \$750,000 must complete an Employment Report for review and approval before the contract may be awarded and work commences.

SUBCONTRACTOR'S NAME*	OWNERSHIP (ENTER APPROPRIATE CODE LETTERS BELOW)	WORK TO BE PERFORMED BY SUBCONTRACTOR	TRADE PROJECTED FOR USE BY SUBCONTRACTOR	PROJECTED DOLLAR VALUE OF SUBCONTRACT

*If subcontractor is presently unknown, please enter the trade (craft name).

OWNERSHIP CODES

- W: White
- B: Black
- H: Hispanic
- A: Asian
- N: Native American
- F: Female

FORM B: PROJECTED WORKFORCE

TRADE CLASSIFICATION CODES

(J) Journeylevel Workers (A) Apprentice
 (H) Helper (TRN) Trainee
 (TOT) Total by Column

For each trade to be engaged by your company for this project, enter the projected workforce for Males and Females by trade classification on the charts below.

Trade:	MALES					FEMALES														
	(1) White Non-Hisp.		(2) Black Non-Hisp.		(3)	(4) Asian		(5) Native Amer.		(6) White Non-Hisp.		(7) Black Non-Hisp.		(8) Hisp.		(9) Asian		(10) Native Amer.		
731 Laborers	3	1	2									1								
Union Affiliation, if applicable																				
Total (Col. #1-10):	3	1	2									1								
Total Minority, Male & Female (Col. #2,3,4,5,7,8,9, & 10):																				
Total Female (Col. #6 - 10):																				

What are the recruitment sources for you projected hires (i.e., unions, government employment office, job tap center, community outreach)?

Unions

FORM B - PROJECTED WORKFORCE

Trade: Laborers

Union Affiliation, if applicable: 1010

Total (Col. #1-10): H

Total Minority, Male & Female (Col. #2,3,4,5,7,8,9, & 10): 2

Total Female (Col. #6 - 10): 0

FEMALES

MALES

	(1) White Non-Hisp.		(2) Black Non-Hisp.		(3) Hisp.		(4) Asian		(5) Native Amer.		(6) White Non-Hisp.		(7) Black Non-Hisp.		(8) Hisp.		(9) Asian		(10) Native Amer.			
	J	2		0		2							0		0		0					0
H																						
A																						
TRN																						
TOT	2		0		2							0		0		0						0

What are the recruitment sources for you projected hires (i.e., unions, government employment office, job tap center, community outreach)?

Unions

FORM C: CURRENT WORKFORCE

TRADE CLASSIFICATION CODES

(J) Journeylevel Workers
 (H) Helper
 (A) Apprentice
 (TRN) Trainee
 (TOT) Total by Column

For each trade currently engaged by your company for all work performed in New York City, enter the current workforce for Males and Females by trade classification on the charts below.

Trade: Labors

Union Affiliation, if applicable
1010

Total (Col. #1-10):
13

Total Minority, Male & Female
 (Col. #2,3,4,5,7,8,9, & 10):
10

Total Female
 (Col. #6 - 10):
0

	MALES					FEMALES				
	(1) White Non Hisp.	(2) Black Non Hisp.	(3) Hisp.	(4) Asian	(5) Native Amer.	(6) White Non Hisp.	(7) Black Non Hisp.	(8) Hisp.	(9) Asian	(10) Native Amer.
J	3	0	10	0	0	0	0	0	0	0
H										
A										
TRN										
TOT	3	0	10	0	0	0	0	0	0	0

What are the recruitment sources for you projected hires (i.e., unions, government employment office, job tap center, community outreach)?

Unions

FORM C. CURRENT WORKFORCE

Trade:

Timberman

Union Affiliation, if applicable

1536

Total (Col. #1-10):

4

Total Minority, Male & Female
(Col. #2,3,4,5,7,8,9, & 10):

2

Total Female
(Col. #6 - 10):

0

MALES

	(1) White Non-Hisp.		(2) Black Non-Hisp.		(3) Hisp.		(4) Asian		(5) Native Amer.	
	White Non-Hisp.	Black Non-Hisp.	Hisp.	Asian	Native Amer.	(6) White Non-Hisp.	(7) Black Non-Hisp.	(8) Hisp.	(9) Asian	(10) Native Amer.
J	2	0	2	0	0	0	0	0	0	0
H										
A										
TRN										
TOT	2	0	2	0	0	0	0	0	0	0

What are the recruitment sources for you projected hires (i.e., unions, government employment office, job tap center, community outreach)?

Unions

FORM C. CURRENT WORKFORCE

Trade:

Laborers

Union Affiliation, if applicable

731

Total (Col. #1-10):

29

Total Minority, Male & Female
(Col. #2,3,4,5,7,8,9, & 10):

14

Total Female
(Col. #6 - 10):

2

MALES

	(1) White Non-Hisp.		(2) Black Non-Hisp.		(3) Hisp.	(4) Asian		(5) Native Amer.
	(1)	(2)	(2)	(4)				
J	13	2	12	0				0
H								
A								
TRN								
TOT	13	2	12	0				0

FEMALES

	(6) White Non-Hisp.		(7) Black Non-Hisp.		(8) Hisp.	(9) Asian		(10) Native Amer.
	(6)	(7)	(7)	(9)				
J	0	2	0	0				0
H								
A								
TRN								
TOT	0	2	0	0				0

What are the recruitment sources for you projected hires (i.e., unions, government employment office, job tap center, community outreach)?

Unions

FORM PROJECTED WORKFORCE

Trade: Operator

Union Affiliation, if applicable 14

Total (Col. #1-10): 1

Total Minority, Male & Female (Col. #2,3,4,5,7,8,9, & 10): 0

Total Female (Col. #6 - 10): 0

MALES

(1) White Non Hisp.	(2) Black Non Hisp.	(3) Hisp.	(4) Asian	(5) Native Amer.	(6) White Non Hisp.	(7) Black Non Hisp.	(8) Hisp.	(9) Asian	(10) Native Amer.
1	0	0	0	0	0	0	0	0	0
1	0	0	0	0	0	0	0	0	0

FEMALES

(1) White Non Hisp.	(2) Black Non Hisp.	(3) Hisp.	(4) Asian	(5) Native Amer.	(6) White Non Hisp.	(7) Black Non Hisp.	(8) Hisp.	(9) Asian	(10) Native Amer.

J
H
A
TRN
TOT

What are the recruitment sources for you projected hires (i.e., unions, government employment office, job tap center, community outreach)?

Unions

FORM C: CURRENT WORKFORCE

TRADE CLASSIFICATION CODES

- (J) Journeylevel Workers
- (H) Helper
- (TOT) Total by Column
- (A) Apprentice
- (TRN) Trainee

For each trade currently engaged by your company for all work performed in New York City, enter the current workforce for Males and Females by trade classification on the charts below.

Trade:	MALES					FEMALES				
	(1) White Non Hisp.	(2) Black Non Hisp.	(3) Hisp.	(4) Asian	(5) Native Amer.	(6) White Non Hisp.	(7) Black Non Hisp.	(8) Hisp.	(9) Asian	(10) Native Amer.
<u>Operator</u>	2	0	0	0	0	0	0	0	0	0
Union Affiliation, if applicable										
<u>14</u>										
Total (Col. #1-10):	2									0
Total Minority, Male & Female (Col. #2,3,4,5,7,8,9, & 10):										
<u>0</u>										
Total Female (Col. #6 - 10):										0
<u>0</u>										

What are the recruitment sources for you projected hires (i.e., unions, government employment office, job tap center, community outreach)?

Unions

FORM C: CURRENT WORKFORCE

TRADE CLASSIFICATION CODES

- (J) Journeylevel Workers
- (H) Helper
- (TOT) Total by Column
- (A) Apprentice (TRN) Trainee

For each trade currently engaged by your company for all work performed in New York City, enter the current workforce for Males and Females by trade classification on the charts below.

MALES

FEMALES

Trade	MALES			FEMALES						
	(1) White Non-Hisp.	(2) Black Non-Hisp.	(3) Hisp.	(4) Asian	(5) Native Amer.	(6) White Non-Hisp.	(7) Black Non-Hisp.	(8) Hisp.	(9) Asian	(10) Native Amer.
J	4	1	2	0	0	0	0	0	0	0
H										
A										
TRN										
TOT	4	1	2	0	0	0	0	0	0	0

Trade: Operator

Union Affiliation, if applicable: 15

Total (Col. #1-10): 7

Total Minority, Male & Female (Col. #2,3,4,5,7,8,9, & 10): 3

Total Female (Col. #6 - 10): 0

What are the recruitment sources for you projected hires (i.e., unions, government employment office, job tap center, community outreach)?

Unions

FORM B: PROJECTED WORKFORCE

Trade:

Operator

Union Affiliation, if applicable

15

Total (Col. #1-10):

2

Total Minority, Male & Female
(Col. #2,3,4,5,7,8,9, & 10):

1

Total Female
(Col. #6 - 10):

0

MALES

(1) White Non Hisp.	(2) Black Non Hisp.	(3) Hisp.	(4) Asian	(5) Native Amer.
1	0	1	0	0
1	0	1	0	0

J

H

A

TRN

TOT

FEMALES

(6) White Non Hisp.	(7) Black Non Hisp.	(8) Hisp.	(9) Asian	(10) Native Amer.
0	0	0	0	0
0	0	0	0	0

What are the recruitment sources for you projected hires (i.e., unions, government employment office, job tap center, community outreach)?

Unions

FORM CURRENT WORKFORCE

Trade: _____

Union Affiliation, if applicable _____

Total (Col. #1-10): _____

Total Minority, Male & Female
(Col. #2,3,4,5,7,8,9, & 10): _____

Total Female
(Col. #6 - 10): _____

MALES

	(1)		(2)		(3)	(4)		(5)
	White Non Hisp.	Black Non Hisp.	White Non Hisp.	Black Non Hisp.		Asian	Native Amer.	
J								
H								
A								
TRN								
TOT								

FEMALES

	(6)		(7)		(8)	(9)		(10)
	White Non Hisp.	Black Non Hisp.	White Non Hisp.	Black Non Hisp.		Asian	Native Amer.	
J								
H								
A								
TRN								
TOT								

What are the recruitment sources for you projected hires (i.e., unions, government employment office, job tap center, community outreach)?

(NO TEXT ON THIS PAGE)

ATTACH TO CONTRACT DOCUMENTS

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

PROJECT ID: MED598B

TRUNK WATER MAINS IN WEST 30TH STREET BETWEEN 10TH AVENUE AND 9TH AVENUE, ETC.,
~~TO CONNECT STREET 268 TO THE DISTRIBUTION SYSTEM~~

INCLUDING SEWER, WATER MAIN, STREET LIGHTING AND TRAFFIC WORK

Together With All Work Incidental Thereto
BOROUGH OF MANHATTAN

ADDENDUM NO. 7

DATED: September 5, 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) Refer to the Bid and Contract Documents, VOLUME 1 OF 3, Page A-1, Attachment 1 - Bid Information;
Change the dates shown for Submission of Bids To: and for Bid Opening: from "September 12, 2014" to read "September 30, 2014."

Refer to the Bid and Contract Documents, VOLUME 1 OF 3, Page 13, Schedule B - MWBE;
Change the dates shown for Bid/Proposal Response Date: from "September 12, 2014" to read "September 30, 2014."

- (2) Refer to the Bid and Contract Documents, VOLUME 1 OF 3, BID SCHEDULE, pages B-3 to B-49;
Delete all pages in their entirety;
Substitute attached revised pages B-3 (REVISION #1) to B-50 (REVISION #1).

- (3) Refer to the Bid and Contract Documents, VOLUME 3 of 3, Addendum No. 2, page A2-66, Specific Pavement Restorations Provisions;

Delete

4.02 AF-R	Asphaltic Concrete Wearing Course, 3" Thick	(For 2" asphaltic concrete wearing course for entire width of roadway construction.)
-----------	---	--

Add

4.02 AF-R	Asphaltic Concrete Wearing Course, 2" Thick	(For 2" asphaltic concrete wearing course overlay from curb to curb or edge to edge.)
-----------	---	---

4.02 AG	Asphaltic Concrete Wearing Course, 3" Thick	(For asphaltic concrete wearing course for entire width of roadway restoration.)
---------	---	--

- (4) Refer to the contract drawings;
Delete sheet Nos. 8 and 14;
Substitute attached revised sheet Nos. 8R and 14R.

(5) In response to questions from a Contractor (see attached letter Attachment A consisting of one (1) page), the answers to the questions are the following:

Answer to Question No. 1: DDC's Contractor currently maintains possession of the rock core samples obtained from Project SES-3828E dated August 2013.

Answer to Question No. 2: Any rock core and soil samples that were not destroyed for testing ~~can be made available~~ for review at the Contractor's office. The Contractor is Aquifer Drilling & Testing Inc. located at 75 East 2nd Street, Mineola NY, 11501. To set up an appointment for review, you may call (516) 616-6026.

Answer to Question No. 3: See contract drawings B8 to B11.

Answer to Question No. 4: The Contractor is notified that the rock testing lab data is available for review at the offices of the Department of Design and Construction (DDC) located at 30-30 Thomson Avenue, 3rd Floor, Long Island City, NY 11101. Contact Ms. Soad Makar at 718-391-3445 or Mr. Hua Yu at 718-391-2209 to set up an appointment for review.

Answer to Question No. 5: The record drawings for the existing 9'-3" circular concrete combined sewer which runs parallel to the proposed 90" sewer alignment doesn't show the method used to construct the existing sewer.

Answer to Question No. 6: See attached revised bid sheets.

Answer to Question No. 7: Fees for disposal of hazardous waste to NYSDFE and NYSDEC vary in time. The Contractor or Contractor's Environmental Consultant is obligated to find out the appropriate fees at the time necessary for disposal of hazardous soils.

By signing in the space provided below, the bidder acknowledges receipt of the two (2) pages of this Addendum plus forty-nine (49) pages of attachment and two (2) sheets of contract drawings.

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

MFM CONTRACTING Corp
Name of Bidder
By: [Signature]

[Signature]
for GURDIP SAINI, P.E.
Assistant Commissioner/Design



1/1/1980



ATTACH TO CONTRACT DOCUMENTS

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

PROJECT ID: MED598B

**TRUNK WATER MAINS IN WEST 30TH STREET BETWEEN 10TH AVENUE AND 9TH AVENUE, ETC.,
TO ~~CONNECT~~ **TO THE DISTRIBUTION SYSTEM****

INCLUDING SEWER, WATER MAIN, STREET LIGHTING AND TRAFFIC WORK

**Together With All Work Incidental Thereto
BOROUGH OF MANHATTAN**

ADDENDUM NO. 8

DATED: September 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.

(1) In response to questions from Contractors, the answers to the questions are the following:

Question No. 1: No equipment supplier currently has an MTBM large enough to install the 90" diameter RCP for this project.

Answer to Question No. 1: To our knowledge, suppliers are available for MTBM equipment with extension kit and rock cutter wheel that would be large enough to install the 90" diameter RCP sewer.

Question No. 2: Will DDC allow a smaller diameter reinforced concrete pipe (RCP) to be used in lieu of the specified 90" diameter RCP?

Answer to Question No. 2: DDC will not allow a smaller diameter reinforced concrete pipe (RCP) to be used in lieu of the specified 90" diameter RCP

Question No. 3: Will the DDC allow the use of a conventional rock boring machine?

Answer to Question No. 3: The Contractor is advised to refer to Bid and Contract Documents, VOLUME 3 OF 3, Addendum No. 2, page A2-41, Section 5.05B.2.

(2) In reference to Addendum No. 7, dated September 5, 2014, questions were raised about the answers submitted in Addendum No. 7 from a Contractor. See the following responses:

Answer to Question No. 2: Any rock core and soil samples that were not destroyed for testing can be made available for review at the Contractor's office. The Contractor is Aquifer Drilling & Testing Inc. located at 75 East 2nd Street, Mineola NY, 11501. To set up an appointment for review, you may call (516) 616-6026.

Request: Our request for an appointment was answered with a requirement that "All viewings have to be arranged through our client."



Answer: An appointment may be arranged at the Department of Design and Construction (DDC) by contacting Ms. Soad Makar at 718-391-3445 or Mr. Hua Yu at 718-391-2209.

Answer to Question No. 4: The Contractor is notified that the rock testing lab data is available for review at the offices of the Department of Design and Construction (DDC) located at 30-30 Thomson Avenue, 3rd Floor, Long Island City, NY 11101. Contact Ms. Soad Makar at 718-391-3445 or Mr. Hua Yu at 718-391-2209 to set up an appointment for review.

Request: Please make the rock testing data or the report(s) which contain the rock testing data available for possession by the Contractor in either electronic or paper format. Alternatively, please make such available for reproduction by the Contractor. Providing a responsible estimate of the cost to construct the rock tunnel section of this project will require significant time and effort reviewing the data. In addition, 3rd parties such as tunnel machine and cutter manufacturers cannot be reasonably expected to travel from various parts of the world to review data and assess the suitability of their equipment for this project.

Answer: Please see attached summary of test results for compressive strength, tensile strength and abrasivity consisting of eight (8) pages.

The Contractor is notified that additional data such as rock testing lab data or reports are available for review at the offices of the Department of Design and Construction (DDC) located at 30-30 Thomson Avenue 3rd Floor, Long Island City, New York. Please contact Ms. Soad Makar at 718-391-3445 (cubicle 438) or Mr. Hu Yua at 718-391-2209 to set up an appointment for review.

Answer to Question No. 5: The record drawings for the existing 9'-3" circular concrete combined sewer which runs parallel to the proposed 90" sewer alignment doesn't show the method used to construct the existing sewer.

Request: Please make the record drawings available for review.

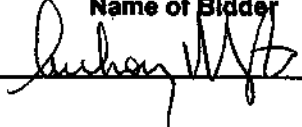
Answer: The record drawings for the existing 9'-3" circular concrete combined sewer which runs parallel to proposed 90" sewer alignment are available for review at the offices of the Department of Design and Construction (DDC) located at 30-30 Thomson Avenue 3rd Floor, Long Island City, New York. Please contact Ms. Soad Makar at 718-391-3445 (cubicle 438) or Mr. Hu Yua at 718-391-2209 to set up an appointment for review.

By signing in the space provided below, the bidder acknowledges receipt of the two (2) pages of this Addendum plus eight (8) sheets of attachment.

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



GURDIP SAINI, P.E.
Assistant Commissioner/Design

MFM CONTRACTING Corp
Name of Bidder
By:  _____

10/10/10

ATTACH TO CONTRACT DOCUMENTS

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

PROJECT ID: MED598B

TRUNK WATER MAINS IN WEST 30TH STREET BETWEEN 10TH AVENUE AND 9TH AVENUE, ETC.,
TO CONNECT TO THE DISTRIBUTION SYSTEM

INCLUDING SEWER, WATER MAIN, STREET LIGHTING AND TRAFFIC WORK

Together With All Work Incidental Thereto
BOROUGH OF MANHATTAN

ADDENDUM NO. 9

DATED: September 29, 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) Refer to the Bid and Contract Documents, VOLUME 1 OF 3, Page A-1, Attachment 1 - Bid Information;
Change the dates shown for Submission of Bids To: and for Bid Opening: from "September 30, 2014" to read "October 16, 2014."
- (2) Refer to the Bid and Contract Documents, VOLUME 1 OF 3, Page 13, Schedule B - M/WBE;
Change the dates shown for Bid/Proposal Response Date: from "September 30, 2014" to read "October 16, 2014."

Note:

- (3) The Contractor's attention is called upon Item No. 70.41M007540001 "SHORING, BRACING, UNDERPINNING, SUPPORTING, PROTECTING AND MAINTAINING OF BUILDING AT MANHATTAN BLOCK NO. 754 LOT NO. 1 - TWELVE (12) STORY HIGH RISE, RESIDENTIAL 363 WEST 30TH STREET". Item No. 70.41M007540001 was included in revised Bid Schedule issued in Addendum No. 7 (dated September 5, 2014). See page B-33 (REVISION # 1), Sequence No. 169.
- (4) The Contractor's attention is called upon that existing United States Postal Service (USPS) structures fall within the project limits. See Addendum No. 2, NOTICE TO BIDDER, page A2-4, paragraph (19).

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

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

Purnima Sharma
for GURDIP SAINI, P.E.
Assistant Commissioner/Design

MFM CONTRACTING Corp
Name of Bidder
By: *Shubhan MFB*

ATTACH TO CONTRACT DOCUMENTS

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

PROJECT ID: MED598B

TRUNK WATER MAINS IN WEST 30TH STREET BETWEEN 10TH AVENUE AND 9TH AVENUE, ETC.,
~~TO CONNECT SHAFT 26B TO THE DISTRIBUTION SYSTEM~~

INCLUDING SEWER, WATER MAIN, STREET LIGHTING AND TRAFFIC WORK

Together With All Work Incidental Thereto
BOROUGH OF MANHATTAN

ADDENDUM NO. 10

DATED: October 9, 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) Refer to Contract Drawings, Sheet No. 2 of 16, GENERAL NOTES, Note No. W13

Delete Note No. W13 in its entirety;

Substitute with the following:

"THE CONTRACTOR SHALL SUBMIT FOR REVIEW SHEETING AND BRACING DESIGN, PREPARED BY A PROFESSIONAL ENGINEER, LICENSED IN THE STATE OF NEW YORK AT NO ADDITIONAL COST TO THE CITY. WHERE SHEETING IS TO BE PLACED IN THE VICINITY OF TRANSIT AUTHORITY/LIRR FACILITIES, IT SHALL BE DESIGNED AND PLACED ACCORDING TO THE T.A./LIRR REQUIREMENTS. DRAWINGS AND CONSTRUCTION PROCEDURES INCLUDING AUGERING OF SOLDIER BEAMS, IF REQUIRED, SHALL BE SUBMITTED TO THE ENGINEER AND TRANSIT AUTHORITY FOR APPROVAL BEFORE CONSTRUCTION. NO EXTRA PAYMENT WILL BE MADE TO THE CONTRACTOR FOR ANY ADDITIONAL COSTS NEEDED TO COMPLY WITH T.A. / LIRR REQUIREMENTS BUT COSTS WILL BE DEEMED TO BE INCLUDED IN THE PRICES BID FOR LAYING WATER MAINS".

- (2) Refer to Contract Drawings, Sheet No. 6 of 16, NOTES, first paragraph (located directly under "SECTION A-A");

Delete this note in its entirety;

Substitute with the following:

"THE CONTRACTOR SHALL UTILIZE SPECIALLY DESIGNED TIGHT SHEETING WHERE REQUIRED. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR APPROVAL AS PER THE DDC STANDARD SPECIFICATIONS. NO SEPARATE PAYMENT SHALL BE MADE, ALL PAYMENT SHALL BE DEEMED INCLUDED IN THE PRICES BID FOR LAYING WATER MAINS".

- (3) In response to a question from a Contractor, the answer to the question is the following:

Question: "Refer to section 6.52CG, Crossing Guard – Is there a prevailing wage rate for employees being paid for under this item? If there is, please specify rate".

Answer to Question: The New York City Comptroller has not established a prevailing wage rate for this title or function.



1972



By signing in the space provided below, the bidder acknowledges receipt of the two (2) pages of this Addendum.

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

MFM CONTRACTING Corp
Name of Bidder
By: [Signature]

for Purnema Sharma
GURDIP SAINI, P.E.
Assistant Commissioner/Design



CONFIDENTIAL



ATTACH TO CONTRACT DOCUMENTS

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

PROJECT ID: MED598B

TRUNK WATER MAINS IN WEST 30TH STREET BETWEEN 10TH AVENUE AND 9TH AVENUE, ETC.,
TO ~~CONNECT~~ ~~W~~ ~~FT~~ 26B TO THE DISTRIBUTION SYSTEM

INCLUDING SEWER, WATER MAIN, STREET LIGHTING AND TRAFFIC WORK

Together With All Work Incidental Thereto
BOROUGH OF MANHATTAN

ADDENDUM NO. 11

DATED: October 15, 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) Refer to the Bid and Contract Documents, VOLUME 1 OF 3, Page A-1, Attachment 1 - Bid Information;
Change the dates shown for Submission of Bids To: and for Bid Opening: from "October 16, 2014" to read "October 17, 2014."
- (2) Refer to the Bid and Contract Documents, VOLUME 1 OF 3, Page 13, Schedule B - MWBE;
Change the dates shown for Bid/Proposal Response Date: from "October 16, 2014" to read "October 17, 2014."

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

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

MEM CONTRACTING CORP
Name of Bidder

By: 

for 
GURDIP SAINI, P.E.
Assistant Commissioner/Design


10/15/14

A11-1

100-100-100-100

100-100-100-100

100

IRAN DIVESTMENT ACT COMPLIANCE RIDER

FOR NEW YORK CITY CONTRACTORS

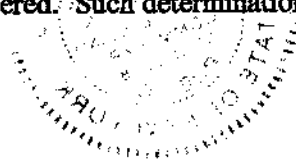
The Iran Divestment Act of 2012, effective as of April 12, 2012, is codified at State Finance Law ("SFL") §165-a and General Municipal Law ("GML") §103-g. The Iran Divestment Act, with certain exceptions, prohibits municipalities, including the City, from entering into contracts with persons engaged in investment activities in the energy sector of Iran. Pursuant to the terms set forth in SFL §165-a and GML §103-g, a ~~person engaged in investment~~ activities in the energy sector of Iran if:

- (a) The person provides goods or services of twenty million dollars or more in the energy sector of Iran, including a person that provides oil or liquefied natural gas tankers, or products used to construct or maintain pipelines used to transport oil or liquefied natural gas, for the energy sector of Iran; or
- (b) The person is a financial institution that extends twenty million dollars or more in credit to another person, for forty-five days or more, if that person will use the credit to provide goods or services in the energy sector in Iran and is identified on a list created pursuant to paragraph (b) of subdivision three of Section 165-a of the State Finance Law and maintained by the Commissioner of the Office of General Services.

A bid or proposal shall not be considered for award nor shall any award be made where the bidder or proposer fails to submit a signed and verified bidder's certification.

Each bidder or proposer must certify that it is not on the list of entities engaged in investment activities in Iran created pursuant to paragraph (b) of subdivision 3 of Section 165-a of the State Finance Law. In any case where the bidder or proposer cannot certify that they are not on such list, the bidder or proposer shall so state and shall furnish with the bid or proposal a signed statement which sets forth in detail the reasons why such statement cannot be made. The City of New York may award a bid to a bidder who cannot make the certification on a case by case basis if:

- (1) The investment activities in Iran were made before the effective date of this section (i.e., April 12, 2012), the investment activities in Iran have not been expanded or renewed after the effective date of this section and the person has adopted, publicized and is implementing a formal plan to cease the investment activities in Iran and to refrain from engaging in any new investments in Iran; or
- (2) The City makes a determination that the goods or services are necessary for the City to perform its functions and that, absent such an exemption, the City would be unable to obtain the goods or services for which the contract is offered. Such determination shall be made in writing and shall be a public document.



**BIDDER'S CERTIFICATION OF COMPLIANCE WITH
IRAN DIVESTMENT ACT**

Pursuant to General Municipal Law §103-g, which generally prohibits the City from entering into contracts with persons engaged in investment activities in the energy sector of Iran, the bidder/proposer submits the following certification:

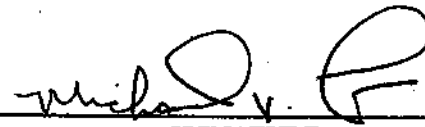
[Please Check One]

BIDDER'S CERTIFICATION

- By submission of this bid or proposal, each bidder/proposer and each person signing on behalf of any bidder/proposer certifies, and in the case of a joint bid each party thereto certifies as to its own organization, under penalty of perjury, that to the best of its knowledge and belief, that each bidder/proposer is not on the list created pursuant to paragraph (b) of subdivision 3 of Section 165-a of the State Finance Law.

- I am unable to certify that my name and the name of the bidder/proposer does not appear on the list created pursuant to paragraph (b) of subdivision 3 of Section 165-a of the State Finance Law. I have attached a signed statement setting forth in detail why I cannot so certify.

Dated: Mamaroneck, New York
9/25, 2014

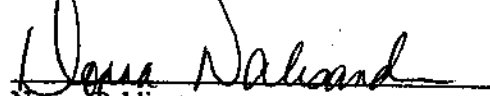


SIGNATURE
Michael v. Petrillo

PRINTED NAME
President

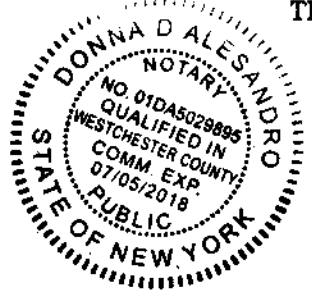
TITLE

Sworn to before me this
25th day of Sept., 2014



Notary Public

Dated: 9-25-14



Prime Contractor Pre-Award Statement -- Prevailing Wage Contracts

Agency: DEPARTMENT OF DESIGN & CONSTRUCTION

Prime Contractor: MFM CONTRACTING CORP.

Contract #: MED-598B

On behalf of the prime contractor and contract shown above, I affirm that I have reviewed the following information with the contracting agency:

- The work to be done or the trades that will be employed on the contract;
- The Comptroller's prevailing wage schedules for each trade;
- The requirement to pay the prevailing wage and supplement rates in effect at the time the work is done, and the dates of likely changes in such rates (July 1 and January 1);
- The requirement for written agreements with all subcontractors, which include prevailing wage and supplement requirements;
- The registration, ratio and payment guidelines for apprentices, and whether their use is optional or required under this contract;
- The requirement to use City-approved certified payroll forms, the need to fill those forms out completely, and to submit such original payrolls within thirty (30) days of issuance of the first payroll and every thirty (30) days thereafter;
- The requirement to use standard sign-in and sign-out logs or an agency-approved electronic or biometric system, and that such logs must be submitted to the resident engineer or agency representative daily;
- The requirement that all workers on job sites shall wear laminated photo identification badges;
- The prohibition on cash payments to workers and subcontractors; all workers must be paid by check or direct deposit weekly (bi-weekly, where permitted by law [certain non-construction workers only]), and that for contracts over \$1,000,000 and subcontracts over \$750,000 such checks must be generated by either a payroll service or an agency-approved automated system; and
- That the prime contractor shall be liable to the City for the cost of enforcement in the event the prime contractor or any subcontractor is found in violation of these requirements.

I further affirm that the prime contractor will comply with these and all other relevant requirements of the New York State Labor Law and City of New York laws and regulations concerning payment of prevailing wages and supplements, and that violation of such laws may subject the prime contractor to various administrative, civil and criminal penalties.

Prime Contractor Signature: Michael V. Pettrillo Date: 12/15/14

Printed Name: Michael V. Pettrillo

Position: President

Agency Witness: [Signature] Date: 12/16/14

Printed Name: TIA CLARKE

Rev 5/14



**BID BOND 1
FORM OF BID BOND**

KNOW ALL MEN BY THESE PRESENTS. That we, MFM Contracting Corporation
335 Center Avenue, Mamaroneck, NY 10543

hereinafter referred to as the "Principal", and Arch Insurance Company
Three Parkway, Suite 1500, Philadelphia, PA 19102

hereinafter referred to as the "Surety" are held and firmly bound to THE CITY OF NEW YORK,
hereinafter referred to as the "CITY", or to its successors and assigns in the penal sum of _____

Ten Percent of Proposal Price

(\$ 10% of P.P.), Dollars lawful money of the United States, for the payment of which said sum of money well and truly to be made, we, and each of us, bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

Whereas, the Principal is about to submit (or has submitted) to the City the accompanying proposal, hereby made a part hereof, to enter into a contract in writing for _____

MED598B- Trunk Water Mains in West 30th Street Between 10th Avenue and 9th Avenue, Etc.

To Connect Shaft 26B to the Distribution System, Borough of Manhattan.

NOW, THEREFORE, the conditions of this obligation are such that if the Principal shall not withdraw said Proposal without the consent of the City for a period of forty-five (45) days after the opening of bids and in the event of acceptance of the Principal's Proposal by the City, if the Principal shall:

(a) Within ten (10) days after notification by the City, execute in quadruplicate and deliver to the City all the executed counterparts of the Contract in the form set forth in the Contract Documents, in accordance with the proposal as accepted, and

(b) Furnish a performance bond and separate payment bond, as may be required by the City, for the faithful performance and proper fulfillment of such Contract, which bonds shall be satisfactory in all respects to the City and shall be executed by good and sufficient sureties, and

(c) In all respects perform the agreement created by the acceptance of said Proposal as provided in the Information for Bidders, bound herewith and made a part hereof, or if the City shall reject the aforesaid Proposal, then this obligation shall be null and void; otherwise to remain in full force and effect.



10/10/10



BID BOND 2

In the event that the Proposal of the Principal shall be accepted and the Contract be awarded to him the Surety hereunder agrees subject only to the payment by the Principal of the premium therefore, if requested by the City, to write the aforementioned performance and payment bonds in the form set forth in the Contract Documents.

It is expressly understood and agreed that the liability of the Surety for any and all claims hereunder shall in no event exceed the penal amount of this obligation as herein stated.

There shall be no liability under this bond if, in the event of the acceptance of the Principal's Proposal by the City, either a performance bond or payment bond, or both, shall not be required by the City on or before the 30th day after the date on which the City signs the Contract.

The surety, for the value received, hereby stipulates and agrees that the obligations of the Surety and its bond shall in no way be impaired or affected by any postponements of the date upon which the City will receive or open bids, or by any extensions of the time within which the City may accept the Principal's Proposal, or by any waiver by the City of any of the requirements of the Information for Bidders, and the Surety hereby waives notice of any such postponements, extensions, or waivers.

IN WITNESS WHEREOF, the Principal and the Surety have hereunto set their hands and seals and such of them as are corporations have caused their corporate seals to be hereto affixed and these presents to be signed by their proper officers the 29th day of August, 2014.

(Seal)

MFM Contracting Corporation

(L.S.)

Principal

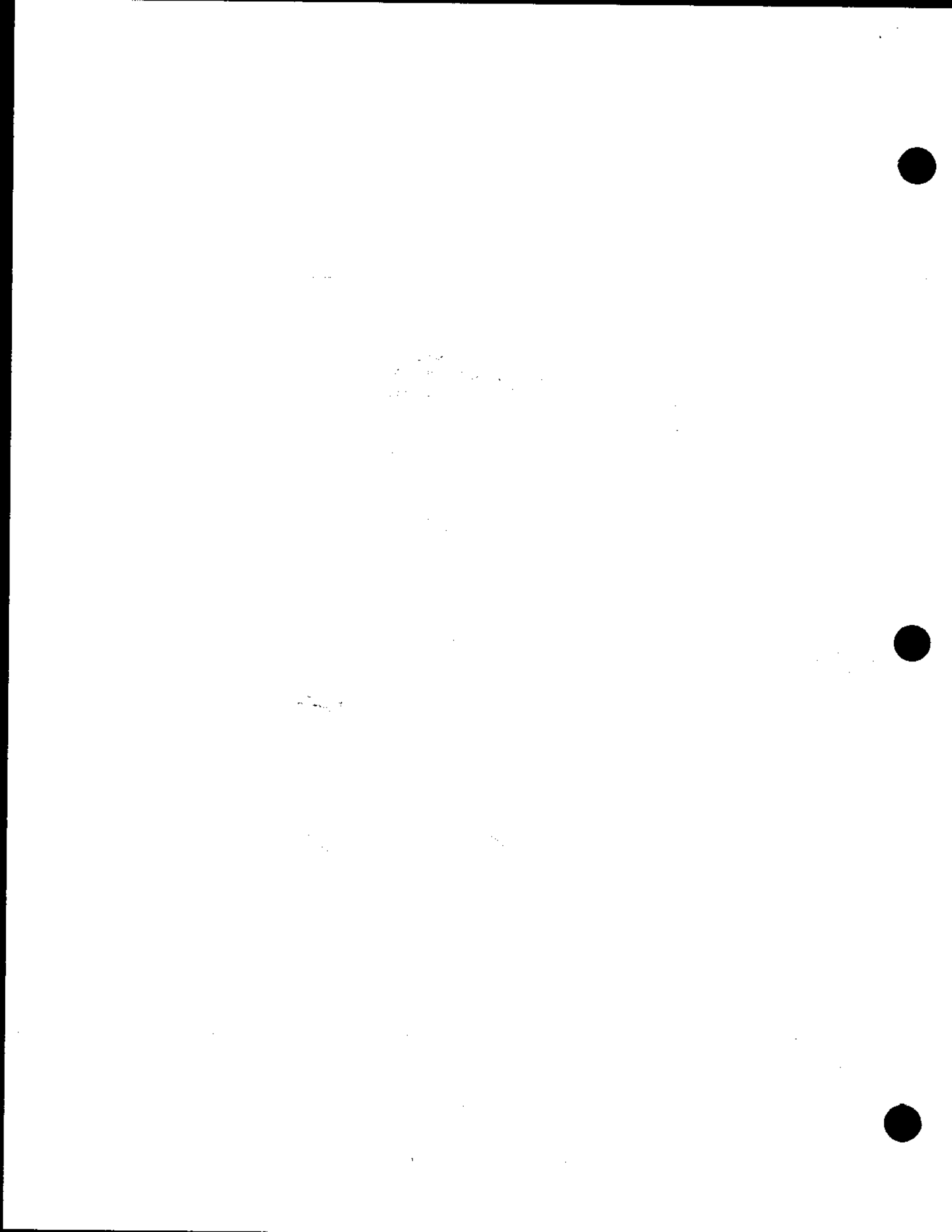
By: Michael V. R

(Seal)

Arch Insurance Company

Surety

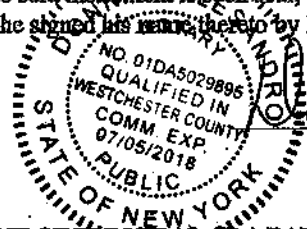
By: Susan Lupski
Susan Lupski, Attorney In-Fact



BID BOND 3

ACKNOWLEDGMENT OF PRINCIPAL, IF A CORPORATION

State of New York County of Westchester ss:
On this 23rd day of September, 2014, before me personally came
Michael V. Petrillo to me known, who, being by me duly sworn, did depose and say
that he resides at Purchase, N.Y. 10577
that he is the President of MEM Contracting Corp.
the corporation described in and which executed the foregoing instrument; that he knows the seal of said
corporation; that one of the seals affixed to said instrument is such seal; that it was so affixed by order of
the directors of said corporation, and that he signed his name thereto by like order.



[Signature]
Notary Public

ACKNOWLEDGMENT OF PRINCIPAL, IF A PARTNERSHIP

State of _____ County of _____ ss:
On this _____ day of _____, _____, before me personally appeared
_____ to me known and known to me to be one of the members of the
firm of _____ described in and who executed the foregoing
instrument, and he acknowledged to me that he executed the same as and for the act and deed of said
firm.

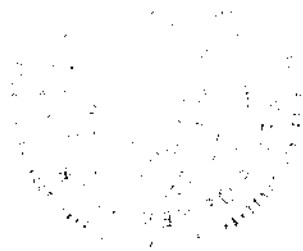
Notary Public

ACKNOWLEDGMENT OF PRINCIPAL, IF AN INDIVIDUAL

State of _____ County of _____ ss:
On this _____ day of _____, _____, before me personally appeared
_____ to me known and known to me to be the person described in
and who executed the foregoing instrument and acknowledged that he executed the same.

Notary Public

AFFIX ACKNOWLEDGMENTS AND JUSTIFICATION OF SURETIES



THIS POWER OF ATTORNEY IS NOT VALID UNLESS IT IS PRINTED ON BLUE BACKGROUND.

This Power of Attorney limits the acts of those named herein, and they have no authority to bind the Company except in the manner and to the extent herein stated. Not valid for Mortgage, Note, Loan, Letter of Credit, Bank Deposit, Currency Rate, Interest Rate or Residential Value Guarantees.

POWER OF ATTORNEY

Know All Persons By These Presents

That the Arch Insurance Company, a corporation organized and existing under the laws of the State of Missouri, having its principal administrative office in Jersey City, New Jersey (hereinafter referred to as the "Company") does hereby appoint:

Carmilo Mallard, Colade R. Onis, John Desires, David George, George G. Brewster, Gerard S. Macholz, Lee E. Johnson, Holly Randall, Rich Rita, Sagistano, Robert E. Larson, Susan Lipsky, Thomas Bean and Vincent A. Walsh of Uniondale, NY (EACH)

its true and lawful Attorney (singular) to make, execute, seal, and deliver from the date of issuance of this instrument and on its behalf its agents, and its authorized deputies:

Any and all bonds, undertakings, recognizances and other surety obligations, in the total sum not exceeding **Ninety Million Dollars (\$90,000,000.00)**.

This authority does not permit the same obligation to be split into two or more bonds in order to bring each such bond within the dollar limit of authority set forth herein.

The execution of such bonds, undertakings, recognizances and other surety obligations in pursuance of these presents shall be as binding upon the said Company as fully and amply to all intents and purposes, as if the same had been duly executed and acknowledged by its regularly elected officers at its principal administrative office in Jersey City, New Jersey.

This Power of Attorney is executed by authority of resolutions adopted by unanimous consent of the Board of Directors of the Company on September 15, 2011, and a duly certified copy of which are hereinafter set forth and are hereby authorized by the undersigned Secretary, as being full, true and correct.

VOTED that the Chairman of the Board, the President, or the Executive Vice President, or any Senior Vice President, of the Surety Business Division, or their appointees designated in writing and filed with the Secretary of the Company, shall have the power and authority to appoint agents and attorneys-in-fact, and to authorize them, subject to the limitations set forth in their respective powers or authority, to execute on behalf of the Company, and attach the seal of the Company thereto, bonds, undertakings, recognizances and other surety obligations, and to file the same, and any such officers of the Company may designate agents for acceptance of process.


This Power of Attorney is signed, sealed and certified by Jadsimile under, and by authority of the following resolution adopted by the unanimous consent of the Board of Directors of the Company on September 15, 2011:

VOTED that the signature of the Chairman of the Board, the President, or the Executive Vice President, or any Senior Vice President, of the Surety Business Division, or their appointees designated in writing, and filed with the Secretary, and the signature of the Secretary, the seal of the Company, and certifications by the Secretary, may be affixed by Jadsimile on any power of attorney or bond executed pursuant to the resolution adopted by the Board of Directors on September 15, 2011, and any such power so executed, sealed and certified with respect to any bond or undertaking to which it is attached, shall continue to be valid and binding upon the Company.

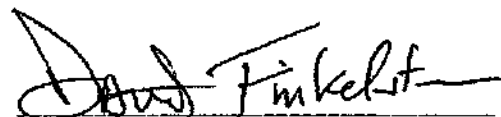
In Testimony Whereof, the Company has caused this instrument to be signed and its corporate seal to be affixed by their authorized officers, this 18th day of June, 2014.

Attested and Certified

Arch Insurance Company


Patrick K. Nails, Secretary

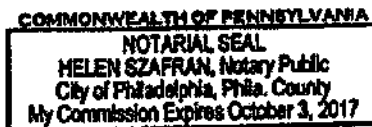


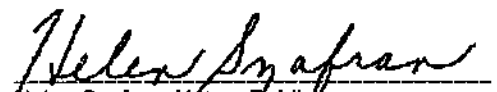

David M. Finkelstein, Executive Vice President

STATE OF PENNSYLVANIA SS

COUNTY OF PHILADELPHIA SS

I, Helen Szafran, a Notary Public, do hereby certify that Patrick K. Nails and David M. Finkelstein personally known to me to be the same persons whose names are respectively as Secretary and Executive Vice President of the Arch Insurance Company, a Corporation organized and existing under the laws of the State of Missouri, subscribed to the foregoing instrument, appeared before me this day in person and severally acknowledged that they being thereunto duly authorized signed, sealed with the corporate seal and delivered the said instrument as the free and voluntary act of said corporation and as their own free and voluntary acts for the uses and purposes therein set forth.

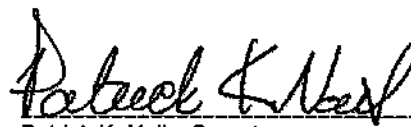



Helen Szafran, Notary Public
My commission expires 10/03/2017

CERTIFICATION

I, Patrick K. Nails, Secretary of the Arch Insurance Company, do hereby certify that the attached Power of Attorney dated June 18, 2014 on behalf of the person(s) as listed above is a true and correct copy and that the same has been in full force and effect since the date thereof and is in full force and effect on the date of this certificate; and I do further certify that the said David M. Finkelstein, who executed the Power of Attorney as Executive Vice President, was on the date of execution of the attached Power of Attorney the duly elected Executive Vice President of the Arch Insurance Company.

IN TESTIMONY WHEREOF, I have hereunto subscribed my name and affixed the corporate seal of the Arch Insurance Company on this _____ day of AUG 29 2014, 20_____.


Patrick K. Nails, Secretary

This Power of Attorney limits the acts of those named therein to the bonds and undertakings specifically named therein and they have no authority to bind the Company except in the manner and to the extent herein stated.

PLEASE SEND ALL CLAIM INQUIRIES RELATING TO THIS BOND TO THE FOLLOWING ADDRESS:

Arch Insurance – Surety Division
3 Parkway, Suite 1500
Philadelphia, PA 19102




ACKNOWLEDGMENT OF SURETY COMPANY

STATE OF New York } ss
COUNTY OF ... Nassau }

On this AUGUST 29, 2014 before me personally came..... SUSAN LUPSKI
to me know, who, being by me duly sworn, did depose and say; that he/she resides in
NASSAU COUNTY....., State of NEW YORK....., that he/she is the Attorney-In-Fact of the
..... ARCH INSURANCE COMPANY.....the corporation described in which
executed the above instrument; that he/she knows the seal of said corporation; that the
seal affixed to said instrument is such corporate seal; that is was so affixed by order of
the Board of Directors of said corporation; and that he/she signed his/her name thereto by
like order; and the affiant did further depose and say that the Superintendent of Insurance
of the State of New York, has, pursuant to Section 1111 of the Insurance Law of the State
of New York, issued to..... ARCH INSURANCE COMPANY.....(Surety) his/her
certificate of qualification evidencing the qualification of said Company and its
sufficiency under any law of the State of New York as surety and guarantor, and the
propriety of accepting and approving it as such; and that such certificate has not been
revoked.

GRACE ACKERSON
Notary Public, State of New York
Nassau County
Lic. #01AC6111590
Term Expires June 14, 2016


.....
Notary Public

NY acknowledgment

MOBILE 10000
MOBILE 10000
MOBILE 10000

ARCH INSURANCE COMPANY
STATEMENT OF FINANCIAL CONDITION
December 31, 2013

Assets

Cash in Banks	\$ 113,241,149
Bonds owned	1,730,368,149
Stocks	433,238,605
Premiums in course of collection	251,285,768
Accrued interest and other assets	<u>312,730,603</u>
 Total Assets	 <u><u>\$ 2,840,864,274</u></u>

Liabilities

Reserve for losses and adjustment expenses	\$ 1,200,735,312
Reserve for unearned premiums	307,521,736
Ceded reinsurance premiums payable	105,942,093
Amounts withheld or retained by company for account of others	188,907,409
Reserve for taxes, expenses and other liabilities	<u>301,130,327</u>
 Total Liabilities	 2,104,236,877
 Surplus as regards policyholders	 <u>736,627,397</u>
 Total Surplus and Liabilities	 <u><u>\$ 2,840,864,274</u></u>

By: _____

Senior Vice President, Chief
Financial Officer and Treasurer

Attest: _____

Senior Vice President,
General Counsel and Secretary

State of New Jersey)

)

SS

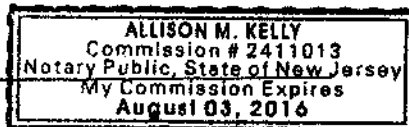
County of Hudson)

Thomas James Ahern, Senior Vice President, Chief Financial Officer and Treasurer and Patrick Kenneth Nails, Senior Vice President, General Counsel and Secretary being duly sworn, of ARCH INSURANCE COMPANY, Missouri; and that the foregoing is a true and correct statement of financial condition of said company, as of December 31, 2013.

Subscribed and sworn to before me, this 10th day of March, 2014

Notary Public

Allison M. Kelly





GET UPFRONT CAPITAL

TO COMPETE ON CITY CONTRACTS



Contract Financing for NYC Small Businesses

NYC Business Solutions helps small businesses, including Minority or Women-owned Business Enterprises (M/WBEs), across all industries secure low-rate loans to compete on City contracts.

Whether your firm has been selected to perform a construction project, provide professional services, or supply the City with goods, businesses across all industries can access up to \$150,000 in capital to cover contract-related labor and equipment costs.

The ideal business should:

- Currently be in operation
- Have plans to bid on a City contract
- Need early-stage resources (e.g. working capital, inventory, or equipment)

Call 311 and ask for “contract financing” or visit www.nyc.gov/contractfinancing for more information

NYC
Small Business
Services

NYC BUSINESS
SOLUTIONS ←

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

BID BOOKLET

FOR FURNISHING ALL LABOR AND MATERIALS NECESSARY AND
REQUIRED FOR:

PROJECT ID: MED598B

**TRUNK WATER MAINS IN WEST 30TH STREET BETWEEN 10TH AVENUE AND
9TH AVENUE, ETC., TO CONNECT SHAFT 26B TO THE DISTRIBUTION SYSTEM**

INCLUDING SEWER, WATER MAIN, STREET LIGHTING AND TRAFFIC WORK

Together With All Work Incidental Thereto
BOROUGH OF MANHATTAN

(NO TEXT ON THIS PAGE)

PROJECT ID: MED598B

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

BID BOOKLET

TABLE OF CONTENTS

SECTION	PAGE
PART A	
1. Table of Contents	1
2. Special Notice to Bidders	2
3. Attachment 1 – Bid Information.....	A-1
4. Bid Schedule.....	B-1
5. Bid Form.....	C-1
6. Affirmation	C-6
7. Bid Bond.....	C-7
8. M/WBE Program: M/WBE Utilization Plan.....	5
9. Apprenticeship Program Requirements.....	19
PART B	
10. Safety Questionnaire	21
11. Pre-award Process.....	24
12. Project Reference Form.....	26
13. Contract Certificate.....	29
14. Vendex Compliance	30
15. Iran Divestment Act Compliance Rider	31
16. Construction Employment Report	33

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**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) **VENDEX QUESTIONNAIRES:** The Bidder is advised that Vendex Questionnaires and procedures have been changed. Vendex Questionnaires, as well as detailed instructions, may be obtained at www.nyc.gov/vendex. The bidder may also obtain Vendex forms and instructions by contacting the Agency Chief Contracting Officer or the contact person for this contract.
- (4) **SPECIAL EXPERIENCE REQUIREMENTS:** 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) **SPECIAL EXPERIENCE REQUIREMENTS FOR THE BIDDER:** 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 (■).

- 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 (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:** _____

(B) SPECIAL EXPERIENCE REQUIREMENTS FOR SPECIFIC AREAS OF WORK (to be provided after an award of contract):

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

The Special Experience Requirements set forth below apply to the contractor, subcontractor or sub-subcontractor that will perform the specific area of work. **Compliance with such Special Experience Requirements will be determined solely by the City after an award of contract.** After an award of contract, when requested by the City, the contractor will be required to submit the qualifications of the contractor, subcontractor or sub-subcontractor that will perform the specific area of work. 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. Once approved, no substitution will be permitted, unless the qualifications of the proposed replacement have been approved in writing in advance by the City.

Special Experience Requirements apply to the contractor, subcontractor or sub-subcontractor (hereinafter referred to as the "entity") that will perform any specific area of work indicated by a blackened box. The entity may have performed the required prior project(s) as a prime contractor, subcontractor or sub-subcontractor.

■ **Hazmat Work:** Hazmat Work is any item of work in the Bid Schedule that begins with the prefix 8.01. The entity that will perform any Hazmat Work must, within the last three (3) consecutive years prior to the bid opening, have successfully completed in a timely fashion at least five (5) projects similar in scope and type to the required work.

■ **Pile, CFA Pile, and/or Mini-Pile Work:** The entity that will perform the Pile, CFA Pile and/or Mini-Pile Work must, within the last three (3) 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.

For professional services in connection with Pile Work, (i.e., engineering and inspection services), the individual who will perform the required services must be a Professional Engineer licensed by the state of New York. Such individual must also comply with the above requirements for prior projects.

■ **Construction Report, Monitoring And Post-Construction Report, and Continuous Real-Time Monitoring For Vibrations And Movements And Post-Construction Report Work:** The entity that will perform the Construction Report, Monitoring For Vibrations And Movements, and Post-Construction Report Work must, within the last three (3) 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.

For professional services in connection with Reporting and Monitoring Work, (i.e., engineering and inspection services), the individual who will perform the required services must be a Professional Engineer licensed by the state of New York. Such individual must also comply with the above requirements for prior projects.

OTHER: _____

(C) **SPECIFICATIONS**: In the event of any conflict, omission or inconsistency between (1) the Specifications and/or Contract Drawings, and (2) the Special Experience Requirements in Section (B) of the Special Notice To Bidders, the special experience listed in the Specifications and/or Contract Drawings shall be controlling. The Special Experience Requirements in Section (B) of this Special Notice To Bidders are only for the convenience of the bidders.

(D) **SUBMISSION REQUIREMENTS**: For each project submitted to demonstrate compliance with the Special Experience Requirements, the bidder must complete and submit the Qualification Form included in the Bid Booklet. The City will only evaluate a project if the following criteria are met: (1) the project is described on the Qualification Form, and (2) all information on the Qualification Form is provided. The City will not evaluate any project which does not comply with the criteria set forth herein, including any project which is referred to only on the resume of an individual.

If Special Experience Requirements are indicated for any specific area of work, the submission requirement set forth above shall apply to the entity that will perform the specific area of work.

(E) **CONDITIONS**: In determining compliance with the Special Experience Requirements for the bidder set forth above, the City may consider prior projects completed by principal(s) or other employees of the bidder while affiliated with another entity, subject to the conditions set forth below.

- Any principal or other employee on whose prior experience the bidder is relying to demonstrate compliance with this special experience requirement must have held the following: (a) a significant management role in the prior entity with which he/she was affiliated, and (b) a significant management role in the entity submitting the bid for a period of six (6) months or more from the inception of the bidding entity.
- The bidder may not rely on the experience of its principals or other employees to demonstrate compliance with any other requirements, including without limitation, financial requirements or requirements for a specified minimum amount of annual gross revenues.

(F) **JOINT VENTURES**: In the event the bidder is a joint venture, at least one firm in the joint venture must meet the above described experience requirements.

Qualification Form

List previous projects completed to meet the special experience requirements for this contract.
Please photocopy this form for submission of all required projects.

Name of Contractor: _____

Name of Project: _____

Location of Project: _____

Owner or Owner's representative (Architect or Engineer) who is familiar with the work performed:

Name: _____

Title: _____ Phone Number: _____

Brief description of the Project completed or the Project in progress: _____

Was the Project performed as a prime, a subcontractor or a sub-subcontractor: _____

Amount of Contract, Subcontract or Sub-subcontract: _____

Start Date and Completion Date: _____

Name of Contractor: _____

Name of Project: _____

Location of Project: _____

Owner or Owner's representative (Architect or Engineer) who is familiar with the work performed:

Name: _____

Title: _____ Phone Number: _____

Brief description of the Project completed or the Project in progress: _____

Was the Project performed as a prime, a subcontractor or a sub-subcontractor: _____

Amount of Contract, Subcontract or Sub-subcontract: _____

Start Date and Completion Date: _____

(NO TEXT ON THIS PAGE)

ATTACHMENT 1 - BID INFORMATION

PROJECT ID: MED598B

PIN: 8502014WM0003C

Description and Location of Work: Trunk Water Mains In West 30th Street Between 10th Avenue And 9th Avenue, Etc., To Connect Shaft 26B To The Distribution System Including Sewer, Water Main, Street Lighting And Traffic Work, Together With All Work Incidental Thereto, Borough Of Manhattan.

Documents Available At: 30-30 Thomson Avenue
First Floor Bid Procurement Room
Long Island City, New York 11101
8:30 A.M. to 4:00 P.M. - Monday through Friday

Submission of Bids To: 30-30 Thomson Avenue
First Floor Bid Procurement Room
Long Island City, New York 11101
Before 11:00 A.M. on SEPTEMBER 12, 2014

Bid Opening: 30-30 Thomson Avenue
First Floor Bid Procurement Room
Long Island City, New York 11101

Time and Date: 11:00 A.M. on SEPTEMBER 12, 2014

Pre-Bid Conference: Yes _____ No X
If Yes, Mandatory: _____ Optional: _____
Time and Date: _____
Location: _____

Bid Security: Bid Security is required in the amount set forth below; provided, however, bid security is not required if the TOTAL BID PRICE set forth on the Bid Form is less than \$1,000,000.00.

- (1) Bond in an amount not less than 10% of the TOTAL BID PRICE set forth on the Bid Form, OR
- (2) Certified Check in an amount not less than 2% of the TOTAL BID PRICE set forth on the Bid Form.

Performance and Payment Security: Required for contracts in the amount of \$1,000,000 or more. Performance Security and Payment Security shall each be in an amount equal to 100% of the Contract Price.

Agency Contact Person: Lorraine Holley
Phone: 718-391-2601 FAX: 718-391-2615

(NO TEXT ON THIS PAGE)

BID SCHEDULE

NOTICE TO BIDDERS

Items listed in this Bid Schedule which have one (1) digit followed by a decimal (e.g. 4.02 AG), excluding items beginning with the number "8.01", shall comply with the requirements of the corresponding numerical Sections of the NYCDOT Standard Highway Specifications as amended by Addendum No. 1 and Addendum No. 2, herein Volume 3 of 3.

Items listed in this Bid Schedule beginning with the number "8.01" (e.g. 8.01 C1) shall comply with the requirements of Addendum No. 5, herein Volume 3 of 3.

Items listed in this Bid Schedule which have two (2) digits beginning with the number "5" followed by a decimal (e.g. 50.31CC15) shall comply with the requirements of the New York City Department of Environmental Protection (NYCDEP) Standard Sewer Specifications dated August 1, 2009, as amended by Addendum No. 2, herein Volume 3 of 3.

Items listed in this Bid Schedule which have two (2) digits beginning with the number "6" followed by a decimal (e.g. 60.11R612) shall comply with the requirements of the New York City Department of Environmental Protection (NYCDEP) Standard Water Main Specifications dated August 1, 2009, as amended by Addendum No. 2, herein Volume 3 of 3.

Items listed in this Bid Schedule which have two (2) digits beginning with the number "7" followed by a decimal (e.g. 70.31FN) shall comply with the requirements of the New York City Department of Environmental Protection (NYCDEP) Standard Sewer Specifications dated August 1, 2009, and Standard Water Main Specifications dated August 1, 2009, as amended by Addendum No. 2, herein Volume 3 of 3.

Items listed in this Bid Schedule beginning with the prefix "SL-" (e.g. SL-21.09.05) are Street Lighting Items which shall be done in accordance with the requirements of Sub-Section 1.06.23.(D) and Section 1.06.49 in the Standard Highway Specifications.

Items listed in this Bid Schedule beginning with the prefix "T-" (e.g. T-2.15) are Traffic Items which shall be done in accordance with the requirements of Sub-Section 1.06.23.(D) and Section 1.06.49 in the Standard Highway Specifications.

Items listed in this Bid Schedule beginning with the prefix "UTL-" (e.g. UTL-6.01.8) are for Gas Cost Sharing (EP-7) work and shall comply with the requirements of Addendum No. 3, herein Volume 3 of 3.

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7/30/2014 12:00 AM

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

CONTRACT PIN: 8502014WM0003C
PROJECT ID: MED598B

BID SCHEDULE

- NOTE:** (1) The Agency may reject a bid if it contains unbalanced bid prices. An unbalanced bid is considered to be one containing lump sum or unit items which do not reflect reasonable actual costs plus a reasonable proportionate share of the Bidder's anticipated profit, overhead costs, and other indirect costs, anticipated for the performance of the items in question.
- (2) The following bid prices on Unit Price Contracts are to be paid for the actual quantities of the item numbers in the completed work or structure, and they cover the cost of all work, labor, material, tools, plant and appliances of every description necessary to complete the entire work, as specified, and the removal of all debris, temporary work and appliances.
- (3) **PLEASE BE SURE A LEGIBLE BID IS ENTERED, IN INK, FOR EACH ITEM.**
Alterations must be initialed in ink by the bidder.
- (4) The Extended Amount entered in Column 6 shall be the product of the Estimated Quantity in Column 3 times the Unit Price Bid in Column 5.
- (5) Prospective bidders must examine the Bid Schedule carefully and, before bidding, must advise the Commissioner, in writing, if any pages are missing, and must request that such missing pages be furnished them. The pages of this Bid Schedule are numbered consecutively, as follows: B - 3 Through B - 49

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.

7/30/2014 12:00 AM

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

PROJECT ID: MED598B

CONTRACT PIN: 8502014WWM0003C

BID SCHEDULE FORM

COL 1 SEQ. NO	COL 2 ITEM NUMBER and DESCRIPTION	COL 3 ENGINEER'S ESTIMATE OF QUANTITY	COL 4 UNIT	COL 5 UNIT PRICE (IN FIGURES) DOLLARS	COL 6 EXTENDED AMOUNT (IN FIGURES) DOLLARS
001	4.02 AF-R ASPHALTIC CONCRETE WEARING COURSE, 2" THICK	2,567.00	S.Y.		
002	4.02 AG ASPHALTIC CONCRETE WEARING COURSE, 3" THICK	19,503.00	S.Y.		
003	4.02 CA BINDER MIXTURE	7,455.00	TONS		
004	4.04 H CONCRETE BASE FOR PAVEMENT, VARIABLE THICKNESS FOR TRENCH RESTORATION, (HIGH-EARLY STRENGTH)	154.00	C.Y.		
005	4.04 HD CONCRETE BASE FOR PAVEMENT, 9" THICK (HIGH-EARLY STRENGTH)	5,339.00	C.Y.		
006	4.05 AX HIGH-EARLY STRENGTH REINFORCED CONCRETE PAVEMENT (BUS STOPS)	85.00	C.Y.		

BID SCHEDULE FORM

COL 1 SEQ. NO.	COL 2 ITEM NUMBER and DESCRIPTION	COL 3 ENGINEER'S ESTIMATE OF QUANTITY	COL 4 UNIT	COL 5 UNIT PRICE (IN FIGURES) DOLLARS	COL 6 EXTENDED AMOUNT (IN FIGURES) DOLLARS	CTS
007	4.07 BA RESET GRANITE CURB	60.00	L.F.			
008	4.08 BA CONCRETE CURB (21" DEEP)	530.00	L.F.			
009	4.09 AD STRAIGHT STEEL FACED CONCRETE CURB (18" DEEP)	1,120.00	L.F.			
010	4.09 AE STRAIGHT STEEL FACED CONCRETE CURB (21" DEEP)	3,797.00	L.F.			
011	4.09 BD DEPRESSED STEEL FACED CONCRETE CURB (18" DEEP)	120.00	L.F.			
012	4.09 BE DEPRESSED STEEL FACED CONCRETE CURB (21" DEEP)	2,041.00	L.F.			

BID SCHEDULE FORM

COL 1	COL 2	COL 3	COL 4	COL 5	COL 6
SEQ. NO	ITEM NUMBER and DESCRIPTION	ENGINEER'S ESTIMATE OF QUANTITY	UNIT	UNIT PRICE (IN FIGURES) DOLLARS	EXTENDED AMOUNT (IN FIGURES) DOLLARS
013	4.09 CD CORNER STEEL FACED CONCRETE CURB (18" DEEP)	265.00	L.F.		
014	4.09 CE CORNER STEEL FACED CONCRETE CURB (21" DEEP)	240.00	L.F.		
015	4.13 AAS 4" CONCRETE SIDEWALK (UNPIGMENTED)	24,770.00	S.F.		
016	4.13 BAS 7" CONCRETE SIDEWALK (UNPIGMENTED)	1,550.00	S.F.		
017	4.13 BR 7" REINFORCED CONCRETE SIDEWALK (UNPIGMENTED)	7,073.00	S.F.		
018	4.13 DE EMBEDDED PREFORMED DETECTABLE WARNING UNITS	630.00	S.F.		

BID SCHEDULE FORM

COL. 1 SEQ. NO.	COL. 2 ITEM NUMBER and DESCRIPTION	COL. 3 ENGINEER'S ESTIMATE OF QUANTITY	COL. 4 UNIT	COL. 5 UNIT PRICE (IN FIGURES) DOLLARS CTS	COL. 6 EXTENDED AMOUNT (IN FIGURES) DOLLARS CTS
019	4.15 TOPSOIL	25.00	C.Y.		
020	4.16 AAT TREES TRANSPLANTED, UP TO 4" CALIPER, ALL TYPES	4.00	EACH		
021	4.18 A MAINTENANCE TREE PRUNING (UNDER 12" CAL.)	30.00	EACH		
022	4.18 B MAINTENANCE TREE PRUNING (12" TO UNDER 18" CAL.)	2.00	EACH		
023	4.21 TREE CONSULTANT	192.00	P/HR		
024	50.11CS056090 5'-6"W X 9'-0"H SINGLE BARREL FLAT TOP REINFORCED CONCRETE COMBINED SEWER	35.00	L.F.		

BID SCHEDULE FORM

COL 1 SEQ. NO	COL 2 ITEM NUMBER and DESCRIPTION	COL 3 ENGINEER'S ESTIMATE OF QUANTITY	COL 4 UNIT	COL 5 UNIT PRICE (IN FIGURES) DOLLARS	COL 6 EXTENDED AMOUNT (IN FIGURES) DOLLARS
025	50.21C3E048D 48" R.C.P. CLASS III COMBINED SEWER, ENCASED IN CONCRETE	160.00	L.F.		
026	50.21C4C090D 90" R.C.P. CLASS IV COMBINED SEWER, ON CONCRETE CRADLE	352.00	L.F.		
027	50.31CC15 15" E.S.V.P. COMBINED SEWER, ON CONCRETE CRADLE	382.00	L.F.		
028	50.41C6E16 16" D.I.P. CLASS 56 COMBINED SEWER, ENCASED IN CONCRETE	35.00	L.F.		
029	50.62C90R5 DIRECT JACKED 90" R.C.P. CLASS V COMBINED SEWER	456.00	L.F.		
030	50.72C0208VB0400 RECONSTRUCTION OF EXISTING 2'-8"W X 4'-0"H VERTICAL ELLIPTICAL BRICK COMBINED SEWER USING SHOTCRETE METHOD	75.00	L.F.		

BID SCHEDULE FORM

COL 1 SEQ. NO	COL 2 ITEM NUMBER and DESCRIPTION	COL 3 ENGINEER'S ESTIMATE OF QUANTITY	COL 4 UNIT	COL 5 UNIT PRICE (IN FIGURES)		COL 6 EXTENDED AMOUNT (IN FIGURES)	
				DOLLARS	CTS	DOLLARS	CTS
031	50.72C0400DC0000 RECONSTRUCTION OF EXISTING 4'-0" DIAMETER CIRCULAR CONCRETE COMBINED SEWER USING SHOTCRETE METHOD	249.00	L.F.				
032	51.11C001 CHAMBER NO. 1	1.00	EACH				
033	51.11C002 CHAMBER NO. 2	1.00	EACH				
034	51.21L001000V SPECIAL MANHOLE NO. 1	1.00	EACH				
035	51.21L002000V SPECIAL MANHOLE NO. 2	1.00	EACH				
036	51.21L003000V SPECIAL MANHOLE NO. 3	1.00	EACH				

7/30/2014 12:00 AM

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

PROJECT ID: MED598B

CONTRACT PIN: 8502014WWM0003C

BID SCHEDULE FORM

COL 1 SEQ. NO.	COL 2 ITEM NUMBER and DESCRIPTION	COL 3 ENGINEER'S ESTIMATE OF QUANTITY	COL 4 UNIT	COL 5 UNIT PRICE (IN FIGURES) DOLLARS	COL 6 EXTENDED AMOUNT (IN FIGURES) DOLLARS
037	51.21L004000V SPECIAL MANHOLE NO. 4	1.00	EACH		
038	51.21S0A1000V STANDARD MANHOLE TYPE A-1	3.00	EACH		
039	51.21S0D1090R STANDARD MANHOLE TYPE D-1 ON 90° R.C.P. SEWER	1.00	EACH		
040	51.22RS RECONSTRUCTION OF EXISTING MANHOLE ON EXISTING SHOTCRETED SEWER	4.00	EACH		
041	51.23RF REPLACEMENT OF EXISTING MANHOLE FRAME AND COVER	2.00	EACH		
042	51.41S001 STANDARD CATCH BASIN, TYPE 1	23.00	EACH		

BID SCHEDULE FORM

COL. 1 SEQ. NO.	COL. 2 ITEM NUMBER and DESCRIPTION	COL. 3 ENGINEER'S ESTIMATE OF QUANTITY	COL. 4 UNIT	COL. 5 UNIT PRICE (IN FIGURES) DOLLARS	COL. 6 EXTENDED AMOUNT (IN FIGURES) DOLLARS	CTS
043	52.11D12 12" DUCTILE IRON PIPE BASIN CONNECTION	1,150.00	L.F.			
044	52.31V08C15 8" E.S.V.P. SPUR FOR HOUSE CONNECTION ON 15" E.S.V.P. COMBINED SEWER	6.00	EACH			
045	52.41D08R 8" D.I.P. HOUSE CONNECTION DRAIN ON CONCRETE CRADLE (RECONNECTION)	50.00	L.F.			
046	52.41V08R 8" E.S.V.P. HOUSE CONNECTION DRAIN ON CONCRETE CRADLE (RECONNECTION)	50.00	L.F.			
047	53.11DR TELEVISION INSPECTION AND DIGITAL AUDIO-VISUAL RECORDING OF SEWERS	901.00	L.F.			
048	54.11SC SEWER CLEANING	375.00	L.F.			

7/30/2014 12:00 AM

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

PROJECT ID: MED598B

CONTRACT PIN: 8502014VWM0003C

BID SCHEDULE FORM

COL 1 SEQ. NO.	COL 2 ITEM NUMBER and DESCRIPTION	COL 3 ENGINEER'S ESTIMATE OF QUANTITY	COL 4 UNIT	COL 5 UNIT PRICE (IN FIGURES)		COL 6 EXTENDED AMOUNT (IN FIGURES)	
				DOLLARS	CTS	DOLLARS	CTS
049	54.21PC PORTLAND CEMENT (TYPE V) - INJECTION GROUTING	100.00	BAGS				
050	54.31SR SHOTCRETE FOR REPAIR WORK	500.00	C.F.				
051	6.02 AAN UNCLASSIFIED EXCAVATION	7,545.00	C.Y.				
052	6.06 GS RESET GRANITE SLAB SIDEWALK (ON MORTAR SETTING BED)	100.00	S.Y.				
053	6.23 AB REMOVE EXISTING FIRE ALARM POST	1.00	EACH				
054	6.23 BA FURNISH AND INSTALL FIRE ALARM POST AND SUBBASE IN ACCORDANCE WITH F.D. STD. DWG. #141	1.00	EACH				

BID SCHEDULE FORM

COL 1 SEQ. NO	COL 2 ITEM NUMBER and DESCRIPTION	COL 3 ENGINEER'S ESTIMATE OF QUANTITY	COL 4 UNIT	COL 5 UNIT PRICE (IN FIGURES)		COL 6 EXTENDED AMOUNT (IN FIGURES)	
				DOLLARS	CTS	DOLLARS	CTS
055	6.23 BD FURNISH AND INSTALL 4-PAIR FIRE ALARM CABLE	110.00	L.F.				
056	6.23 BFC FURNISH AND INSTALL FIRE DEPARTMENT 12 WIRE TERMINAL BOX AND TERMINATE FIRE ALARM CABLES	1.00	EACH				
057	6.23 BGSE FURNISH AND INSTALL 4" P.V.C. CONDUIT, SCHEDULE 40, U.L. 651 (WITH PAVEMENT EXCAVATION)	25.00	L.F.				
058	6.23 BHE FURNISH AND INSTALL 4" 90-DEGREE P.V.C. WIDE BEND, SCHEDULE 40, U.L. 651 (WITH PAVEMENT EXCAVATION) IN ACCORDANCE WITH F.D. STD. DWG. #141 OR #145AA	1.00	EACH				
059	6.23 BP FURNISH AND INSTALL FIRE ALARM PEDESTAL BUMPERS (2 REQUIRED PER SET) IN ACCORDANCE WITH F.D. STD. DWG. #168	1.00	SETS				
060	6.25 RS TEMPORARY SIGNS	3,290.00	S.F.				

BID SCHEDULE FORM

COL 1 SEQ. NO.	COL 2 ITEM NUMBER and DESCRIPTION	COL 3 ENGINEER'S ESTIMATE OF QUANTITY	COL 4 UNIT	COL 5 UNIT PRICE (IN FIGURES)		COL 6 EXTENDED AMOUNT (IN FIGURES)	
				DOLLARS	CTS	DOLLARS	CTS
061	6.26 TIMBER CURB	10,980.00	L.F.				
062	6.28 AA LIGHTED TIMBER BARRICADES	1,520.00	L.F.				
063	6.28 ME LIGHTED TIMBER FENCING FOR USE IN LOWER MANHATTAN PROJECTS	1,030.00	L.F.				
064	6.29 TTM TEMPORARY TUBULAR MARKERS	315.00	EACH				
065	6.34 ACT TEMPORARY CHAIN LINK FENCE, 6'-0" HIGH	13,420.00	L.F.				
066	6.34 ACTP TEMPORARY CHAIN LINK FENCE, 6'-0" HIGH (WITH TOP AND BOTTOM RAILS AND POSTS MOUNTED ON STEEL PLATES)	13,420.00	L.F.				

BID SCHEDULE FORM

COL 1 SEQ. NO	COL 2 ITEM NUMBER and DESCRIPTION	COL 3 ENGINEER'S ESTIMATE OF QUANTITY	COL 4 UNIT	COL 5 UNIT PRICE (IN FIGURES) DOLLARS	COL 6 EXTENDED AMOUNT (IN FIGURES) DOLLARS
067	6.40 DC ENGINEER'S FIELD OFFICE WITH CONFERENCE ROOM	42.00	MONTH		
068	6.44 THERMOPLASTIC REFLECTORIZED PAVEMENT MARKINGS (4" WIDE)	7,925.00	L.F.		
069	6.49 TEMPORARY PAVEMENT MARKINGS (4" WIDE)	15,850.00	L.F.		
070	6.50 CLEANING OF DRAINAGE STRUCTURES	10.00	EACH		
071	6.52 CG CROSSING GUARD	6,695.00	P/HR		
072	6.53 REMOVE EXISTING LANE MARKINGS (4" WIDE)	15,850.00	L.F.		

BID SCHEDULE FORM

COL 1 SEQ. NO	COL 2 ITEM NUMBER and DESCRIPTION	COL 3 ENGINEER'S ESTIMATE OF QUANTITY	COL 4 UNIT	COL 5 UNIT PRICE (IN FIGURES) DOLLARS	COL 6 EXTENDED AMOUNT (IN FIGURES) DOLLARS	CTS
073	6.59 P TEMPORARY CONCRETE BARRIER	5,400.00	L.F.			
074	6.59 PF TEMPORARY CONCRETE BARRIER WITH FENCE	5,400.00	L.F.			
075	6.84 B LOLLIPOP TYPE BUS STOP SIGNS PRICE BID SHALL BE FOR THE FIXED SUM OF \$ 3,500.00	1.00	F.S.	3,500	3,500	00
076	6.85 A TRAFFIC ENFORCEMENT AGENTS PRICE BID SHALL BE FOR THE FIXED SUM OF \$ 6,326,027.55	1.00	F.S.	6,326,028	6,326,028	55
077	6.87 PLASTIC BARRELS	1,940.00	EACH			

BID SCHEDULE FORM

COL 1 SEQ. NO.	COL 2 ITEM NUMBER and DESCRIPTION	COL 3 ENGINEER'S ESTIMATE OF QUANTITY	COL 4 UNIT	COL 5 UNIT PRICE (IN FIGURES) DOLLARS . CTS	COL 6 EXTENDED AMOUNT (IN FIGURES) DOLLARS . CTS
078	6.91 REFLECTIVE CRACKING MEMBRANE (18" WIDE)	14,800.00	L.F.		
079	6.97 A EXTRA-HIGH-EARLY STRENGTH CONCRETE	200.00	C.Y.		
080	60.11R520 FURNISHING AND DELIVERING 20-INCH DUCTILE IRON RESTRAINED JOINT PIPE (CLASS 55)	3,039.00	L.F.		
081	60.11R524 FURNISHING AND DELIVERING 24-INCH DUCTILE IRON RESTRAINED JOINT PIPE (CLASS 55)	58.00	L.F.		
082	60.11R536 FURNISHING AND DELIVERING 36-INCH DUCTILE IRON RESTRAINED JOINT PIPE (CLASS 55)	45.00	L.F.		
083	60.11R606 FURNISHING AND DELIVERING 6-INCH DUCTILE IRON RESTRAINED JOINT PIPE (CLASS 56)	700.00	L.F.		

BID SCHEDULE FORM

COL 1 SEQ. NO	COL 2 ITEM NUMBER and DESCRIPTION	COL 3 ENGINEER'S ESTIMATE OF QUANTITY	COL 4 UNIT	COL 5 UNIT PRICE (IN FIGURES) DOLLARS	COL 6 EXTENDED AMOUNT (IN FIGURES) DOLLARS
084	60.11R612 FURNISHING AND DELIVERING 12-INCH DUCTILE IRON RESTRAINED JOINT PIPE (CLASS 56)	3,687.00	L.F.		
085	60.12D06 LAYING 6-INCH DUCTILE IRON PIPE AND FITTINGS	875.00	L.F.		
086	60.12D12 LAYING 12-INCH DUCTILE IRON PIPE AND FITTINGS	3,798.00	L.F.		
087	60.12D20 LAYING 20-INCH DUCTILE IRON PIPE AND FITTINGS	3,155.00	L.F.		
088	60.12D24 LAYING 24-INCH DUCTILE IRON PIPE AND FITTINGS	65.00	L.F.		
089	60.12D36 LAYING 36-INCH DUCTILE IRON PIPE AND FITTINGS	65.00	L.F.		

BID SCHEDULE FORM

COL 1 SEQ. NO	COL 2 ITEM NUMBER and DESCRIPTION	COL 3 ENGINEER'S ESTIMATE OF QUANTITY	COL 4 UNIT	COL 5 UNIT PRICE (IN FIGURES) DOLLARS CTS	COL 6 EXTENDED AMOUNT (IN FIGURES) DOLLARS CTS
090	60.13M0A24 FURNISHING AND DELIVERING DUCTILE IRON MECHANICAL JOINT 24- INCH DIAMETER AND SMALLER FITTINGS, INCLUDING WEDGE TYPE RETAINER GLANDS	61.00	TONS		
091	60.13M5R36 FURNISHING AND DELIVERING 36-INCH DUCTILE IRON MECHANICAL JOINT REDUCERS (CLASS 55)	3.00	EACH		
092	60.13M5S36 FURNISHING AND DELIVERING 36-INCH DUCTILE IRON MECHANICAL JOINT SLEEVES (CLASS 55)	1.00	EACH		
093	60.18BJC20EL FURNISHING, DELIVERING AND INSTALLING BELL JOINT CLAMPS, COMPLETE FOR 20-INCH PIPE AND LESS	8.00	EACH		
094	60.21SP3T36 FURNISHING, DELIVERING AND LAYING 36-INCH STRAIGHT STEEL PIPE, 3/8-INCH WALL THICKNESS	1,138.00	L.F.		
095	60.21SP4T48 FURNISHING, DELIVERING AND LAYING 48-INCH STRAIGHT STEEL PIPE, 1/2-INCH WALL THICKNESS	2,337.00	L.F.		

7/30/2014 12:00 AM

NEW YORK CITY DEPARTMENT OF DESIGN AND CONSTRUCTION

PROJECT ID: MED598B

DIVISION OF INFRASTRUCTURE - BUREAU OF DESIGN

CONTRACT PIN: 8502014WWM0003C

BID SCHEDULE FORM

COL 1 SEQ. NO	COL 2 ITEM NUMBER and DESCRIPTION	COL 3 ENGINEER'S ESTIMATE OF QUANTITY	COL 4 UNIT	COL 5 UNIT PRICE (IN FIGURES) DOLLARS	COL 6 EXTENDED AMOUNT (IN FIGURES) DOLLARS	CTS
096	60.22BR3T36 FURNISHING, DELIVERING AND LAYING 36-INCH STEEL BENDS AND REDUCERS, 3/8-INCH WALL THICKNESS	183.00	L.F.			
097	60.22BR4T48 FURNISHING, DELIVERING AND LAYING 48-INCH STEEL BENDS AND REDUCERS, 1/2-INCH WALL THICKNESS	279.00	L.F.			
098	60.23ST36T36 FURNISHING, DELIVERING AND INSTALLING 36-INCH X 36-INCH STEEL TEE	2.00	EACH			
099	60.23ST36T48 FURNISHING, DELIVERING AND INSTALLING 48-INCH X 36-INCH STEEL TEE	2.00	EACH			
100	60.23ST48T48 FURNISHING, DELIVERING AND INSTALLING 48-INCH X 48-INCH STEEL TEE	3.00	EACH			
101	60.24SB48 FURNISHING, DELIVERING AND INSTALLING 48-INCH DIAMETER STEEL BULKHEAD	1.00	EACH			

BID SCHEDULE FORM

COL 1 SEQ. NO	COL 2 ITEM NUMBER and DESCRIPTION	COL 3 ENGINEER'S ESTIMATE OF QUANTITY	COL 4 UNIT	COL 5 UNIT PRICE (IN FIGURES) DOLLARS	COL 6 EXTENDED AMOUNT (IN FIGURES) DOLLARS
102	60.25PSO FURNISHING, DELIVERING AND INSTALLING PLATE STEEL OUTLETS ON STEEL PIPE, ACCESS MANHOLE OUTLETS WITH COVERS, AND NUTS AND BOLTS COMPLETE	14,030.00	LBS.		
103	60.27RSC36 FURNISHING, DELIVERING AND INSTALLING 36-INCH DIAMETER BOLTED, SPLIT SLEEVE-TYPE RESTRAINED COUPLING	2.00	EACH		
104	60.27RSC48 FURNISHING, DELIVERING AND INSTALLING 48-INCH DIAMETER BOLTED, SPLIT SLEEVE-TYPE RESTRAINED COUPLING	2.00	EACH		
105	60.29CP FURNISHING, INSTALLING AND TESTING CORROSION CONTROL AND/OR CATHODIC PROTECTION SYSTEM	1.00	L.S.		
106	61.11DFM06 FURNISHING AND DELIVERING 6-INCH FLANGED-MECHANICAL JOINT DUCTILE IRON GATE VALVE COMPLETE WITH WEDGE TYPE RETAINER GLAND	12.00	EACH		

BID SCHEDULE FORM

COL 1 SEQ. NO.	COL 2 ITEM NUMBER and DESCRIPTION	COL 3 ENGINEER'S ESTIMATE OF QUANTITY	COL 4 UNIT	COL 5 UNIT PRICE (IN FIGURES) DOLLARS	COL 6 EXTENDED AMOUNT (IN FIGURES) DOLLARS	CTS
107	61.11DFM12 FURNISHING AND DELIVERING 12-INCH FLANGED-MECHANICAL JOINT DUCTILE IRON GATE VALVE COMPLETE WITH WEDGE TYPE RETAINER GLAND	1.00	EACH			
108	61.11DFM20 FURNISHING AND DELIVERING 20-INCH FLANGED-MECHANICAL JOINT DUCTILE IRON GATE VALVE COMPLETE WITH WEDGE TYPE RETAINER GLAND	4.00	EACH			
109	61.11DMM06 FURNISHING AND DELIVERING 6-INCH MECHANICAL JOINT DUCTILE IRON GATE VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	29.00	EACH			
110	61.11DMM12 FURNISHING AND DELIVERING 12-INCH MECHANICAL JOINT DUCTILE IRON GATE VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	22.00	EACH			
111	61.11DMM20 FURNISHING AND DELIVERING 20-INCH MECHANICAL JOINT DUCTILE IRON GATE VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	14.00	EACH			

BID SCHEDULE FORM

COL 1 SEQ. NO	COL 2 ITEM NUMBER and DESCRIPTION	COL 3 ENGINEER'S ESTIMATE OF QUANTITY	COL 4 UNIT	COL 5 UNIT PRICE (IN FIGURES) DOLLARS	COL 6 EXTENDED AMOUNT (IN FIGURES) DOLLARS	CTS
112	61.11TWC03 FURNISHING AND DELIVERING 3-INCH WET CONNECTION TAPPING VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	6.00	EACH			
113	61.11TWC04 FURNISHING AND DELIVERING 4-INCH WET CONNECTION TAPPING VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	6.00	EACH			
114	61.11TWC06 FURNISHING AND DELIVERING 6-INCH WET CONNECTION TAPPING VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	4.00	EACH			
115	61.11TWC08 FURNISHING AND DELIVERING 8-INCH WET CONNECTION TAPPING VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	4.00	EACH			
116	61.12DFM06 SETTING 6-INCH FLANGED-MECHANICAL JOINT DUCTILE IRON GATE VALVE COMPLETE WITH WEDGE TYPE RETAINER GLAND	12.00	EACH			
117	61.12DFM12 SETTING 12-INCH FLANGED-MECHANICAL JOINT DUCTILE IRON GATE VALVE COMPLETE WITH WEDGE TYPE RETAINER GLAND	1.00	EACH			

BID SCHEDULE FORM

COL 1 SEQ. NO	COL 2 ITEM NUMBER and DESCRIPTION	COL 3 ENGINEER'S ESTIMATE OF QUANTITY	COL 4 UNIT	COL 5 UNIT PRICE (IN FIGURES) DOLLARS	COL 6 EXTENDED AMOUNT (IN FIGURES) DOLLARS	COL 6 CTS
118	61.12DFM20 SETTING 20-INCH FLANGED-MECHANICAL JOINT DUCTILE IRON GATE VALVE COMPLETE WITH WEDGE TYPE RETAINER GLAND	4.00	EACH			
119	61.12DMM06 SETTING 6-INCH MECHANICAL JOINT DUCTILE IRON GATE VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	29.00	EACH			
120	61.12DMM12 SETTING 12-INCH MECHANICAL JOINT DUCTILE IRON GATE VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	22.00	EACH			
121	61.12DMM20 SETTING 20-INCH MECHANICAL JOINT DUCTILE IRON GATE VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	14.00	EACH			
122	61.12TWC03 SETTING 3-INCH WET CONNECTION TAPPING VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	6.00	EACH			
123	61.12TWC04 SETTING 4-INCH WET CONNECTION TAPPING VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	6.00	EACH			

BID SCHEDULE FORM

COL 1 SEQ. NO	COL 2 ITEM NUMBER and DESCRIPTION	COL 3 ENGINEERS ESTIMATE OF QUANTITY	COL 4 UNIT	COL 5 UNIT PRICE (IN FIGURES) DOLLARS	COL 6 EXTENDED AMOUNT (IN FIGURES) DOLLARS	CTS
124	61.12TWC06 SETTING 6-INCH WET CONNECTION TAPPING VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	4.00	EACH			
125	61.12TWC08 SETTING 8-INCH WET CONNECTION TAPPING VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	4.00	EACH			
126	61.21BVB36 FURNISHING, DELIVERING AND INSTALLING 36-INCH BUTTERFLY VALVE WITH BY-PASS ARRANGEMENT AND OUTLET, COMPLETE	2.00	EACH			
127	61.21BVB48 FURNISHING, DELIVERING AND INSTALLING 48-INCH BUTTERFLY VALVE WITH BY-PASS ARRANGEMENT AND OUTLET, COMPLETE	3.00	EACH			
128	61.21EJB48 FURNISHING, DELIVERING AND INSTALLING 48-INCH EXPANSION JOINT FOR BUTTERFLY VALVE INCLUDING 6-INCH BY-PASS OUTLET	1.00	EACH			
129	62.11SD FURNISHING AND DELIVERING HYDRANTS	35.00	EACH			

BID SCHEDULE FORM

COL 1 SEQ. NO	COL 2 ITEM NUMBER and DESCRIPTION	COL 3 ENGINEER'S ESTIMATE OF QUANTITY	COL 4 UNIT	COL 5 UNIT PRICE (IN FIGURES) DOLLARS	COL 6 EXTENDED AMOUNT (IN FIGURES) DOLLARS	CTS
130	62.12SG SETTING HYDRANTS COMPLETE WITH WEDGE TYPE RETAINER GLANDS	35.00	EACH			
131	62.13RH REMOVING HYDRANTS	26.00	EACH			
132	62.14FS FURNISHING, DELIVERING AND INSTALLING HYDRANT FENDERS	84.00	EACH			
133	63.11MH FURNISHING, DELIVERING AND INSTALLING 36-INCH CAST IRON MANHOLE HEADS AND COVERS	12.00	TONS			
134	63.11MS FURNISHING, DELIVERING AND INSTALLING MANHOLE STEPS TYPE PS2-PF	362.00	EACH			
135	63.11VC FURNISHING AND DELIVERING VARIOUS CASTINGS	70.00	TONS			

BID SCHEDULE FORM

COL 1 SEQ. NO	COL 2 ITEM NUMBER and DESCRIPTION	COL 3 ENGINEER'S ESTIMATE OF QUANTITY	COL 4 UNIT	COL 5 UNIT PRICE (IN FIGURES)		COL 6 EXTENDED AMOUNT (IN FIGURES)	
				DOLLARS	CTS	DOLLARS	CTS
136	64.11EL WITHDRAWING AND REPLACING HOUSE SERVICES USING 1-1/2- INCH OR LARGER SCREW TAPS	5.00	EACH				
137	64.11ST WITHDRAWING AND REPLACING HOUSE SERVICES USING SMALLER THAN 1-1/2-INCH SCREW TAPS	3.00	EACH				
138	64.12COEG CUTTING AND OFFSETTING HOUSE SERVICE WATER CONNECTIONS (EQUAL TO OR GREATER THAN 3-INCH DIAMETER)	90.00	L.F.				
139	64.12COLT CUTTING AND OFFSETTING HOUSE SERVICE WATER CONNECTIONS (LESS THAN 3-INCH DIAMETER)	40.00	L.F.				
140	64.12ESEG EXTENDING HOUSE SERVICE WATER CONNECTIONS (EQUAL TO OR GREATER THAN 3-INCH DIAMETER)	90.00	L.F.				
141	64.12ESLT EXTENDING HOUSE SERVICE WATER CONNECTIONS (LESS THAN 3- INCH DIAMETER)	40.00	L.F.				

BID SCHEDULE FORM

COL. 1 SEQ. NO	COL. 2 ITEM NUMBER and DESCRIPTION	COL. 3 ENGINEER'S ESTIMATE OF QUANTITY	COL. 4 UNIT	COL. 5 UNIT PRICE (IN FIGURES) DOLLARS	COL. 6 EXTENDED AMOUNT (IN FIGURES) DOLLARS	CTS
142	64.13WC12 FURNISHING, DELIVERING AND INSTALLING WET CONNECTION SLEEVE ON 12-INCH WATER MAIN PIPE WITH VARIOUS OUTLETS	12.00	EACH			
143	64.13WC20 FURNISHING, DELIVERING AND INSTALLING WET CONNECTION SLEEVE ON 20-INCH WATER MAIN PIPE WITH VARIOUS OUTLETS	8.00	EACH			
144	65.11BR FURNISHING, DELIVERING AND INSTALLING BANDS, RODS, WASHERS, ETC., COMPLETE, FOR RESTRAINING JOINTS	4,691.00	LBS.			
145	65.21PS FURNISHING AND PLACING POLYETHYLENE SLEEVE Unit price bid shall not be less than: \$ 0.50	7,797.00	L.F.			
146	65.31FF FURNISHING, DELIVERING AND PLACING FILTER FABRIC Unit price bid shall not be less than: \$ 0.10	199,294.00	S.F.			
147	65.41PS06 FURNISHING, DELIVERING AND INSTALLING 6-INCH PIPE-TO-WALL PENETRATION SEAL, INCLUDING STEEL SLEEVE AND ANCHOR/WATER STOP PLATE	10.00	EACH			

BID SCHEDULE FORM

COL 1 SEQ. NO	COL 2 ITEM NUMBER and DESCRIPTION	COL 3 ENGINEER'S ESTIMATE OF QUANTITY	COL 4 UNIT	COL 5 UNIT PRICE (IN FIGURES)		COL 6 EXTENDED AMOUNT (IN FIGURES)	
				DOLLARS	CTS	DOLLARS	CTS
148	65.41PS12 FURNISHING, DELIVERING AND INSTALLING 12-INCH PIPE-TO-WALL PENETRATION SEAL, INCLUDING STEEL SLEEVE AND ANCHOR/WATER STOP PLATE	2.00	EACH				
149	65.41PS20 FURNISHING, DELIVERING AND INSTALLING 20-INCH PIPE-TO-WALL PENETRATION SEAL, INCLUDING STEEL SLEEVE AND ANCHOR/WATER STOP PLATE	8.00	EACH				
150	65.41PS36 FURNISHING, DELIVERING AND INSTALLING 36-INCH PIPE-TO-WALL PENETRATION SEAL, INCLUDING STEEL SLEEVE AND ANCHOR/WATER STOP PLATE	12.00	EACH				
151	65.41PS48 FURNISHING, DELIVERING AND INSTALLING 48-INCH PIPE-TO-WALL PENETRATION SEAL, INCLUDING STEEL SLEEVE AND ANCHOR/WATER STOP PLATE	16.00	EACH				
152	65.51PC FURNISHING AND PLACING CAST-IN-PLACE CONCRETE CLASS 40 AND PRECAST CONCRETE CLASS 50	445.00	C.Y.				

7/30/2014 12:00 AM

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

PROJECT ID: MED598B

CONTRACT PIN: 8502014WM0003C

BID SCHEDULE FORM

COL. 1 SEQ. NO	COL. 2 ITEM NUMBER and DESCRIPTION	COL. 3 ENGINEER'S ESTIMATE OF QUANTITY	COL. 4 UNIT	COL. 5 UNIT PRICE (IN FIGURES) DOLLARS	COL. 6 EXTENDED AMOUNT (IN FIGURES) DOLLARS	CTS
153	65.61SS FURNISHING, DELIVERING AND PLACING STRUCTURAL, REINFORCING AND MISCELLANEOUS STEEL	66,930.00	LBS.			
154	65.71SG FURNISHING, DELIVERING AND PLACING SCREENED GRAVEL OR SCREENED BROKEN STONE BEDDING	3,630.00	C.Y.			
155	67.11AA12 INCREMENTAL COST FOR ASBESTOS ABATEMENT WORK PERFORMED ON EXISTING 12-INCH DIAMETER STEEL PIPE WATER MAIN TO BE REMOVED, COMPLETE	200.00	L.F.			
156	67.11AA48 INCREMENTAL COST FOR ASBESTOS ABATEMENT WORK PERFORMED ON EXISTING 48-INCH DIAMETER STEEL PIPE WATER MAIN TO BE REMOVED, COMPLETE	300.00	L.F.			
157	7.13 B MAINTENANCE OF SITE Unit price bid shall not be less than: \$ 15,000.00	36.00	MONTH			

BID SCHEDULE FORM

COL 1 SEQ. NO	COL 2 ITEM NUMBER and DESCRIPTION	COL 3 ENGINEER'S ESTIMATE OF QUANTITY	COL 4 UNIT	COL 5 UNIT PRICE (IN FIGURES) DOLLARS CTS.	COL 6 EXTENDED AMOUNT (IN FIGURES) DOLLARS CTS.
158	7.19 LOAD TRANSFER JOINT	57.00	L.F.		
159	7.30 A REMOVAL OF TRACK	110.00	C.Y.		
160	7.36 PEDESTRIAN STEEL BARRICADES	1,600.00	L.F.		
161	7.88 AA RODENT INFESTATION SURVEY AND MONITORING Unit price bid shall not be less than: \$ 1,750.00	1.00	L.S.		
162	7.88 AB RODENT BAIT STATIONS Unit price bid shall not be less than: \$ 60.00	280.00	EACH		
163	7.88 AC BAITING OF RODENT BAIT STATIONS Unit price bid shall not be less than: \$ 8.50	280.00	EACH		

BID SCHEDULE FORM

COL 1 SEQ. NO	COL 2 ITEM NUMBER and DESCRIPTION	COL 3 ENGINEER'S ESTIMATE OF QUANTITY	COL 4 UNIT	COL 5 UNIT PRICE (IN FIGURES) DOLLARS	COL 6 EXTENDED AMOUNT (IN FIGURES) DOLLARS
164	7.88 AD WATERBUG BAIT APPLICATIONS Unit price bid shall not be less than: \$ 65.00	252.00	BLOCK		
165	70.12AN CONTINUOUS FLIGHT AUGER (CFA) PILES	1,400.00	V.F.		
166	70.12AT CONTINUOUS FLIGHT AUGER (CFA) PILES, LOAD TEST	1.00	EACH		
167	70.21DK DECKING	1,200.00	S.Y.		
168	70.31FN FENCING Unit price bid shall not be less than: \$ 2.00	10,980.00	L.F.		
169	70.51EO EXCAVATION OF BOULDERS IN OPEN CUT Unit price bid shall not be less than: \$ 75.00	160.00	C.Y.		

BID SCHEDULE FORM

COL 1 SEQ. NO.	COL 2 ITEM NUMBER and DESCRIPTION	COL 3 ENGINEER'S ESTIMATE OF QUANTITY	COL 4 UNIT	COL 5 UNIT PRICE (IN FIGURES) DOLLARS CTS	COL 6 EXTENDED AMOUNT (IN FIGURES) DOLLARS CTS
170	70.61RE ROCK EXCAVATION	1,305.00	C.Y.		
171	70.71SB STONE BALLAST Unit price bid shall not be less than: \$ 15.00	105.00	C.Y.		
172	70.81CB CLEAN BACKFILL Unit price bid shall not be less than: \$ 15.00	9,019.00	C.Y.		
173	70.91SW12 FURNISHING AND PLACING SHEETING AND BRACING IN TRENCH FOR WATER MAIN PIPE 12-INCH IN DIAMETER AND LESS	4,130.00	S.F.		
174	70.91SW20 FURNISHING AND PLACING SHEETING AND BRACING IN TRENCH FOR WATER MAIN PIPE 20-INCH IN DIAMETER	2,710.00	S.F.		
175	72.11HF HYDRAULIC FILL FOR ABANDONED SEWERS AND WATER MAINS	150.00	C.Y.		

BID SCHEDULE FORM

COL 1	COL 2	COL 3	COL 4	COL 5	COL 6
SEQ. NO	ITEM NUMBER and DESCRIPTION	ENGINEER'S ESTIMATE OF QUANTITY	UNIT	UNIT PRICE (IN FIGURES) DOLLARS	EXTENDED AMOUNT (IN FIGURES) DOLLARS
176	73.11AB ADDITIONAL BRICK MASONRY Unit price bid shall not be less than: \$ 62.50	47.00	C.Y.		
177	73.21AC ADDITIONAL CONCRETE Unit price bid shall not be less than: \$ 75.00	195.00	C.Y.		
178	73.31AE0 ADDITIONAL EARTH EXCAVATION INCLUDING TEST PITS (ALL DEPTHS) Unit price bid shall not be less than: \$ 22.50	485.00	C.Y.		
179	73.41AG ADDITIONAL SELECT GRANULAR BACKFILL Unit price bid shall not be less than: \$ 15.00	1,015.00	C.Y.		
180	73.51AS ADDITIONAL STEEL REINFORCING BARS Unit price bid shall not be less than: \$ 1.00	6,500.00	LBS.		
181	76.11CR CONSTRUCTION REPORT	1.00	L.S.		

BID SCHEDULE FORM

COL 1 SEQ. NO	COL 2 ITEM NUMBER and DESCRIPTION	COL 3 ENGINEER'S ESTIMATE OF QUANTITY	COL 4 UNIT	COL 5 UNIT PRICE (IN FIGURES) DOLLARS CTS	COL 6 EXTENDED AMOUNT (IN FIGURES) DOLLARS CTS
182	76.21MR MONITORING AND POST-CONSTRUCTION REPORT	1.00	L.S.		
183	8.01 C1 HANDLING, TRANSPORTING AND DISPOSAL OF NON-HAZARDOUS CONTAMINATED SOIL	18,000.00	TONS		
184	8.01 C2 SAMPLING AND TESTING OF CONTAMINATED/POTENTIALLY HAZARDOUS SOIL FOR DISPOSAL PURPOSES	10.00	SETS		
185	8.01 H HANDLING, TRANSPORTING AND DISPOSAL OF HAZARDOUS SOIL	380.00	TONS		
186	8.01 S HEALTH AND SAFETY	1.00	L.S.		
187	8.01 W1 REMOVAL, TREATMENT, AND DISCHARGE/DISPOSAL OF CONTAMINATED WATER	30.00	DAY		

BID SCHEDULE FORM

COL. 1 SEQ. NO.	COL. 2 ITEM NUMBER and DESCRIPTION	COL. 3 ENGINEER'S ESTIMATE OF QUANTITY	COL. 4 UNIT	COL. 5 UNIT PRICE (IN FIGURES) DOLLARS	COL. 6 EXTENDED AMOUNT (IN FIGURES) DOLLARS	CTS.
188	8.01 W2 SAMPLING AND TESTING OF WATER	2.00	SETS			
189	8.08 VARIABLE MESSAGE BOARD	4.00	EACH			
190	9.04 HW ALLOWANCE FOR ANTI-FREEZE ADDITIVE IN CONCRETE PRICE BID SHALL BE FOR THE FIXED SUM OF \$ 25,000.00	1.00	F.S.	25,000 00	25,000 00	
191	9.06 HW ALLOWANCE FOR DECORATIVE MESH FABRIC PRICE BID SHALL BE FOR THE FIXED SUM OF \$ 115,500.00	1.00	F.S.	115,500 00	115,500 00	
192	9.99 FLASHING ARROW BOARD	8.00	EACH			

BID SCHEDULE FORM

COL 1 SEQ. NO	COL 2 ITEM NUMBER and DESCRIPTION	COL 3 ENGINEER'S ESTIMATE OF QUANTITY	COL 4 UNIT	COL 5 UNIT PRICE (IN FIGURES) DOLLARS	COL 6 EXTENDED AMOUNT (IN FIGURES) DOLLARS
193	HW-900 ALLOWANCE FOR MAXIMUM INCENTIVE FOR EARLY COMPLETION PRICE BID SHALL BE FOR THE FIXED SUM OF \$ 1,000,000.00	1.00	F.S.	1,000,000 : 00	1,000,000 : 00
194	HW-900H ALLOWANCE FOR CITY WORK ACCELERATION PRICE BID SHALL BE FOR THE FIXED SUM OF \$ 200,000.00	1.00	F.S.	200,000 : 00	200,000 : 00
195	SL-20.02.02 FURNISH AND INSTALL STANDARD TYPE ANCHOR BOLT FOUNDATION, AS PER DRAWING E-3788	10.00	EACH		
196	SL-20.02.18 FURNISH AND INSTALL STANDARD TYPE ANCHOR BOLT FOUNDATION AS PER DRAWING J-3788A FOR INSTALLING TYPE 30' DAVIT LAMPPOST	3.00	EACH		
197	SL-21.03.02 FURNISH AND INSTALL TYPE 2S, 4S, 6S, 8S OR 12S LAMPPOST WITH TRANSFORMER BASE	10.00	EACH		

BID SCHEDULE FORM

COL 1 SEQ. NO	COL 2 ITEM NUMBER and DESCRIPTION	COL 3 ENGINEER'S ESTIMATE OF QUANTITY	COL 4 UNIT	COL 5 UNIT PRICE (IN FIGURES) DOLLARS	COL 6 EXTENDED AMOUNT (IN FIGURES) DOLLARS
198	SL-21.04.32 FURNISH AND INSTALL TYPE "GRAND CENTRAL" LAMPPOST WITH OCTAGONAL TRANSFORMER BASE.	3.00	EACH		
199	SL-21.09.05 REMOVE STANDARD FABRICATED STEEL, SPUN ALUMINUM NO. 10, ETC. WITH ARM(S), LUMINAIRE(S), CONTROL(S) WITH ALL ATTACHMENTS, IF ANY.	10.00	EACH		
200	SL-21.09.06 REMOVE ORNAMENTAL LAMPPOST (TYPE "BC", "M", "F", "5TH AVENUE", "LYRE" GRAND CENTRAL) ON FOUNDATION, WITH ALL ATTACHMENTS, IF ANY. REMOVE PORTION OF FOUNDATION.	3.00	EACH		
201	SL-21.09.08 REMOVE ALL STREET LIGHTING EQUIPMENT FROM TYPE "M-2" TRAFFIC POST (ARM(S), PHOTOELECTRIC CONTROLLER, LUMINAIRE (S), SHAFT EXTENSION, WIRING, ETC.)	2.00	EACH		
202	SL-22.03.18 FURNISH AND INSTALL TYPE COBRA HEAD LUMINAIRE WITH 150 WATT HPS WITH SOLID STATE BALLAST AND STRAY VOLTAGE INDICATOR FOR 100 VOLT LAMP.	12.00	EACH		

BID SCHEDULE FORM

COL 1 SEQ. NO	COL 2 ITEM NUMBER and DESCRIPTION	COL 3 ENGINEER'S ESTIMATE OF QUANTITY	COL 4 UNIT	COL 5 UNIT PRICE (IN FIGURES)		COL 6 EXTENDED AMOUNT (IN FIGURES)
				DOLLARS	CENTS	DOLLARS
203	SL-22.06.15 FURNISH AND INSTALL 250 WATT METAL-HALIDE "GRAND CENTRAL" LUMINAIRE AND PHOTOELECTRIC CONTROL RECEPTACLE.	6.00	EACH			
204	SL-24.02.02 FURNISH AND INSTALL FABRICATED STEEL 8 FT. ARM ON LAMPPOST OR "M-2" TRAFFIC POLE SHAFT EXTENSION.	2.00	EACH			
205	SL-24.02.16 FURNISH AND INSTALL FABRICATED STEEL 6 FT. SHAFT EXTENSION (SINGLE ARM) FOR "M-2" TRAFFIC POST AS PER DWGs H-5159 OR H- 5255.	2.00	EACH			
206	SL-26.01.01 FURNISH AND INSTALL, OR FURNISH AND REPLACE A PLUG-IN SOLID STATE PHOTOELECTRIC CONTROL	15.00	EACH			
207	SL-26.06.02 FURNISH AND INSTALL LED FIRE ALARM LUMINAIRES.	2.00	EACH			

BID SCHEDULE FORM

COL 1 SEQ. NO.	COL 2 ITEM NUMBER and DESCRIPTION	COL 3 ENGINEER'S ESTIMATE OF QUANTITY	COL 4 UNIT	COL 5 UNIT PRICE (IN FIGURES) DOLLARS	COL 6 EXTENDED AMOUNT (IN FIGURES) DOLLARS	CTS
208	SL-29.01.01 FURNISH, INSTALL, MAINTAIN AND REMOVE EQUIPMENT FOR TEMPORARY LIGHTING (PYLON), AS PER DRAWINGS F-5005 AND F- 5005A	15.00	EACH			
209	SL-31.01.06 PAINT A STANDARD STREET LIGHT LAMPOST WITH INSULATED "SUPERHTHANE" PAINT APR. 7" HIGH.	10.00	EACH			
210	SL-33.02.02 FURNISH AND INSTALL NO. 6 AWG XLP COPPER CABLE OR EQUAL FOR OVERHEAD INSTALLATION	4,000.00	L.F.			
211	T-1.1 INSTALL TYPE "S" OR "T" FOUNDATION	1.00	EACH			
212	T-1.18 REMOVE TYPE "A", "B", "S" OR "T" SERIES FOUNDATION	1.00	EACH			
213	T-1.2 INSTALL TYPE "F-1" FOUNDATION	1.00	EACH			

BID SCHEDULE FORM

COL 1 SEQ. NO	COL 2 ITEM NUMBER and DESCRIPTION	COL 3 ENGINEER'S ESTIMATE OF QUANTITY	COL 4 UNIT	COL 5 UNIT PRICE (IN FIGURES)		COL 6 EXTENDED AMOUNT (IN FIGURES)	
				DOLLARS	CTS	DOLLARS	CTS
214	T-1.20 REMOVE TYPE "M" SERIES FOUNDATION	2.00	EACH				
215	T-1.23 REMOVE STREET LIGHT FOUNDATION	1.00	EACH				
216	T-1.29 RAISE OR LOWER FOUNDATION TO GRADE	1.00	EACH				
217	T-1.3 INSTALL TYPE "M2-5S" FOUNDATION	2.00	EACH				
218	T-2.1 INSTALL TYPE "S-1" OR "T-1" SERIES POST	1.00	EACH				
219	T-2.16 FURNISH, INSTALL, MAINTAIN AND REMOVE TEMPORARY POST OR PYLON WITH SIGNALS	1.00	EACH				

BID SCHEDULE FORM

COL 1 SEQ. NO	COL 2 ITEM NUMBER and DESCRIPTION	COL 3 ENGINEER'S ESTIMATE OF QUANTITY	COL 4 UNIT	COL 5 UNIT PRICE (IN FIGURES) DOLLARS	COL 6 EXTENDED AMOUNT (IN FIGURES) DOLLARS	CTS
220	T-2.22 REMOVE TYPE "S-1" OR "T-1" SERIES POST	1.00	EACH			
221	T-2.24 REMOVE TYPE "M" SERIES POST	2.00	EACH			
222	T-2.27 REMOVE ANY OTHER TYPE POST	1.00	EACH			
223	T-2.4 INSTALL TYPE "M-2" POST	2.00	EACH			
224	T-20020 a) FURNISH 3/4" ANCHOR BOLT ASSEMBLIES FOR S-1 (EACH) (3 REQUIRED PER POST)	3.00	EACH			
225	T-20021 b) FURNISH 1" ANCHOR BOLT ASSEMBLIES FOR F-1 (EACH) (4 REQUIRED PER POST)	4.00	EACH			

BID SCHEDULE FORM

COL 1 SEQ. NO	COL 2 ITEM NUMBER and DESCRIPTION	COL 3 ENGINEER'S ESTIMATE OF QUANTITY	COL 4 UNIT	COL 5 UNIT PRICE (IN FIGURES) DOLLARS	COL 6 EXTENDED AMOUNT (IN FIGURES) DOLLARS
226	T-20220 c) FURNISH 1-1/4" ANCHOR BOLT ASSEMBLIES FOR M-2 (EACH) (4 REQUIRED PER POST)	8.00	EACH		
227	T-3.1 INSTALL "ONE-WAY" SIGNAL UNIT ON MAST ARM OR TOP OF TRAFFIC POST	4.00	EACH		
228	T-3.18 REMOVE SIGNAL HEAD FROM ANY TYPE POST	2.00	EACH		
229	T-3.2 INSTALL "ONE-WAY" SIGNAL UNIT ON THE SHAFT OF ANY POST	1.00	EACH		
230	T-3.21 REMOVE PEDESTRIAN SIGNAL OR SIGN UNIT OR OTHER ILLUMINATED SIGNS FROM ANY POST	6.00	EACH		
231	T-3.6 INSTALL PEDESTRIAN SIGNAL ON ANY TYPE POST	6.00	EACH		

BID SCHEDULE FORM

COL 1 SEQ. NO	COL 2 ITEM NUMBER and DESCRIPTION	COL 3 ENGINEER'S ESTIMATE OF QUANTITY	COL 4 UNIT	COL 5 UNIT PRICE (IN FIGURES)		COL 6 EXTENDED AMOUNT (IN FIGURES)	
				DOLLARS	CTS	DOLLARS	CTS
232	T-31200 e) "VB" ASSEMBLY *ASSEMBLY IS EQUAL TO ONE PAIR	1.00	EACH				
233	T-31210 h) "HUB" ASSEMBLY *ASSEMBLY IS EQUAL TO ONE PAIR	4.00	EACH				
234	T-31215 b) "2MS"	2.00	EACH				
235	T-31340 f) "VB-P" ASSEMBLY *ASSEMBLY IS EQUAL TO ONE PAIR	2.00	EACH				
236	T-31351 g) "VB-2P" ASSEMBLY *ASSEMBLY IS EQUAL TO ONE PAIR	2.00	EACH				
237	T-5.1 FURNISH AND INSTALL 2" RIGID UNDERGROUND CONDUIT IN UNPAVED ROADWAY	200.00	L.F.				

BID SCHEDULE FORM

COL 1 SEQ. NO	COL 2 ITEM NUMBER and DESCRIPTION	COL 3 ENGINEER'S ESTIMATE OF QUANTITY	COL 4 UNIT	COL 5 UNIT PRICE (IN FIGURES) DOLLARS	COL 6 EXTENDED AMOUNT (IN FIGURES) DOLLARS
238	T-5.2 FURNISH AND INSTALL 2" RIGID UNDERGROUND CONDUIT IN PAVED ROADWAY	700.00	L.F.		
239	T-5.32 RESTORING PERMANENT ROADWAY (INCLUDING SAWCUT)	700.00	L.F.		
240	T-6.10 REMOVE CABLE (INCLUDES OVERHEAD)	2,500.00	L.F.		
241	T-6.2 INSTALL MULTIPLE CABLE (INCLUDES OVERHEAD)	2,500.00	L.F.		
242	T-60000B FURNISH 2 c # 10B (BREAKDOWN = 2#10 WITH 3RD WIRE FOR GROUNDING).	2,000.00	L.F.		
243	T-60040 c) 7 CONDUCTOR, 14 A.W.G.	1,000.00	L.F.		

BID SCHEDULE FORM

COL 1 SEQ. NO	COL 2 ITEM NUMBER and DESCRIPTION	COL 3 ENGINEER'S ESTIMATE OF QUANTITY	COL 4 UNIT	COL 5 UNIT PRICE (IN FIGURES) DOLLARS CTS	COL 6 EXTENDED AMOUNT (IN FIGURES) DOLLARS CTS
244	T-60190 e) 13 CONDUCTOR, 14 A.W.G.	2,500.00	L.F.		
245	T-8.8 INSTALL CONCRETE PYLON	3.00	EACH		
246	T-8.9 REMOVE CONCRETE PYLON	3.00	EACH		
247	T-81000 FURNISH CONCRETE PYLON	3.00	EACH		
248	UTL-6.01.1 GAS MAIN CROSSING SEWER UP TO 24" IN DIAMETER (\$6.01) Unit price bid shall not be less than: \$ 1,040.00	2.00	EACH		
249	UTL-6.01.11 GAS MAIN CROSSING WATER MAIN 36" THRU 42" IN DIAMETER (\$6.01) Unit price bid shall not be less than: \$ 685.00	5.00	EACH		

BID SCHEDULE FORM

COL 1 SEQ. NO.	COL 2 ITEM NUMBER and DESCRIPTION	COL 3 ENGINEER'S ESTIMATE OF QUANTITY	COL 4 UNIT	COL 5 UNIT PRICE (IN FIGURES) DOLLARS	COL 6 EXTENDED AMOUNT (IN FIGURES) DOLLARS	COL 7 CCTS
250	UTL-6.01.12 GAS MAIN CROSSING WATER MAIN 48" THRU 54" IN DIAMETER (S6.01) Unit price bid shall not be less than: \$ 810.00	5.00	EACH			
251	UTL-6.01.4 GAS MAIN CROSSING SEWER 48" THRU 54" IN DIAMETER (S6.01) Unit price bid shall not be less than: \$ 2,120.00	1.00	EACH			
252	UTL-6.01.8 GAS SERVICES CROSSING TRENCHES AND/OR EXCAVATIONS (S6.01) Unit price bid shall not be less than: \$ 465.00	5.00	EACH			
253	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	17.00	EACH			
254	UTL-6.03 REMOVAL OF ABANDONED GAS FACILITIES. ALL SIZES. (S6.03) Unit price bid shall not be less than: \$ 15.00	1,500.00	L.F.			
255	UTL-6.03.1A REMOVAL OF ABANDONED GAS FACILITIES WITH POSSIBLE COAL TAR WRAP. ALL SIZES. (S6.03) Unit price bid shall not be less than: \$ 25.00	200.00	L.F.			

BID SCHEDULE FORM

COL 1 SEQ. NO	COL 2 ITEM NUMBER and DESCRIPTION	COL 3 ENGINEER'S ESTIMATE OF QUANTITY	COL 4 UNIT	COL 5 UNIT PRICE (IN FIGURES) DOLLARS	COL 6 EXTENDED AMOUNT (IN FIGURES) DOLLARS	CTS
256	UTL-6.04 ADJUST HARDWARE TO GRADE USING SPACER RINGS/ADAPTORS. (STREET REPAVING.) (\$6.04) Unit price bid shall not be less than: \$ 35.00	20.00	EACH			
257	UTL-6.05 ADJUST HARDWARE TO GRADE BY RESETTING. (ROAD RECONSTRUCTION.) (\$6.05) Unit price bid shall not be less than: \$ 65.00	20.00	EACH			
258	UTL-6.06 SPECIAL CARE EXCAVATION AND BACKFILLING (\$6.06) Unit price bid shall not be less than: \$ 180.00	500.00	C.Y.			
259	UTL-6.07 TEST PITS FOR GAS FACILITIES (\$6.07) Unit price bid shall not be less than: \$ 100.00	100.00	C.Y.			
260	UTL-6.09 TRENCH EXCAVATION AND BACKFILL FOR GAS MAINS AND SERVICES. GAS INSTALLED BY OTHERS. Unit price bid shall not be less than: \$ 190.00	1,970.00	C.Y.			

BID SCHEDULE FORM

COL 1 SEQ. NO	COL 2 ITEM NUMBER and DESCRIPTION	COL 3 ENGINEER'S ESTIMATE OF QUANTITY	COL 4 UNIT	COL 5 UNIT PRICE (IN FIGURES) DOLLARS CTS	COL 6 EXTENDED AMOUNT (IN FIGURES) DOLLARS CTS
261	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: \$ _____

262	6.39 A MOBILIZATION BID PRICE OF MOBILIZATION SHALL NOT EXCEED 4% OF THE ABOVE SUB-TOTAL PRICE.	1.00	L.S.		
-----	---	------	------	--	--

TOTAL BID PRICE: \$ _____

PLEASE BE SURE A LEGIBLE BID IS ENTERED FOR EACH ITEM.
 THE BIDDER SHALL INSERT THE TOTAL BID PRICE IN
 THE BID FORM ON PAGE C-4 OF THIS BID BOOKLET.

**BID FORM
THE CITY OF NEW YORK
DEPARTMENT OF DESIGN AND CONSTRUCTION
DIVISION OF INFRASTRUCTURE**

**BID FOR FURNISHING ALL LABOR AND
MATERIAL NECESSARY AND REQUIRED FOR:**

PROJECT ID: MED598B

**TRUNK WATER MAINS IN WEST 30TH STREET BETWEEN 10TH AVENUE AND 9TH AVENUE,
ETC., TO CONNECT SHAFT 26B TO THE DISTRIBUTION SYSTEM**

INCLUDING SEWER, WATER MAIN, STREET LIGHTING AND TRAFFIC WORK

**Together With All Work Incidental Thereto
BOROUGH OF MANHATTAN**

Name of Bidder: _____

Date of Bid Opening: _____

Bidder is: (Check one, whichever applies) Individual () Partnership () Corporation ()

Place of Business of Bidder: _____

Bidder's Telephone Number: _____ Fax Number: _____

Bidder's E-Mail Address: _____

Residence of Bidder (If Individual): _____

If Bidder is a Partnership, fill in the following blanks:

Names of Partners	Residence of Partners
_____	_____
_____	_____
_____	_____

If Bidder is a Corporation, fill in the following blanks:

Organized under the laws of the State of _____

Name and Home Address of President: _____

Name and Home Address of Secretary: _____

Name and Home Address of Treasurer: _____

BID FORM

The above-named Bidder affirms and declares:

1. The said bidder is of lawful age and the only one interested in this bid; and no person, firm or corporation other than hereinbefore named has any interest in this bid, or in the Contract proposed to be taken.
2. By submission of this bid, each bidder and each person signing on behalf of any bidder certifies, and in the case of a joint bid each party thereto certifies as to its own organization, under penalty of perjury, that to the best of its knowledge and belief: (1) the prices in this bid have been arrived at independently without collusion, consultation, communication or agreement, for the purpose of restricting competition, as to any matter relating to such prices with any other bidder or with any competitor; (2) unless otherwise required by law, the prices quoted in this bid have not been knowingly disclosed by the bidder and will not knowingly be disclosed by the bidder prior to opening, directly or indirectly, to any other bidder or to any competitor; and (3) No attempt has been made or will be made by the bidder to induce any other person, partnership or corporation to submit or not to submit a bid for the purpose of restricting competition.
3. No councilman or other officer or employee or person whose salary is payable in whole or in part from the City Treasury is directly or indirectly interested in this bid, or in the supplies, materials, equipment, work or labor to which it relates, or in any of the profits thereof.
4. The bidder is not in arrears to the City of New York upon debt or contract or taxes, and is not a defaulter, as surety or otherwise, upon any obligation of the City of New York, and has not been declared not responsible, or disqualified, by any agency of the City of New York or State of New York, nor is there any proceeding pending relating to the responsibility or qualification of the bidder to receive public contracts except as set forth on the Affirmation included as page C-6 of this Bid Booklet.

The bidder hereby affirms that it has paid all applicable City income, excise and other taxes for all years it has conducted business activities in New York City.

5. The bidder, as an individual, or as a member, partner, director or officer of the bidder, if the same be a firm, partnership or corporation, executes this document expressly warranting and representing that should this bid be accepted by the City and the Contract awarded to him, he and his subcontractors engaged in the performance: (1) will comply with the provisions of Section 6-108 of the Administrative Code of the City of New York and the non-discrimination provisions of Section 220a of the New York State Labor Law, as more expressly and in detail set forth in the Agreement; (2) will comply with Section 6-109 of the Administrative Code of the City of New York in relation to minimum wages and other stipulations as more expressly and in detail set forth in the Agreement; (3) have complied with the provisions of the aforesaid laws since their respective effective dates, and (4) will post notices to be furnished by the City, setting forth the requirements of the aforesaid laws in prominent and conspicuous places in each and every plant, factory, building and structure where employees engaged in the performance of the Contract can readily view it, and will continue to keep such notices posted until the supplies, materials and equipment, or work labor and services required to be furnished or rendered by the Contractor have been finally accepted by the City. In the event of any breach or violation of the foregoing, the Contractor may be subject to damages, liquidated or otherwise, cancellation of the Contract and suspension as a bidder for a period of three years. (The words, "the bidder", "he", "his", and "him" where used herein shall mean the individual bidder, firm, partnership or corporation executing the bid).

6. Compliance Report

The bidder, as an individual, or as a member, partner, director, or officer of the bidder, if the same be a firm, partnership, or corporation, (1) represents that his attention has been specifically drawn to Executive Order No. 50, dated, April 25, 1980, on Equal Employment Compliance of the contract, and (2) warrants that he will comply with the provisions of Executive Order No. 50. The Employment Report must be submitted as part of the bid.

The bidder, as an individual, or as a member, partner, director, or officer of the bidder, if the same be a firm, partnership, or corporation, executes this document expressly warranting that he will comply with: (1) the provision of the contract on providing records, Chapter 8.

7. By submission of this bid, the bidder certifies that it now has and will continue to have the financial capability to fully perform the work required for this contract. Any award of this contract will be made in reliance upon such certification. Upon request therefor, the bidder will submit written verification of such financial capability in a form that is acceptable to the department.

8. In accordance with Section 165 of the State Finance Law, the bidder agrees that tropical hardwoods, as defined in Section 165 of the State Finance Law, shall not be utilized in the performance of this Contract, except as the same are permitted by the foregoing provision of law.

9. The bidder has visited and examined the site of the work and has carefully examined the Contract in the form approved by the Corporation Counsel, and will execute the Contract and perform all its items, covenants and conditions, and will provide, furnish and deliver all the work, materials, supplies, tools and appliances for all labor and materials necessary or required for the hereinafter named work, all in strict conformity with the Contract, for the prices set forth in the Bid Schedule:

10. M/WBE UTILIZATION PLAN: By signing its bid, the bidder agrees to the Vendor Certification and Required Affirmations set forth below, unless a full waiver of the Participation Goals is granted. The Vendor Certification and Required Affirmations will be deemed to satisfy the requirement to complete Section V of Part II of Schedule B: M/WBE Utilization Plan.

Section V: Vendor Certification and Required Affirmations:

I hereby:

- 1) acknowledge my understanding of the M/WBE participation requirements as set forth in this Contract and the pertinent provisions of Section 6-129 of the Administrative Code of the City of New York and the rules promulgated thereunder;
- 2) affirm that the information supplied in support of the M/WBE Utilization Plan is true and correct;
- 3) agree, if awarded this Contract, to comply with the M/WBE participation requirements of this Contract, the pertinent provisions of Section 6-129, and the rules promulgated thereunder, all of which shall be deemed to be material terms of this Contract;
- 4) agree and affirm that it is a material term of this Contract that the Vendor will award the total dollar value of the M/WBE Participation Goals to certified MBEs and/or WBEs, unless a full waiver is obtained or such goals are modified by the Agency; and
- 5) agree and affirm, if awarded this Contract, to make all reasonable, good faith efforts to meet the M/WBE Participation Goals, or If a partial waiver is obtained or such goals are modified by the Agency, to meet the modified Participation Goals by soliciting and obtaining the participation of certified MBE and/or WBE firms.

(NO TEXT ON THIS PAGE)

BID FORM

PROJECT ID: MED598B

TOTAL BID PRICE: In the space provided below, the Bidder shall indicate its Total Bid Price in figures. Such Total Bid Price is set forth on the final page of the Bid Schedule.

TOTAL BID PRICE: \$ _____
(a/k/a BID PROPOSAL)

BIDDER'S SIGNATURE AND AFFIDAVIT

Bidder: _____

By: _____
(Signature of Partner or corporate officer)

Attest:
(Corporate Seal)

Secretary of Corporate Bidder

Affidavit on the following page should be subscribed
and sworn to before a Notary Public

BID FORM (TO BE NOTARIZED)

AFFIDAVIT WHERE BIDDER IS AN INDIVIDUAL

STATE OF NEW YORK, COUNTY OF _____ ss:

_____ being duly sworn says:
I am the person described in and who executed the foregoing bid, and the several matters therein stated are in all respects true.

(Signature of the person who signed the Bid)

Subscribed and sworn to before me this
_____ day of _____,

Notary Public

AFFIDAVIT WHERE BIDDER IS A PARTNERSHIP

STATE OF NEW YORK, COUNTY OF _____ ss:

_____ being duly sworn says:
I am a member of _____ the firm described in and which executed the foregoing bid. I subscribed the name of the firm thereto on behalf of the firm, and the several matters therein stated are in all respects true.

(Signature of Partner who signed the Bid)

Subscribed and sworn to before me this
_____ day of _____,

Notary Public

AFFIDAVIT WHERE BIDDER IS A CORPORATION

STATE OF NEW YORK, COUNTY OF _____ ss:

_____ being duly sworn says:
I am the _____ of the above named corporation whose name is subscribed to and which executed the foregoing bid. I reside at _____
I have knowledge of the several matters therein stated, and they are in all respects true.

(Signature of Partner who signed the Bid)

Subscribed and sworn to before me this
_____ day of _____,

Notary Public

AFFIRMATION

The undersigned bidder affirms and declares that said bidder is not in arrears to the City of New York upon debt, contract or taxes and is not a defaulter, as surety or otherwise, upon obligation to the City of New York, and has not been declared not responsible, or disqualified, by any agency of the City of New York, nor is there any proceeding pending relating to the responsibility or qualification of the bidder to receive public contracts except: _____

(If none, the bidder shall insert the word "None" in the space provided above.)

Full Name of Bidder: _____
Address: _____
City _____ State _____ Zip Code _____

CHECK ONE BOX AND INCLUDE APPROPRIATE NUMBER:

A - Individual or Sole Proprietorship*
SOCIAL SECURITY NUMBER

B - Partnership, Joint Venture or other unincorporated organization
EMPLOYER IDENTIFICATION NUMBER

C- Corporation
EMPLOYER IDENTIFICATION NUMBER

By: _____
Signature

Title: _____

If a corporation, place seal here

This affirmation must be signed by an officer or duly authorized representative.

*Under the Federal Privacy Act the furnishing of Social Security Numbers by bidders on City contracts is voluntary. Failure to provide a Social Security Number will not result in a bidder's disqualification. Social Security Numbers will be used to identify bidders, proposers or vendors to ensure their compliance with laws, to assist the City in enforcement of laws, as well as to provide the City a means of identifying of businesses which seek City contracts.

(NO TEXT ON THIS PAGE)

BID BOND 1
FORM OF BID BOND

KNOW ALL MEN BY THESE PRESENTS. That we, _____

hereinafter referred to as the "Principal", and _____

hereinafter referred to as the "Surety" are held and firmly bound to THE CITY OF NEW YORK, hereinafter referred to as the "CITY", or to its successors and assigns in the penal sum of _____

(\$ _____), Dollars lawful money of the United States, for the payment of which said sum of money well and truly to be made, we, and each of us, bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

Whereas, the Principal is about to submit (or has submitted) to the City the accompanying proposal, hereby made a part hereof, to enter into a contract in writing for _____

NOW, THEREFORE, the conditions of this obligation are such that if the Principal shall not withdraw said Proposal without the consent of the City for a period of forty-five (45) days after the opening of bids and in the event of acceptance of the Principal's Proposal by the City, if the Principal shall:

(a) Within ten (10) days after notification by the City, execute in quadruplicate and deliver to the City all the executed counterparts of the Contract in the form set forth in the Contract Documents, in accordance with the proposal as accepted, and

(b) Furnish a performance bond and separate payment bond, as may be required by the City, for the faithful performance and proper fulfillment of such Contract, which bonds shall be satisfactory in all respects to the City and shall be executed by good and sufficient sureties, and

(c) In all respects perform the agreement created by the acceptance of said Proposal as provided in the Information for Bidders, bound herewith and made a part hereof, or if the City shall reject the aforesaid Proposal, then this obligation shall be null and void; otherwise to remain in full force and effect.

BID BOND 2

In the event that the Proposal of the Principal shall be accepted and the Contract be awarded to him the Surety hereunder agrees subject only to the payment by the Principal of the premium therefore, if requested by the City, to write the aforementioned performance and payment bonds in the form set forth in the Contract Documents.

It is expressly understood and agreed that the liability of the Surety for any and all claims hereunder shall in no event exceed the penal amount of this obligation as herein stated.

There shall be no liability under this bond if, in the event of the acceptance of the Principal's Proposal by the City, either a performance bond or payment bond, or both, shall not be required by the City on or before the 30th day after the date on which the City signs the Contract.

The surety, for the value received, hereby stipulates and agrees that the obligations of the Surety and its bond shall in no way be impaired or affected by any postponements of the date upon which the City will receive or open bids, or by any extensions of the time within which the City may accept the Principal's Proposal, or by any waiver by the City of any of the requirements of the Information for Bidders, and the Surety hereby waives notice of any such postponements, extensions, or waivers.

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

(Seal)

Principal (L.S.)

By: _____

(Seal)

Surety

By: _____

BID BOND 3

ACKNOWLEDGMENT OF PRINCIPAL, IF A CORPORATION

State of _____ County of _____ ss:
On this _____ day of _____, _____, before me personally came
_____ to me known, who, being by me duly sworn, did depose and say
that he resides at _____
that he is the _____ of _____
the corporation described in and which executed the foregoing instrument; that he knows the seal of said
corporation; that one of the seals affixed to said instrument is such seal; that it was so affixed by order of
the directors of said corporation, and that he signed his name thereto by like order.

Notary Public

ACKNOWLEDGMENT OF PRINCIPAL, IF A PARTNERSHIP

State of _____ County of _____ ss:
On this _____ day of _____, _____, before me personally appeared
_____ to me known and known to me to be one of the members of the
firm of _____ described in and who executed the foregoing
instrument, and he acknowledged to me that he executed the same as and for the act and deed of said
firm.

Notary Public

ACKNOWLEDGMENT OF PRINCIPAL, IF AN INDIVIDUAL

State of _____ County of _____ ss:
On this _____ day of _____, _____, before me personally appeared
_____ to me known and known to me to be the person described in
and who executed the foregoing instrument and acknowledged that he executed the same.

Notary Public

AFFIX ACKNOWLEDGMENTS AND JUSTIFICATION OF SURETIES

(NO TEXT ON THIS PAGE)

M/WBE PROGRAM

M/WBE UTILIZATION PLAN

M/WBE Program Requirements: The requirements for the M/WBE Program are set forth on the following pages of this Bid Booklet, in the section entitled "Notice to All Prospective Contractors".

Schedule B: M/WBE Utilization Plan: Schedule B: M/WBE Utilization Plan for this Contract is set forth in this Bid Booklet on the pages following the section entitled "Notice to All Prospective Contractors". The M/WBE Utilization Plan (Part I) indicates whether Participation Goals have been established for this Contract. If Participation Goals have been established for this Contract, the bidder must submit an M/WBE Utilization Plan (Part II) with its bid.

Waiver: The bidder may seek a full or partial pre-award waiver of the Participation Goals in accordance with the "Notice to All Prospective Contractors" (See Part A, Section 10). The bidder's request for a waiver must be submitted at least seven (7) calendar days prior to the bid date. Waiver requests submitted after the deadline will not be considered. The form for requesting a waiver of the Participation Goals is set forth in the M/WBE Utilization Plan (Part III).

Rejection of the Bid: The bidder must complete Schedule B: M/WBE Utilization Plan (Part II) set forth in this Bid Booklet on the pages following the section entitled "Notice to All Prospective Contractors". A Schedule B submitted by the bidder which does not include the Vendor Certification and Required Affirmations (See Section V of Part II) will be deemed to be non-responsive, unless a full waiver of the Participation Goals is granted (Schedule B, Part III). In the event that the City determines that the bidder has submitted a Schedule B where the Vendor Certification and Required Affirmations are completed but other aspects of the Schedule B are not complete, or contain a copy or computation error that is at odds with the Vendor Certification and Required Affirmations, the bidder will be notified by the Agency and will be given four (4) calendar days from receipt of notification to cure the specified deficiencies and return a completed Schedule B to the Agency. Failure to do so will result in a determination that the Bid is non-responsive. Receipt of notification is defined as the date notice is emailed or faxed (if the bidder has provided an email address or fax number), or no later than five (5) calendar days from the date of mailing or upon delivery, if delivered.

Impact on LBE Requirements: If Participation Goals have been established for the participation of M/WBEs, the contractor is not required to comply with the Locally Based Enterprise Program ("LBE"). The LBE Program is set forth in Article 67 of the Contract.

NOTICE TO ALL PROSPECTIVE CONTRACTORS

**PARTICIPATION BY MINORITY-OWNED AND WOMEN-OWNED BUSINESS
ENTERPRISES IN CITY PROCUREMENT**

ARTICLE I. M/WBE PROGRAM

Local Law No. 129 of 2005 added and Local Law 1 of 2013 amended Section 6-129 of the Administrative Code of the City of New York (hereinafter "Section 6-129"). Section 6-129 establishes the program for participation in City procurement ("M/WBE Program") by minority-owned business enterprises ("MBEs") and women-owned business enterprises ("WBEs"), certified in accordance with Section 1304 of the New York City Charter. As stated in Section 6-129, the intent of the program is to address the impact of discrimination on the City's procurement process, and to promote the public interest in avoiding fraud and favoritism in the procurement process, increasing competition for City business, and lowering contract costs. The contract provisions contained herein are pursuant to Section 6-129, and the rules of the Department of Small Business Services ("DSBS") promulgated thereunder.

If this Contract is subject to the M/WBE Program established by Section 6-129, the specific requirements of MBE and/or WBE participation for this Contract are set forth in Schedule B of the Contract (entitled the "M/WBE Utilization Plan"), and are detailed below. The Contractor must comply with all applicable MBE and WBE requirements for this Contract.

All provisions of Section 6-129 are hereby incorporated in the Contract by reference and all terms used herein that are not defined herein shall have the meanings given such terms in Section 6-129. Article I, Part A, below, sets forth provisions related to the participation goals for construction, standard and professional services contracts. Article I, Part B, below, sets forth miscellaneous provisions related to the M/WBE Program.

PART A

**PARTICIPATION GOALS FOR CONSTRUCTION, STANDARD
AND PROFESSIONAL SERVICES CONTRACTS OR TASK ORDERS**

1. The MBE and/or WBE Participation Goals established for this Contract or Task Orders issued pursuant to this Contract, ("Participation Goals"), as applicable, are set forth on Schedule B, Part I to this Contract (see Page 1, line 1 Total Participation Goals) or will be set forth on Schedule B, Part I to Task Orders issued pursuant to this Contract, as applicable.

The Participation Goals represent a percentage of the total dollar value of the Contract or Task Order, as applicable, that may be achieved by awarding subcontracts to firms certified with New York City Department of Small Business Services as MBEs and/or WBEs, and/or by crediting the participation of prime contractors and/or qualified joint ventures as provided in Section 3 below, unless the goals have been waived or modified by Agency in accordance with Section 6-129 and Part A, Sections 10 and 11 below, respectively.

2. If Participation Goals have been established for this Contract or Task Orders issued pursuant to this Contract, Contractor agrees or shall agree as a material term of the Contract that Contractor shall be subject to the Participation Goals, unless the goals are waived or modified by Agency in accordance with Section 6-129 and Part A, Sections 10 and 11 below, respectively.

3. If Participation Goals have been established for this Contract or Task Order issued pursuant to this Contract, a Contractor that is an MBE and/or WBE shall be permitted to count its own participation toward fulfillment of the relevant Participation Goal, provided that in accordance with Section 6-129 the value of Contractor's participation shall be determined by subtracting from the total value of the Contract or Task Order, as applicable, any amounts that the Contractor pays to direct subcontractors (as defined in Section 6-129(c)(13)), and provided further that a Contractor that is certified as both an MBE and a WBE may count its own participation either toward the goal for MBEs or the goal for WBEs, but not both.

A Contractor that is a qualified joint venture (as defined in Section 6-129(c)(30)) shall be permitted to count a percentage of its own participation toward fulfillment of the relevant **Participation Goal**. In accordance with Section 6-129, the value of Contractor's participation shall be determined by subtracting from the total value of the Contract or Task Order, as applicable, any amounts that Contractor pays to direct subcontractors, and then multiplying the remainder by the percentage to be applied to total profit to determine the amount to which an MBE or WBE is entitled pursuant to the joint venture agreement, provided that where a participant in a joint venture is certified as both an MBE and a WBE, such amount shall be counted either toward the goal for MBEs or the goal for WBEs, but not both.

4. A. If **Participation Goals** have been established for this Contract, a prospective contractor shall be required to submit with its bid or proposal, as applicable, a completed Schedule B, M/WBE Utilization Plan, Part II (see Pages 2-4) indicating: (a) whether the contractor is an MBE or WBE, or qualified joint venture; (b) the percentage of work it intends to award to direct subcontractors; and (c) in cases where the contractor intends to award direct subcontracts, a description of the type and dollar value of work designated for participation by MBEs and/or WBEs, and the time frames in which such work is scheduled to begin and end. In the event that this M/WBE Utilization Plan indicates that the bidder or proposer, as applicable, does not intend to meet the **Participation Goals**, the bid or proposal, as applicable, shall be deemed non-responsive, unless Agency has granted the bidder or proposer, as applicable, a pre-award waiver of the Participation Goals in accordance with Section 6-129 and Part A, Section 10 below.

B. (i) If this Contract is for a master services agreement or other requirements type contract that will result in the issuance of Task Orders that will be individually registered ("Master Services Agreement") and is subject to M/WBE **Participation Goals**, a prospective contractor shall be required to submit with its bid or proposal, as applicable, a completed Schedule B, M/WBE Participation Requirements for Master Services Agreements That Will Require Individually Registered Task Orders, Part II (page 2) indicating the prospective contractor's certification and required affirmations to make all reasonable good faith efforts to meet participation goals established on each individual Task Order issued pursuant to this Contract, or if a partial waiver is obtained or such goals are modified by the Agency, to meet the modified **Participation Goals** by soliciting and obtaining the participation of certified MBE and/or WBE firms. In the event that the Schedule B indicates that the bidder or proposer, as applicable, does not intend to meet the **Participation Goals** that may be established on Task Orders issued pursuant to this Contract, the bid or proposal, as applicable, shall be deemed nonresponsive.

(ii) **Participation Goals** on a Master Services Agreement will be established for individual Task Orders issued after the Master Services Agreement is awarded. If **Participation Goals** have been established on a Task Order, a contractor shall be required to submit a Schedule B - M/WBE Utilization Plan For Independently Registered Task Orders That Are Issued Pursuant to Master Services Agreements, Part II (see Pages 2-4) indicating: (a) whether the contractor is an MBE or WBE, or qualified joint venture; (b) the percentage of work it intends to award to direct subcontractors; and (c) in cases where the contractor intends to award direct subcontracts, a description of the type and dollar value of work designated for participation by MBEs and/or WBEs, and the time frames in which such work is scheduled to begin and end. The contractor must engage in good faith efforts to meet the **Participation Goals** as established for the Task Order unless Agency has granted the contractor a pre-award waiver of the Participation Goals in accordance with Section 6-129 and Part A, Section 10 below.

C. **THE BIDDER/PROPOSER MUST COMPLETE THE SCHEDULE B INCLUDED HEREIN (SCHEDULE B, PART II). A SCHEDULE B SUBMITTED BY THE BIDDER/PROPOSER WHICH DOES NOT INCLUDE THE VENDOR CERTIFICATION AND REQUIRED AFFIRMATIONS (SEE SECTION V OF PART II) WILL BE DEEMED TO BE NON-RESPONSIVE, UNLESS A FULL WAIVER OF THE PARTICIPATION GOALS IS GRANTED (SCHEDULE B, PART III). IN THE EVENT THAT THE CITY DETERMINES THAT THE BIDDER/PROPOSER HAS SUBMITTED A SCHEDULE B WHERE THE VENDOR CERTIFICATION AND REQUIRED AFFIRMATIONS ARE COMPLETED BUT OTHER ASPECTS OF THE SCHEDULE B ARE NOT COMPLETE, OR CONTAIN A COPY OR COMPUTATION ERROR THAT IS AT ODDS WITH THE VENDOR CERTIFICATION AND AFFIRMATIONS, THE BIDDER/PROPOSER WILL BE NOTIFIED BY THE AGENCY AND WILL BE GIVEN FOUR (4) CALENDAR DAYS FROM RECEIPT OF NOTIFICATION TO CURE THE SPECIFIED DEFICIENCIES AND RETURN A COMPLETED SCHEDULE B TO THE AGENCY. FAILURE TO DO**

SO WILL RESULT IN A DETERMINATION THAT THE BID/PROPOSAL IS NON-RESPONSIVE. RECEIPT OF NOTIFICATION IS DEFINED AS THE DATE NOTICE IS E-MAILED OR FAXED (IF THE BIDDER/PROPOSER HAS PROVIDED AN E-MAIL ADDRESS OR FAX NUMBER), OR NO LATER THAN FIVE (5) CALENDAR DAYS FROM THE DATE OF MAILING OR UPON DELIVERY, IF DELIVERED.

5. Where an M/WBE Utilization Plan has been submitted, the Contractor shall, within 30 days of issuance by Agency of a notice to proceed, submit a list of proposed persons or entities to which it intends to award subcontracts within the subsequent 12 months. In the case of multiyear contracts, such list shall also be submitted every year thereafter. The Agency may also require the Contractor to report periodically about the contracts awarded by its direct subcontractors to indirect subcontractors (as defined in Section 6-129(c)(22)). **PLEASE NOTE: If this Contract is a public works project subject to GML §101(5) (i.e., a contract valued at or below \$3M for projects in New York City) or if the Contract is subject to a project labor agreement in accordance with Labor Law §222, and the bidder is required to identify at the time of bid submission its intended subcontractors for the Wicks trades (plumbing and gas fitting; steam heating, hot water heating, ventilating and air conditioning (HVAC); and electric wiring), the Contractor must identify all those to which it intends to award construction subcontracts for any portion of the Wicks trade work at the time of bid submission, regardless of what point in the life of the contract such subcontracts will occur. In identifying intended subcontractors in the bid submission, bidders may satisfy any Participation Goals established for this Contract by proposing one or more subcontractors that are MBEs and/or WBEs for any portion of the Wicks trade work. In the event that the Contractor's selection of a subcontractor is disapproved, the Contractor shall have a reasonable time to propose alternate subcontractors.**

6. MBE and WBE firms must be certified by DSBS in order for the Contractor to credit such firms' participation toward the attainment of the Participation Goals. Such certification must occur prior to the firms' commencement of work. A list of MBE and WBE firms may be obtained from the DSBS website at www.nyc.gov/buycertified, by emailing DSBS at buyer@sbs.nyc.gov, by calling (212) 513-6356, or by visiting or writing DSBS at 110 William St., New York, New York, 10038, 7th floor. Eligible firms that have not yet been certified may contact DSBS in order to seek certification by visiting www.nyc.gov/getcertified, emailing MWBE@sbs.nyc.gov, or calling the DSBS certification helpline at (212) 513-6311. A firm that is certified as both an MBE and a WBE may be counted either toward the goal for MBEs or the goal for WBEs, but not both. No credit shall be given for participation by a graduate MBE or graduate WBE, as defined in Section 6-129(c)(20).

7. Where an M/WBE Utilization Plan has been submitted, the Contractor shall, with each voucher for payment, and/or periodically as Agency may require, submit statements, certified under penalty of perjury, which shall include, but not be limited to, the total amount the Contractor paid to its direct subcontractors, and, where applicable pursuant to Section 6-129(j), the total amount direct subcontractors paid to indirect subcontractors; the names, addresses and contact numbers of each MBE or WBE hired as a subcontractor by the Contractor, and, where applicable, hired by any of the Contractor's direct subcontractors; and the dates and amounts paid to each MBE or WBE. The Contractor shall also submit, along with its voucher for final payment: the total amount it paid to subcontractors, and, where applicable pursuant to Section 6-129(j), the total amount its direct subcontractors paid directly to their indirect subcontractors; and a final list, certified under penalty of perjury, which shall include the name, address and contact information of each subcontractor that is an MBE or WBE, the work performed by, and the dates and amounts paid to each.

8. If payments made to, or work performed by, MBEs or WBEs are less than the amount specified in the Contractor's M/WBE Utilization Plan, Agency shall take appropriate action, in accordance with Section 6-129 and Article II below, unless the Contractor has obtained a modification of its M/WBE Utilization Plan in accordance with Section 6-129 and Part A, Section 11 below.

9. Where an M/WBE Utilization Plan has been submitted, and the Contractor requests a change order the value of which exceeds the greater of 10 percent of the Contract or Task Order, as applicable, or \$500,000, Agency shall review the scope of work for the Contract or Task Order, as applicable, and the scale and types of work involved in the change order, and determine whether the Participation Goals should be modified.

10. Pre-award waiver of the **Participation Goals**. (a) A bidder or proposer, or contractor with respect to a Task Order, may seek a pre-award full or partial waiver of the **Participation Goals** in accordance with Section 6-129, which requests that Agency change one or more **Participation Goals** on the grounds that the **Participation Goals** are unreasonable in light of the availability of certified firms to perform the services required, or by demonstrating that it has legitimate business reasons for proposing a lower level of subcontracting in its M/WBE Utilization Plan.

(b) To apply for a full or partial waiver of the **Participation Goals**, a bidder, proposer, or contractor, as applicable, must complete Part III (Page 5) of Schedule B and submit such request no later than seven (7) calendar days prior to the date and time the bids, proposals, or Task Orders are due, in writing to the Agency by email at poped@ddc.nyc.gov or via facsimile at (718) 391-1886. Bidders, proposers, or contractors, as applicable, who have submitted requests will receive an Agency response by no later than two (2) calendar days prior to the due date for bids, proposals, or Task Orders; provided, however, that if that date would fall on a weekend or holiday, an Agency response will be provided by close-of-business on the business day before such weekend or holiday date.

(c) If the Agency determines that the **Participation Goals** are unreasonable in light of the availability of certified firms to perform the services required, it shall revise the solicitation and extend the deadline for bids and proposals, or revise the Task Order, as applicable.

(d) Agency may grant a full or partial waiver of the **Participation Goals** to a bidder, proposer or contractor, as applicable, who demonstrates—before submission of the bid, proposal or Task Order, as applicable—that it has legitimate business reasons for proposing the level of subcontracting in its M/WBE Utilization Plan. In making its determination, Agency shall consider factors that shall include, but not be limited to, whether the bidder, proposer or contractor, as applicable, has the capacity and the bona fide intention to perform the Contract without any subcontracting, or to perform the Contract without awarding the amount of subcontracts represented by the **Participation Goals**. In making such determination, Agency may consider whether the M/WBE Utilization Plan is consistent with past subcontracting practices of the bidder, proposer or contractor, as applicable, whether the bidder, proposer or contractor, as applicable, has made efforts to form a joint venture with a certified firm, and whether the bidder, proposer, or contractor, as applicable, has made good faith efforts to identify other portions of the Contract that it intends to subcontract.

11. Modification of M/WBE Utilization Plan. (a) A Contractor may request a modification of its M/WBE Utilization Plan after award of this Contract. **PLEASE NOTE: If this Contract is a public works project subject to GML §101(5) (i.e., a contract valued at or below \$3M for projects in New York City) or if the Contract is subject to a project labor agreement in accordance with Labor Law §222, and the bidder is required to identify at the time of bid submission its intended subcontractors for the Wicks trades (plumbing and gas fitting; steam heating, hot water heating, ventilating and air conditioning (HVAC); and electric wiring), the Contractor may request a Modification of its M/WBE Utilization Plan as part of its bid submission.** The Agency may grant a request for Modification of a Contractor's M/WBE Utilization Plan if it determines that the Contractor has established, with appropriate documentary and other evidence, that it made reasonable, good faith efforts to meet the **Participation Goals**. In making such determination, Agency shall consider evidence of the following efforts, as applicable, along with any other relevant factors:

- (i) The Contractor advertised opportunities to participate in the Contract, where appropriate, in general circulation media, trade and professional association publications and small business media, and publications of minority and women's business organizations;
- (ii) The Contractor provided notice of specific opportunities to participate in the Contract, in a timely manner, to minority and women's business organizations;
- (iii) The Contractor sent written notices, by certified mail or facsimile, in a timely manner, to advise MBEs or WBEs that their interest in the Contract was solicited;
- (iv) The Contractor made efforts to identify portions of the work that could be substituted for portions originally designated for participation by MBEs and/or WBEs in the M/WBE Utilization Plan, and for which the Contractor claims an inability to retain MBEs or WBEs;

- (v) The Contractor held meetings with MBEs and/or WBEs prior to the date their bids or proposals were due, for the purpose of explaining in detail the scope and requirements of the work for which their bids or proposals were solicited;
- (vi) The Contractor made efforts to negotiate with MBEs and/or WBEs as relevant to perform specific subcontracts, or act as suppliers or service providers;
- (vii) Timely written requests for assistance made by the Contractor to Agency's M/WBE liaison officer and to DSBS;
- (viii) Description of how recommendations made by DSBS and Agency were acted upon and an explanation of why action upon such recommendations did not lead to the desired level of participation of MBEs and/or WBEs.

Agency's M/WBE officer shall provide written notice to the Contractor of the determination.

(b) The Agency may modify the **Participation Goals** when the scope of the work has been changed by the Agency in a manner that affects the scale and types of work that the Contractor indicated in its **M/WBE Utilization Plan** would be awarded to subcontractors.

12. If this Contract is for an indefinite quantity of construction, standard or professional services or is a requirements type contract and the Contractor has submitted an **M/WBE Utilization Plan** and has committed to subcontract work to MBEs and/or WBEs in order to meet the **Participation Goals**, the Contractor will not be deemed in violation of the M/WBE Program requirements for this Contract with regard to any work which was intended to be subcontracted to an MBE and/or WBE to the extent that the Agency has determined that such work is not needed.

13. If **Participation Goals** have been established for this Contract or a Task Order issued pursuant to this Contract, at least once annually during the term of the Contract or Task Order, as applicable, Agency shall review the Contractor's progress toward attainment of its M/WBE Utilization Plan, including but not limited to, by reviewing the percentage of work the Contractor has actually awarded to MBE and/or WBE subcontractors and the payments the Contractor made to such subcontractors.

14. If **Participation Goals** have been established for this Contract or a Task Order issued pursuant to this Contract, Agency shall evaluate and assess the Contractor's performance in meeting those goals, and such evaluation and assessment shall become part of the Contractor's overall contract performance evaluation.

PART B: MISCELLANEOUS

1. The Contractor shall take notice that, if this solicitation requires the establishment of an **M/WBE Utilization Plan**, the resulting contract may be audited by DSBS to determine compliance with Section 6-129. See §6-129(e)(10). Furthermore, such resulting contract may also be examined by the City's Comptroller to assess compliance with the **M/WBE Utilization Plan**.

2. Pursuant to DSBS rules, construction contracts that include a requirement for an **M/WBE Utilization Plan** shall not be subject to the law governing Locally Based Enterprises set forth in Section 6-108.1 of the Administrative Code of the City of New York.

3. DSBS is available to assist contractors and potential contractors in determining the availability of MBEs and/or WBEs to participate as subcontractors, and in identifying opportunities that are appropriate for participation by MBEs and/or WBEs in contracts.

4. Prospective contractors are encouraged to enter into qualified joint venture agreements with MBEs and/or WBEs as defined by Section 6-129(c)(30).

5. By submitting a bid or proposal the Contractor hereby acknowledges its understanding of the M/WBE Program requirements set forth herein and the pertinent provisions of Section 6-129, and any rules promulgated thereunder, and if awarded this Contract, the Contractor hereby agrees to comply with the M/WBE Program requirements of this Contract and pertinent provisions of Section 6-129, and any rules promulgated thereunder, all of which shall be deemed to be material terms of this Contract. The Contractor hereby agrees to make all reasonable, good faith efforts to solicit and obtain the participation of MBEs and/or WBEs to meet the required **Participation Goals**.

ARTICLE II. ENFORCEMENT

1. If Agency determines that a bidder or proposer, as applicable, has, in relation to this procurement, violated Section 6-129 or the DSBS rules promulgated pursuant to Section 6-129, Agency may disqualify such bidder or proposer, as applicable, from competing for this Contract and the Agency may revoke such bidder's or proposer's prequalification status, if applicable.

2. Whenever Agency believes that the Contractor or a subcontractor is not in compliance with Section 6-129 or the DSBS rules promulgated pursuant to Section 6-129, or any provision of this Contract that implements Section 6-129, including, but not limited to any M/WBE Utilization Plan, Agency shall send a written notice to the Contractor describing the alleged noncompliance and offering the Contractor an opportunity to be heard. Agency shall then conduct an investigation to determine whether such Contractor or subcontractor is in compliance.

3. In the event that the Contractor has been found to have violated Section 6-129, the DSBS rules promulgated pursuant to Section 6-129, or any provision of this Contract that implements Section 6-129, including, but not limited to, any M/WBE Utilization Plan, Agency may determine that one of the following actions should be taken:

- (a) entering into an agreement with the Contractor allowing the Contractor to cure the violation;
- (b) revoking the Contractor's pre-qualification to bid or make proposals for future contracts;
- (c) making a finding that the Contractor is in default of the Contract;
- (d) terminating the Contract;
- (e) declaring the Contractor to be in breach of Contract;
- (f) withholding payment or reimbursement;
- (g) determining not to renew the Contract;
- (h) assessing actual and consequential damages;
- (i) assessing liquidated damages or reducing fees, provided that liquidated damages may be based on amounts representing costs of delays in carrying out the purposes of the M/WBE Program, or in meeting the purposes of the Contract, the costs of meeting utilization goals through additional procurements, the administrative costs of investigation and enforcement, or other factors set forth in the Contract;
- (j) exercising rights under the Contract to procure goods, services or construction from another contractor and charge the cost of such contract to the Contractor that has been found to be in noncompliance; or
- (k) taking any other appropriate remedy.

4. If an M/WBE Utilization Plan has been submitted, and pursuant to this Article II, Section 3, the Contractor has been found to have failed to fulfill its **Participation Goals** contained in its M/WBE Utilization Plan or the **Participation Goals** as modified by Agency pursuant to Article I, Part A, Section 11, Agency may assess liquidated damages in the amount of ten percent (10%) of the difference between the dollar amount of work required to be awarded to MBE and/or WBE firms to meet the **Participation Goals** and the dollar amount the Contractor actually awarded and paid, and/or credited, to MBE and/or WBE firms. In view of the difficulty of accurately ascertaining the loss which the City will suffer by reason of Contractor's failure to meet the **Participation Goals**, the foregoing amount is hereby fixed and agreed as the liquidated damages that the City will suffer by reason of such failure, and not as a penalty. Agency may deduct and retain out of any monies which may become due under this Contract the amount of any such liquidated damages; and in case the amount which may become due under this Contract shall be less than the amount of liquidated damages suffered by the City, the Contractor shall be liable to pay the difference.

5. Whenever Agency has reason to believe that an MBE and/or WBE is not qualified for certification, or is participating in a contract in a manner that does not serve a commercially useful function (as defined in Section 6-129(c)(8)), or has violated any provision of Section 6-129, Agency shall notify the Commissioner of DSBS who shall determine whether the certification of such business enterprise should be revoked.

6. Statements made in any instrument submitted to Agency pursuant to Section 6-129 shall be submitted under penalty of perjury and any false or misleading statement or omission shall be grounds for the application of any applicable criminal and/or civil penalties for perjury. The making of a false or fraudulent statement by an MBE and/or WBE in any instrument submitted pursuant to Section 6-129 shall, in addition, be grounds for revocation of its certification.

7. The Contractor's record in implementing its M/WBE Utilization Plan shall be a factor in the evaluation of its performance. Whenever Agency determines that a Contractor's compliance with an M/WBE Utilization Plan has been unsatisfactory, Agency shall, after consultation with the City Chief Procurement Officer, file an advice of caution form for inclusion in VENDEX as caution data.

Tax ID #: _____

APT E-
PIN #: 85014B0161

**SCHEDULE B – M/WBE Utilization Plan
Part I: M/WBE Participation Goals**

Part I to be completed by contracting agency

Contract Overview

APT E- Pin # 85014B0161 FMS Project ID#: MED-598B

Project Title/ Agency
PIN # INSTALLATION OF TRUNK WATER MAINS/8502014WM0003C

Bid/Proposal
Response Date SEPTEMBER 12, 2014

Contracting Agency Department of Design and Construction

Agency Address 30-30 Thomson Avenue City Long Island City State NY Zip Code 11101

Contact Person Diana A. Benjamin Title MWBE Liaison & Compliance Analyst

Telephone # (718) 391-3470 Email BenjamiDi@ddc.nyc.gov

Project Description (attach additional pages if necessary)

PROJECT ID: MED598B

**TRUNK WATER MAINS IN WEST 30TH STREET BETWEEN 10TH AVENUE AND 9TH AVENUE, ETC., TO
CONNECT SHAFT 26B TO THE DISTRIBUTION SYSTEM**

INCLUDING SEWER, WATER MAIN, STREET LIGHTING AND TRAFFIC WORK

Together With All Work Incidental Thereto

**BOROUGH OF MANHATTAN
CITY OF NEW YORK**

M/WBE Participation Goals for Services

Enter the percentage amount for each group or for an unspecified goal. Please note that there are no goals for Asian Americans in Professional Services.

Prime Contract Industry: Construction

Group	Percentage
Unspecified*	10%
or	
Black American	UNSPECIFIED*
Hispanic American	UNSPECIFIED*
Asian American	UNSPECIFIED*
Women	UNSPECIFIED*
Total Participation Goals	10% Line 1

**Note: For this procurement, individual ethnicity and gender goals are not specified. The Total Participation Goal for construction contracts may be met by using either Black-American, Hispanic-American, Asian American, or Women certified firms or any combination of such firms.*

Tax ID #: _____

APT E-
PIN #: 85014B0161

SCHEDULE B - Part II: M/WBE Participation Plan

Part II to be completed by the bidder/proposer.

Please note: For Non-M/WBE Prime Contractors who will NOT subcontract any services and will self-perform the entire contract, you must obtain a FULL waiver by completing the Waiver Application on pages 17 and 18 and timely submitting it to the contracting agency pursuant to the Notice to Prospective Contractors. Once a FULL WAIVER is granted, it must be included with your bid or proposal and you do not have to complete or submit this form with your bid or proposal.

Section I: Prime Contractor Contact Information

Tax ID # _____	FMS Vendor ID # _____
Business Name _____	Contact Person _____
Address _____	
Telephone # _____	Email _____

Section II: M/WBE Utilization Goal Calculation: Check the applicable box and complete subsection.

PRIME CONTRACTOR ADOPTING AGENCY M/WBE PARTICIPATION GOALS

<input type="checkbox"/> For Prime Contractors (including Qualified Joint Ventures and M/WBE firms) adopting Agency M/WBE Participation Goals. Calculate the total dollar value of your total bid that you agree will be awarded to M/WBE subcontractors for services and/or credited to an M/WBE prime contractor or Qualified Joint Venture. Please review the Notice to Prospective Contractors for more information on how to obtain credit for M/WBE participation.	Total Bid/Proposal Value		Agency Total Participation Goals (Line 1, Page 13)		Calculated M/WBE Participation Amount
	\$	X		=	\$ Line 2

PRIME CONTRACTOR OBTAINED PARTIAL WAIVER APPROVAL: ADOPTING MODIFIED M/WBE PARTICIPATION GOALS

<input type="checkbox"/> For Prime Contractors (including Qualified Joint Ventures and M/WBE firms) adopting Modified M/WBE Participation Goals. Calculate the total dollar value of your total bid that you agree will be awarded to M/WBE subcontractors for services and/or credited to an M/WBE prime contractor or Qualified Joint Venture. Please review the Notice to Prospective Contractors for more information on how to obtain credit for M/WBE participation.	Total Bid/Proposal Value		Adjusted Participation Goal (From Partial Waiver)		Calculated M/WBE Participation Amount
	\$	X		=	\$ Line 3

Tax ID #: _____

APT E-
PIN #: 85014B0161

Section III: M/WBE Utilization Plan: How Proposer/Bidder Will Fulfill M/WBE Participation Goals. Please review the Notice to Prospective Contractors for more information on how to obtain credit for M/WBE participation. Check applicable box. The Proposer or Bidder will fulfill the M/WBE Participation Goals:

As an M/WBE Prime Contractor that will self-perform and/or subcontract to other M/WBE firms a portion of the contract the value of which is at least the amount located on Lines 2 or 3 above, as applicable. The value of any work subcontracted to non-M/WBE firms will not be credited towards fulfillment of M/WBE Participation Goals. Please check all that apply to Prime Contractor:

MBE WBE

As a Qualified Joint Venture with an M/WBE partner, in which the value of the M/WBE partner's participation and/or the value of any work subcontracted to other M/WBE firms is at least the amount located on Lines 2 or 3 above, as applicable. The value of any work subcontracted to non M/WBE firms will not be credited towards fulfillment of M/WBE Participation Goals.

As a non M/WBE Prime Contractor that will enter into subcontracts with M/WBE firms the value of which is at least the amount located on Lines 2 or 3 above, as applicable.

Section IV: General Contract Information

What is the expected percentage of the total contract dollar value that you expect to award in subcontracts for services, regardless of M/WBE status? % _____

Enter brief description of the type(s) and dollar value of subcontracts for all/any services you plan on subcontracting if awarded this contract. For each item, indicate whether the work is designated for participation by MBEs and/or WBEs and the time frame in which such work is scheduled to begin and end. Use additional sheets if necessary.

✓ Scopes of Subcontract Work

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____
11. _____
12. _____
13. _____
14. _____
15. _____
16. _____
17. _____

Tax ID #: _____

APT E-
PIN #: _____ 85014B0161

Section V: Vendor Certification and Required Affirmations

I hereby:

- 1) acknowledge my understanding of the M/WBE participation requirements as set forth herein and the pertinent provisions of Section 6-129 of the Administrative Code of the City of New York ("Section 6-129"), and the rules promulgated thereunder;*
- 2) affirm that the information supplied in support of this M/WBE Utilization Plan is true and correct;*
- 3) agree, if awarded this Contract, to comply with the M/WBE participation requirements of this Contract, the pertinent provisions of Section 6-129, and the rules promulgated thereunder, all of which shall be deemed to be material terms of this Contract;*
- 4) agree and affirm that it is a material term of this Contract that the Vendor will award the total dollar value of the M/WBE Participation Goals to certified MBEs and/or WBEs, unless a full waiver is obtained or such goals are modified by the Agency; and*
- 5) agree and affirm, if awarded this Contract, to make all reasonable, good faith efforts to meet the M/WBE Participation Goals, or If a partial waiver is obtained or such goals are modified by the Agency, to meet the modified Participation Goals by soliciting and obtaining the participation of certified MBE and/or WBE firms.*

Signature _____	Date _____
Print Name _____	Title _____

SCHEDULE B – PART III – REQUEST FOR WAIVER OF M/WBE PARTICIPATION REQUIREMENT

Contract Overview

Tax ID # _____ FMS Vendor ID # _____

Business Name _____

Contact Name _____ Telephone # _____ Email _____

Type of Procurement Competitive Sealed Bids Other Bid/Response Due Date _____

APT E-PIN # (for this procurement): _____ Contracting Agency: _____

M/WBE Participation Goals as described in bid/solicitation documents

_____ % Agency M/WBE Participation Goal

Proposed M/WBE Participation Goal as anticipated by vendor seeking waiver

_____ % of the total contract value anticipated in good faith by the bidder/proposer to be subcontracted for services and/or credited to an M/WBE Prime Contractor or Qualified Joint Venture.

Basis for Waiver Request: Check appropriate box & explain in detail below (attach additional pages if needed)

- Vendor does not subcontract services, and has the capacity and good faith intention to perform all such work itself with its own employees.
- Vendor subcontracts some of this type of work but at a lower % than bid/solicitation describes, and has the capacity and good faith intention to do so on this contract. (Attach subcontracting plan outlining services that the vendor will self-perform and subcontract to other vendors or consultants.)
- Vendor has other legitimate business reasons for proposing the M/WBE Participation Goal above. Explain under separate cover.

References

List 3 most recent contracts performed for NYC agencies (if any). Include information for each subcontract awarded in performance of such contracts. Add more pages if necessary.

CONTRACT NO.	AGENCY	DATE COMPLETED
Total Contract Amount \$ _____	Total Amount Subcontracted \$ _____	
Item of Work Subcontracted and Value of subcontract _____	Item of Work Subcontracted and Value of subcontract _____	Item of Work Subcontracted and Value of subcontract _____
CONTRACT NO. _____	AGENCY _____	DATE COMPLETED _____
Total Contract Amount \$ _____	Total Amount Subcontracted \$ _____	
Item of Work Subcontracted and Value of subcontract _____	Item of Work Subcontracted and Value of subcontract _____	Item of Work Subcontracted and Value of subcontract _____
CONTRACT NO. _____	AGENCY _____	DATE COMPLETED _____
Total Contract Amount \$ _____	Total Amount Subcontracted \$ _____	
Item of Work Subcontracted and Value of subcontract _____	Item of Work Subcontracted and Value of subcontract _____	Item of Work Subcontracted and Value of subcontract _____

List 3 most recent contracts performed for other entities. Include information for each subcontract awarded in performance of such contracts. Add more pages if necessary.

(Complete ONLY if vendor has performed fewer than 3 New York City contracts.)

TYPE OF Contract	_____	ENTITY	_____	DATE COMPLETED	_____
Manager at entity that hired vendor (Name/Phone No./Email)					
Total Contract Amount	\$ _____	Total Amount Subcontracted	\$ _____		
Type of Work Subcontracted	_____	_____	_____		

TYPE OF Contract	_____	AGENCY/ENTITY	_____	DATE COMPLETED	_____
Manager at agency/entity that hired vendor (Name/Phone No./Email)					
Total Contract Amount	\$ _____	Total Amount Subcontracted	\$ _____		
Item of Work Subcontracted and Value of subcontract	_____	Item of Work Subcontracted and Value of subcontract	_____	Item of Work Subcontracted and Value of subcontract	_____

TYPE OF Contract	_____	AGENCY/ENTITY	_____	DATE COMPLETED	_____
Manager at entity that hired vendor (Name/Phone No./Email)					
Total Contract Amount	\$ _____	Total Amount Subcontracted	\$ _____		
Item of Work Subcontracted and Value of subcontract	_____	Item of Work Subcontracted and Value of subcontract	_____	Item of Work Subcontracted and Value of subcontract	_____

VENDOR CERTIFICATION: I hereby affirm that the information supplied in support of this waiver request is true and correct, and that this request is made in good faith.

Signature: _____ **Date:** _____

Print Name: _____ **Title:** _____

Shaded area below is for agency completion only

AGENCY/DEPT. CHIEF CONTRACT ADMINISTRATION APPROVAL

DATE: _____

CITY CHIEF PROCUREMENT OFFICER APPROVAL

DATE: _____

VENDOR APPROVAL

DATE: _____

FOR WORK ORDER APPROVAL

DATE: _____

FOR CONTRACT APPROVAL

DATE: _____

FOR CONTRACT APPROVAL

DATE: _____

APPRENTICESHIP PROGRAM REQUIREMENTS

Bidders are advised that the Apprenticeship Program Requirements set forth below apply to each contract for which a check mark is indicated before the word "Yes". Compliance with these requirements will be determined solely by the City.

YES NO

(1) Apprenticeship Program Requirements

Notice to Bidders: Please be advised that, pursuant to the authority granted to the City under Labor Law Section 816-b, the Department of Design and Construction hereby requires that the contractor awarded a contract as a result of this Invitation for Bids, and any of its subcontractors with subcontracts worth one million dollars or over, have, prior to entering into such contract or subcontract, apprenticeship agreements appropriate for the type and scope of work to be performed that have been registered with, and approved by, the New York State Commissioner of Labor. In addition, the contractor and its subcontractors will be required to show that such apprenticeship programs have three years of current, successful experience in providing career opportunities.

The failure to prove, upon request, that these requirements have been met shall result in the contract not being awarded to the contractor or the subcontract not being approved.

Please be further advised that, pursuant to Labor Law Section 220, the allowable ratio of apprentices to journeypersons in any craft classification shall not be greater than the ratio permitted to the contractor as to its workforce on any job under the registered apprenticeship program.

(2) Apprenticeship Program Questionnaire

The bidder must submit a completed and signed Apprenticeship Program Questionnaire. The Questionnaire is set forth on the following page of the Bid Booklet.

SAFETY QUESTIONNAIRE

The bidder must include, with its bid, all information requested on this Safety Questionnaire. Failure to provide a completed and signed Safety Questionnaire at the time of bid opening may result in disqualification of the bid as non-responsive.

1. Bidder Information:

Company Name: _____

DDC Project Number: _____

Company Size: _____ Ten (10) employees or less
 _____ Greater than ten (10) employees

Company has previously worked for DDC _____ YES _____ NO

2. Type(s) of Construction Work

TYPE OF WORK	LAST 3 YEARS	THIS PROJECT
General Building Construction	_____	_____
Residential Building Construction	_____	_____
Nonresidential Building Construction	_____	_____
Heavy Construction, except building	_____	_____
Highway and Street Construction	_____	_____
Heavy Construction, except highways	_____	_____
Plumbing, Heating, HVAC	_____	_____
Painting and Paper Hanging	_____	_____
Electrical Work	_____	_____
Masonry, Stonework and Plastering	_____	_____
Carpentry and Floor Work	_____	_____
Roofing, Siding, and Sheet Metal	_____	_____
Concrete Work	_____	_____
Specialty Trade Contracting	_____	_____
Asbestos Abatement	_____	_____
Other (specify)	_____	_____

3. Experience Modification Rate:

The Experience Modification Rate (EMR) is a rating generated by the National Council of Compensation Insurance (NCCI). This rating is used to determine the contractor's premium for worker's compensation insurance. The contractor may obtain its EMR by contacting its insurance broker or the NCCI. If the contractor cannot obtain its EMR, it must submit a written explanation as to why.

Project ID. _____

The Contractor must indicate its Intrastate and Interstate EMR for the past three years. [Note: For contractors with less than three years of experience, the EMR will be considered to be 1.00].

YEAR	<u>INTRASTATE RATE</u>	<u>INTERSTATE RATE</u>
_____	_____	_____
_____	_____	_____
_____	_____	_____

If the Intrastate and/or Interstate EMR for any of the past three years is greater than 1.00, the contractor must attach, to this questionnaire, a written explanation for the rating and identify what corrective action was taken to correct the situation resulting in that rating.

4. OSHA Information:

- YES NO Contractor has received a willful violation issued by OSHA or New York City Department of Buildings (NYCDOB) within the last three years.
- YES NO Contractor has had an incident requiring OSHA notification within 8 hours (i.e., fatality, or hospitalization of three or more employees).

The Occupational Safety and Health Act (OSHA) of 1970 requires employers with ten or more employees, on a yearly basis to complete and maintain on file the form entitled "Log of Work-related Injuries and Illnesses". This form is commonly referred to as the OSHA 300 Log (OSHA 200 Log for 2001 and earlier).

The OSHA 300 Log must be submitted for the last three years for contractors with more than ten employees.

The Contractor must indicate the total number of hours worked by its employees, as reflected in payroll records for the past three years.

The contractor must submit the Incident Rate for Lost Time Injuries (the Incident Rate) for the past three years. The Incident Rate is calculated in accordance with the formula set forth below. For each given year, the total number of incidents is the total number of non-fatal injuries and illnesses reported on the OSHA 300 Log. The 200,000 hours represents the equivalent of 100 employees working forty hours a week, fifty weeks per year.

Incident Rate =
$$\frac{\text{Total Number of Incidents} \times 200,000}{\text{Total Number of Hours Worked by Employees}}$$

YEAR	TOTAL NUMBERS OF HOURS WORKED BY EMPLOYEES	INCIDENT RATE
_____	_____	_____
_____	_____	_____
_____	_____	_____

If the contractor's Incident Rate for any of the past three years is one point higher than the Incident Rate for the type of construction it performs (listed below), the contractor must attach, to this questionnaire, a written explanation for the relatively high rate.

General Building Construction	8.5
Residential Building Construction	7.0
Nonresidential Building Construction	10.2
Heavy Construction, except building	8.7
Highway and Street Construction	9.7
Heavy Construction, except highways	8.3
Plumbing, Heating, HVAC	11.3
Painting and Paper Hanging	6.9
Electrical Work	9.5
Masonry, Stonework and Plastering	10.5
Carpentry and Floor Work	12.2
Roofing, Siding, and Sheet Metal	10.3
Concrete Work	8.6
Specialty Trade Contracting	8.6

5. Safety Performance on Previous DDC Project(s)

YES NO Contractor previously audited by the DDC Office of Site Safety.

DDC Project Number(s): _____, _____, _____

YES NO Accident on previous DDC Project(s).

DDC Project Number(s): _____, _____, _____

YES NO Fatality or Life-altering Injury on DDC Project(s) within the last three years.
[Examples of a life-altering injury include loss of limb, loss of a sense (e.g., sight, hearing), or loss of neurological function].

DDC Project Number(s): _____, _____, _____

Date: _____

By: _____
(Signature of Owner, Partner, Corporate Officer)

Title: _____

(NO TEXT ON THIS PAGE)

Pre-Award Process

The bidder is advised that as part of the pre-award review of its bid, it may be required to submit the information described in Sections (A) through (D) below. If required, such information must be submitted by the bidder within five (5) business days following receipt of notification from DDC that it is among the low bidders. Such notification from DDC will be by facsimile or in writing and will specify the types of information must be submitted. The types of information the bidder may be required to submit are described below. In the event the bidder fails to submit the required information within the specified time frame, its bid may be rejected as nonresponsive.

- (A) **Project Reference Form:** If required, the bidder must complete and submit the Project Reference Form set forth on pages 26 through 28 of this Bid Booklet. The Project Reference Form consists of 3 parts: (1) Similar Contracts Completed by the Bidder, (2) Contracts Currently Under Construction by the Bidder, and (3) Pending Contracts Not Yet Started by the Bidder.
- (B) **Copy of License:** If required, the bidder must submit a copy of the license under which the bidder will be performing the work. Such license must clearly show the following: (1) Name of the Licensee, (2) License Number, and (3) Expiration date of the License. A copy of the license will be required from bidders for the following contracts: Plumbing Work, Electrical Work and Asbestos Abatement.
- (C) **Financial Information:** If required, the bidder must submit the financial information described below:
- (1) **Audited Financial Statements:** Financial statements (Balance Sheet and Income Statement) of the entity submitting the bid, as audited by an independent auditor licensed to practice as a certified public accountant (CPA). Audited financial statements for the three most recent fiscal years must be submitted. Each such financial statement must include the auditor's standard report.

If the bidder does not have audited financial statements, it must submit an affidavit attesting to the fact that the bidder does not have such statements. In addition, the bidder must submit the following documentation covering the three most recent fiscal years: signed federal tax returns, unaudited financial statements, and a "certified review letter" from a certified public accountant (CPA) verifying the unaudited financial statements.

Unless the most recent audited or unaudited financial statement was issued within ninety (90) days, the bidder must submit interim financial information that includes data on financial position and results of operation (income data) for the current fiscal year. Such information may be summarized on a monthly or quarterly basis or at other intervals.

- (2) **Schedule of Aged Accounts Receivable, including portion due within ninety (90) days.**

(D) **Project Specific Information:** If required, the bidder must submit the project specific information described below:

- (1) Statement indicating the number of years of experience the bidder has had and in what type of construction.
- (2) Resumes of all key personnel to be involved in the project, including the proposed project superintendent.
- (3) List of significant pieces of equipment expected to be used for the contract, and whether such equipment is owned or leased.
- (4) Description of work expected to be subcontracted, and to what firms, if known.
- (5) List of key material suppliers.
- (6) Preliminary bar chart time schedule
- (7) Contractor's expected means of financing the project. This should be based on the assumption that the contractor is required to finance 2X average monthly billings throughout the contract period.
- (8) Any other issues the contractor sees as impacting his ability to complete the project according to the contract.

In addition to the information described in Sections (A) through (D) above, the bidder shall submit such additional information as the Commissioner may require, including without limitation, an explanation or justification for specific unit price items.

The bidder is further advised that it may be required to attend a pre-award meeting with DDC representatives. If such a meeting is convened, the bidder will be advised as to any additional material to be provided.

A. PROJECT REFERENCES – SIMILAR CONTRACTS COMPLETED BY THE BIDDER

List all contracts substantially completed within the last 4 years similar to the contract being awarded, up to a maximum of 10, in descending order of date of substantial completion.

Project & Location	Contract Type	Contract Amount (\$000)	Date Completed	Owner Reference & Tel. No.	Architect/Engineer Reference & Tel. No. if different from owner

B. PROJECT REFERENCES - CONTRACTS CURRENTLY UNDER CONSTRUCTION BY THE BIDDER

List all contracts currently under construction even if they are not similar to the contract being awarded.

Project & Location	Contract Type	Contract Amount (\$000)	Subcontracted to Others (\$000)	Uncompleted Portion (\$000)	Date Scheduled to Complete	Owner Reference & Tel. No.	Architect/Engineer Reference & Tel. No. if different from owner

C. PROJECT REFERENCES – PENDING CONTRACTS NOT YET STARTED BY THE BIDDER

List all contracts awarded to or won by the bidder but not yet started.

Project & Location	Contract Type	Contract Amount (\$000)	Date Scheduled to Start	Owner Reference & Tel. No.	Architect/Engineer Reference & Tel. No. if different from owner

(NO TEXT ON THIS PAGE)

**OFFICE OF THE MAYOR
BUREAU OF LABOR SERVICES
CONTRACT CERTIFICATE**

To be completed if the contract is less than \$1,000,000

Contractor: _____

Address: _____

Telephone Number: _____

Name and Title of Signatory: _____

Contracting Agency or Owner: _____

Project Number: _____

Proposed Contract Amount: _____

Description and Address of Proposed Contract: _____

Names of Subcontractors in the amount of 750,000 or more on this contract (if not known at this time, so state indicating that trades will be subcontracted):

I, (fill in name of person signing) _____,
hereby affirm that I am authorized by the above-named contractor to certify that said contractor's proposed contract with the above-named owner or city agency is less than \$1,000,000. This affirmation is made in accordance with Executive Order No. 50 (1980) as amended and its implementing regulations.

Date

Signature

WILLFUL OR FRAUDULENT FALSIFICATION OF ANY DATA OR INFORMATION SUBMITTED HEREWITH MAY RESULT IN THE TERMINATION OF ANY CONTRACT BETWEEN THE CITY AND THE BIDDER OR CONTRACTOR AND BAR THE BIDDER OR CONTRACTOR FROM PARTICIPATION IN ANY CITY CONTRACT FOR A PERIOD OF UP TO THREE YEARS. FURTHER, SUCH FALSIFICATION MAY RESULT IN CRIMINAL PROSECUTION.

(NO TEXT ON THIS PAGE)

VENDEX COMPLIANCE

(A) **Vendex Fees:** Pursuant to Procurement Policy Board Rule 2-08(f)(2), the contractor will be charged a fee for the administration of the VENDEX system, including the Vendor Name Check process, if a Vendor Name Check review is required to be conducted by the Department of Investigation. The contractor shall also be required to pay the applicable required fees for any of its subcontractors for which Vendor Name Check reviews are required. The fee(s) will be deducted from payments made to the contractor under the contract. For contracts with an estimated value of less than or equal to \$1,000,000, the fee will be \$175 per Vendor Name Check review. For contracts with an estimated value of greater than \$1,000,000, the fee will be \$350 per Vendor Name Check review.

(B) **Confirmation of Vendex Compliance:** The Bidder shall submit this Confirmation of Vendex Compliance to the Department of Design and Construction, Contracts Section, 30-30 Thomson Avenue – First Floor, Long Island City, NY 11101.

Bid Information: The Bidder shall complete the bid information set forth below.

Name of Bidder: _____
Bidder's Address: _____
Bidder's Telephone Number: _____
Bidder's Fax Number: _____
Date of Bid Opening: _____
Project ID: _____

Vendex Compliance: To demonstrate compliance with Vendex requirements, the Bidder shall complete either Section (1) or Section (2) below, whichever applies.

- (1) **Submission of Vendex Questionnaires to MOCS:** By signing in the space provided below, the Bidder certifies that as of the date specified below, the Bidder has submitted Vendex Questionnaires to the Mayor's Office of Contract Services, Attn: VENDEX, 253 Broadway, 9th Floor, New York, New York 10007.

Date of Submission: _____

By: _____
(Signature of Partner or corporate officer)

Print Name: _____

- (2) **Submission of Certification of No Change to DDC:** By signing in the space provided below, the Bidder certifies that it has read the instructions in a "Vendor's Guide to Vendex" and that such instructions do not require the Bidder to submit Vendex Questionnaires. The Bidder has completed **TWO ORIGINALS** of the Certification of No Change set forth on the next page of this Bid Booklet.

By: _____
(Signature of Partner or corporate officer)

Print Name: _____

(NO TEXT ON THIS PAGE)

Certificate of No Change Form



- Please submit two completed forms. Copies will not be accepted.
- Please send both copies to the agency that requested it, unless you are advised to send it directly to the Mayor's Office of Contract Services (MOCS).
- A materially false statement willfully or fraudulently made in connection with this certification, and/or the failure to conduct appropriate due diligence in verifying the information that is the subject of this certification, may result in rendering the submitting entity non-responsible for the purpose of contract award.
- A materially false statement willfully or fraudulently made in connection with this certification may subject the person making the false statement to criminal charges.

I, _____, being duly sworn, state that I have read
Enter Your Name

and understand all the items contained in the vendor questionnaire and any submission of change as identified on page one of this form and certify that as of this date, these items have not changed. I further certify that, to the best of my knowledge, information and belief, those answers are full, complete, and accurate; and that, to the best of my knowledge, information, and belief, those answers continue to be full, complete, and accurate.

In addition, I further certify on behalf of the submitting vendor that the information contained in the principal questionnaire(s) and any submission of change identified on page two of this form have not changed and have been verified and continue, to the best of my knowledge, to be full, complete and accurate.

I understand that the City of New York will rely on the information supplied in this certification as additional inducement to enter into a contract with the submitting entity.

Vendor Questionnaire *This section is required.*

This refers to the vendor questionnaire(s) submitted for the vendor doing business with the City.

Name of Submitting Entity: _____

Vendor's Address: _____

Vendor's EIN or TIN: _____ Requesting Agency: _____

Are you submitting this Certification as a parent? (Please circle one) Yes No

Signature date on the last full vendor questionnaire signed for the submitting vendor: _____

Signature date on change submission for the submitting vendor: _____

Principal Questionnaire

This section refers to the most recent principal questionnaire submissions.



Principal Name	Date of signature on last full Principal Questionnaire	Date(s) of signature on submission of change
1		
2		
3		
4		
5		
6		

Check if additional changes were submitted and attach a document with the date of additional submissions.

Certification *This section is required.*

This form must be signed and notarized. Please complete this twice. Copies will not be accepted.

Certified By:

Name (Print)

Title

Name of Submitting Entity

Signature

Date

Notarized By:

Notary Public

County License Issued

License Number

Sworn to before me on: _____
Date

Certificate of No Change Form



- Please submit two completed forms. Copies will not be accepted.
- Please send both copies to the agency that requested it, unless you are advised to send it directly to the Mayor's Office of Contract Services (MOCS).
- A materially false statement willfully or fraudulently made in connection with this certification, and/or the failure to conduct appropriate due diligence in verifying the information that is the subject of this certification, may result in rendering the submitting entity non-responsible for the purpose of contract award.
- A materially false statement willfully or fraudulently made in connection with this certification may subject the person making the false statement to criminal charges.

I, _____, being duly sworn, state that I have read
Enter Your Name

and understand all the items contained in the vendor questionnaire and any submission of change as identified on page one of this form and certify that as of this date, these items have not changed. I further certify that, to the best of my knowledge, information and belief, those answers are full, complete, and accurate; and that, to the best of my knowledge, information, and belief, those answers continue to be full, complete, and accurate.

In addition, I further certify on behalf of the submitting vendor that the information contained in the principal questionnaire(s) and any submission of change identified on page two of this form have not changed and have been verified and continue, to the best of my knowledge, to be full, complete and accurate.

I understand that the City of New York will rely on the information supplied in this certification as additional inducement to enter into a contract with the submitting entity.

Vendor Questionnaire *This section is required.*

This refers to the vendor questionnaire(s) submitted for the vendor doing business with the City.

Name of Submitting Entity: _____

Vendor's Address: _____

Vendor's EIN or TIN: _____ Requesting Agency: _____

Are you submitting this Certification as a parent? (Please circle one) Yes No

Signature date on the last full vendor questionnaire signed for the submitting vendor: _____

Signature date on change submission for the submitting vendor: _____

Principal Questionnaire

This section refers to the most recent principal questionnaire submissions.



Principal Name	Date of signature on last full Principal Questionnaire	Date(s) of signature on submission of change
1		
2		
3		
4		
5		
6		

Check if additional changes were submitted and attach a document with the date of additional submissions.

Certification *This section is required.*

This form must be signed and notarized. Please complete this twice. Copies will not be accepted.

Certified By:

Name (Print)

Title

Name of Submitting Entity

Signature

Date

Notarized By:

Notary Public

County License Issued

License Number

Sworn to before me on: _____
Date

IRAN DIVESTMENT ACT COMPLIANCE RIDER

FOR NEW YORK CITY CONTRACTORS

The Iran Divestment Act of 2012, effective as of April 12, 2012, is codified at State Finance Law ("SFL") §165-a and General Municipal Law ("GML") §103-g. The Iran Divestment Act, with certain exceptions, prohibits municipalities, including the City, from entering into contracts with persons engaged in investment activities in the energy sector of Iran. Pursuant to the terms set forth in SFL §165-a and GML §103-g, a person engages in investment activities in the energy sector of Iran if:

- (a) The person provides goods or services of twenty million dollars or more in the energy sector of Iran, including a person that provides oil or liquefied natural gas tankers, or products used to construct or maintain pipelines used to transport oil or liquefied natural gas, for the energy sector of Iran; or
- (b) The person is a financial institution that extends twenty million dollars or more in credit to another person, for forty-five days or more, if that person will use the credit to provide goods or services in the energy sector in Iran and is identified on a list created pursuant to paragraph (b) of subdivision three of Section 165-a of the State Finance Law and maintained by the Commissioner of the Office of General Services.

A bid or proposal shall not be considered for award nor shall any award be made where the bidder or proposer fails to submit a signed and verified bidder's certification.

Each bidder or proposer must certify that it is not on the list of entities engaged in investment activities in Iran created pursuant to paragraph (b) of subdivision 3 of Section 165-a of the State Finance Law. In any case where the bidder or proposer cannot certify that they are not on such list, the bidder or proposer shall so state and shall furnish with the bid or proposal a signed statement which sets forth in detail the reasons why such statement cannot be made. The City of New York may award a bid to a bidder who cannot make the certification on a case by case basis if:

- (1) The investment activities in Iran were made before the effective date of this section (i.e., April 12, 2012), the investment activities in Iran have not been expanded or renewed after the effective date of this section and the person has adopted, publicized and is implementing a formal plan to cease the investment activities in Iran and to refrain from engaging in any new investments in Iran; or
- (2) The City makes a determination that the goods or services are necessary for the City to perform its functions and that, absent such an exemption, the City would be unable to obtain the goods or services for which the contract is offered. Such determination shall be made in writing and shall be a public document.

**BIDDER'S CERTIFICATION OF COMPLIANCE WITH
IRAN DIVESTMENT ACT**

Pursuant to General Municipal Law §103-g, which generally prohibits the City from entering into contracts with persons engaged in investment activities in the energy sector of Iran, the bidder/proposer submits the following certification:

[Please Check One]

BIDDER'S CERTIFICATION

- By submission of this bid or proposal, each bidder/proposer and each person signing on behalf of any bidder/proposer certifies, and in the case of a joint bid each party thereto certifies as to its own organization, under penalty of perjury, that to the best of its knowledge and belief, that each bidder/proposer is not on the list created pursuant to paragraph (b) of subdivision 3 of Section 165-a of the State Finance Law.

- I am unable to certify that my name and the name of the bidder/proposer does not appear on the list created pursuant to paragraph (b) of subdivision 3 of Section 165-a of the State Finance Law. I have attached a signed statement setting forth in detail why I cannot so certify.

Dated: _____, New York
_____, 20__

SIGNATURE

PRINTED NAME

TITLE

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

Notary Public

Dated:

**THE CITY OF NEW YORK
DEPARTMENT OF SMALL BUSINESS SERVICES
DIVISION OF LABOR SERVICES
CONTRACT COMPLIANCE UNIT
110 WILLIAMS STREET
NEW YORK, NEW YORK 10038
PHONE: (212) 513-6323
FAX: (212) 618-8879**

CONSTRUCTION

EMPLOYMENT

REPORT

(NO TEXT ON THIS PAGE)

The City of New York
 Department of Small Business Services
 Division of Labor Services
 Contract Compliance Unit
 110 William Street
 New York, New York 10038
 Phone: (212) 513 - 6323
 Fax: (212) 618-8879

**CONSTRUCTION EMPLOYMENT REPORT
 INSTRUCTIONS**

WHO MUST FILE A CONSTRUCTION EMPLOYMENT REPORT

A Construction Employment Report (ER) must be filed if you meet the following conditions:

CONTRACT FUNDING SOURCE	CONTRACTOR	CONTRACT VALUE	SUBMISSION REQUIREMENT
Federal/Federally assisted	Prime and subcontractors	\$10,000 or greater	Construction Employment Report
City and state funded	Prime contractor	\$1,000,000 or greater	
	Subcontractor	\$750,000 or greater	
		Less than \$750,000	Less than \$750,000 Certificate (City/State Only)

Prime Contractor:

- A general contractor or construction manager selected to perform work on a construction project funded (in whole or in part) by the federal government with a proposed contract value of \$10,000 or more.
- A general contractor or construction manager selected to perform work on a construction project funded or assisted by the City of New York with a proposed contract value of \$1,000,000 or more.

Subcontractor:

- A subcontractor selected to perform work on a construction project funded (in whole or in part) by the federal government with a proposed contract value of \$10,000 or more.
- A subcontractor selected to perform work on a construction project funded or assisted by the City of New York with a proposed contract value of \$750,000 or more.
- A subcontractor selected to perform work on a construction project funded or assisted by the City of New York with a proposed contract value of less than \$750,000 must submit a "Less than \$750,000" certificate.

WHERE TO FILE

Employment Reports must be filed with the City agency awarding the contract. If you are a contractor or subcontractor who will be working for a private developer in receipt of funding or assistance from the City, the ER must be filed with the City agency with jurisdiction over the developer's project.

DLS REVIEW PROCESS

In accordance with Executive Order 50 (EO 50), upon receipt by DLS of a completed ER, DLS conducts a review of the contractor's current employment policies, practices and procedures, as well as perform a statistical analysis of the contractor's workforce, if necessary. The process is as follows:

1. Within five (5) business days, DLS will review the ER for completeness and accuracy. If any information is omitted or incorrect, or if necessary documents are not submitted, the submission shall be deemed incomplete and DLS will inform the contractor. The substantive compliance review does not commence until the submission is complete. An incomplete submission will delay the review process and may preclude or interrupt the contract approval.
2. If the ER submission is complete, the compliance review will proceed, resulting in one of the following:

Certificate of Approval

The contractor is found to be in compliance with all applicable laws and regulations. The approval is valid for 36 months.

Continued Approval Certificate

The contractor has been issued a Certificate of Approval in the previous 36 months which is good for the applicable contract.

Conditional Certificate of Compliance

The contractor is required to take corrective actions in order to be in compliance with EO 50. The contractor must meet the conditions within one month of the issue of the Conditional Certificate.

Determination of Nonperformance

The contractor has failed to take the required corrective actions stipulated in the Conditional Certificate. A determination of nonperformance may prevent a contractor from receiving an award of a contract.

HOW TO COMPLETE THE EMPLOYMENT REPORT

Contents

General Information

Part I: Contractor/Subcontractor Information

Part II: Employment Policies and Practices

Part III: Contract Bid Information and Projected and Current Workforce Forms

Signature Page

PART I: CONTRACTOR/SUBCONTRACTOR INFORMATION

- Questions 7 – 11: Please provide the required contact information for your company. All contracts must have a designated Equal Employment Officer.
- Question 12: If you are a subcontractor, you must state the name of the contractor for whom you are providing the construction services.
- Question 13: Please provide the number of permanent employees in your company.
- Question 14a-g: The Project Identification Number (PIN) and the Contract Registration ID Number (CT#) can be obtained from the City agency. Provide a description of the trade work you will perform on this project and the address where the work will be performed. Subcontractors can obtain this information from the contract they have with the prime contractor.
- Questions 15 – 18: If your company has received a valid Certificate of Approval within the past 36 months, been audited by the United States Department of Labor, Office of Federal Contract Compliance Programs (OFCCP), or if your company has submitted an ER for a different contract for which you have not yet received a compliance certificate, then you only need to complete and submit the following:
- General Information section
 - Part I - Contractor/Subcontractor Information
 - Form B - Projected Workforce
 - Signature Page

If your company is currently waiting for an approval on another contract previously submitted, be certain to identify the date on which you submitted the completed Employment Report, the name of the City contracting agency with which the contract was made, and the name and telephone number of the person to whom the Employment Report was submitted.

If your company was issued a Conditional Certificate of Approval, all required corrective actions must have been taken or DLS will not issue a Continued Certificate.

- Question 18: If the company was audited by the OFCCP, also provide the following:
- Identify the reviewing OFCCP office by its name and address
 - If an unconditional certificate of compliance was issued by the OFCCP, attach a copy of the certificate in lieu of completing Parts II and III;
 - Include copies of all corrective actions and documentation of OFCCP's performance; and
 - Provide a copy of all stated OFCCP findings.

- Question 19: Please provide a copy of any Collective Bargaining Agreement(s) which is negotiated through an employer trade association on behalf of your organization or any of its affiliates.

PART II: EMPLOYMENT POLICIES AND PRACTICES

Remember to label all documents with the question number for which they are submitted.

Questions 20a – j: You must respond to the questions as to whether or not your firm has documents reflecting written policies, benefits and procedures. If so, then you must identify by name each document in which the policy(ies), procedure(s) and benefit(s) is located and submit copies of all of the document(s). If your firm follows unwritten practices or procedures, include an explanation of how they operate. Please submit the most current document(s), including all applicable amendments. Label each document and/or unwritten practice according to the question to which it corresponds (e.g. 20a, 20b, etc.)

Questions 21a – h: Inquires about the manner/methods by which you comply with the requirements of the Immigration Reform and Control Act of 1986 (IRCA).

Question 22: Inquires into where and how I-9 forms are maintained and stored.

Questions 23a – e: Inquires into whether or not there is a requirement that an applicant or employee be subjected to a medical examination at any given time. Copies of the medical information questionnaire and instructions must be submitted with the Employment Report.

Question 24: Indicate the existence and location of all statements of your firm's Equal Employment Opportunity policy and attach a copy of each statement.

Question 25: Submit any current Affirmative Action Plan(s) created pursuant to Executive Order 11246.

Question 26: If your firm or collective bargaining agreement has an internal grievance procedure, indicate this and submit a copy of the policy and procedure. If unwritten, explain its nature and operation. Explain how your firm's procedure addresses EEO complaints.

Question 27: If your employees have used the procedure in the last three (3) years, please submit an explanation in the format indicated below:

1. Number of complaint(s)	2. Nature of the complaint(s)	3. Position(s) of the complainant(s)	4. Was an investigation conducted? Y/N	5. Current status of the disposition
---------------------------	-------------------------------	--------------------------------------	---	--------------------------------------

Question 28: Indicate whether in the past three (3) years complaints have been filed with a court of law or administrative agency, naming your company as a defendant (or respondent) in a complaint alleging violation of any anti-discrimination or affirmative action laws. If yes, develop and submit a log to show, for each administrative/and or judicial action filed, the following information:

1. Name(s) of complainant(s)	2. Administrative agency or court in which action was filed	3. Nature of the complaint(s)	4. Current status	5. If not pending, the complaint's disposition
------------------------------	---	-------------------------------	-------------------	--

Question 29: Identify each job for which a physical qualification exists. Identify and explain the physical qualification(s) for each stated job. Submit job descriptions for each job and the reasons for the qualifications.

Question 30: Identify each job for which there exists any qualification related to age, race, color, national origin, sex, creed, disability, marital status, sexual orientation or citizenship status. Identify and explain the specific related qualification for each job stated. Submit job descriptions for each job and the reasons for the qualifications.

PART III: CONTRACT BID INFORMATION AND PROJECTED AND CURRENT WORKFORCE FORMS

FORM A: CONTRACT BID INFORMATION – USE OF SUBCONTRACTORS/TRADES

Your projections for the utilization of subcontractors on the proposed contract are to be provided in this section. A chart has been provided for the identification of subcontractors. Information is to be provided to the extent known at the time the ER is filed for review by DLS. If the subcontractor's name is unknown, then write "unknown". Under "ownership", enter the appropriate race/ethnic and gender code. If the contract is federally funded or assisted and the subcontractor is being utilized in accordance with applicable federal requirements with respect to Minority Business Enterprise or Woman Business Enterprise requirements, enter the appropriate code. This will also apply to state funded contracts with similar requirements for minority and female owned businesses.

FORM B: PROJECTED WORKFORCE FOR WORK TO BE PERFORMED ON THIS PROJECT

For each trade to be engaged by your company for this project, enter the projected workforce for Males and Females by trade classification in the charts provided.

FORM C: CURRENT WORKFORCE FOR WORK TO BE PERFORMED ON THIS PROJECT

For each trade *currently* engaged by your company for all work performed in NYC, enter the current workforce for Males and Females by trade classification in the charts provided.

SIGNATURE PAGE

The signatory of this Employment Report and all other documents submitted to DLS must be an official authorized to enter into a binding legal agreement. The signature page must be completed in its entirety and notarized. Only original signatures will be accepted.

The City of New York Department of Small Business Services
Division of Labor Services Contract Compliance Unit
110 William Street, New York, New York 10038
Phone: (212) 513 - 6323
Fax: (212) 618-8879

CONSTRUCTION EMPLOYMENT REPORT

GENERAL INFORMATION

1. Your contractual relationship in this contract is: Prime contractor Subcontractor
- 1a. Are M/WBE goals attached to this project? Yes No
2. Please check one of the following if your firm would like information on how to certify with the City of New York as a:
- Minority Owned Business Enterprise Locally Based Business Enterprise
 Women Owned Business Enterprise Emerging Business Enterprise
 Disadvantaged Business Enterprise
- 2a. If you are certified as an **MBE, WBE, LBE, EBE** or **DBE**, what city/state agency are you certified with? _____ Are you DBE certified? Yes No
3. Please indicate if you would like assistance from SBS in identifying certified M/WBEs for contracting opportunities: Yes No
4. Is this project subject to a project labor agreement? Yes No
5. Are you a Union contractor? Yes No If yes, please list which local(s) you affiliated with _____
6. Are you a Veteran owned company? Yes No

PART I: CONTRACTOR/SUBCONTRACTOR INFORMATION

7. _____
Employer Identification Number or Federal Tax I.D. Email Address
8. _____
Company Name
9. _____
Company Address and Zip Code
10. _____
Chief Operating Officer Telephone Number
11. _____
Designated Equal Opportunity Compliance Officer Telephone Number
(If same as Item #10, write "same")
12. _____
Name of Prime Contractor and Contact Person
(If same as Item #8, write "same")

13. Number of employees in your company: _____

14. Contract information:

(a) _____ (b) _____
Contracting Agency (City Agency) Contract Amount

(c) _____ (d) _____
Procurement Identification Number (PIN) Contract Registration Number (CT#)

(e) _____ (f) _____
Projected Commencement Date Projected Completion Date

(g) Description and location of proposed contract:

15. Has your firm been reviewed by the Division of Labor Services (DLS) within the past 36 months and issued a Certificate of Approval? Yes ___ No ___

If yes, attach a copy of certificate.

16. Has DLS within the past month reviewed an Employment Report submission for your company and issued a Conditional Certificate of Approval? Yes ___ No ___

If yes, attach a copy of certificate.

NOTE: DLS WILL NOT ISSUE A CONTINUED CERTIFICATE OF APPROVAL IN CONNECTION WITH THIS CONTRACT UNLESS THE REQUIRED CORRECTIVE ACTIONS IN PRIOR CONDITIONAL CERTIFICATES OF APPROVAL HAVE BEEN TAKEN.

17. Has an Employment Report already been submitted for a different contract (not covered by this Employment Report) for which you have not yet received compliance certificate?

Yes ___ No ___ If yes,

Date submitted: _____

Agency to which submitted: _____

Name of Agency Person: _____

Contract No: _____

Telephone: _____

18. Has your company in the past 36 months been audited by the United States Department of Labor, Office of Federal Contract Compliance Programs (OFCCP)? Yes ___ No ___

If yes,

(a) Name and address of OFCCP office.

(b) Was a Certificate of Equal Employment Compliance issued within the past 36 months?
Yes___ No___

If yes, attach a copy of such certificate.

(c) Were any corrective actions required or agreed to? Yes___ No___

If yes, attach a copy of such requirements or agreements.

(d) Were any deficiencies found? Yes___ No___

If yes, attach a copy of such findings.

19. Is your company or its affiliates a member or members of an employers' trade association which is responsible for negotiating collective bargaining agreements (CBA) which affect construction site hiring? Yes___ No___

If yes, attach a list of such associations and all applicable CBA's.

PART II: DOCUMENTS REQUIRED

20. For the following policies or practices, attach the relevant documents (e.g., printed booklets, brochures, manuals, memoranda, etc.). If the policy(ies) are unwritten, attach a full explanation of the practices. See instructions.

- ___ (a) Health benefit coverage/description(s) for all management, nonunion and union employees (whether company or union administered)
- ___ (b) Disability, life, other insurance coverage/description
- ___ (c) Employee Policy/Handbook
- ___ (d) Personnel Policy/Manual
- ___ (e) Supervisor's Policy/Manual
- ___ (f) Pension plan or 401k coverage/description for all management, nonunion and union employees, whether company or union administered
- ___ (g) Collective bargaining agreement(s).
- ___ (h) Employment Application(s)
- ___ (i) Employee evaluation policy/form(s).
- ___ (j) Does your firm have medical and/or non-medical (i.e. education, military, personal, pregnancy, child care) leave policy?

21. To comply with the Immigration Reform and Control Act of 1986 when and of whom does your firm require the completion of an I-9 Form?

- (a) Prior to job offer Yes ___ No ___
- (b) After a conditional job offer Yes ___ No ___
- (c) After a job offer Yes ___ No ___
- (d) Within the first three days on the job Yes ___ No ___
- (e) To some applicants Yes ___ No ___
- (f) To all applicants Yes ___ No ___
- (g) To some employees Yes ___ No ___
- (h) To all employees Yes ___ No ___

22. Explain where and how completed I-9 Forms, with their supportive documentation, are maintained and made accessible.

23. Does your firm or any of its collective bargaining agreements require job applicants to take a medical examination? Yes ___ No ___

If yes, is the medical examination given:

- (a) Prior to a job offer Yes ___ No ___
- (b) After a conditional job offer Yes ___ No ___
- (c) After a job offer Yes ___ No ___
- (d) To all applicants Yes ___ No ___
- (e) Only to some applicants Yes ___ No ___

If yes, list for which applicants below and attach copies of all medical examination or questionnaire forms and instructions utilized for these examinations.

24. Do you have a written equal employment opportunity (EEO) policy? Yes ___ No ___

If yes, list the document(s) and page number(s) where these written policies are located.

25. Does the company have a current affirmative action plan(s) (AAP)

- ___ Minorities and Women
- ___ Individuals with handicaps
- ___ Other. Please specify _____

26. Does your firm or collective bargaining agreement(s) have an internal grievance procedure with respect to EEO complaints? Yes ___ No ___

If yes, please attach a copy of this policy.

If no, attach a report detailing your firm's unwritten procedure for handling EEO complaints.

27. Has any employee, within the past three years, filed a complaint pursuant to an internal grievance procedure or with any official of your firm with respect to equal employment opportunity? Yes___ No___

If yes, attach an internal complaint log. See instructions.

28. Has your firm, within the past three years, been named as a defendant (or respondent) in any administrative or judicial action where the complainant (plaintiff) alleged violation of any anti-discrimination or affirmative action laws? Yes___ No___

If yes, attach a log. See instructions.

29. Are there any jobs for which there are physical qualifications? Yes___ No___

If yes, list the job(s), submit a job description and state the reason(s) for the qualification(s).

30. Are there any jobs for which there are age, race, color, national origin, sex, creed, disability, marital status, sexual orientation, or citizenship qualifications? Yes___ No___

If yes, list the job(s), submit a job description and state the reason(s) for the qualification(s).

SIGNATURE PAGE

I, (print name of authorized official signing) _____ hereby certify that the information submitted herewith is true and complete to the best of my knowledge and belief and submitted with the understanding that compliance with New York City's equal employment requirements, as contained in Chapter 56 of the City Charter, Executive Order No. 50 (1980), as amended, and the implementing Rules and Regulations, is a contractual obligation. I also agree on behalf of the company to submit a certified copy of payroll records to the Division of Labor Services on a monthly basis.

Contractor's Name

Name of person who prepared this Employment Report Title

Name of official authorized to sign on behalf of the contractor Title

Telephone Number

Signature of authorized official Date

If contractors are found to be underutilizing minorities and females in any given trade based on Chapter 56 Section 3H, the Division of Labor Services reserves the right to request the contractor's workforce data and to implement an employment program.

Contractors who fail to comply with the above mentioned requirements or are found to be in noncompliance may be subject to the withholding of final payment.

Willful or fraudulent falsifications of any data or information submitted herewith may result in the termination of the contract between the City and the bidder or contractor and in disapproval of future contracts for a period of up to five years. Further, such falsification may result in civil and/or criminal prosecution.

To the extent permitted by law and consistent with the proper discharge of DLS' responsibilities under Charter Chapter 56 of the City Charter and Executive Order No. 50 (1980) and the implementing Rules and Regulations, all information provided by a contractor to DLS shall be confidential.

Only original signatures accepted.

Sworn to before me this _____ day of _____ 20 _____

Notary Public Authorized Signature Date

FORM CONTRACT BID INFORMATION: USE OF SUBCONTRACTORS/TRADES

1. Do you plan to subcontract work on this contract? Yes ___ No ___
2. If yes, complete the chart below.

NOTE: All proposed subcontractors with a subcontract in excess of \$750,000 must complete an Employment Report for review and approval before the contract may be awarded and work commences.

SUBCONTRACTOR'S NAME*	OWNERSHIP (ENTER APPROPRIATE CODE LETTERS BELOW)	WORK TO BE PERFORMED BY SUBCONTRACTOR	TRADE PROJECTED FOR USE BY SUBCONTRACTOR	PROJECTED DOLLAR VALUE OF SUBCONTRACT

***If subcontractor is presently unknown, please enter the trade (craft name).**

OWNERSHIP CODES

- W: White
- B: Black
- H: Hispanic
- A: Asian
- N: Native American
- F: Female

FORM B: PROJECTED WORKFORCE

TRADE CLASSIFICATION CODES

- (J) Journeylevel Workers
- (H) Helper
- (A) Apprentice
- (TRN) Trainee
- (TOT) Total by Column

For each trade to be engaged by your company for this project, enter the projected workforce for Males and Females by trade classification on the charts below.

Trade:	MALES						FEMALES															
	(1)		(2)		(3)		(4)		(5)		(6)		(7)		(8)		(9)		(10)			
	White Non Hisp.	Black Non Hisp.	White Non Hisp.	Black Non Hisp.	White Non Hisp.	Black Non Hisp.	White Non Hisp.	Black Non Hisp.	White Non Hisp.	Black Non Hisp.	White Non Hisp.	Black Non Hisp.	White Non Hisp.	Black Non Hisp.	White Non Hisp.	Black Non Hisp.	White Non Hisp.	Black Non Hisp.	White Non Hisp.	Black Non Hisp.	Native Amer.	
J																						
H																						
A																						
TRN																						
TOT																						

Total (Col. #1-10): _____

Total Minority, Male & Female
(Col. #2,3,4,5,7,8,9, & 10): _____

Total Female
(Col. #6 - 10): _____

What are the recruitment sources for you projected hires (i.e., unions, government employment office, job tap center, community outreach)?

FORM PROJECTED WORKFORCE

Trade: _____

Union Affiliation, if applicable _____

Total (Col. #1-10): _____

Total Minority, Male & Female
(Col. #2,3,4,5,7,8,9, & 10): _____

Total Female
(Col. #6 - 10): _____

MALES

	(1)		(2)		(3)		(4)		(5)	
	White Non Hisp.	Black Non Hisp.	White Non Hisp.	Black Non Hisp.	Hisp.	Asian	Hisp.	Asian	Native Amer.	Native Amer.
J										
H										
A										
TRN										
TOT										

FEMALES

	(6)		(7)		(8)		(9)		(10)	
	White Non Hisp.	Black Non Hisp.	White Non Hisp.	Black Non Hisp.	Hisp.	Asian	Hisp.	Asian	Native Amer.	Native Amer.
J										
H										
A										
TRN										
TOT										

What are the recruitment sources for you projected hires (i.e., unions, government employment office, job tap center, community outreach)?

FORM C: CURRENT WORKFORCE

TRADE CLASSIFICATION CODES

- (J) Journeylevel Workers
- (H) Helper
- (TOT) Total by Column
- (A) Apprentice
- (TRN) Trainee

For each trade currently engaged by your company for all work performed in New York City, enter the current workforce for Males and Females by trade classification on the charts below.

Trade:	MALES						FEMALES			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	White Non Hisp.	Black Non Hisp.	Hisp.	Asian	Native Amer.	White Non Hisp.	Black Non Hisp.	Hisp.	Asian	Native Amer.
J										
H										
A										
TRN										
TOT										

Total (Col. #1-10):

Total Minority, Male & Female
(Col. #2,3,4,5,7,8,9, & 10):

Total Female
(Col. #6 - 10):

What are the recruitment sources for you projected hires (i.e., unions, government employment office, job tap center, community outreach)?

FORM C. CURRENT WORKFORCE

MALES

FEMALES

Trade: _____

Union Affiliation, if applicable _____

Total (Col. #1-10): _____

Total Minority, Male & Female
(Col. #2,3,4,5,7,8,9, & 10): _____

Total Female
(Col. #6 - 10): _____

	MALES			FEMALES						
	(1) White Non Hisp.	(2) Black Non Hisp.	(3) Hisp.	(4) Asian	(5) Native Amer.	(6) White Non Hisp.	(7) Black Non Hisp.	(8) Hisp.	(9) Asian	(10) Native Amer.
J										
H										
A										
TRN										
TOT										

What are the recruitment sources for you projected hires (i.e., unions, government employment office, job tap center, community outreach)?

(NO TEXT ON THIS PAGE)

13. Number of employees in your company: _____

14. Contract information:

(a) _____ (b) _____
Contracting Agency (City Agency) Contract Amount

(c) _____ (d) _____
Procurement Identification Number (PIN) Contract Registration Number (CT#)

(e) _____ (f) _____
Projected Commencement Date Projected Completion Date

(g) Description and location of proposed contract:

15. Has your firm been reviewed by the Division of Labor Services (DLS) within the past 36 months and issued a Certificate of Approval? Yes ___ No ___

If yes, attach a copy of certificate.

16. Has DLS within the past month reviewed an Employment Report submission for your company and issued a Conditional Certificate of Approval? Yes ___ No ___

If yes, attach a copy of certificate.

NOTE: DLS WILL NOT ISSUE A CONTINUED CERTIFICATE OF APPROVAL IN CONNECTION WITH THIS CONTRACT UNLESS THE REQUIRED CORRECTIVE ACTIONS IN PRIOR CONDITIONAL CERTIFICATES OF APPROVAL HAVE BEEN TAKEN.

17. Has an Employment Report already been submitted for a different contract (not covered by this Employment Report) for which you have not yet received compliance certificate? Yes ___ No ___ If yes,

Date submitted: _____

Agency to which submitted: _____

Name of Agency Person: _____

Contract No: _____

Telephone: _____

18. Has your company in the past 36 months been audited by the United States Department of Labor, Office of Federal Contract Compliance Programs (OFCCP)? Yes ___ No ___

If yes,

(a) Name and address of OFCCP office.

(b) Was a Certificate of Equal Employment Compliance issued within the past 36 months?
Yes___ No___

If yes, attach a copy of such certificate.

(c) Were any corrective actions required or agreed to? Yes___ No___

If yes, attach a copy of such requirements or agreements.

(d) Were any deficiencies found? Yes___ No___

If yes, attach a copy of such findings.

19. Is your company or its affiliates a member or members of an employers' trade association which is responsible for negotiating collective bargaining agreements (CBA) which affect construction site hiring? Yes___ No___

If yes, attach a list of such associations and all applicable CBA's.

PART II: DOCUMENTS REQUIRED

20. For the following policies or practices, attach the relevant documents (e.g., printed booklets, brochures, manuals, memoranda, etc.). If the policy(ies) are unwritten, attach a full explanation of the practices. See instructions.

- ___ (a) Health benefit coverage/description(s) for all management, nonunion and union employees (whether company or union administered)
- ___ (b) Disability, life, other insurance coverage/description
- ___ (c) Employee Policy/Handbook
- ___ (d) Personnel Policy/Manual
- ___ (e) Supervisor's Policy/Manual
- ___ (f) Pension plan or 401k coverage/description for all management, nonunion and union employees, whether company or union administered
- ___ (g) Collective bargaining agreement(s).
- ___ (h) Employment Application(s)
- ___ (i) Employee evaluation policy/form(s).
- ___ (j) Does your firm have medical and/or non-medical (i.e. education, military, personal, pregnancy, child care) leave policy?

21. To comply with the Immigration Reform and Control Act of 1986 when and of whom does your firm require the completion of an I-9 Form?

- | | |
|--|--------------|
| (a) Prior to job offer | Yes___ No___ |
| (b) After a conditional job offer | Yes___ No___ |
| (c) After a job offer | Yes___ No___ |
| (d) Within the first three days on the job | Yes___ No___ |
| (e) To some applicants | Yes___ No___ |
| (f) To all applicants | Yes___ No___ |
| (g) To some employees | Yes___ No___ |
| (h) To all employees | Yes___ No___ |

22. Explain where and how completed I-9 Forms, with their supportive documentation, are maintained and made accessible.

23. Does your firm or any of its collective bargaining agreements require job applicants to take a medical examination? Yes___ No___

If yes, is the medical examination given:

- | | |
|-----------------------------------|--------------|
| (a) Prior to a job offer | Yes___ No___ |
| (b) After a conditional job offer | Yes___ No___ |
| (c) After a job offer | Yes___ No___ |
| (d) To all applicants | Yes___ No___ |
| (e) Only to some applicants | Yes___ No___ |

If yes, list for which applicants below and attach copies of all medical examination or questionnaire forms and instructions utilized for these examinations.

24. Do you have a written equal employment opportunity (EEO) policy? Yes___ No___

If yes, list the document(s) and page number(s) where these written policies are located.

25. Does the company have a current affirmative action plan(s) (AAP)

- ___ Minorities and Women
___ Individuals with handicaps
___ Other. Please specify _____
-

26. Does your firm or collective bargaining agreement(s) have an internal grievance procedure with respect to EEO complaints? Yes___ No___

If yes, please attach a copy of this policy.

If no, attach a report detailing your firm's unwritten procedure for handling EEO complaints.

27. Has any employee, within the past three years, filed a complaint pursuant to an internal grievance procedure or with any official of your firm with respect to equal employment opportunity? Yes___ No___

If yes, attach an internal complaint log. See instructions.

28. Has your firm, within the past three years, been named as a defendant (or respondent) in any administrative or judicial action where the complainant (plaintiff) alleged violation of any anti-discrimination or affirmative action laws? Yes___ No___

If yes, attach a log. See instructions.

29. Are there any jobs for which there are physical qualifications? Yes___ No___

If yes, list the job(s), submit a job description and state the reason(s) for the qualification(s).

30. Are there any jobs for which there are age, race, color, national origin, sex, creed, disability, marital status, sexual orientation, or citizenship qualifications? Yes___ No___

If yes, list the job(s), submit a job description and state the reason(s) for the qualification(s).

SIGNATURE PAGE

I, (print name of authorized official signing) _____ hereby certify that the information submitted herewith is true and complete to the best of my knowledge and belief and submitted with the understanding that compliance with New York City's equal employment requirements, as contained in Chapter 56 of the City Charter, Executive Order No. 50 (1980), as amended, and the implementing Rules and Regulations, is a contractual obligation. I also agree on behalf of the company to submit a certified copy of payroll records to the Division of Labor Services on a monthly basis.

Contractor's Name

Name of person who prepared this Employment Report Title

Name of official authorized to sign on behalf of the contractor Title

Telephone Number

Signature of authorized official Date

If contractors are found to be underutilizing minorities and females in any given trade based on Chapter 56 Section 3H, the Division of Labor Services reserves the right to request the contractor's workforce data and to implement an employment program.

Contractors who fail to comply with the above mentioned requirements or are found to be in noncompliance may be subject to the withholding of final payment.

Willful or fraudulent falsifications of any data or information submitted herewith may result in the termination of the contract between the City and the bidder or contractor and in disapproval of future contracts for a period of up to five years. Further, such falsification may result in civil and/or criminal prosecution.

To the extent permitted by law and consistent with the proper discharge of DLS' responsibilities under Charter Chapter 56 of the City Charter and Executive Order No. 50 (1980) and the implementing Rules and Regulations, all information provided by a contractor to DLS shall be confidential.

Only original signatures accepted.

Sworn to before me this _____ day of _____ 20 _____

Notary Public Authorized Signature Date

FORM CONTRACT BID INFORMATION: USE OF SUBCONTRACTORS/TRADES

1. Do you plan to subcontract work on this contract? Yes No
2. If yes, complete the chart below.

NOTE: All proposed subcontractors with a subcontract in excess of \$750,000 must complete an Employment Report for review and approval before the contract may be awarded and work commences.

SUBCONTRACTOR'S NAME*	OWNERSHIP (ENTER APPROPRIATE CODE LETTERS BELOW)	WORK TO BE PERFORMED BY SUBCONTRACTOR	TRADE PROJECTED FOR USE BY SUBCONTRACTOR	PROJECTED DOLLAR VALUE OF SUBCONTRACT

*If subcontractor is presently unknown, please enter the trade (craft name).

OWNERSHIP CODES

- W: White
- B: Black
- H: Hispanic
- A: Asian
- N: Native American
- F: Female

FORM B: PROJECTED WORKFORCE

TRADE CLASSIFICATION CODES

- (J) Journeylevel Workers
- (H) Helper
- (TOT) Total by Column
- (A) Apprentice
- (TRN) Trainee

For each trade to be engaged by your company for this project, enter the projected workforce for Males and Females by trade classification on the charts below.

Trade:	MALES						FEMALES			
	(1) White Non Hisp.	(2) Black Non Hisp.	(3) Hisp.	(4) Asian	(5) Native Amer.	(6) White Non Hisp.	(7) Black Non Hisp.	(8) Hisp.	(9) Asian	(10) Native Amer.
J										
H										
A										
TRN										
TOT										

Total (Col. #1-10):

Total Minority, Male & Female
(Col. #2,3,4,5,7,8,9, & 10):

Total Female
(Col. #6 - 10):

What are the recruitment sources for you projected hires (i.e., unions, government employment office, job tap center, community outreach)?

FORM 10 PROJECTED WORKFORCE

Trade: _____

Union Affiliation, if applicable _____

Total (Col. #1-10): _____

Total Minority, Male & Female
(Col. #2, 3, 4, 5, 7, 8, 9, & 10): _____

Total Female
(Col. #6 - 10): _____

MALES

	(1)		(2)		(3)		(4)		(5)	
	White Non Hisp.	Black Non Hisp.	White Non Hisp.	Black Non Hisp.	White Non Hisp.	Black Non Hisp.	Asian	Asian	Native Amer.	Native Amer.
J										
H										
A										
TRN										
TOT										

FEMALES

	(6)		(7)		(8)		(9)		(10)	
	White Non Hisp.	Black Non Hisp.	White Non Hisp.	Black Non Hisp.	White Non Hisp.	Black Non Hisp.	Asian	Asian	Native Amer.	Native Amer.
J										
H										
A										
TRN										
TOT										

What are the recruitment sources for you projected hires (i.e., unions, government employment office, job tap center, community outreach)?

FORM C: CURRENT WORKFORCE

TRADE CLASSIFICATION CODES

- (J) Journeylevel Workers
- (H) Helper
- (TOT) Total by Column
- (A) Apprentice
- (TRN) Trainee

For each trade currently engaged by your company for all work performed in New York City, enter the current workforce for Males and Females by trade classification on the charts below.

Trade:	MALES					FEMALES				
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	White Non Hisp.	Black Non Hisp.	Hisp.	Asian	Native Amer.	White Non Hisp.	Black Non Hisp.	Hisp.	Asian	Native Amer.
J										
H										
A										
TRN										
TOT										

Total (Col. #1-10): _____

Total Minority, Male & Female
(Col. #2,3,4,5,7,8,9, & 10): _____

Total Female
(Col. #6 - 10): _____

What are the recruitment sources for you projected hires (i.e., unions, government employment office, job tap center, community outreach)?

FORM C. CURRENT WORKFORCE

Trade: _____

Union Affiliation, if applicable _____

Total (Col. #1-10): _____

Total Minority, Male & Female
(Col. #2,3,4,5,7,8,9, & 10): _____

Total Female
(Col. #6 - 10): _____

MALES

(1) White Non Hisp.	(2) Black Non Hisp.	(3) Hisp.	(4) Asian	(5) Native Amer.

J
H
A
TRN
TOT

FEMALES

(6) White Non Hisp.	(7) Black Non Hisp.	(8) Hisp.	(9) Asian	(10) Native Amer.

What are the recruitment sources for you projected hires (i.e., unions, government employment office, job tap center, community outreach)?

(NO TEXT ON THIS PAGE)

The City of New York Department of Small Business Services
Division of Labor Services Contract Compliance Unit
110 William Street, New York, New York 10038
Phone: (212) 513 - 6323 Fax: (212) 618-8879

Date _____

File Number _____

**LESS THAN \$750,000 SUBCONTRACT CERTIFICATE
(CITY, STATE AND ICIP ONLY)**

Are you currently certified as one of the following? Please check yes or no:

MBE Yes ___ No ___ WBE Yes ___ No ___ LBE Yes ___ No ___

DBE Yes ___ No ___ EBE Yes ___ No ___

If you are certified as an MBE, WBE, LBE, EBE or DBE, what city/state agency are you certified with?

Please check one of the following if your firm would like information on how to certify with the City of New York as a:

___ Minority Owned Business Enterprise

___ Locally based Business Enterprise

___ Women Owned Business Enterprise

___ Emerging Business Enterprise

___ Disadvantaged Business Enterprise

Company Name

Employer Identification Number or Federal Tax I.D.

Company Address and Zip Code

Contact Person (First Name, Last Name)

Telephone Number

Fax Number

E-mail Address

Description and location of proposed subcontract:

Are you a Union contractor? Yes ___ No ___ If yes, please list which local(s) you affiliated with

Are you a Veteran owned company? Yes ___ No ___

Procurement Identification Number (PIN)
(City contracts only)

Contract Registration Number (CT#)
(City contracts only)

Revised 8/13

FOR OFFICIAL USE ONLY: File No. _____

Block and Lot Number
(ICIP projects only)

Contract Amount

I, (print name of authorized official signing) _____ hereby certify that I am authorized by the above-named subcontractor to certify that said subcontractor's proposed contract with the above named owner or City agency is less than \$750,000. This affirmation is made in accordance with NYC Charter Chapter 56, Executive Order No. 50 (1980) and the implementing Rules.

Willful or fraudulent falsifications of any data or information submitted herewith may result in the termination of the contract between the City and the bidder or contractor and in disapproval of future contracts for a period of up to five years. Further, such falsification may result in civil and/or criminal prosecution.

Signature of authorized official

Date

Only original signatures accepted.		
Sworn to before me this _____	day of _____	20 _____
Notary Public	Authorized Signature	Date



**INFRASTRUCTURE DIVISION
BUREAU OF DESIGN**

VOLUME 1 OF 3

PROJECT ID: MED598B

TRUNK WATER MAINS IN WEST 30TH STREET BETWEEN 10TH AVENUE AND 9TH AVENUE, ETC., TO CONNECT SHAFT 26B TO THE DISTRIBUTION SYSTEM INCLUDING SEWER, WATER MAIN, STREET LIGHTING AND TRAFFIC WORK

Together With All Work Incidental Thereto
BOROUGH OF MANHATTAN
CITY OF NEW YORK

Contractor

Dated _____, 20____



**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 2 OF 3

**INFORMATION FOR BIDDERS
CONTRACT
PERFORMANCE AND PAYMENT BONDS
PREVAILING WAGE SCHEDULE**

FOR FURNISHING ALL LABOR AND MATERIALS NECESSARY AND REQUIRED FOR:

PROJECT ID: MED598B

**TRUNK WATER MAINS IN WEST 30TH STREET BETWEEN 10TH AVENUE
AND 9TH AVENUE, ETC., TO CONNECT SHAFT 26B TO THE
DISTRIBUTION SYSTEM**

**INCLUDING SEWER, WATER MAIN, STREET LIGHTING AND TRAFFIC
WORK**

Together With All Work Incidental Thereto
**BOROUGH OF MANHATTAN
CITY OF NEW YORK**

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

June 19, 2014

4-125







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

30-30 THOMSON AVENUE
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VOLUME 2 OF 3

**INFORMATION FOR BIDDERS
CONTRACT
PERFORMANCE AND PAYMENT BONDS
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FOR THE DEPARTMENT OF ENVIRONMENTAL PROTECTION
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IN-HOUSE DESIGN

June 19, 2014



NOTICE TO BIDDERS

Please be advised that the City of New York has issued a new Standard Construction Contract. The new Contract, which is incorporated in this bid, is significantly different from the 2008 version previously used by the City. A listing of some of the significant changes is provided below. This notice is only a partial listing. Please refer to the Contract itself for a full understanding of the changes and the actual text of the changes that were made. The text of the revised Standard Construction Contract is the controlling document should there be any discrepancies between this notice and the Standard Construction Contract.

Significant changes include the following:

ARTICLE 11 DAMAGES CAUSED BY DELAYS

In 2008, the City embarked on a pilot project to test the use of new construction contract language altering the allocation of the risk of project delays, as between the City and the contractor. The City has determined to make the pilot project language the standard language for all City construction contracts. Accordingly, there is now one Standard City Construction Contract that it to be used by all agencies for all bids released after the release of the new contract. The damages for delay language is Article 11. Please note that changes have been made to the damages for delay provisions from the pilot to the adopted version.

ARTICLE 22 INSURANCE

Changes have been made to the insurance provisions, including incorporating requirements that the insurance provided comply with recent NYC Department of Buildings regulations specifying required dollar limits for CGL insurance for certain projects and requiring proof of builder's risk insurance prior to Work commencing rather than within 10 days of award.

ARTICLE 26 EXTRA WORK

The percentage paid for overhead for Extra Work pursuant to Section 26.1.11 is increased from 10% to 12% and the calculation of Worker's Compensation insurance costs reimbursed for Extra Work has been clarified.

ARTICLE 37 LABOR LAW REQUIREMENTS
ARTICLE 38 PAYROLL REPORTS

The provisions governing Labor Law provisions have been tightened, including requirements the employee identification cards include a photo (unless the requirement is waived), a prohibition on cash payments to employees and subcontractors, and clear enforcement authority requirements.

ARTICLE 70 ELECTRONIC FILING

A provision is added to make mandatory the electronic filing of certain alteration permits with the Department of Buildings.

Other significant changes include the following:

ARTICLE 7 INDEMNIFICATION

Changes have been made to the indemnification provisions.

ARTICLE 14 FINAL ACCEPTANCE OF WORK
ARTICLE 44 SUBSTANTIAL COMPLETION PAYMENT

The Commissioner is no longer required to issue a substantial completion determination in addition to the already existing requirement that the Engineer issue a substantial completion determination and reach an agreement on a punch list of remaining work. Now, the Engineer, when issuing the punch list to the Contractor, must also include a proposed schedule for the completion of the punch list. The Contractor may propose an alternative schedule that is subject to the approval of the Engineer. If the Contractor fails to respond to the Engineer's proposed schedule, the Engineer's schedule is deemed accepted.

ARTICLE 15 LIQUIDATED DAMAGES

The contract is revised to match Schedule A to provide that liquidated damages are available only until substantial completion.

ARTICLE 17 SUBCONTRACTS

The requirements for prior approval of subcontractors, and for contractors to be responsible for the actions of their subcontractors, have been tightened. The requirement that the Contractor list subcontractors in the City's Payee Information Portal has been added; the provision was previously attached as a rider.

ARTICLE 19 SECURITY DEPOSIT

The provisions governing the return of bid deposits are clarified.

ARTICLE 20 PAYMENT GUARANTEE

The Payment Guaranty provisions, which apply when the City does not require the Contractor to obtain payment bonds, has been significantly revised to track the requirements of State Finance law 137.

ARTICLE 28 RECORDKEEPING FOR EXTRA OR DISPUTED WORK

The recordkeeping requirement that currently apply to payments for Time & Materials for extra work are expressly made applicable to regular work that is paid for on a T & M basis.

ARTICLE 35 EMPLOYEES

The whistleblower provisions of local law are added to the construction contract. They previously have been attached as a rider.

ARTICLE 38 PAYROLL REPORTS
ARTICLE 77 RECORDS RETENTION

Requirements that records be maintained for six years and directions on how such records must be made available.

ARTICLE 42 PARTIAL PAYMENTS

Increased flexibility has been provided for when contractors may submit invoices.

ARTICLE 62 TAX EXEMPTION

The provisions identifying the State tax exemption for municipalities are revised to more clearly describe State law.

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CITY OF NEW YORK

**DEPARTMENT OF
DESIGN AND CONSTRUCTION
DIVISION OF INFRASTRUCTURES**

INFORMATION FOR BIDDERS

SEPTEMBER 2008

(NO TEXT ON THIS PAGE)

**CITY OF NEW YORK CITY
DEPARTMENT OF DESIGN AND CONSTRUCTION
INFORMATION FOR BIDDERS**

TABLE OF CONTENTS

SECTION 1.	DESCRIPTION AND LOCATION OF WORK	1
SECTION 2.	TIME AND PLACE FOR RECEIPT OF BIDS	1
SECTION 3.	DEFINITIONS	1
SECTION 4.	INVITATION FOR BIDS AND CONTRACT DOCUMENTS	1
SECTION 5.	PRE-BID CONFERENCE	2
SECTION 6.	AGENCY CONTACT	2
SECTION 7.	BIDDER'S OATH	2
SECTION 8.	EXAMINATION AND VIEWING OF SITE, CONSIDERATION OF OTHER SOURCES OF INFORMATION AND CHANGED CONDITIONS	2
SECTION 9.	EXAMINATION OF PROPOSED CONTRACT	3
SECTION 10.	FORM OF BID	3
SECTION 11.	IRREVOCABILITY OF BID	3
SECTION 12.	ACKNOWLEDGMENT OF AMENDMENTS	4
SECTION 13.	BID SAMPLES AND DESCRIPTIVE LITERATURE	4
SECTION 14.	PROPRIETARY INFORMATION/TRADE SECRETS	4
SECTION 15.	PRE-OPENING MODIFICATION OR WITHDRAWAL OF BIDS	4
SECTION 16.	BID EVALUATION AND AWARD	4
SECTION 17.	LATE BIDS, LATE WITHDRAWALS AND LATE MODIFICATIONS	5
SECTION 18.	WITHDRAWAL OF BIDS.	5
SECTION 19.	MISTAKE IN BIDS	5
SECTION 20.	LOW TIE BIDS	6
SECTION 21.	REJECTION OF BIDS	6
SECTION 22.	RIGHT TO APPEAL DETERMINATIONS OF NON-RESPONSIVENESS OR NON-RESPONSIBILITY AND RIGHT TO PROTEST SOLICITATIONS AND AWARD	7
SECTION 23.	AFFIRMATIVE ACTION AND EQUAL EMPLOYMENT OPPORTUNITY	7
SECTION 24.	VENDEX QUESTIONNAIRES	7
SECTION 25.	COMPLAINTS ABOUT THE BID PROCESS	8
SECTION 26.	BID, PERFORMANCE AND PAYMENT SECURITY	8
SECTION 27.	FAILURE TO EXECUTE CONTRACT	9
SECTION 28.	BIDDER RESPONSIBILITIES AND QUALIFICATIONS	9
SECTION 29.	EMPLOYMENT REPORT	10
SECTION 30.	LABOR LAW REQUIREMENTS	10
SECTION 31.	INSURANCE	10
SECTION 32.	LUMP SUM CONTRACTS	11
SECTION 33.	UNIT PRICE CONTRACTS	11
SECTION 34.	EXCISE TAX	11
SECTION 35.	LICENSES AND PERMITS	11
SECTION 36.	MULTIPLE PRIME CONTRACTORS	11
SECTION 37.	LOCALLY BASED ENTERPRISE REQUIREMENTS (LBE)	12
SECTION 38.	BID SUBMISSION REQUIREMENTS	13
SECTION 39.	COMPTROLLER'S CERTIFICATE	14
SECTION 40.	PROCUREMENT POLICY BOARD RULES	14
SECTION 41.	DDC SAFETY REQUIREMENTS	14

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INFORMATION FOR BIDDERS

1. Description and Location of Work

The description and location of the work for which bids are requested are specified in Attachment 1, "Bid Information". Attachment 1 is included as page A-1 of the Bid Booklet.

2. Time and Place for Receipt of Bids

Sealed bids shall be received on or before the date and hour specified in Attachment 1, at which time they will be publicly opened and read aloud in the presence of the Commissioner or his or her representative, and any bidders who may desire to be present.

3. Definitions

The definitions set forth in the Procurement Policy Board Rules shall apply to this Invitation For Bids.

4. Invitation For Bids and Contract Documents

(A) Except for titles, sub-titles, headings, running headlines, tables of contents and indices (all of which are printed herein merely for convenience) the following, except for such portions thereof as may be specifically excluded, shall be deemed to be part of the Contract and the Invitation for Bids.

- (1) All provisions required by law to be inserted in this Contract, whether actually inserted or not
- (2) The Contract Drawings and Specifications
- (3) The General Conditions, the General Requirements and the Special Conditions, if any
- (4) The Contract
- (5) The Information for Bidders; Request for Proposals; Notice of Solicitation and Proposal For Bids; Bid or Proposal, and, if used, the Bid Booklet
- (6) The Budget Director's Certificate; all Addenda issued prior to the receipt of the bids; the Notice of Award; Performance and Payment Bonds, if required; and the Notice to Proceed with the Work.

(B) For particulars as to this procurement, including quantity and quality of the purchase, extent of the work or labor to be performed, delivery and performance schedule, and any other special instructions, prospective bidders are referred to the Invitation For Bids Documents. A copy of such documents can be obtained at the location set forth in Attachment 1.

(C) Deposit for Copy of Invitation For Bids Documents: Prospective bidders may obtain a copy of the Invitation For Bids Documents by complying with the conditions set forth in the Notice of Solicitation. The deposit must be in the form of a check or money order made payable to the City of New York, and drawn upon a state or national bank or trust company, or a check of such bank or trust company signed by a duly authorized officer thereof.

(D) Return of Invitation For Bids Documents: All Invitation For Bids Documents must be returned to the Department upon request. If the bidder elects not to submit a bid thereunder, the

Invitation For Bids Documents shall be returned to the Department, along with a statement that no bid will be submitted.

(E) Return of Deposit: Such deposit will be returned within 30 days after the award of the contract or the rejection of all bids as set forth in the advertisement, provided the Invitation For Bids Documents are returned to the location specified in Attachment 1, in physical condition satisfactory to the Commissioner.

(F) Additional Copies: Additional copies of the Invitation For Bids Documents may be obtained, subject to the conditions set forth in the advertisement for bids.

5. Pre-Bid Conference

A pre-bid conference shall be held as set forth in Attachment 1. Nothing stated at the pre-bid conference shall change the terms or conditions of the Invitation For Bids Documents, unless a change is made by written amendment as provided in Section 9 below. Failure to attend a mandatory pre-bid conference shall constitute grounds for the rejection of the bid.

6. Agency Contact

Any questions or correspondence relating to this bid solicitation shall be addressed to the Agency Contact person specified in Attachment 1.

7. Bidder's Oath

(A) The bid shall be properly signed by an authorized representative of the bidder and the bid shall be verified by the written oath of the authorized representative who signed the bid, that the several matters stated and information furnished therein are in all aspects true.

~~(B) A materially false statement willfully or fraudulently made in connection with the bid or any of the forms completed and submitted with the bid may result in the termination of any Contract between the City and the Bidder. As a result, the Bidder may be barred from participating in future City contracts as well as be subject to possible criminal prosecution.~~

8. Examination and Viewing of Site, Consideration of Other Sources of Information and Changed Conditions

(A) Pre-Bidding (Investigation) Viewing of Site -Bidders must carefully view and examine the site of the proposed work, as well as its adjacent area, and seek other usual sources of information, for they will be conclusively presumed to have full knowledge of any and all conditions on, about or above the site relating to or affecting in any way the performance of the work to be done under the Contract which were or should have been indicated to a reasonably prudent bidder. To arrange a date for visiting the work site, bidders are to contact the Agency Contact person specified in Attachment 1.

(B) Should the contractor encounter during the progress of the work subsurface conditions at the site materially differing from any shown on the Contract Drawings or indicated in the Specifications or such subsurface conditions as could not reasonably have been anticipated by the contractor and were not anticipated by the City, which conditions will materially affect the cost of the work to be done under the

Contract, the attention of the Commissioner must be called immediately to such conditions before they are disturbed. The Commissioner shall thereupon promptly investigate the conditions. If he finds that they do so materially differ, or that they could not have been reasonably anticipated by the contractor and were not anticipated by the City, the Contract may be modified with his written approval.

9. Examination of Proposed Contract

(A) Request for Interpretation or Correction: Prospective bidders must examine the Contract Documents carefully and before bidding must request the Commissioner in writing for an interpretation or correction of every patent ambiguity, inconsistency or error therein which should have been discovered by a reasonably prudent bidder. Such interpretation or correction, as well as any additional contract provisions the Commissioner may decide to include, will be issued in writing by the Commissioner as an addendum to the Contract, which will be transmitted to each person recorded as having received a copy of the Contract Documents from the Department. Transmission of such addendum will be by mail, e-mail, facsimile or hand delivery. Such addendum will also be posted at the place where the Contract Documents are available for the inspection of prospective bidders. Upon transmission as provided for herein, such addendum shall become a part of the Contract Documents, and binding on all bidders, whether or not actual notice of such addendum is shown.

(B) Only Commissioner's Interpretation or Correction Binding: Only the written interpretation or correction so given by the Commissioner shall be binding, and prospective bidders are warned that no other officer, agent or employee of the City is authorized to give information concerning, or to explain or interpret, the Contract.

(C) Documents given to a subcontractor for the purpose of soliciting the subcontractor's bid shall include either a copy of the bid cover sheet or a separate information sheet setting forth the project name, the Contract number (if available), the contracting agency and the Project's location.

10. Form of Bid

Each bid must be submitted upon the prescribed form and must contain: a) the name, residence and place of business of the person or persons making the same; b) the names of all persons interested therein, and if no other person is so interested, such fact must be distinctly stated; c) a statement to the effect that it is made without any connection with any other person making a bid for the same purpose and that it is in all respects fair and without collusion or fraud; d) a statement that no Council member or other officer or employee or person whose salary is payable in whole or part from the City Treasury is directly or indirectly interested therein or in the supplies, materials or equipment and work or labor to which it relates, or in any portion of the profits thereof; e) a statement that the bidder is not in arrears to the City or to any agency upon a debt or contract or taxes, and is not a defaulter as surety or otherwise upon any obligation to the City to any agency thereof, except as set forth in the bid.

THE BID SHALL BE TYPEWRITTEN OR WRITTEN LEGIBLY IN INK. THE BID SHALL BE SIGNED IN INK. ERASURES OR ALTERATIONS SHALL BE INITIALED BY THE SIGNER IN INK. FAILURE TO CONFORM TO THE REQUIREMENTS OF THIS SECTION 10 SHALL RESULT IN THE REJECTION OF THE BID.

11. Irrevocability of Bid

The prices set forth in the bid cannot be revoked and shall be effective until the award of the Contract, unless the bid is withdrawn as provided for in Sections 15 and 18 below.

12. Acknowledgment of Amendments

The receipt of any amendment to the Contract Documents shall be acknowledged by the bidder in its bid submission.

13. Bid Samples and Descriptive Literature

Bid samples and descriptive literature shall not be submitted by the bidder, unless expressly requested elsewhere in the Contract or Contract Documents. Any unsolicited bid samples or descriptive literature which are submitted shall not be examined or tested and shall not be deemed to vary any of the provisions of this Contract.

14. Proprietary Information/Trade Secrets

(A) The bidder shall identify those portions of the bid which it deems to be confidential, proprietary information or trade secrets, and provide justification why such materials shall not be disclosed by the City. All such materials shall be clearly indicated by stamping the pages on which such information appears, at the top and bottom thereof with the word "Confidential". Such materials stamped "Confidential" must be easily separable from the non-confidential sections of the bid.

(B) All such materials so indicated shall be reviewed by the Agency and any decision not to honor a request for confidentiality shall be communicated in writing to the bidder. For those bids which are unsuccessful, all such confidential materials shall be returned to the bidder. Prices, makes and model or catalog numbers of the items offered, deliveries, and terms of payment shall be publicly available after bid opening, regardless of any designation of confidentiality made by the bidder.

15. Pre-Opening Modification or Withdrawal of Bids

Bids may be modified or withdrawn by written notice received in the office designated in Attachment 1, before the time and date set for the bid opening. If a bid is withdrawn in accordance with this Section, the bid security, if any, shall be returned to the bidder.

16. Bid Evaluation and Award

In accordance with the New York City Charter, the Procurement Policy Board Rules and the terms and conditions of this Invitation For Bids, this Contract shall be awarded, if at all, to the responsible bidder whose bid meets the requirements and evaluation criteria set forth in the Invitation For Bids, and whose bid price is either the most favorable bid price or, if the Invitation For Bids so states, the most favorable evaluated bid price. A bid may not be evaluated for any requirement or criterion that is not disclosed in the Invitation For Bids.

Restriction: No negotiations with any bidder shall be allowed to take place except under the circumstances and in the manner set forth in Section 21. Nothing in this Section shall be deemed to permit a contract award to a bidder submitting a higher quality item than that designated in the Invitation For Bids, if that bid is not also the most favorable bid.

17. Late Bids, Late Withdrawals and Late Modifications

Any bid received at the place designated in the solicitation after the time and date set for receipt of bids is late and shall not be considered. Any request for withdrawal or modification received at the place designated in the solicitation after the time and date set for receipt of bids is late and shall not be considered. The exception to this provision is that a late modification of a successful bid that makes the bid terms more favorable to the City shall be considered at any time it is received.

18. Withdrawal of Bids.

Except as provided for in Section 15, above, a bidder may not withdraw its bid before the expiration of forty-five (45) days after the date of the opening of bids; thereafter, a bidder may withdraw its bid only in writing and in advance of an actual award. If within sixty (60) days after the execution of the Contract, the Commissioner fails to fix the date for commencement of work by written notice to the bidder, the bidder, at his option, may ask to be relieved of his obligation to perform the work called for by written notice to the Commissioner. If such notice is given to the Commissioner, and the request to withdraw is granted, the bidder waives all claims in connection with this Contract.

19. Mistake in Bids

(A) Mistake Discovered Before Bid Opening: A bidder may correct mistakes discovered before the time and date set for bid opening by withdrawing or correcting the bid as provided in Section 15 above.

(B) Mistakes Discovered Before Award

(1) In accordance with General Municipal Law (Section 103, subdivision 11), where a unilateral error or mistake is discovered in a bid, such bid may be withdrawn upon written approval of the Agency Chief Contracting Officer if the following conditions are met:

- (a) The mistake is known or made known to the agency prior to the awarding of the Contract or within 3 days after the opening of the bid, whichever period is shorter; and
- (b) The price bid was based upon an error of such magnitude that enforcement would be unconscionable; and
- (c) The bid was submitted in good faith and the bidder submits credible evidence that the mistake was a clerical error as opposed to a judgment error; and
- (d) The error in the bid is actually due to an unintentional and substantial arithmetic error or an unintentional omission of a substantial quantity of work, labor, material or services made directly in the compilation of the bid, which unintentional arithmetic error or unintentional omission can be clearly shown by objective evidence drawn from inspection of the original work paper, documents, or materials used in the preparation of the bid sought to be withdrawn; and
- (e) It is possible to place the agency in the same position as existed prior to the bid.

(2) Unless otherwise required by law, the sole remedy for a bid mistake in accordance with this Article shall be withdrawal of the bid, and the return of the bid bond, or other security, if any, to the bidder. Thereafter, the agency may, in its discretion, award the Contract to the next lowest bidder or rebid the Contract. Any amendment to or reformation of a bid or a Contract to rectify such an error or mistake

therein is strictly prohibited.

(3) If the mistake and the intended correct bid are clearly evident on the face of the bid document, the bid shall be corrected to the intended correct bid and may not be withdrawn. Examples of mistakes that may be corrected are typographical errors, errors in extending unit prices, transposition errors and arithmetical errors.

20. Low Tie Bids

(A) When two or more low responsive bids from responsible bidders are identical in price, meeting all the requirements and criteria set forth in the Invitation For Bids, the Agency Chief Contracting Officer will break the tie in the following manner and order of priority:

- (1) Award to a certified New York City small, minority or woman-owned business entity bidder;
- (2) Award to a New York City bidder;
- (3) Award to a certified New York State small, minority or woman-owned business bidder;
- (4) Award to a New York State bidder.

(B) If two or more bidders still remain equally eligible after application of paragraph (A) above, award shall be made by a drawing by lot limited to those bidders. The bidders involved shall be invited to attend the drawing. A witness shall be present to verify the drawing and shall certify the results on the bid tabulation sheet.

21. Rejection of Bids

(A) Rejection of Individual Bids: The Agency may reject a bid if:

- (1) The bidder fails to furnish any of the information required pursuant to Section 24 or 28 hereof; or if
- (2) The bidder is determined to be not responsible pursuant to the Procurement Policy Board Rules; or if
- (3) The bid is determined to be non-responsive pursuant to the Procurement Policy Board Rules; or if
- (4) The bid, in the opinion of the Agency Chief Contracting Officer, contains unbalanced bid prices and is thus non-responsive, unless the bidder can show that the prices are not unbalanced for the probable required quantity of items, or if the imbalance is corrected pursuant to Section 15.

(B) Rejection of All Bids: The Agency, upon written approval by the Agency Chief Contracting Officer, may reject all bids and may elect to resolicit bids if in its sole opinion it shall deem it in the best interest of the City so to do.

(C) Rejection of All Bids and Negotiation With All Responsible Bidders: The Agency Head may determine that it is appropriate to cancel the Invitation For Bids after bid opening and before award and to complete the acquisition by negotiation. This determination shall be based on one of the following reasons:

- (1) All otherwise acceptable bids received are at unreasonable prices, or only one bid is received and the Agency Chief Contracting Officer cannot determine the reasonableness of the bid price, or no responsive bid has been received from a responsible bidder; or
- (2) In the judgment of the Agency Chief Contracting Officer, the bids were not independently arrived at in open competition, were collusive, or were submitted in bad faith.

(D) When the Agency has determined that the Invitation for Bids is to be canceled and that use of negotiation is appropriate to complete the acquisition, the contracting officer may negotiate and award the Contract without issuing a new solicitation, subject to the following conditions:

- (1) prior notice of the intention to negotiate and a reasonable opportunity to negotiate have been given by the contracting officer to each responsible bidder that submitted a bid in response to the Invitation for Bids;
- (2) the negotiated price is the lowest negotiated price offered by a responsible bidder; and
- (3) the negotiated price is lower than the lowest rejected bid price of a responsible bidder that submitted a bid in response to the Invitation for Bids.

22. Right to Appeal Determinations of Non-Responsiveness or Non-Responsibility and Right to Protest Solicitations and Award

The bidder has the right to appeal a determination of non-responsiveness or non-responsibility and has the right to protest a solicitation and award. For further information concerning these rights, the bidder is directed to the Procurement Policy Board Rules.

23. Affirmative Action and Equal Employment Opportunity

This Invitation For Bids is subject to applicable provisions of Federal, State and Local Laws and executive orders requiring affirmative action and equal employment opportunity.

24. VENDEX Questionnaires

(A) Requirement: Pursuant to Administrative Code Section 6-116.2 and the PPB Rules, bidders may be obligated to complete and submit VENDEX Questionnaires. Generally, if this bid is \$100,000 or more, or if this bid when added to the sum total of all contracts, concessions and franchises the bidder has received from the City and any subcontracts received from City contractors over the past twelve months, equals or exceeds \$100,000, Vendex Questionnaires must be completed. If required, Vendex Questionnaires must be completed and submitted before any award of contract may be made or before approval is given for a proposed subcontractor. Non-compliance with these submission requirements may result in the disqualification of the bid, disapproval of a subcontractor, subsequent withdrawal of approval for the use of an approved subcontractor, or the cancellation of the contract after its award.

(B) Submission: Vendex Questionnaires must be submitted directly to the Mayor's Office of Contract Services, ATTN: Vendex, 253 Broadway, 9th Floor, New York, New York 10007. In addition, the bidder must submit a Confirmation of Vendex Compliance to the agency. A form for this confirmation is set forth in the Bid Booklet.

(C) Obtaining Forms: Vendex Questionnaires, as well as detailed instructions, may be obtained at www.nyc.gov/vendex. The bidder may also obtain Vendex forms and instructions by contacting the

Agency Chief Contracting Office or the contract person for this contract.

25. Complaints About the Bid Process

The New York City Comptroller is charged with the audit of contracts in New York City. Any vendor who believes that there has been unfairness, favoritism or impropriety in the bid process should inform the Comptroller, Office of Contract Administration, One Centre Street, Room 835, New York, New York; telephone number (212)669-2797.

26. Bid, Performance and Payment Security

(A) Bid Security: Each bid must be accompanied by bid security in an amount and type specified in Attachment 1 (page A-1 of the Bid Booklet). The bid security shall assure the City of New York of the adherence of the bidder to its proposal, the execution of the Contract, and the furnishing of Performance and Payment Bonds by the bidder, if required in Attachment 1. Bid security shall be returned to the bidder as follows:

- (1) Within ten (10) days after the bid opening, the Comptroller will be notified to return the deposits of all but the three (3) lowest bidders. Within five (5) days after the award, the Comptroller will be notified to return the deposits of the remaining two unsuccessful bidders.
- (2) Within five (5) days after the execution of the Contract and acceptance of the Contractor's bonds, the Comptroller will be notified to return the bid security of the successful bidder or, if performance and payment bonds are not required, only after the sum retained under Article 21 of the Contract equals the amount of the bid security.
- (3) Where all bids are rejected, the Comptroller will be notified to return the deposit of the three (3) lowest bidders at the time of rejection.

(B) Performance and Payment Security: Performance and Payment Security must be provided in an amount and type specified in Attachment 1 (page A-1 of the Bid Booklet). The performance and payment security shall be delivered by the contractor prior to or at the time of execution of the Contract. If a contractor fails to deliver the required performance and payment security, its bid security shall be enforced, and an award of Contract may be made to the next lowest responsible and responsive bidder, or the contract may be rebid.

(C) Acceptable Types of Security: Acceptable types of security for bids, performance, and payment shall be limited to the following:

- (1) a one-time bond in a form satisfactory to the City;
- (2) a bank certified check or money order;
- (3) obligations of the City of New York; or
- (4) other financial instruments as determined by the Office of Construction in consultation with the Comptroller.

Whenever the successful bidder deposits obligations of the City of New York as performance and payment security, the Comptroller may sell and use the proceeds thereof for any purpose for which the principal or surety on such bond would be liable under the terms of the Contract. If the money is deposited with the Comptroller, the successful bidder shall not be entitled to receive interest on such money from the City.

(D) Form of Bonds: Security provided in the form of bonds must be prepared on the form of bonds authorized by the City of New York. Forms for bid, performance, and payment bonds are included in the Invitation for Bids Documents. Such bonds must have as surety thereunder such surety company or companies as are: (1) approved by the City of New York; (2) authorized to do business in the State of New York, and (3) approved by the Department of the Treasury of the United States. Premiums for any required bonds must be included in the base bid.

The bidder is advised that submission of a bid bond where the surety on such bond fails to meet the criteria set forth herein, shall result in the rejection of the bid as non-responsive.

The Department of the Treasury of the United States advises that information concerning approved surety companies may be obtained as follows: (1) from the Government Printing Office at 202-512-1800; (2) through the Internet at <http://www.fms.treas.gov/c570/index.html>, and (3) through a computerized public bulletin board, which can be accessed by using your computer modem and dialing 202-874-6887.

(E) Power of Attorney: Attorneys in fact who sign bid, performance, or payment bonds must file with each bond a certified copy of their power of attorney to sign said bonds.

27. Failure to Execute Contract

In the event of failure of the successful bidder to execute the Contract and furnish the required security within ten (10) days after notice of the award of the Contract, the deposit of the successful bidder or so much thereof as shall be applicable to the amount of the award made shall be retained by the City, and the successful bidder shall be liable for and hereby agrees to pay on demand the difference between the price bid and the price for which such Contract shall be subsequently awarded, including the cost of any required reletting and less the amount of such deposit. No plea of mistake in such accepted bid shall be available to the bidder for the recovery of the deposit or as a defense to any action based upon such accepted bid. Further, should the bidder's failure to comply with this Section cause any funding agency, body or group (Federal, State, City, Public, Private, etc.) to terminate, cancel or reduce the funding on this project, the bidder in such event shall be liable also to the City for the amount of actual funding withdrawn by such agency on this project, less the amount of the forfeited deposit.

28. Bidder Responsibilities and Qualifications

(A) Bidders must include with their bids all information necessary for a determination of bidder responsibility, as set forth in the Specifications.

(B) The Agency may require any bidder or prospective bidder to furnish all books of account, records, vouchers, statements or other information concerning the bidder's financial status for examination as may be required by the Agency to ascertain the bidder's responsibility and capability to perform the Contract. If required, a bidder must also submit a sworn statement setting forth such information as the Agency may require concerning present and proposed plant and equipment, the personnel and qualifications of his working organizations, prior experience and performance record.

(C) Oral Examination on Qualifications: In addition thereto, and when directed by the Agency, the bidder, or a responsible officer, agent or employee of the bidder, must submit to an oral examination to be conducted by the Agency in relation to his proposed tentative plan and schedule of

operations, and such other matters as the Agency may deem necessary in order to determine the bidder's ability and responsibility to perform the work in accordance with the Contract. Each person so examined must sign and verify a stenographic transcript of such examination noting thereon such corrections as such person may desire to make.

(D) If the bidder fails or refuses to supply any of the documents or information set forth in paragraph (B) hereof or fails to comply with any of the requirements thereof, the Agency may reject the bid.

29. Employment Report

In accordance with Executive Order No. 50 (1980) as modified by Executive Order 108 (1986), the filing of a completed Employment Report (ER) is a requirement of doing business with the City of New York for construction contractors with contracts of \$1,000,000 or more and subcontractors with construction subcontracts of \$750,000 or more. The required forms and information are included in the Bid Booklet.

30. Labor Law Requirements

(A) General: The successful bidder will be required to comply strictly with all Federal, State and local labor laws and regulations.

(B) New York State Labor Law: This Contract is subject to New York State Labor Law Section 220, which requires that construction workers on the site be paid prevailing wages and supplements. The Contractor is reminded that all wage provisions of this Contract will be enforced strictly and failure to comply will be considered when evaluating performance. Noncompliance may result in the contractor being debarred by the City from future contracts. Complaints filed with the Comptroller may result in decisions which may debar a contractor from bidding contracts with any state governmental entity and other political subdivisions.

(C) Records: The Contractor is expected to submit accurate payroll reports and other required documents and verify attendance and job classifications being utilized in compliance with the law, Contract provisions and agency procedures.

31. Insurance

(A) Bidders are advised that the insurance requirements contained herein are regarded as material terms of the Contract. As required by Article 22 of the Contract, the contractor must effect and maintain with companies licensed and authorized to do business in the State of New York, the types of insurance set forth therein, when required by and in the amounts set forth in Schedule A of the General Conditions. Such required insurance must be provided from the date the contractor is ordered to commence work and up to the date of final acceptance of all required work.

(B) The contractor must, within ten days of receipt of the notice of award, submit the following insurance documentation: (a) original certificate of insurance for general liability in the amount required by Schedule A of the General Conditions, and (b) original certificates of insurance or other proof of coverage for workers' compensation and disability benefits, as required by Section 57 of the New York State Workers' Compensation Law and Section 220 of the Disability Benefits Law.

32. Lump Sum Contracts

(A) Comparison of Bids: Bids on Lump Sum Contracts will be compared on the basis of the lump sum price bid, adjusted for alternate prices bid, if any.

(B) Lump Sum Bids for "General Construction Work" which include excavation shall include all necessary excavation work defined in the Specifications as being included in the lump sum bid. The bidder shall also bid a unit price for the additional cost of excavating material which is defined in the Specifications as excavation for which additional payment will be made. The total estimated additional cost of removing such material will be taken as the quantity set forth in the Engineer's Estimate multiplied by the unit price bid. This total estimated cost of additional excavation shall be added to the lump sum bid for the General Construction Work for the purpose of comparing bids to determine the low bidder.

(C) Variations from Engineer's Estimate: The Engineer's Estimate of the quantity of excavation for which additional payment will be made is approximate only and is given solely to be used as a uniform basis for the comparison of bids and such estimate is not to be considered as part of this contract. The quantities actually required to complete the contract work may be more or less than the quantities in the Engineer's Estimate and, if so, no action for damages or for loss of profits shall accrue to the contractor by reason thereof.

33. Unit Price Contracts

(A) Comparison of Bids: Bids on Unit Price Contracts will be compared on the basis of a total estimated price, arrived at by taking the sum of the estimated quantities of such items, in accordance with the Engineer's Estimate of Quantities set forth in the Bid Schedule, multiplied by the corresponding unit prices, and including any lump sum bids on individual items.

(B) Variations from Engineer's Estimate: Bidders are warned that the Engineer's Estimate of Quantities on the various items of work and materials is approximate only, given solely to be used as a uniform basis for the comparison of bids, and is not to be considered part of this contract. The quantities actually required to complete the contract work may be less or more than so estimated, and if so, no action for damages or for loss of profits shall accrue to the contractor by reason thereof.

(C) Overruns: The terms and conditions applicable to overruns of unit price items are set forth in Article 26 of the Contract.

34. Excise Tax

Bidders are referred to the Specifications for information on Federal Excise Tax exemptions.

35. Licenses and Permits

The successful bidder will be required to obtain all necessary licenses and permits necessary to perform the work.

36. Multiple Prime Contractors

If more than one prime contractor will be involved on this project, all contractors are required to examine the Invitation for Bid packages for all other parts of the project.

37. Locally Based Enterprise Requirements (LBE)

This Contract is subject to the requirements of Administrative Code, Section 6-108.1, and the regulations promulgated thereunder. No construction contract will be awarded unless and until these requirements have been complied with in their entirety. The bidder is advised of the provisions set forth below, as well as the provisions with respect to the Locally Based Enterprise Program contained in Article 67 of the Contract. The contractor is advised that:

(A) If any portion of the Contract is subcontracted, not less than ten percent of the total dollar amount of the contract shall be awarded to locally based enterprises ("LBEs"); except, where less than ten percent of the total dollar amount of the Contract is subcontracted, such lesser percentage shall be so awarded.

(B) No contractor shall require performance and payment bonds from LBE subcontractors.

(C) No Contract shall be awarded unless the contractor first identifies in its bid:

- (1) the percentage, dollar amount and type of work to be subcontracted; and
- (2) the percentage, dollar amount and type of work to be subcontracted to LBEs.

(D) Within ten calendar days after notification of low bid, the apparent low bidder shall submit an "LBE Participation Schedule" to the contracting agency. If such schedule does not identify sufficient LBE subcontractors to meet the requirements of Administrative Code Section 6-108.1, the apparent low bidder shall submit documentation of its good faith efforts to meet such requirements.

(1) The "LBE Participation Schedule" shall include:

- (a) the name and address of each LBE that will be given a subcontract,
- (b) the percentage, dollar amount and type of work to be subcontracted to the LBE, and
- (c) the dates when the LBE subcontract work will commence and end.

(2) The following documents shall be attached to the "LBE Participation Schedule":

- (a) verification letters from each subcontractor listed in the "LBE Participation Schedule" stating that the LBE will enter into a formal agreement for work,
- (b) certification documents of any proposed LBE subcontractor which is not on the LBE certified list, and
- (c) copies of the certification letter of any proposed subcontractor which is an LBE.

(3) Documentation of good faith efforts to achieve the required LBE percentage shall include as appropriate but not limited to the following:

- (a) attendance at prebid meetings, when scheduled by the agency, to advise bidders of contract requirements;

- (b) advertisement where appropriate in general circulation media, trade association publications and small business media of the specific subcontracts that would be at least equal to the percentage goal for LBE utilization specified by the contractor;
- (c) written notification to association of small, minority and women contractors soliciting specific subcontractors;
- (d) written notification by certified mail to LBE firms that their interest in the contract is solicited for specific work items and their estimated values;
- (e) demonstration of efforts made to select portions of the work for performance by LBE firms in order to increase the likelihood of achieving the stated goal;
- (f) documented efforts to negotiate with LBE firms for specific subcontracts, including at a minimum:
 - (i) The names, address and telephone numbers of LBE firms that are contacted;
 - (ii) A description of the information provided to LBE firms regarding the plans and specifications for portions of the work to be performed;
 - (iii) Documentation showing that no reasonable price can be obtained from LBE firms;
 - (iv) A statement of why agreements with LBE firms were not reached;
- (g) a statement of the reason for rejecting any LBE firm which the contractor deemed to be unqualified; and
- (h) documentation of efforts made to assist the LBE firms contacted that needed assistance in obtaining required insurance.

(E) Unless otherwise waived by the Commissioner with the approval of the Office of Economic and Financial Opportunity, failure of a proposed contractor to provide the information required by paragraphs (C) and (D) above may render the bid non-responsive and the Contract may not be awarded to the bidder. If the contractor states that it will subcontract a specific portion of the work, but can demonstrate despite good faith efforts it cannot achieve its required LBE percentage for subcontracted work until after award of Contract, the Contract may be awarded, subject to a letter of compliance from the contractor stating that it will comply with Administrative Code Section 6-108.1 and subject to approval by the Commissioner. If the contractor has not met its required LBE percentage prior to award, the contractor shall demonstrate that a good faith effort has been made subsequent to award to obtain LBEs on each subcontract until it meets the required percentage.

(F) When a bidder indicates prior to award that no work will be subcontracted, no work may be subcontracted without the prior written approval of the Commissioner, which shall be granted only if the contractor in good faith seeks LBE subcontractors at least six weeks prior to the start of work.

(G) The contractor may not substitute or change any LBE which was identified prior to award of the contract without the written permission of the Commissioner. The contractor shall make a written application to the Commissioner for permission to make such substitution or change, explaining why the contractor needs to change its LBE subcontractor and how the contractor will meet its LBE subcontracting requirement. Copies of such application must be served on the originally identified LBE by certified mail return receipt requested, as well as the proposed substitute LBE. The Commissioner shall determine whether or not to grant the contractor's request for substitution.

38. Bid Submission Requirements

The Bid Submission Requirements are set forth on page 2 of the Bid Booklet.

39. Comptroller's Certificate

This Contract shall not be binding or of any force unless it is registered by the Comptroller in accordance with Section 328 of the City Charter and the Procurement Policy Board Rules. This Contract shall continue in force only after annual appropriation of funds by the City of New York and certification as hereinabove set forth.

40. Procurement Policy Board Rules

This Invitation For Bids is subject to the Rules of the Procurement Policy Board of the City of New York. In the event of a conflict between said Rules and a provision of this Invitation For Bids, the Rules shall take precedence.

41. DDC Safety Requirements

The DDC Safety Requirements apply to the work to be performed pursuant to the Contract. The DDC Safety Requirements are set forth on the following pages.

CITY OF NEW YORK
DEPARTMENT OF DESIGN AND CONSTRUCTION
SAFETY REQUIREMENTS

THE DDC SAFETY REQUIREMENTS INCLUDE THE FOLLOWING SECTIONS:

- I. POLICY ON SITE SAFETY.....**
- II. PURPOSE**
- III. DEFINITIONS.....**
- IV. RESPONSIBILITIES.....**
- V. SAFETY QUESTIONNAIRE**
- VI. SAFETY PROGRAM AND SITE SAFETY PLAN**
- VII. KICK-OFF/PRE-CONSTRUCTION MEETINGS AND SAFETY REVIEW**
- VIII. EVALUATION DURING WORK IN PROGRESS**
- IX. SAFETY PERFORMANCE EVALUATION.....**

I. POLICY ON SITE SAFETY

The City of New York Department of Design and Construction (DDC) is committed to a policy of injury and illness prevention and risk management for construction work that will ensure the safety and health of the workers engaged in the projects and the protection of the general public. Therefore, it is DDC's policy that work carried out by Contractors on DDC jobsites must, at a minimum, comply with applicable federal, state and city laws, rules and regulations, including without limitation:

- ❑ U. S. Department of Labor 29 Code of Federal Regulations (CFR) Part 1926 and applicable Sub-parts of Part 1910 – U.S. Occupational Safety and Health Administration (OSHA) including, but not limited to "Respiratory Protection" (29 CFR 1910.134), "Permit-Required Confined Spaces" (29 CFR 1910.146), and "Hazard Communication" (29 CFR 1910.1200);
- ❑ New York State Department of Labor Industrial Code Rule 23 – Protection in Construction, Demolition and Excavation;
- ❑ New York City Construction Codes, Title 28
- ❑ NYC Department of Transportation Title 34 Chapter 2 – Highway Rules
- ❑ New York State Department of Labor Industrial Code Rule 753
- ❑ NYC Local Law No. 113 (2005) Noise Control Code

In addition, all regulations promulgated by the NYC Department of Transportation, including requirements for Maintenance and Protection of Traffic (MPT), are applicable when contained in contract specifications. While MPT is a significant component of work in our Infrastructure Division, it does not supersede or exempt Contractors from complying with other applicable health and safety standards (for example, excavating and trenching standards, operation of heavy equipment and compliance with City environmental and noise regulations).

II. PURPOSE

The purpose of this policy is to ensure that Contractors perform their work and supervise their employees in accordance with all applicable federal, state and city rules and regulations. Further, Contractors will be expected to minimize or eliminate jobsite and public hazard, through a planning, inspection, auditing and corrective action process. The goal is to control risks so that injuries, illnesses and accidents to contractors' employees, DDC employees and the general public, as well as damage to city-owned and private property, are reduced to the lowest level feasible.

III. DEFINITIONS

Agency Chief Contracting Officer (ACCO): The ACCO shall mean the person delegated authority by the Commissioner to organize and supervise the procurement activity of subordinate Agency staff in conjunction with the CCPO.

Competent Person: As defined by OSHA, an individual who is capable of identifying existing and predictable hazards in the surroundings or working conditions that are unsanitary, hazardous, or dangerous to employees or the general public, and who has authorization to take prompt corrective measures to eliminate them.

Construction Safety Auditor: A representative of the QACS Construction Safety Unit who provides inspection and assessment services to enhance health and safety on all DDC construction projects. The activities of the Construction Safety Auditor include performing site surveys, reviewing health and safety plans, reviewing construction permits, and rendering technical advice and assistance to DDC Resident Engineers and Project Managers.

City of New York Department of Design and Construction: Safety Requirements
Technical Support Division – Bureau of Quality Assurance and Construction Safety

Construction Safety Unit: A part of QACS within the Division of Technical Support that assesses contractor safety on DDC jobsites and advises responsible parties of needed corrective actions.

Construction Superintendent: A representative of the contractor responsible for overseeing performance of the required construction work. This individual must engage in sound construction practices, and is responsible to maintain a safe work site. In the case of a project involving the demolition, alteration or new construction of buildings, the Construction Superintendent must be licensed by the NYC Department of Buildings.

Contractor: For purposes of these Safety Requirements, the term "Contractor" shall mean any person or entity that enters into a contract for the performance of construction work on a DDC project. The term "Contractor" shall include any person or entity which enters into any of the following types of contracts: (1) a prime construction contract for a specific project, (2) a prime construction contract using the Job Order Contracting System ("JOCS Contract"), and (3) a subcontract with a CM/Builder ("First Tier Subcontract").

Director - Quality Assurance and Construction Safety (QACS): Responsible for the operations of the QACS Construction Safety Unit and the DDC Site Safety management programs.

Job Hazard Assessment (JHA): A process of identifying site-specific hazards that may be present during construction and establishing the means and methods to reduce or eliminate those hazards.

Jobsite Safety Coordinator: A person designated by the Contractor to be onsite during all activities. This individual shall have received, at a minimum, the OSHA 10-hour construction safety program. Other examples of acceptable training are the 30-hour OSHA Safety and Health Standards for the Construction Industry training program (OSHA 510) or a degree/certificate in a safety and health from a college-level curriculum. This person does not necessarily have to be dedicated full-time to site safety, but must have sufficient experience and authority to undertake corrective action and must qualify to be a competent person. For certain projects, as defined in NYC Construction Codes – Title 28, this person may be required to have a Site Safety Manager's License issued by the NYC DOB.

Qualified Person: As defined by OSHA, an individual who, by possession of a recognized degree, certificate, license or professional standing, or who by extensive knowledge, training, and experience, has successfully demonstrated his or her ability to solve problems relating to the subject matter, the work, or the project. Qualified Persons are required under regulation to address issues pertaining, but without limit, to fall protection, scaffold design and trenching and shoring, among others.

Resident Engineer (RE) / Construction Project Manager (CPM): Representative of the Commissioner duly designated by the Commissioner to be his/her representative at the site of the work. (The RE/CPM may be a third-party consultant, including a CM, retained by DDC.)

Safety Program: Established by the Contractor that covers all operations of that Contractor and establishes the Contractor's overall safety policy, regulatory compliance plan and minimum safety standards. The Safety Program must be submitted prior to the commencement of work at the site and is subject to review and acceptance by the Construction Safety Unit.

Safety Questionnaire: Used by DDC to evaluate Contractor's current and past safety performance. It is required to be completed by all Contractors initially when submitting bids for Construction work, or when being pre-qualified and updated annually or as requested by the DDC.

Site Safety Plan: A site-specific safety plan developed by the Contractor for a specific project. The Site Safety Plan must identify hazards associated with the project, and include specific safety precautions and training appropriate and necessary to complete the work. The Site Safety Plan must be submitted prior to the commencement of work at the site and is subject to review and acceptance by the Construction Safety Unit.

City of New York Department of Design and Construction: Safety Requirements
Technical Support Division – Bureau of Quality Assurance and Construction Safety

Unsafe or Unhealthy Condition: A condition that could be potentially hazardous to the health and safety of personnel or the public, and/or damaging to equipment, machinery, property or the environment.

Weekly Safety Meetings: Weekly documented jobsite safety meetings, given to all jobsite personnel by contractor, with the purpose of discussing general safety topics and job specific requirements encountered at the DDC work site.

IV. RESPONSIBILITIES

All persons who manage, perform, and provide support for construction projects shall conduct operations in compliance with the requirements identified in this Policy and all applicable governing regulatory agency requirements and guidelines pertaining to safety in construction.

A. Resident Engineer / Construction Project Manager / Construction Manager

- Monitors the issuance of safety-related permits, approvals and drawings and maintains copies on site.
- Monitors construction-related work activities to confirm that they are conducted in accordance with DDC policies and all applicable regulations that pertain to construction safety.
- Maintains documentation and periodically attends weekly safety meeting.
- Notifies the Construction Safety Unit and the ACCO's Insurance and Risk Management Unit of project-related accidents and emergencies, as per DDC's Construction Safety Emergency Protocol.
- Gathers facts related to all accidents and prepares DDC Accident Reports.
- Notifies the Construction Safety Unit of outside regulatory agency inspections and forwards a copy of the inspection report within three days of its receipt.
- Monitors the conditions at the site for conformance with the Site Safety Plan and DDC construction documents.
- Notifies the contractor and DDC in the event that any condition or activity exists that is not in compliance with the Site Safety Plan, applicable federal, state or local codes or any condition that presents a potential risk of injury to the public or workers or possible damage to property.
- Notifies DDC of any emergency condition and directs the contractor to provide such labor, materials, equipment and supervision to abate such conditions.
- Reports gross safety violations to the Construction Safety Unit immediately.

B. Contractors

- Complete a Safety Questionnaire and submit with its bid or as part of a pre-qualification package.
- Provide a Written Job Hazard Assessment (JHA) that identifies expected safety issues of the work to be performed. JHA shall be included with the Site Safety Plan submitted by the contractor.
- Submit a Site Safety Plan and Safety Program within 15 days of issuance of the Notice to Proceed, or as otherwise directed. The Site Safety Plan and Safety Program are subject to review and acceptance by the Construction Safety Unit prior to the commencement of work at the site. The Site Safety Plan shall be revised and updated as necessary.
- Ensure that all employees are aware of the hazards associated with the project through formal and informal training and/or other communications. Conduct and document weekly safety meetings for the duration of the project. Documentation to be provided to the RE/CPM/CM on a monthly basis.
- Name a Construction Superintendent, if required.
- Name a Job Site Safety Coordinator. The Contractor will be required to identify the Job Site Safety Coordinator in the Site Safety Plan.
- Comply with all mandated federal, state and local safety and health rules and regulations.
- Comply with all provisions of the Site Safety Plan.
- As part of the Site Safety Plan, prepare a site specific MPT (if not otherwise provided in the contract documents) and comply with all of its provisions.

City of New York Department of Design and Construction: Safety Requirements
Technical Support Division - Bureau of Quality Assurance and Construction Safety

- Conduct and document site-specific safety orientation for Contractor personnel to review the hazards associated with the project as identified in the Site Safety Plan and the specific safety procedures and controls that will be used to protect workers, the general public and property. The Job Site Safety Coordinator will conduct this training prior to mobilization and provide documentation to the RE/CPM/CM.
- Provide, replace and adequately maintain at or around the project site, suitable and sufficient signage, lights, barricades and enclosures (fences, sidewalk sheds, netting, bracing, etc.).
- Report unsafe conditions or hazards to the DDC RE/CPM/CM as soon as practical, but no more than 24 hours after discovery, and take action to remove or abate such conditions.
- Report any accident involving injuries to workers or the general public, as well as property damage, to the DDC RE/CPM/CM within two (2) hours.
- Notify the DDC RE/CPM/CM within two (2) hours of the start of an inspection by any regulatory agency personnel, including OSHA.
- Maintain all records pertaining to all required compliance documents and accident and injury reports.
- Respond to DDC recommendations on safety, which shall in no way relieve the Contractor of its responsibilities for safety on the project. The Contractor has sole responsibility for safety.

V. SAFETY QUESTIONNAIRE

DDC requires that all Contractors provide information regarding their current and past safety and environmental performance and programs. This will be accomplished by the use of the DDC Safety Questionnaire. As a part of the bid submittal package, the contractor must submit a completed DDC Safety Questionnaire listing their workers' compensation experience modification rating and OSHA Incidence Rates for the three (3) years prior to the date of the bid opening. DDC may request a Contractor to update its Questionnaire at any time or to provide more detailed information. The Contractor must provide the requested update within 30 days.

The following criteria will be used by DDC in reviewing the Contractor's responsibility, which will be based on the information provided on the questionnaire:

- Criteria 1: OSHA Injury and Illness Rates (I&IR) are no greater than the average for the industry (based on the most current Bureau of Labor Statistics data for the Contractors SIC code); and
- Criteria 2: Insurance workers compensation Experience Modification Rate (EMR) equal to or less than 1.0; and
- Criteria 3: Any willful violations issued by OSHA or NYC DOB within the last three years; and
- Criteria 4: A fatality (worker or member of public) experienced on or near Contractor's worksite within the last three (3) years; and
- Criteria 5: An unacceptable rating by QACS based on past performance on DDC projects; and
- Criteria 6: Contractor has in place an acceptable corporate safety program and its employees shall have completed all documented relative safety training; and
- Criteria 7: Contractor shall provide OSHA Injury Records (currently OSHA 300 Log) for the last three (3) years.

If the Contractor fails to meet the basic criteria listed above, the Construction Safety Unit may request, through the ACCO, more detail concerning the Contractor's safety experience. DDC may request the Contractor to provide copies of, among other things, OSHA records, OSHA and DOB citations, EPA citations and written Safety Programs.

VI. SAFETY PROGRAM AND SITE SAFETY PLAN

Within fifteen (15) days of issuance of the Notice to Proceed, or as otherwise directed, the Contractor shall submit the following: (1) Safety Program, and (2) Site Safety Plan. The Safety Program shall set forth the Contractor's overall safety policy, regulatory compliance plan and minimum safety standard, and the Site Safety Plan shall identify hazards associated with the project, and include specific safety precautions and training appropriate and necessary to complete the work. The Safety Program and the Site Safety Plan are subject to review and acceptance by the Construction Safety Unit prior to the commencement of work at the site. Failure by the contractor to submit an acceptable Site Safety Plan and Safety Program shall be grounds for default.

The Site Safety Plan shall apply to all Contractor and subcontractor operations, and shall have at a minimum, the following elements. Each element shall be described in a separate section in the written document. It may be necessary to modify the basic format for certain unique or high-risk projects (such as tunnels or high-rise construction). The basic elements are as follows:

1. **Responsibility and Organization:** Identify the person or persons with authority and responsibility for implementing the Site Safety Plan. Provide an organization chart and define levels of authority and responsibility. Identify the Competent Person, the Construction Superintendent (if required), the Job Safety Coordinator and the Qualified Person required for this project.
2. **Communication:** Establish a system for communicating with employees and subcontractors on matters relating to worker and public safety and health and environmental protection, including provisions designed to encourage employees to inform the employer of hazards at the worksite without fear of reprisal. An emergency response notification protocol is to be established that also includes after hours contact numbers. The plan must also include provisions for weekly safety meetings held by the Job Site Safety Coordinator.
3. **Job Hazard Assessment:** A written document submitted by the contractor, used to identify expected job hazards and public safety risks and state the specific means and methods to reduce, control or eliminate those hazards. This part of the Site Safety Plan must also include how on-going evaluations of those risks and hazards will be carried out, including plans for periodic inspections to identify unsafe conditions, work practices and public safety hazards.
4. **Accident/Exposure Investigation:** Establish a procedure to investigate and report occupational and public injury or illness, property damage, vehicle accidents or other mishaps.
5. **Hazard Correction:** Establish means, methods and/or procedures for correcting unsafe or unhealthy conditions that might be exposing both the public and workers to hazards. Corrective actions must be taken immediately when observed or discovered. Should an imminent hazard exist which cannot be immediately abated without endangering employees, the public and/or property, remove or restrict all exposed persons from the area except those necessary to correct the existing condition. Employees necessary to correct the hazardous condition shall be provided the necessary safeguards. When corrective actions cannot be taken immediately, temporary measures should be taken until such time permanent measures are taken to eliminate the potential risks or hazards.
6. **Training:** Describe site-specific hazard training programs. In addition to the required safety orientation, additional site specific training, in the form of required weekly safety meetings, will be required. Contractors must also initiate training when: a) new employees are hired; b) employees are given new job assignments for which training has not been previously received; c) new substances, processes, procedures or equipment are introduced that might represent a new public or worker hazard; d) the employee is made aware of a new or previously unrecognized hazard; e) new supervisors are assigned to familiarize themselves with the safety and health hazards to which employees under their immediate direction and control may be exposed; and f) after a jobsite incident or accident has occurred.

City of New York Department of Design and Construction: Safety Requirements
Technical Support Division – Bureau of Quality Assurance and Construction Safety

7. Recordkeeping: Establish procedures to maintain records of scheduled and periodic inspections, weekly safety meetings, and training records. Updated records shall be maintained at the jobsite, accessible to the Construction Safety Auditors and/or Quality Assurance Auditors/RE/CPM, and retained in accordance with DDC policy.

The most critical component of the Site Safety Plan is the Job Hazard Assessment section. This section must address specific hazards that are anticipated throughout the project. Each Site Safety Plan must address, at a minimum:

- Public and pedestrian safety
- Fall protection
- Electrical hazards
- Scaffolding
- Fire protection
- Emergency notification & response
- Housekeeping / debris removal
- Dust control
- Maintenance and protection of traffic
- Trenching and excavating
- Heavy equipment operations
- Material / equipment storage
- Environmental contamination
- Sheeting and shoring
- Alcohol and Drug Abuse Policy

The following additional hazards must be addressed, if applicable, based on the contract safety specifications and/or the results of the JHA (the list is not all-inclusive):

- Basic Personal Protective Equipment
- Compressed Air
- Compressed Gas Cylinders
- Cranes, Derricks and Hoists
- Demolition
- Electrical safety
- Excavations and Trenching
- Fall Protection – Floor openings/Stairways
- Fall Protection – Guardrails Toe boards etc
- Fall Protection – Leading Edge
- Fall Protection – Personal Fall Protection Devices
- Fire Protection and Fire Prevention
- Hazard Communication (RIGHT TO KNOW)
- Hazardous Energy & Lock Out / Tag Out
- Housekeeping/ Sanitation
- Maintenance and Protection of Traffic (MPT)
- Man Lifts /Aerial Lifts
- Marine Operations
- Motor Vehicle Safety
- Overhead Power lines
- Permit Required Confined Space
- Portable Ladders
- Powered Actuated Tools
- Powered Material Handling Equipment
- Scaffolds – Mobile
- Scaffolds – Stationary
- Scaffolds – Suspended
- Slings
- Steel Erection

City of New York Department of Design and Construction: Safety Requirements
Technical Support Division – Bureau of Quality Assurance and Construction Safety

- Welding and Cutting (Hot Work)
- Airborne Contaminants – Particulates – General
- Asbestos
- Blood borne Pathogens
- Hearing Protection
- Lead in Construction
- Mercury in Construction
- PCB's
- Respiratory Protection
- Silica
- Thermal Stress
- West Nile Virus
- Rodents and Vermin
- Noise Mitigation Plan

Certain DDC programs, such as Job Order Contracting System (JOCS), may not necessarily require Site Safety Plans. The JOCS contractor will be required to submit a Safety Program. In addition, certain DDC Operating Units may establish program or client-specific safety requirements. The contractor's Site Safety Plan must address such program or client specific safety requirements.

VII. KICK-OFF MEETINGS/PRE-CONSTRUCTION AND SAFETY REVIEW

As part of the construction kick-off meeting, a Site Safety Plan review will be part of the agenda. A QACS representative will participate in this meeting with the contractor prior to the start of the project for the purpose of:

- A. Reviewing the safety issues detailed in the contract.
- B. Reviewing the Site Safety Plan.
- C. Reviewing any new issues or information that was not previously addressed.
- D. Discussing planned inspections and audits of the site by DDC personnel.

VIII. EVALUATION DURING WORK IN PROGRESS

The Contractor's adherence to these Safety Requirements will be monitored throughout the project. This will be accomplished by the following:

- A. Use of a safety checklist by a representative of the Construction Safety Unit or other designated DDC representative or Consultant during regular, unannounced inspections of the job site. Field Exit Conferences will be held with the RE/CPM, Contractor Superintendents or Safety Representatives.
- B. The RE/CPM will continually monitor the safety and environmental performance of the contractor's employees and work methods. Deficiencies shall be brought to the attention of the contractor's representative on site for immediate correction. The DDC representative will maintain a written record of these deficiencies and forward them to the Construction Safety Unit on a weekly basis. Any critical deficiencies shall be immediately reported to QACS phone# (718) 391-1624 or (718) 391-1911.
- C. If the Contractor's safety performance during the project is not up to DDC standards (safety performance measure, accident/incident rate, etc.) the Director- QACS, or designee will meet with the Contractor's safety representative, the DDC project manager, the RE/CPM, or the DDC Environmental Specialist (if environmental issues are involved). The purpose of this meeting is to 1) determine the level of non-compliance; 2) explain and clarify the safety/environmental provisions; 3) agree on a future course of action to correct the deficiencies.

City of New York Department of Design and Construction: Safety Requirements
Technical Support Division - Bureau of Quality Assurance and Construction Safety

- D. If the deficiencies continue to occur with inadequate attention by the contractor, this shall, among other remedies available, be grounds for default.
- E. The contractor shall inform the Construction Safety Unit and ACCO Insurance and Risk Management Unit of all medical injuries or illnesses that require doctors' treatment resulting from an on-the-job incident within 24 hours of the occurrence. The Construction Safety Unit shall also be immediately informed of all fatalities, catastrophic accidents with more than one employee hospitalized, any injuries to members of the general public and major equipment damage (e.g., property damage, equipment rollovers, loads dropped from crane). QACS shall maintain a record of all contractor injuries and illnesses during the project and provide regular reports to the Agency.
- F. The Construction Safety Unit shall be immediately notified at the start of any NYS-DOL/ NYC-COSH/ OSHA/ EPA inspections. The Director of Quality Assurance & Construction Safety shall maintain a log of all contractor OSHA/EPA inspections and citations during the project.

IX. SAFETY PERFORMANCE EVALUATION

The contractor's safety record, including all DDC inspection results, will be considered as part of the Contractor's performance evaluation at the conclusion of the project. Poor safety performance during the course of the project shall be a reason to rate a Contractor unsatisfactory which will be reflected in the City's Vendex system and will be considered for future procurement actions as set forth in the City's Procurement Policy Board Rules.

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CITY OF NEW YORK
STANDARD CONSTRUCTION CONTRACT

DECEMBER 2013

(NO TEXT ON THIS PAGE)

**CITY OF NEW YORK
STANDARD CONSTRUCTION CONTRACT**

TABLE OF CONTENTS

CHAPTER I

THE CONTRACT AND DEFINITIONS

ARTICLE 1.	THE CONTRACT	1
ARTICLE 2.	DEFINITIONS	1

CHAPTER II

THE WORK AND ITS PERFORMANCE

ARTICLE 3.	CHARACTER OF THE WORK	4
ARTICLE 4.	MEANS AND METHODS OF CONSTRUCTION	4
ARTICLE 5.	COMPLIANCE WITH LAWS	4
ARTICLE 6.	INSPECTION	9
ARTICLE 7.	PROTECTION OF WORK AND OF PERSONS AND PROPERTY; NOTICES AND INDEMNIFICATION	10

CHAPTER III

TIME PROVISIONS

ARTICLE 8.	COMMENCEMENT AND PROTECTION OF THE WORK	11
ARTICLE 9.	PROGRESS SCHEDULES	11
ARTICLE 10.	REQUESTS FOR INFORMATION OR APPROVAL	12
ARTICLE 11.	NOTICE OF CONDITIONS CAUSING DELAY AND DOCUMENTATION OF DAMAGES CAUSED BY DELAY	12
ARTICLE 12.	COORDINATION WITH OTHER CONTRACTORS	13
ARTICLE 13.	EXTENSION OF TIME FOR PERFORMANCE	14
ARTICLE 14.	COMPLETION AND FINAL ACCEPTANCE OF THE WORK	16
ARTICLE 15.	LIQUIDATED DAMAGES	17
ARTICLE 16.	OCCUPATION OR USE PRIOR TO COMPLETION	18

CHAPTER IV

SUBCONTRACTS AND ASSIGNMENTS

ARTICLE 17.	SUBCONTRACTS	18
ARTICLE 18.	ASSIGNMENTS	20

**CITY OF NEW YORK
STANDARD CONSTRUCTION CONTRACT**

TABLE OF CONTENTS

**CHAPTER V
CONTRACTOR'S SECURITY AND GUARANTY**

ARTICLE 19.	SECURITY DEPOSIT	20
ARTICLE 20.	PAYMENT GUARANTEE	20
ARTICLE 21.	RETAINED PERCENTAGE	22
ARTICLE 22.	INSURANCE	23
ARTICLE 23.	MONEY RETAINED AGAINST CLAIMS	28
ARTICLE 24.	MAINTENANCE AND GUARANTY	28

**CHAPTER VI
CHANGES, EXTRA WORK AND DOCUMENTATION OF CLAIM**

ARTICLE 25.	CHANGES	29
ARTICLE 26.	METHODS OF PAYMENT FOR OVERRUNS AND EXTRA WORK	30
ARTICLE 27.	RESOLUTION OF DISPUTES	32
ARTICLE 28.	RECORD KEEPING FOR EXTRA OR DISPUTED WORK	36
ARTICLE 29.	OMITTED WORK	36
ARTICLE 30.	NOTICE AND DOCUMENTATION OF COSTS AND DAMAGES; PRODUCTION OF FINANCIAL RECORDS	37

**CHAPTER VII
POWERS OF THE RESIDENT ENGINEER, THE ENGINEER
OR ARCHITECT AND THE COMMISSIONER**

ARTICLE 31.	THE RESIDENT ENGINEER	38
ARTICLE 32.	THE ENGINEER OR ARCHITECT OR PROJECT MANAGER	38
ARTICLE 33.	THE COMMISSIONER	39
ARTICLE 34.	NO ESTOPPEL	39

**CHAPTER VIII
LABOR PROVISIONS**

ARTICLE 35.	EMPLOYEES	39
ARTICLE 36.	NO DISCRIMINATION	40
ARTICLE 37.	LABOR LAW REQUIREMENTS	42
ARTICLE 38.	PAYROLL REPORTS	47
ARTICLE 39.	DUST HAZARDS	47

**CITY OF NEW YORK
STANDARD CONSTRUCTION CONTRACT**

TABLE OF CONTENTS

CHAPTER IX

PARTIAL AND FINAL PAYMENTS

ARTICLE 40.	CONTRACT PRICE	47
ARTICLE 41.	BID BREAKDOWN ON LUMP SUM	47
ARTICLE 42.	PARTIAL PAYMENTS	48
ARTICLE 43.	PROMPT PAYMENT	48
ARTICLE 44.	SUBSTANTIAL COMPLETION PAYMENT	49
ARTICLE 45.	FINAL PAYMENT	50
ARTICLE 46.	ACCEPTANCE OF FINAL PAYMENT	51
ARTICLE 47.	APPROVAL BY PUBLIC DESIGN COMMISSION	51

CHAPTER X

CONTRACTOR'S DEFAULT

ARTICLE 48.	COMMISSIONER'S RIGHT TO DECLARE CONTRACTOR IN DEFAULT	52
ARTICLE 49.	EXERCISE OF THE RIGHT TO DECLARE DEFAULT	53
ARTICLE 50.	QUITTING THE SITE	53
ARTICLE 51.	COMPLETION OF THE WORK	53
ARTICLE 52.	PARTIAL DEFAULT	53
ARTICLE 53.	PERFORMANCE OF UNCOMPLETED WORK	54
ARTICLE 54.	OTHER REMEDIES	54

CHAPTER XI

MISCELLANEOUS PROVISIONS

ARTICLE 55.	CONTRACTOR'S WARRANTIES	54
ARTICLE 56.	CLAIMS AND ACTIONS THEREON	55
ARTICLE 57.	INFRINGEMENT	55
ARTICLE 58.	NO CLAIM AGAINST OFFICERS, AGENTS OR EMPLOYEES	55
ARTICLE 59.	SERVICES OF NOTICES	55
ARTICLE 60.	UNLAWFUL PROVISIONS DEEMED STRICKEN FROM CONTRACT	56
ARTICLE 61.	ALL LEGAL PROVISIONS DEEMED INCLUDED	56
ARTICLE 62.	TAX EXEMPTION	56
ARTICLE 63.	INVESTIGATION(S) CLAUSE	57
ARTICLE 64.	TERMINATION BY THE CITY	59
ARTICLE 65.	CHOICE OF LAW, CONSENT TO JURISDICTION AND VENUE	62

**CITY OF NEW YORK
STANDARD CONSTRUCTION CONTRACT**

TABLE OF CONTENTS

CHAPTER XI (CONT'D)

MISCELLANEOUS PROVISIONS

ARTICLE 66.	PARTICIPATION IN AN INTERNATIONAL BOYCOTT	74
ARTICLE 67.	LOCALLY BASED ENTERPRISE PROGRAM	74
ARTICLE 68.	ANTITRUST	75
ARTICLE 69.	MACBRIDE PRINCIPLES PROVISIONS	75
ARTICLE 70.	ELECTRONIC FILING/NYC DEVELOPMENT HUB	77
ARTICLE 71.	PROHIBITION OF TROPICAL HARDWOODS	77
ARTICLE 72.	CONFLICTS OF INTEREST	78
ARTICLE 73.	MERGER CLAUSE	78
ARTICLE 74.	STATEMENT OF WORK	78
ARTICLE 75.	COMPENSATION TO BE PAID TO CONTRACTOR	78
ARTICLE 76:	ELECTRONIC FUNDS TRANSFER	78
ARTICLE 77:	RECORDS RETENTION	79
ARTICLE 78:	PARTICIPATION BY MINORITY-OWNED AND WOMEN-OWNED BUSINESS ENTERPRISES IN CITY PROCUREMENT	79

SIGNATURES	87
ACKNOWLEDGMENT BY CORPORATION	88
ACKNOWLEDGMENT BY PARTNERSHIP	88
ACKNOWLEDGMENT BY INDIVIDUAL	88
ACKNOWLEDGMENT BY COMMISSIONER	88
AUTHORITY	89
COMPTROLLER'S CERTIFICATE	90
MAYOR'S CERTIFICATE	91
PERFORMANCE BOND #1	92
PERFORMANCE BOND #2	96
PAYMENT BOND	100

WITNESSETH:

The parties, in consideration of the mutual agreements contained herein, agree as follows:

**CHAPTER I
THE CONTRACT AND DEFINITIONS**

ARTICLE 1. THE CONTRACT

1.1 Except for titles, subtitles, headings, running headlines, tables of contents and indices (all of which are printed herein merely for convenience), the following, except for such portions thereof as may be specifically excluded, shall be deemed to be part of this Contract:

1.1.1 All provisions required by law to be inserted in this Contract, whether actually inserted or not;

1.1.2 The Contract Drawings and Specifications;

1.1.3 The General Conditions and Special Conditions, if any;

1.1.4 The Contract;

1.1.5 The Information for Bidders; Request for Proposals; Notice of Solicitation and Proposal For Bids; Bid or Proposal, and, if used, the Bid Booklet;

1.1.6 All Addenda issued prior to the receipt of the bids; the Notice of Award; Performance and Payment Bonds, if required; and the Notice to Proceed or the Order to Work.

1.2 Should any conflict occur in or between the Drawings and Specifications, the Contractor shall be deemed to have estimated the most expensive way of doing the Work, unless the Contractor shall have asked for and obtained a decision in writing from the Commissioner of the Agency that is entering into this Contract, before the submission of its bid, as to what shall govern.

ARTICLE 2. DEFINITIONS

2.1 The following words and expressions, or pronouns used in their stead, shall, wherever they appear in this Contract, be construed as follows, unless a different meaning is clear from the context:

2.1.1 "Addendum" or "Addenda" shall mean the additional Contract provisions and/or technical clarifications issued in writing by the Commissioner prior to the receipt of bids.

2.1.2 "Agency" shall mean a city, county, borough or other office, position, department, division, bureau, board or commission, or a corporation, institution or agency of government, the expenses of which are paid in whole or in part from the City treasury.

2.1.3 "Agency Chief Contracting Officer" (ACCO) shall mean a person delegated authority by the Commissioner to organize and supervise the procurement activity of subordinate Agency staff in conjunction with the CCPO, or his/her duly authorized representative.

2.1.4 **"Allowance"** shall mean a sum of money which the Agency may include in the total amount of the Contract for such specific contingencies as the Agency believes may be necessary to complete the Work, e.g., lead or asbestos remediation, and for which the Contractor will be paid on the basis of stipulated unit prices or a formula set forth in the Contract or negotiated between the parties provided, however, that if the Contractor is not directed to use the Allowance, the Contractor shall have no right to such money and it shall be deducted from the total amount of the Contract.

2.1.5 **"City"** shall mean the City of New York.

2.1.6 **"City Chief Procurement Officer" (CCPO)** shall mean a person delegated authority by the Mayor to coordinate and oversee the procurement activity of Mayoral agency staff, including the ACCO and any offices which have oversight responsibility for the procurement of construction, or his/her duly authorized representative.

2.1.7 **"Commissioner"** shall mean the head of the Agency that has entered into this Contract, or his/her duly authorized representative.

2.1.8 **"Comptroller"** shall mean the Comptroller of the City of New York.

2.1.9 **"Contract"** or **"Contract Documents"** shall mean each of the various parts of the contract referred to in Article 1 hereof, both as a whole and severally.

2.1.10 **"Contract Drawings"** shall mean only those drawings specifically entitled as such and listed in the Specifications or in any Addendum, or any drawings furnished by the Commissioner, pertaining or supplemental thereto.

2.1.11 **"Contract Work"** shall mean everything required to be furnished and done by the Contractor by any one or more of the parts of the Contract referred to in Article 1, except Extra Work as hereinafter defined.

2.1.12 **"Contractor"** shall mean the entity which executed this Contract, whether a corporation, firm, partnership, joint venture, individual, or any combination thereof, and its, their, his/her successors, personal representatives, executors, administrators, and assigns, and any person, firm, partnership, joint venture, individual, or corporation which shall at any time be substituted in the place of the Contractor under this Contract.

2.1.13 **"Days"** shall mean calendar days, except where otherwise specified.

2.1.14 **"Engineer"** or **"Architect"** or **"Project Manager"** shall mean the person so designated in writing by the Commissioner in the Notice to Proceed or the Order to Work to act as such in relation to this Contract, including a private Architect or Engineer or Project Manager, as the case may be. Subject to written approval by the Commissioner, the Engineer, Architect or Project Manager may designate an authorized representative.

2.1.15 **"Engineering Audit Officer" (EAO)** shall mean the person so designated by the Commissioner to perform responsible auditing functions hereunder.

2.1.16 **"Extra Work"** shall mean Work other than that required by the Contract at the time of award which is authorized by the Commissioner pursuant to Chapter VI of this Contract.

2.1.17 **"Federal-Aid Contract"** shall mean a contract in which the United States (federal) Government provides financial funding as so designated in the Information for Bidders.

2.1.18 **"Final Acceptance"** shall mean final written acceptance of all the Work by the Commissioner, a copy of which shall be sent to the Contractor.

2.1.19 **"Final Approved Punch List"** shall mean a list, approved pursuant to Article 14.2.2, specifying those items of Work to be completed by the Contractor after Substantial Completion and dates for the completion of each item of Work.

2.1.20 **"Law"** or **"Laws"** shall mean the Constitution of the State of New York, the New York City Charter, the New York City Administrative Code, a statute of the United States or of the State of New York, a local law of the City of New York, any ordinance, rule or regulation having the force of law, or common law.

2.1.21 **"Materialman"** shall mean any corporation, firm, partnership, joint venture, or individual, other than employees of the Contractor, who or which contracts with the Contractor or any Subcontractor, to fabricate or deliver, or who actually fabricates or delivers, plant, materials or equipment to be incorporated in the Work.

2.1.22 **"Means and Methods of Construction"** shall mean the labor, materials, temporary structures, tools, plant, and construction equipment, and the manner and time of their use, necessary to accomplish the result intended by this Contract.

2.1.23 **"Notice to Proceed" or "Order to Work"** shall mean the written notice issued by the Commissioner specifying the time for commencement of the Work and the Engineer, Architect or Project Manager.

2.1.24 **"Other Contractor(s)"** shall mean any contractor (other than the entity which executed this Contract or its Subcontractors) who or which has a contract with the City for work on or adjacent to the building or Site of the Work.

2.1.25 **"Payroll Taxes"** shall mean State Unemployment Insurance (SUI), Federal Unemployment Insurance (FUI), and payments pursuant to the Federal Insurance Contributions Act (FICA).

2.1.26 **"Project"** shall mean the public improvement to which this Contract relates.

2.1.27 **"Procurement Policy Board" (PPB)** shall mean the Agency of the City of New York whose function is to establish comprehensive and consistent procurement policies and rules which shall have broad application throughout the City.

2.1.28 **"Required Quantity"** in a unit price Contract shall mean the actual quantity of any item of Work or materials which is required to be performed or furnished in order to comply with the Contract.

2.1.29 **"Resident Engineer"** shall mean the representative of the Commissioner duly designated by the Commissioner to be his/her representative at the site of the Work.

2.1.30 **"Site"** shall mean the area upon or in which the Contractor's operations are carried on, and such other areas adjacent thereto as may be designated as such by the Engineer.

2.1.31 **"Small Tools"** shall mean items that are ordinarily required for a worker's job function, including but not limited to, equipment that ordinarily has no licensing, insurance

or substantive storage costs associated with it; such as circular and chain saws, impact drills, threaders, benders, wrenches, socket tools, etc.

2.1.32 "**Specifications**" shall mean all of the directions, requirements, and standards of performance applying to the Work as hereinafter detailed and designated under the Specifications.

2.1.33 "**Subcontractor**" shall mean any person, firm or corporation, other than employees of the Contractor, who or which contracts with the Contractor or with its subcontractors to furnish, or actually furnishes labor, or labor and materials, or labor and equipment, or superintendence, supervision and/or management at the Site. Wherever the word Subcontractor appears, it shall also mean sub-Subcontractor.

2.1.34 "**Substantial Completion**" shall mean the written determination by the Engineer that the Work required under this Contract is substantially, but not entirely, complete and the approval of the **Final Approved Punch List**.

2.1.35 "**Work**" shall mean all services required to complete the Project in accordance with the Contract Documents, including without limitation, labor, material, superintendence, management, administration, equipment, and incidentals, and obtaining any and all permits, certifications and licenses as may be necessary and required to complete the Work, and shall include both Contract Work and Extra Work.

CHAPTER II THE WORK AND ITS PERFORMANCE

ARTICLE 3. CHARACTER OF THE WORK

3.1 Unless otherwise expressly provided in the **Contract Drawings, Specifications, and Addenda**, the **Work** shall be performed in accordance with the best modern practice, utilizing, unless otherwise specified in writing, new and unused materials of standard first grade quality and workmanship and design of the highest quality, to the satisfaction of the **Commissioner**.

ARTICLE 4. MEANS AND METHODS OF CONSTRUCTION

4.1 Unless otherwise expressly provided in the **Contract Drawings, Specifications, and Addenda**, the **Means and Methods of Construction** shall be such as the Contractor may choose; subject, however, to the **Engineer's** right to reject the **Means and Methods of Construction** proposed by the Contractor which in the opinion of the **Engineer**:

4.1.1 Will constitute or create a hazard to the **Work**, or to persons or property; or

4.1.2 Will not produce finished **Work** in accordance with the terms of the **Contract**; or

4.1.3 Will be detrimental to the overall progress of the **Project**.

4.2 The **Engineer's** approval of the **Contractor's Means and Methods of Construction**, or his/her failure to exercise his/her right to reject such means or methods, shall not relieve the **Contractor** of its obligation to complete the **Work** as provided in this **Contract**; nor shall the exercise of such right to reject create a cause of action for damages.

ARTICLE 5. COMPLIANCE WITH LAWS

5.1 The **Contractor** shall comply with all **Laws** applicable to this **Contract** and to the **Work** to be done hereunder.

5.2 **Procurement Policy Board Rules:** This **Contract** is subject to the Rules of the **PPB** ("PPB Rules") in effect at the time of the bid opening for this **Contract**. In the event of a conflict between the **PPB** Rules and a provision of this **Contract**, the **PPB** Rules shall take precedence.

5.3 Noise Control Code provisions.

5.3.1 In accordance with the provisions of Section 24-216(b) of the Administrative Code of the **City** ("Administrative Code"), Noise Abatement Contract Compliance, devices and activities which will be operated, conducted, constructed or manufactured pursuant to this **Contract** and which are subject to the provisions of the **City** Noise Control Code shall be operated, conducted, constructed, or manufactured without causing a violation of the Administrative Code. Such devices and activities shall incorporate advances in the art of noise control development for the kind and level of noise emitted or produced by such devices and activities, in accordance with regulations issued by the **Commissioner** of the **City** Department of Environmental Protection.

5.3.2 The **Contractor** agrees to comply with Section 24-219 of the Administrative Code and implementing rules codified at 15 Rules of the **City** of New York ("RCNY") Section 28-100 *et seq.* In accordance with such provisions, the **Contractor**, if the **Contractor** is the responsible party under such regulations, shall prepare and post a Construction Noise Mitigation Plan at each **Site**, in which the **Contractor** shall certify that all construction tools and equipment have been maintained so that they operate at normal manufacturers operating specifications. If the **Contractor** cannot make this certification, it must have in place an Alternative Noise Mitigation Plan approved by the **City** Department of Environmental Protection. In addition, the **Contractor's** certified Construction Noise Mitigation Plan is subject inspection by the **City** Department of Environmental Protection in accordance with Section 28-101 of Title 15 of RCNY. No **Contract Work** may take place at a **Site** unless there is a Construction Noise Mitigation Plan or approved Alternative Noise Mitigation Plan in place. In addition, the **Contractor** shall create and implement a noise mitigation training program. Failure to comply with these requirements may result in fines and other penalties pursuant to the applicable provisions of the Administrative Code and RCNY.

5.4 Ultra Low Sulfur Diesel Fuel: In accordance with the provisions of Section 24-163.3 of the Administrative Code, the **Contractor** specifically agrees as follows:

5.4.1 Definitions. For purposes of this Article 5.4, the following definitions apply:

5.4.1(a) "Contractor" means any person or entity that enters into a Public Works Contract with a **City Agency**, or any person or entity that enters into an agreement with such person or entity, to perform work or provide labor or services related to such Public Works Contract.

5.4.1(b) "Motor Vehicle" means any self-propelled vehicle designed for transporting persons or property on a street or highway.

5.4.1(c) "Nonroad Engine" means an internal combustion engine (including the fuel system) that is not used in a Motor Vehicle or a vehicle used solely for competition, or that is not subject to standards promulgated under Section 7411 or Section 7521 of

Title 42 of the United States Code, except that this term shall apply to internal combustion engines used to power generators, compressors or similar equipment used in any construction program or project.

5.4.1(d) "Nonroad Vehicle" means a vehicle that is powered by a Nonroad Engine, fifty (50) horsepower and greater, and that is not a Motor Vehicle or a vehicle used solely for competition, which shall include, but not be limited to, excavators, backhoes, cranes, compressors, generators, bulldozers, and similar equipment, except that this term shall not apply to horticultural maintenance vehicles used for landscaping purposes that are powered by a Nonroad Engine of sixty-five (65) horsepower or less and that are not used in any construction program or project.

5.4.1(e) "Public Works Contract" means a contract with a **City Agency** for a construction program or project involving the construction, demolition, restoration, rehabilitation, repair, renovation, or abatement of any building, structure, tunnel, excavation, roadway, park or bridge; a contract with a **City Agency** for the preparation for any construction program or project involving the construction, demolition, restoration, rehabilitation, repair, renovation, or abatement of any building, structure, tunnel, excavation, roadway, park or bridge; or a contract with a **City Agency** for any final work involved in the completion of any construction program or project involving the construction, demolition, restoration, rehabilitation, repair, renovation, or abatement of any building, structure, tunnel, excavation, roadway, park or bridge.

5.4.1(f) "Ultra Low Sulfur Diesel Fuel" means diesel fuel that has a sulfur content of no more than fifteen parts per million (15 ppm).

5.4.2 Ultra Low Sulfur Diesel Fuel

5.4.2(a) All **Contractors** shall use Ultra Low Sulfur Diesel Fuel in diesel-powered **Nonroad Vehicles** in the performance of this **Contract**.

5.4.2(b) Notwithstanding the requirements of Article 5.4.2(a), **Contractors** may use diesel fuel that has a sulfur content of no more than thirty parts per million (30 ppm) to fulfill the requirements of this Article 5.4.2, where the Commissioner of the City Department of Environmental Protection ("DEP Commissioner") has issued a determination that a sufficient quantity of Ultra Low Sulfur Diesel Fuel is not available to meet the needs of **Agencies** and **Contractors**. Any such determination shall expire after six (6) months unless renewed.

5.4.2(c) **Contractors** shall not be required to comply with this Article 5.4.2 where the **City Agency** letting this **Contract** makes a written finding, which is approved, in writing, by the DEP Commissioner, that a sufficient quantity of Ultra Low Sulfur Diesel Fuel, or diesel fuel that has a sulfur content of no more than thirty parts per million (30 ppm) is not available to meet the requirements of Section 24-163.3 of the Administrative Code, provided that such **Contractor** in its fulfillment of the requirements of this **Contract**, to the extent practicable, shall use whatever quantity of Ultra Low Sulfur Diesel Fuel or diesel fuel that has a sulfur content of no more than thirty parts per million (30 ppm) is available. Any finding made pursuant to this Article 5.4.2(c) shall expire after sixty (60) **Days**, at which time the requirements of this Article 5.4.2 shall be in full force and effect unless the **City Agency** renews the finding in writing and such renewal is approved by the DEP Commissioner.

5.4.2(d) **Contractors** may check on determinations and approvals issued by the DEP Commissioner pursuant to Section 24-163.3 of the Administrative Code, if any, at www.dep.nyc.gov or by contacting the **City Agency** letting this **Contract**.

5.4.2(e) The requirements of this Article 5.4.2 do not apply where they are precluded by federal or State funding requirements or where the **Contract** is an emergency procurement.

5.4.3 Best Available Technology

5.4.3(a) All **Contractors** shall utilize the best available technology for reducing the emission of pollutants for diesel-powered Nonroad Vehicles in the performance of this **Contract**. For determinations of best available technology for each type of diesel-powered Nonroad Vehicle, **Contractors** shall comply with the regulations of the City Department of Environmental Protection, as and when adopted, Chapter 14 of Title 15 of the Rules of the City of New York (RCNY). The **Contractor** shall fully document all steps in the best available technology selection process and shall furnish such documentation to the **City Agency** or the DEP Commissioner upon request. The **Contractor** shall retain all documentation generated in the best available technology selection process for as long as the selected best available technology is in use.

5.4.3(b) No **Contractor** shall be required to replace best available technology for reducing the emission of pollutants or other authorized technology utilized for a diesel-powered Nonroad Vehicle in accordance with the provisions of this Article 5.4.3 within three (3) years of having first utilized such technology for such vehicle.

5.4.3(c) This Article 5.4.3 shall not apply to any vehicle used to satisfy the requirements of a specific Public Works Contract for fewer than twenty (20) **Days**.

5.4.3(d) The **Contractor** shall not be required to comply with this Article 5.4.3 with respect to a diesel-powered Nonroad Vehicle under the following circumstances:

5.4.3(d)(i) Where the **City Agency** makes a written finding, which is approved, in writing, by the DEP Commissioner, that the best available technology for reducing the emission of pollutants as required by this Article 5.4.3 is unavailable for such vehicle, the **Contractor** shall use whatever technology for reducing the emission of pollutants, if any, is available and appropriate for such vehicle.

5.4.3(d)(ii) Where the DEP Commissioner has issued a written waiver based upon the **Contractor** having demonstrated to the DEP Commissioner that the use of the best available technology for reducing the emission of pollutants might endanger the operator of such vehicle or those working near such vehicle, due to engine malfunction, the **Contractor** shall use whatever technology for reducing the emission of pollutants, if any, is available and appropriate for such vehicle, which would not endanger the operator of such vehicle or those working near such vehicle.

5.4.3(d)(iii) In determining which technology to use for the purposes of Articles 5.4.3(d)(i) and 5.4.3(d)(ii) above, the **Contractor** shall primarily consider the reduction in emissions of particulate matter and secondarily consider the reduction in emissions of nitrogen oxides associated with the use of such

technology, which shall in no event result in an increase in the emissions of either such pollutant.

5.4.3(d)(iv) The **Contractor** shall submit requests for a finding or a waiver pursuant to this Article 5.4.3(d) in writing to the DEP Commissioner, with a copy to the **ACCO** of the **City Agency** letting this **Contract**. Any finding or waiver made or issued pursuant to Articles 5.4.3(d)(i) and 5.4.3(d)(ii) above shall expire after one hundred eighty (180) **Days**, at which time the requirements of Article 5.4.3(a) shall be in full force and effect unless the **City Agency** renews the finding, in writing, and the DEP Commissioner approves such finding, in writing, or the DEP Commissioner renews the waiver, in writing.

5.4.3(e) The requirements of this Article 5.4.3 do not apply where they are precluded by federal or State funding requirements or where the **Contract** is an emergency procurement.

5.4.4 Section 24-163 of the Administrative Code. The **Contractor** shall comply with Section 24-163 of the Administrative Code related to the idling of the engines of motor vehicles while parking.

5.4.5 Compliance

5.4.5(a) The **Contractor's** compliance with Article 5.4 may be independently monitored. If it is determined that the **Contractor** has failed to comply with any provision of Article 5.4, any costs associated with any independent monitoring incurred by the **City** shall be reimbursed by the **Contractor**.

5.4.5(b) Any **Contractor** who violates any provision of Article 5.4, except as provided in Article 5.4.5(c) below, shall be liable for a civil penalty between the amounts of one thousand (\$1,000) and ten thousand (\$10,000) dollars, in addition to twice the amount of money saved by such **Contractor** for failure to comply with Article 5.4.

5.4.5(c) No **Contractor** shall make a false claim with respect to the provisions of Article 5.4 to a **City Agency**. Where a **Contractor** has been found to have done so, such **Contractor** shall be liable for a civil penalty of twenty thousand (\$20,000) dollars, in addition to twice the amount of money saved by such **Contractor** in association with having made such false claim.

5.4.6 Reporting

5.4.6(a) For all Public Works Contracts covered by this Article 5.4, the **Contractor** shall report to the **City Agency** the following information:

5.4.6(a)(i) The total number of diesel-powered Nonroad Vehicles used to fulfill the requirements of this Public Works Contract;

5.4.6(a)(ii) The number of such Nonroad Vehicles that were powered by Ultra Low Sulfur Diesel Fuel;

5.4.6(a)(iii) The number of such Nonroad Vehicles that utilized the best available technology for reducing the emission of pollutants, including a breakdown by vehicle model and the type of technology;

5.4.6(a)(iv) The number of such Nonroad Vehicles that utilized such other authorized technology in accordance with Article 5.4.3, including a breakdown by vehicle model and the type of technology used for each such vehicle;

5.4.6(a)(v) The locations where such Nonroad Vehicles were used; and

5.4.6(a)(vi) Where a determination is in effect pursuant to Article 5.4.2(b) or 5.4.2(c), detailed information concerning the **Contractor's** efforts to obtain Ultra Low Sulfur Diesel Fuel or diesel fuel that has a sulfur content of no more than thirty parts per million (30 ppm).

5.4.6(b) The **Contractor** shall submit the information required by Article 5.4.6(a) at the completion of **Work** under the Public Works Contract and on a yearly basis no later than August 1 throughout the term of the Public Works Contract. The yearly report shall cover **Work** performed during the preceding fiscal year (July 1 - June 30).

5.5 Ultra Low Sulfur Diesel Fuel. In accordance with the Coordinated Construction Act for Lower Manhattan, as amended:

5.5.1 Definitions. For purposes of this Article 5.5, the following definitions apply:

5.5.1(a) "Lower Manhattan" means the area to the south of and within the following lines: a line beginning at a point where the United States pierhead line in the Hudson River as it exists now or may be extended would intersect with the southerly line of West Houston Street in the Borough of Manhattan extended, thence easterly along the southerly side of West Houston Street to the southerly side of Houston Street, thence easterly along the southerly side of Houston Street to the southerly side of East Houston Street, thence northeasterly along the southerly side of East Houston Street to the point where it would intersect with the United States pierhead line in the East River as it exists now or may be extended, including tax lots within or immediately adjacent thereto.

5.5.1(b) "Lower Manhattan Redevelopment Project" means any project in Lower Manhattan that is funded in whole or in part with federal or State funding, or any project intended to improve transportation between Lower Manhattan and the two air terminals in the City known as LaGuardia Airport and John F. Kennedy International Airport, or between Lower Manhattan and the air terminal in Newark known as Newark Liberty International Airport, and that is funded in whole or in part with federal funding.

5.5.1(c) "Nonroad Engine" means an internal combustion engine (including the fuel system) that is not used in a Motor Vehicle or a vehicle used solely for competition, or that is not subject to standards promulgated under Section 7411 or Section 7521 of Title 42 of the United States Code, except that this term shall apply to internal combustion engines used to power generators, compressors or similar equipment used in any construction program or project.

5.5.1(d) "Nonroad Vehicle" means a vehicle that is powered by a Nonroad Engine, fifty (50) horsepower (HP) and greater, and that is not a Motor Vehicle or a vehicle used solely for competition, which shall include, but not be limited to, excavators, backhoes, cranes, compressors, generators, bulldozers, and similar equipment, except

that this terms shall not apply to horticultural maintenance vehicles used for landscaping purposes that are powered by a Nonroad Engine of sixty-five (65) HP or less and that are not used in any construction program or project.

5.5.1(e) "Ultra Low Sulfur Diesel Fuel" means diesel fuel that has a sulfur content of no more than fifteen parts per million (15 ppm).

5.5.2 Requirements. **Contractors and Subcontractors** are required to use only Ultra Low Sulfur Diesel Fuel to power the diesel-powered Nonroad Vehicles with engine HP rating of fifty (50) HP and above used on a Lower Manhattan Redevelopment Project and, where practicable, to reduce the emission of pollutants by retrofitting such Nonroad Vehicles with oxidation catalysts, particulate filters, or technology that achieves lowest particulate matter emissions.

5.6 Pesticides. In accordance with Section 17-1209 of the Administrative Code, to the extent that the **Contractor** or any **Subcontractor** applies pesticides to any property owned or leased by the **City**, the **Contractor**, and any **Subcontractor** shall comply with Chapter 12 of the Administrative Code.

5.7 Waste Treatment, Storage, and Disposal Facilities and Transporters. In connection with the **Work**, the **Contractor** and any **Subcontractor** shall use only those waste treatment, storage, and disposal facilities and waste transporters that possess the requisite license, permit or other governmental approval necessary to treat, store, dispose, or transport the waste, materials or hazardous substances.

5.8 Environmentally Preferable Purchasing. The **Contractor** shall ensure that products purchased or leased by the **Contractor** or any **Subcontractor** for the **Work** that are not specified by the **City** or are submitted as equivalents to a product specified by the **City** comply with the requirements of the New York City Environmentally Preferable Purchasing Program contained in Chapter 11 of Title 43 of the RCNY, pursuant to Chapter 3 of Title 6 of the Administrative Code.

ARTICLE 6. INSPECTION

6.1 During the progress of the **Work** and up to the date of **Final Acceptance**, the **Contractor** shall at all times afford the representatives of the **City** every reasonable, safe, and proper facility for inspecting all **Work** done or being done at the **Site** and also for inspecting the manufacture or preparation of materials and equipment at the place of such manufacture or preparation.

6.2 The **Contractor's** obligation hereunder shall include the uncovering or taking down of finished **Work** and its restoration thereafter; provided, however, that the order to uncover, take down and restore shall be in writing, and further provided that if **Work** thus exposed proves satisfactory, and if the **Contractor** has complied with Article 6.1, such uncovering or taking down and restoration shall be considered an item of **Extra Work** to be paid for in accordance with the provisions of Article 26. If the **Work** thus exposed proves unsatisfactory, the **City** has no obligation to compensate the **Contractor** for the uncovering, taking down or restoration.

6.3 Inspection and approval by the **Commissioner**, the **Engineer**, **Project Manager**, or **Resident Engineer**, of finished **Work** or of **Work** being performed, or of materials and equipment at the place of manufacture or preparation, shall not relieve the **Contractor** of its obligation to perform the **Work** in strict accordance with the **Contract**. Finished or unfinished **Work** not found to be in strict accordance with the **Contract** shall be replaced as directed by the **Engineer**, even though such **Work** may have been previously approved and paid for. Such corrective **Work** is **Contract Work** and shall not be deemed **Extra Work**.

6.4 Rejected Work and materials shall be promptly taken down and removed from the Site, which must at all times be kept in a reasonably clean and neat condition.

**ARTICLE 7. PROTECTION OF WORK AND OF PERSONS
AND PROPERTY; NOTICES AND INDEMNIFICATION**

7.1 During the performance of the Work and up to the date of Final Acceptance, the Contractor shall be under an absolute obligation to protect the finished and unfinished Work against any damage, loss, injury, theft and/or vandalism and in the event of such damage, loss, injury, theft and/or vandalism, it shall promptly replace and/or repair such Work at the Contractor's sole cost and expense, as directed by the Resident Engineer. The obligation to deliver finished Work in strict accordance with the Contract prior to Final Acceptance shall be absolute and shall not be affected by the Resident Engineer's approval of, or failure to prohibit, the Means and Methods of Construction used by the Contractor.

7.2 During the performance of the Work and up to the date of Final Acceptance, the Contractor shall take all reasonable precautions to protect all persons and the property of the City and of others from damage, loss or injury resulting from the Contractor's, and/or its Subcontractors' operations under this Contract. The Contractor's obligation to protect shall include the duty to provide, place or replace, and adequately maintain at or about the Site suitable and sufficient protection such as lights, barricades, and enclosures.

7.3 The Contractor shall comply with the notification requirements set forth below in the event of any loss, damage or injury to Work, persons or property, or any accidents arising out of the operations of the Contractor and/or its Subcontractors under this Contract.

7.3.1 The Contractor shall make a full and complete report in writing to the Resident Engineer within three (3) Days after the occurrence.

7.3.2 The Contractor shall also send written notice of any such event to all insurance carriers that issued potentially responsive policies (including commercial general liability insurance carriers for events relating to the Contractor's own employees) no later than twenty (20) days after such event and again no later than twenty (20) days after the initiation of any claim and/or action resulting therefrom. Such notice shall contain the following information: the number of the insurance policy, the name of the Named Insured, the date and location of the incident, and the identity of the persons injured or property damaged. For any policy on which the City and/or the Engineer, Architect, or Project Manager are Additional Insureds, such notice shall expressly specify that "this notice is being given on behalf of the City of New York as Additional Insured, such other Additional Insureds, as well as the Named Insured."

7.3.2(a) Whenever such notice is sent under a policy on which the City is an Additional Insured, the Contractor shall provide copies of the notice to the Comptroller, the Commissioner and the City Corporation Counsel. The copy to the Comptroller shall be sent to the Insurance Unit, NYC Comptroller's Office, 1 Centre Street - Room 1222, New York, New York, 10007. The copy to the Commissioner shall be sent to the address set forth in Schedule A of the General Conditions. The copy to the City Corporation Counsel shall be sent to Insurance Claims Specialist, Affirmative Litigation Division, New York City Law Department, 100 Church Street, New York, New York 10007.

7.3.2(b) If the **Contractor** fails to provide any of the foregoing notices to any appropriate insurance carrier(s) in a timely and complete manner, the **Contractor** shall indemnify the **City** for all losses, judgments, settlements, and expenses, including reasonable attorneys' fees, arising from an insurer's disclaimer of coverage citing late notice by or on behalf of the **City**.

7.4 To the fullest extent permitted by law, the **Contractor** shall defend, indemnify, and hold the **City**, its employees, and officials (the "Indemnitees") harmless against any and all claims (including but not limited to claims asserted by any employee of the **Contractor** and/or its **Subcontractors**) and costs and expenses of whatever kind (including but not limited to payment or reimbursement of attorneys' fees and disbursements) allegedly arising out of or in any way related to the operations of the **Contractor** and/or its **Subcontractors** in the performance of this **Contract** or from the **Contractor's** and/or its **Subcontractors'** failure to comply with any of the provisions of this **Contract** or of the **Law**. Such costs and expenses shall include all those incurred in defending the underlying claim and those incurred in connection with the enforcement of this Article 7.4 by way of cross-claim, third-party claim, declaratory action or otherwise. The parties expressly agree that the indemnification obligation hereunder contemplates (1) full indemnity in the event of liability imposed against the Indemnitees without negligence and solely by reason of statute, operation of **Law** or otherwise; and (2) partial indemnity in the event of any actual negligence on the part of the Indemnitees either causing or contributing to the underlying claim (in which case, indemnification will be limited to any liability imposed over and above that percentage attributable to actual fault whether by statute, by operation of **Law**, or otherwise). Where partial indemnity is provided hereunder, all costs and expenses shall be indemnified on a pro rata basis.

7.4.1 Indemnification under Article 7.4 or any other provision of the **Contract** shall operate whether or not **Contractor** or its **Subcontractors** have placed and maintained the insurance specified under Article 22.

7.5 The provisions of this Article 7 shall not be deemed to create any new right of action in favor of third parties against the **Contractor** or the **City**.

CHAPTER III TIME PROVISIONS

ARTICLE 8. COMMENCEMENT AND PROSECUTION OF THE WORK

8.1 The **Contractor** shall commence the **Work** on the date specified in the **Notice to Proceed** or the **Order to Work**. The time for performance of the **Work** under the **Contract** shall be computed from the date specified in the **Notice to Proceed** or the **Order to Work**. **TIME BEING OF THE ESSENCE** to the **City**, the **Contractor** shall thereafter prosecute the **Work** diligently, using such **Means and Methods of Construction** as are in accord with Article 4 herein and as will assure its completion not later than the date specified in this **Contract**, or on the date to which the time for completion may be extended.

ARTICLE 9. PROGRESS SCHEDULES

9.1 To enable the **Work** to be performed in an orderly and expeditious manner, the **Contractor**, within fifteen (15) **Days** after the **Notice to Proceed** or **Order to Work**, unless otherwise directed by the **Engineer**, shall submit to the **Engineer** a proposed progress schedule based on the Critical Path Method in the form of a bar graph or in such other form as specified by the **Engineer**, and monthly cash flow requirements, showing:

9.1.1 The anticipated time of commencement and completion of each of the various operations to be performed under this **Contract**; and

9.1.2 The sequence and interrelation of each of these operations with the others and with those of other related contracts; and

9.1.3 The estimated time required for fabrication or delivery, or both, of all materials and equipment required for the **Work**, including the anticipated time for obtaining required approvals pursuant to Article 10; and

9.1.4 The estimated amount in dollars the **Contractor** will claim on a monthly basis.

9.2 The proposed schedule shall be revised as directed by the **Engineer**, until finally approved by the **Engineer**, and after such approval, subject to the provisions of Article 11, shall be strictly adhered to by the **Contractor**.

9.3 If the **Contractor** shall fail to adhere to the approved progress schedule, or to the schedule as revised pursuant to Article 11, it shall promptly adopt such other or additional **Means and Methods of Construction**, at its sole cost and expense, as will make up for the time lost and will assure completion in accordance with the approved progress schedule. The approval by the **City** of a progress schedule which is shorter than the time allotted under the **Contract** shall not create any liability for the **City** if the approved progress schedule is not met.

9.4 The **Contractor** will not receive any payments until the proposed progress schedule is submitted.

ARTICLE 10. REQUESTS FOR INFORMATION OR APPROVAL

10.1 From time to time as the **Work** progresses and in the sequence indicated by the approved progress schedule, the **Contractor** shall submit to the **Engineer** a specific request in writing for each item of information or approval required by the **Contractor**. These requests shall state the latest date upon which the information or approval is actually required by the **Contractor**, and shall be submitted in a reasonable time in advance thereof to provide the **Engineer** a sufficient time to act upon such submissions, or any necessary re-submissions thereof.

10.2 The **Contractor** shall not have any right to an extension of time on account of delays due to the **Contractor's** failure to submit requests for the required information or the required approval in accordance with the above requirements.

ARTICLE 11. NOTICE OF CONDITIONS CAUSING DELAY AND DOCUMENTATION OF DAMAGES CAUSED BY DELAY

11.1 After the commencement of any condition which is causing or may cause a delay in completion of the **Work**, including conditions for which the **Contractor** may be entitled to an extension of time, the following notifications and submittals are required:

11.1.1 Within seven (7) **Days** after the commencement of such condition, the **Contractor** must notify the **Engineer** in writing of the existence, nature and effect of such condition upon the approved progress schedule and the **Work**, and must state why and in what respects, if any, the condition is causing or may cause a delay.

11.1.2 If the **Contractor** shall claim to be sustaining damages for delay as provided for in this Article 11, within forty-five (45) **Days** from the time such damages are first incurred, and every thirty (30) **Days** thereafter for as long as such damages are being incurred, the **Contractor** shall submit to the **Commissioner** verified written statements of the details and the amounts of such damages, together with documentary evidence of such damages, ("statement of delay damages") as further detailed in Article 11.6. The **Contractor** may submit any of the above statements within such additional time as may be granted by the **Commissioner** in writing upon written request therefor. On failure of the **Contractor** to strictly comply with all of the foregoing provisions, such claims shall be deemed waived and no right to recover on such claims shall exist. Damages that the **Contractor** may claim in any action arising under or by reason of this **Contract** shall not be different from or in excess of the statements made and documentation provided pursuant to this Article 11.

11.1.3 Within 60 days of submission of the final verified statement of claims pursuant to Article 44, the **Commissioner** shall make a determination as to whether a compensable delay has occurred and, if so, the amount of compensation due the **Contractor**. Notwithstanding the above, the **Commissioner** may make a determination as to whether a compensable delay has occurred at any time after the **Contractor's** first submission of a statement of delay damages provided, however, that the amount of compensation due to the **Contractor** will not be determined until the **Commissioner** determines that the **Work** is delayed after the date set for substantial completion.

11.2 Failure of the **Contractor** to strictly comply with the requirements of Article 11.1.1 may, in the discretion of the **Commissioner**, be deemed sufficient cause to deny any extension of time on account of delay arising out of such condition. Failure of the **Contractor** to strictly comply with the requirements of Articles 11.1.1 and 11.1.2 shall be deemed a conclusive waiver by the **Contractor** of any and all claims for damages for delay arising from such condition and no right to recover on such claims shall exist.

11.3 When appropriate and directed by the **Engineer**, the progress schedule shall be revised by the **Contractor** until finally approved by the **Engineer**. The revised progress schedule must be strictly adhered to by the **Contractor**.

11.4 Compensable Delays

11.4.1 The **Contractor** agrees to make claim only for additional costs attributable to delay in the performance of this **Contract** necessarily extending the time for completion of the **Work** or resulting from acceleration directed by the **Commissioner** and required to maintain the **Project** schedule, occasioned solely by any act or omission to act of the **City** listed below. The **Contractor** also agrees that delay from any other cause shall be compensated, if at all, solely by an extension of time to complete the performance of the **Work**.

11.4.1.1 The failure of the **City** to take reasonable measures to coordinate and progress the **Work**, except that the **City** shall not be responsible for the **Contractor's** obligation to coordinate and progress the **Work** of its **Subcontractors**.

11.4.1.2 Extended delays attributable to the **City** in the review or issuance of change orders, in shop drawing reviews and approvals or as a result of the cumulative impact of multiple change orders, which have a verifiable impact on **Project** costs.

11.4.1.3 The unavailability of the **Site** for an extended period of time that significantly affects the scheduled completion of the **Contract**.

- 11.4.1.4 The issuance by the **Engineer** of a stop work order relative to a substantial portion of the **Work** for a period exceeding thirty (30) **Days**, that was not brought about through any action or omission of the **Contractor**.
- 11.4.1.5 Differing site conditions that were neither known nor reasonably ascertainable on a pre-bid inspection of the **Site** or review of the bid documents or other publicly available sources, and that are not ordinarily encountered in the **Project's** geographical area or neighborhood or in the type of **Work** to be performed.
- 11.4.1.6 Delays caused by the **City's** bad faith or its willful, malicious, or grossly negligent conduct;
- 11.4.1.7 Delays not contemplated by the parties;
- 11.4.1.8 Delays so unreasonable that they constitute an intentional abandonment of the **Contract** by the **City**; and
- 11.4.1.9 Delays resulting from the **City's** breach of a fundamental obligation of the **Contract**.

11.4.2 No claim may be made for any alleged delay in **Substantial Completion** of the **Work** by a date earlier than the date of **Substantial Completion** provided for in Schedule A unless there is a provision in the **Contract** providing for additional compensation for early completion. No claim may be made for any alleged delay in **Substantial Completion** of the **Work** if the work is substantially completed by the date of **Substantial Completion** provided for in Schedule A unless acceleration has been directed by the **Commissioner** to meet the date of **Substantial Completion** set forth in Schedule A.

11.4.3 The provisions of this Article 11 apply only to claims for additional costs attributable to delay and do not preclude determinations by the **Commissioner** allowing reimbursements for additional costs for **Extra Work** pursuant to Articles 25 and 26 of this **Contract**. To the extent that any cost attributable to delay is reimbursed as part of a change order, no additional claim for compensation under this Article 11 shall be allowed.

11.5. **Non-Compensable Delays.** The **Contractor** agrees to make no claim for, and is deemed to have included in its bid prices for the various items of the **Contract**, the extra/additional costs attributable to any delays caused by or attributable to the items set forth below. For such items, the **Contractor** shall be compensated, if at all, solely by an extension of time to complete the performance of the **Work**, in accordance with the provisions of Article 13. Such extensions of time will be granted, if at all, pursuant to the grounds set forth in Article 13.3.

11.5.1 The acts or omissions of any third parties, including but not limited to **Other Contractors**, public/ governmental bodies (other than **City Agencies**), utilities or private enterprises, who are disclosed in the **Contract Documents** or are ordinarily encountered or generally recognized as related to the **Work**;

11.5.2 Any situation which was within the contemplation of the parties at the time of entering into the **Contract**, including any delay indicated or disclosed in the **Contract Documents** or generally recognized as related to the nature of the **Work**, and/or the existence of any facility or appurtenance owned, operated or maintained by any third party, as indicated or disclosed in the **Contract Documents** or ordinarily encountered or generally recognized as related to the nature of the **Work**;

11.5.3 Restraining orders, injunctions or judgments issued by a court which were caused by a Contractor's submission, action or inaction or by a Contractor's **Means and Methods of**

Construction, or by third parties, unless such order, injunction or judgment was the result of an action or omission by the **City**;

11.5.4 Any labor boycott, strike, picketing, lockout or similar situation;

11.5.5 Any shortages of supplies or materials, or unavailability of equipment, required by the **Contract Work**;

11.5.6 Climatic conditions, storms, floods, droughts, tidal waves, fires, hurricanes, earthquakes, landslides or other catastrophes or acts of God, or acts of war or of the public enemy or terrorist acts, including the **City's** reasonable responses thereto; and

11.5.7 **Extra Work** which does not significantly affect the overall completion of the **Contract**, reasonable delays in the review or issuance of change orders or field orders and/or in shop drawing reviews or approvals.

11.6 Required Content of Submission of Statement of Delay Damages

11.6.1 In the verified written statement of delay damages required by Article 11.1.2, the following information shall be provided by the **Contractor**:

11.6.1.1 For each delay, the start and end dates of the claimed periods of delay and, in addition, a description of the operations that were delayed, an explanation of how they were delayed, and the reasons for the delay, including identifying the applicable act or omission of the **City** listed in Article 11.4.

11.6.1.2 A detailed factual statement of the claim providing all necessary dates, locations and items of **Work** affected by the claim.

11.6.1.3 The amount of additional compensation sought and a breakdown of that amount into categories as described in Article 26.2, subject to the limitations set forth in Article 11.7.

11.6.1.4 Any additional information requested by the **Commissioner**.

11.7 Recoverable Costs

11.7.1 Delay damages may be recoverable for the following costs actually and necessarily incurred in the performance of the **Work**:

11.7.1.1 Direct labor, including payroll taxes (subject to statutory wage caps) and supplemental benefits, based on time and materials records;

11.7.1.2 Necessary materials (including transportation to the **Site**), based on time and material records;

11.7.1.3 Reasonable rental value of necessary plant and equipment other than small tools, plus fuel/energy costs according to the applicable formula set forth in Articles 26.2.4 and/or 26.2.8, based on time and material records;

11.7.1.4 Insurance and bond costs;

11.7.1.5 Extended field office costs;

11.7.1.6 Extended **Site** overhead; and

11.7.1.7 Extended home office overhead.

11.7.2 Recoverable Subcontractor Costs. When the **Work** is performed by a **Subcontractor**, the **Contractor** may be paid the actual and necessary costs of such subcontracted **Work** as outlined above in Articles 11.7.1.1 through 11.7.1.6, and an

additional overhead of five (5%) percent of the costs outlined in Articles 11.7.1.1 through 11.7.1.3.

11.7.3 **Non-Recoverable Costs.** The parties agree that the **City** will have no liability for the following items and the **Contractor** agrees it shall make no claim for the following items:

- 11.7.3.1 Profit, or loss of anticipated or unanticipated profit;
- 11.7.3.2 Consequential damages, including but not limited to interest on monies in dispute, including interest which is paid on such monies, loss of bonding capacity, bidding opportunities, or interest in investment, or any resulting insolvency;
- 11.7.3.3 Indirect costs or expenses of any nature;
- 11.7.3.4 Direct or indirect costs attributable to performance of **Work** where the **Contractor**, because of situations or conditions within its control, has not progressed the **Work** in a satisfactory manner; and
- 11.7.3.5 Attorneys' fees and dispute and claims preparation expenses.

11.8 Determinations under this Article 11 are not subject to the jurisdiction of the Contract Dispute Resolution Board pursuant to the dispute resolution process set forth in Article 27.

11.9 If the parties agree, pursuant to Article 11.1.3 above, that a compensable delay has occurred and agree on the amount of compensation, payment may be made pursuant to a written change order. Payment pursuant to such change order is subject to pre-audit by the **Engineering Audit Officer**, and may be post-audited by the **Comptroller** and/or the **Agency**.

ARTICLE 12. COORDINATION WITH OTHER CONTRACTORS

12.1 During the progress of the **Work**, **Other Contractors** may be engaged in performing other work or may be awarded other contracts for additional work on this **Project**. In that event, the **Contractor** shall coordinate the **Work** to be done hereunder with the work of such **Other Contractors** and the **Contractor** shall fully cooperate with such **Other Contractors** and carefully fit its own **Work** to that provided under other contracts as may be directed by the **Engineer**. The **Contractor** shall not commit or permit any act which will interfere with the performance of work by any **Other Contractors**.

12.2 If the **Engineer** determines that the **Contractor** is failing to coordinate its **Work** with the work of **Other Contractors** as the **Engineer** has directed, then the **Commissioner** shall have the right to withhold any payments otherwise due hereunder until the **Contractor** completely complies with the **Engineer's** directions.

12.3 The **Contractor** shall notify the **Engineer** in writing if any **Other Contractor** on this **Project** is failing to coordinate its work with the **Work** of this **Contract**. If the **Engineer** finds such charges to be true, the **Engineer** shall promptly issue such directions to the **Other Contractor** with respect thereto as the situation may require. The **City** shall not, however, be liable for any damages suffered by any **Other Contractor's** failure to coordinate its work with the **Work** of this **Contract** or by reason of the **Other Contractor's** failure to promptly comply with the directions so issued by the **Engineer**, or by reason of any **Other Contractor's** default in performance, it being understood that the **City** does not guarantee the responsibility or continued efficiency of any contractor. The **Contractor** agrees to make no claim against

the **City** for any damages relating to or arising out of any directions issued by the **Engineer** pursuant to this Article 12 (including but not limited to the failure of any **Other Contractor** to comply or promptly comply with such directions), or the failure of the **Engineer** to issue any directions, or the failure of any **Other Contractor** to coordinate its work, or the default in performance of any **Other Contractor**.

12.4 The **Contractor** shall indemnify and hold the **City** harmless from any and all claims or judgments for damages and from costs and expenses to which the **City** may be subjected or which it may suffer or incur by reason of the **Contractor's** failure to comply with the **Engineer's** directions promptly; and the **Comptroller** shall have the right to exercise the powers reserved in Article 23 with respect to any claims which may be made for damages due to the **Contractor's** failure to comply with the **Engineer's** directions promptly. Insofar as the facts and **Law** relating to any claim would preclude the **City** from being completely indemnified by the **Contractor**, the **City** shall be partially indemnified by the **Contractor** to the fullest extent provided by **Law**.

12.5 Should the **Contractor** sustain any damage through any act or omission of any **Other Contractor** having a contract with the **City** for the performance of work upon the **Site** or of work which may be necessary to be performed for the proper prosecution of the **Work** to be performed hereunder, or through any act or omission of a subcontractor of such **Other Contractor**, the **Contractor** shall have no claim against the **City** for such damage, but shall have a right to recover such damage from the **Other Contractor** under the provision similar to the following provisions which apply to this **Contract** and have been or will be inserted in the contracts with such **Other Contractors**:

12.5.1 Should any **Other Contractor** having or who shall hereafter have a contract with the **City** for the performance of work upon the **Site** sustain any damage through any act or omission of the **Contractor** hereunder or through any act or omission of any **Subcontractor** of the **Contractor**, the **Contractor** agrees to reimburse such **Other Contractor** for all such damages and to defend at its own expense any action based upon such claim and if any judgment or claim (even if the allegations of the action are without merit) against the **City** shall be allowed the **Contractor** shall pay or satisfy such judgment or claim and pay all costs and expenses in connection therewith and agrees to indemnify and hold the **City** harmless from all such claims. Insofar as the facts and **Law** relating to any claim would preclude the **City** from being completely indemnified by the **Contractor**, the **City** shall be partially indemnified by the **Contractor** to the fullest extent provided by **Law**.

12.6 The **City's** right to indemnification hereunder shall in no way be diminished, waived or discharged by its recourse to assessment of liquidated damages as provided in Article 15, or by the exercise of any other remedy provided for by **Contract** or by **Law**.

ARTICLE 13. EXTENSION OF TIME FOR PERFORMANCE

13.1 If performance by the **Contractor** is delayed for a reason set forth in Article 13.3, the **Contractor** may be allowed a reasonable extension of time in conformance with this Article 13 and the **PPB Rules**.

13.2 Any extension of time may be granted only by the **ACCO** or by the Board for the Extension of Time (hereafter "**Board**") (as set forth below) upon written application by the **Contractor**.

13.3 Grounds for Extension: If such application is made, the **Contractor** shall be entitled to an extension of time for delay in completion of the **Work** caused solely:

13.3.1 By the acts or omissions of the **City**, its officials, agents or employees; or

13.3.2 By the act or omissions of **Other Contractors** on this **Project**; or

13.3.3 By supervening conditions entirely beyond the control of either party hereto (such as, but not limited to, acts of God or the public enemy, excessive inclement weather, war or other national emergency making performance temporarily impossible or illegal, or strikes or labor disputes not brought about by any act or omission of the **Contractor**).

13.3.4 The **Contractor** shall, however, be entitled to an extension of time for such causes only for the number of **Days** of delay which the **ACCO** or the Board may determine to be due solely to such causes, and then only if the **Contractor** shall have strictly complied with all of the requirements of Articles 9 and 10.

13.4 The **Contractor** shall not be entitled to receive a separate extension of time for each of several causes of delay operating concurrently, but, if at all, only for the actual period of delay in completion of the **Work** as determined by the **ACCO** or the Board, irrespective of the number of causes contributing to produce such delay. If one of several causes of delay operating concurrently results from any act, fault or omission of the **Contractor** or of its **Subcontractors** or **Materialmen**, and would of itself (irrespective of the concurrent causes) have delayed the **Work**, no extension of time will be allowed for the period of delay resulting from such act, fault or omission.

13.5 The determination made by the **ACCO** or the Board on an application for an extension of time shall be binding and conclusive on the **Contractor**.

13.6 The **ACCO** or the Board acting entirely within their discretion may grant an application for an extension of time for causes of delay other than those herein referred.

13.7 Permitting the **Contractor** to continue with the **Work** after the time fixed for its completion has expired, or after the time to which such completion may have been extended has expired, or the making of any payment to the **Contractor** after such time, shall in no way operate as a waiver on the part of the **City** of any of its rights under this **Contract**.

13.8 Application for Extension of Time:

13.8.1 Before the **Contractor's** time extension request will be considered, the **Contractor** shall notify the **ACCO** of the condition which allegedly has caused or is causing the delay, and shall submit a written application to the **ACCO** identifying:

13.8.1(a) The **Contractor**; the registration number; and **Project** description;

13.8.1(b) Liquidated damage assessment rate, as specified in the **Contract**;

13.8.1(c) Original total bid price;

13.8.1(d) The original **Contract** start date and completion date;

13.8.1(e) Any previous time extensions granted (number and duration); and

13.8.1(f) The extension of time requested.

13.8.2 In addition, the application for extension of time shall set forth in detail:

13.8.2(a) The nature of each alleged cause of delay in completing the **Work**;

13.8.2(b) The date upon which each such cause of delay began and ended and the number of **Days** attributable to each such cause;

13.8.2(c) A statement that the **Contractor** waives all claims except for those delineated in the application, and the particulars of any claims which the **Contractor** does not agree to waive. For time extensions for **Substantial Completion** and final completion payments, the application shall include a detailed statement of the dollar amounts of each element of claim item reserved; and

13.8.2(d) A statement indicating the **Contractor's** understanding that the time extension is granted only for purposes of permitting continuation of **Contract** performance and payment for **Work** performed and that the **City** retains its right to conduct an investigation and assess liquidated damages as appropriate in the future.

13.9 Analysis and Approval of Time Extensions:

13.9.1 For time extensions for partial payments, a written determination shall be made by the **ACCO** who may, for good and sufficient cause, extend the time for the performance of the **Contract** as follows:

13.9.1(a) If the **Work** is to be completed within six (6) months, the time for performance may be extended for sixty (60) **Days**;

13.9.1(b) If the **Work** is to be completed within less than one (1) year but more than six (6) months, an extension of ninety (90) **Days** may be granted;

13.9.1(c) If the **Contract** period exceeds one (1) year, besides the extension granted in Article 13.9.1(b), an additional thirty (30) **Days** may be granted for each multiple of six (6) months involved beyond the one (1) year period; or

13.9.1(d) If exceptional circumstances exist, the **ACCO** may extend the time for performance beyond the extensions in Articles 13.9.1(a), 13.9.1(b), and 13.9.1(c). In that event, the **ACCO** shall file with the Mayor's Office of Contract Services a written explanation of the exceptional circumstances.

13.9.2 For extensions of time for **Substantial Completion** and final completion payments, the **Engineer**, in consultation with the **ACCO**, shall prepare a written analysis of the delay (including a preliminary determination of the causes of delay, the beginning and end dates for each such cause of delay, and whether the delays are excusable under the terms of this **Contract**). The report shall be subject to review by and approval of the Board, which shall have authority to question its analysis and determinations and request additional facts or documentation. The report as reviewed and made final by the Board shall be made a part of the **Agency** contract file. Neither the report itself nor anything contained therein shall operate as a waiver or release of any claim the **City** may have against the **Contractor** for either actual or liquidated damages.

13.9.3 Approval Mechanism for Time Extensions for **Substantial Completion** or Final Completion Payments: An extension shall be granted only with the approval of the Board which is comprised of the **ACCO** of the **Agency**, the **City** Corporation Counsel, and the **Comptroller**, or their authorized representatives.

13.9.4 Neither the granting of any application for an extension of time to the **Contractor** or any **Other Contractor** on this **Project** nor the papers, records or reports related to any application for or grant of an extension of time or determination related thereto shall be referred to or offered in evidence by the **Contractor** or its attorneys in any action or proceeding.

13.10 **No Damage for Delay:** The **Contractor** agrees to make no claim for damages for delay in the performance of this **Contract** occasioned by any act or omission to act of the **City** or any of its representatives, except as provided for in Article 11.

ARTICLE 14. COMPLETION AND FINAL ACCEPTANCE OF THE WORK

14.1 **Date for Substantial Completion:** The **Contractor** shall substantially complete the **Work** within the time fixed in Schedule A of the General Conditions, or within the time to which such **Substantial Completion** may be extended.

14.2 **Determining the Date of Substantial Completion:** The **Work** will be deemed to be substantially complete when the two conditions set forth below have been met.

14.2.1 **Inspection:** The **Engineer** has inspected the **Work** and has made a written determination that it is substantially complete.

14.2.2 **Approval of Final Approved Punch List and Date for Final Acceptance:** Following inspection of the **Work**, the **Engineer** shall furnish the **Contractor** with a final punch list, specifying all items of **Work** to be completed and proposing dates for the completion of each specified item of **Work**. The **Contractor** shall then submit in writing to the **Engineer** within ten (10) **Days** of the **Engineer** furnishing the final punch list either acceptance of the dates or proposed alternative dates for the completion of each specified item of **Work**. If the **Contractor** proposes alternative dates, then, within a reasonable time after receipt, the **Engineer**, in a written notification to the **Contractor**, shall approve the **Contractor's** completion dates or, if they are unable to agree, the **Engineer** shall establish dates for the completion of each item of **Work**. If the **Contractor** neither accepts the dates nor proposes alternative dates within ten (10) **Days**, the schedule proposed by the **Engineer** shall be deemed accepted. The latest completion date specified shall be the date for **Final Acceptance** of the **Work**.

14.3 **Date of Substantial Completion.** The date of approval of the **Final Approved Punch List**, shall be the date of **Substantial Completion**. The date of approval of the **Final Approved Punch List** shall be either (a) if the **Contractor** approves the final punch list and proposed dates for completion furnished by the **Engineer**, the date of the **Contractor's** approval; or (b) if the **Contractor** neither accepts the dates nor proposes alternative dates, ten (10) **Days** after the **Engineer** furnishes the **Contractor** with a final punch list and proposed dates for completion; or (c) if the **Contractor** proposes alternative dates, the date that the **Engineer** sends written notification to the **Contractor** either approving the **Contractor's** proposed alternative dates or establishing dates for the completion for each item of **Work**.

14.4 **Determining the Date of Final Acceptance:** The **Work** will be accepted as final and complete as of the date of the **Engineer's** inspection if, upon such inspection, the **Engineer** finds that all items on the **Final Approved Punch List** are complete and no further **Work** remains to be done. The **Commissioner** will then issue a written determination of **Final Acceptance**.

14.5 Request for Inspection: Inspection of the **Work** by the **Engineer** for the purpose of **Substantial Completion** or **Final Acceptance** shall be made within ten (10) **Days** after receipt of the **Contractor's** written request therefor.

14.6 Request for Re-inspection: If upon inspection for the purpose of **Substantial Completion** or **Final Acceptance**, the **Engineer** determines that there are items of **Work** still to be performed, the **Contractor** shall promptly perform them and then request a re-inspection. If upon re-inspection, the **Engineer** determines that the **Work** is substantially complete or finally accepted, the date of such re-inspection shall be the date of **Substantial Completion** or **Final Acceptance**. Re-inspection by the **Engineer** shall be made within ten (10) **Days** after receipt of the **Contractor's** written request therefor.

14.7 Initiation of Inspection by the **Engineer**: If the **Contractor** does not request inspection or re-inspection of the **Work** for the purpose of **Substantial Completion** or **Final Acceptance**, the **Engineer** may initiate such inspection or re-inspection.

ARTICLE 15. LIQUIDATED DAMAGES

15.1 In the event the **Contractor** fails to substantially complete the **Work** within the time fixed for such **Substantial Completion** in Schedule A of the General Conditions, 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 sum fixed in Schedule A of the General Conditions, for each and every **Day** that the time consumed in substantially completing the **Work** exceeds the time allowed therefor; which said sum, in view of the difficulty of accurately ascertaining the loss which the **City** will suffer by reason of delay in the **Substantial Completion** of the **Work** hereunder, is hereby fixed and agreed as the liquidated damages that the **City** will suffer by reason of such delay, and not as a penalty. This Article 15 shall also apply to the **Contractor** whether or not the **Contractor** is defaulted pursuant to Chapter X of this **Contract**. Neither the failure to assess liquidated damages nor the granting of any time extension shall operate as a waiver or release of any claim the **City** may have against the **Contractor** for either actual or liquidated damages.

15.2 Liquidated damages received hereunder are not intended to be nor shall they be treated as either a partial or full waiver or discharge of the **City's** right to indemnification, or the **Contractor's** obligation to indemnify the **City**, or to any other remedy provided for in this **Contract** or by **Law**.

15.3 The **Commissioner** may deduct and retain out of the monies which may become due hereunder, the amount of any such liquidated damages; and in case the amount which may become due hereunder shall be less than the amount of liquidated damages suffered by the **City**, the **Contractor** shall be liable to pay the difference.

ARTICLE 16. OCCUPATION OR USE PRIOR TO COMPLETION

16.1 Unless otherwise provided for in the **Specifications**, the **Commissioner** may take over, use, occupy or operate any part of the **Work** at any time prior to **Final Acceptance**, upon written notification to the **Contractor**. The **Engineer** shall inspect the part of the **Work** to be taken over, used, occupied, or operated, and will furnish the **Contractor** with a written statement of the **Work**, if any, which remains to be performed on such part. The **Contractor** shall not object to, nor interfere with, the **Commissioner's** decision to exercise the rights granted by Article 16. In the event the **Commissioner** takes over, uses, occupies, or operates any part of the **Work**:

16.1.1 the **Engineer** shall issue a written determination of **Substantial Completion** with respect to such part of the **Work**;

16.1.2 the **Contractor** shall be relieved of its absolute obligation to protect such part of the unfinished **Work** in accordance with Article 7;

16.1.3 the **Contractor's** guarantee on such part of the **Work** shall begin on the date of such use by the **City**; and;

16.1.4 the **Contractor** shall be entitled to a return of so much of the amount retained in accordance with Article 21 as it relates to such part of the **Work**, except so much thereof as may be retained under Articles 24 and 44.

CHAPTER IV SUBCONTRACTS AND ASSIGNMENTS

ARTICLE 17. SUBCONTRACTS

17.1 The **Contractor** shall not make subcontracts totaling an amount more than the percentage of the total **Contract** price fixed in Schedule A of the General Conditions, without prior written permission from the **Commissioner**. All subcontracts made by the **Contractor** shall be in writing. No **Work** may be performed by a **Subcontractor** prior to the **Contractor** entering into a written subcontract with the **Subcontractor** and complying with the provisions of this Article 17.

17.2 Before making any subcontracts, the **Contractor** shall submit a written statement to the **Commissioner** giving the name and address of the proposed **Subcontractor**; the portion of the **Work** and materials which it is to perform and furnish; the cost of the subcontract; the VENDEX questionnaire if required; the proposed subcontract if requested by the **Commissioner**; and any other information tending to prove that the proposed **Subcontractor** has the necessary facilities, skill, integrity, past experience, and financial resources to perform the **Work** in accordance with the terms and conditions of this **Contract**.

17.3 In addition to the requirements in Article 17.2, **Contractor** is required to list the **Subcontractor** in the web based Subcontractor Reporting System through the City's Payee Information Portal (PIP), available at www.nyc.gov/pip.¹ For each **Subcontractor** listed, **Contractor** is required to provide the following information: maximum contract value, description of **Subcontractor's** **Work**, start and end date of the subcontract and identification of the **Subcontractor's** industry. Thereafter, **Contractor** will be required to report in the system the payments made to each **Subcontractor** within 30 days of making the payment. If any of the required information changes throughout the Term of the **Contract**, **Contractor** will be required to revise the information in the system.

Failure of the **Contractor** to list a **Subcontractor** and/or to report **Subcontractor** payments in a timely fashion may result in the **Commissioner** declaring the **Contractor** in default of the **Contract** and will subject **Contractor** to liquidated damages in the amount of \$100 per day for each day that the **Contractor** fails to identify a **Subcontractor** along with the required information about the **Subcontractor** and/or fails to report payments to a **Subcontractor**, beyond the time frames set forth herein or in the notice from the **City**. Article 15 shall govern the issue of liquidated damages.

¹ In order to use the new system, a PIP account will be required. Detailed instructions on creating a PIP account and using the new system are also available at www.nyc.gov/pip. Additional assistance with PIP may be obtained by emailing the Financial Information Services Agency Help Desk at pip@fisa.nyc.gov.

17.4 If an approved **Subcontractor** elects to subcontract any portion of its subcontract, the proposed sub-subcontract shall be submitted in the same manner as directed above.

17.5 The **Commissioner** will notify the **Contractor** in writing whether the proposed **Subcontractor** is approved. If the proposed **Subcontractor** is not approved, the **Contractor** may submit another proposed **Subcontractor** unless the **Contractor** decides to do the **Work**. No **Subcontractor** shall be permitted to enter or perform any work on the **Site** unless approved.

17.6 Before entering into any subcontract hereunder, the **Contractor** shall provide the proposed **Subcontractor** with a complete copy of this document and inform the proposed **Subcontractor** fully and completely of all provisions and requirements of this **Contract** relating either directly or indirectly to the **Work** to be performed and the materials to be furnished under such subcontract, and every such **Subcontractor** shall expressly stipulate that all labor performed and materials furnished by the **Subcontractor** shall strictly comply with the requirements of this **Contract**.

17.7 Documents given to a prospective **Subcontractor** for the purpose of soliciting the **Subcontractor's** bid shall include either a copy of the bid cover or a separate information sheet setting forth the **Project** name, the **Contract** number (if available), the **Agency** (as noted in Article 2.1.6), and the **Project's** location.

17.8 The **Commissioner's** approval of a **Subcontractor** shall not relieve the **Contractor** of any of its responsibilities, duties, and liabilities hereunder. The **Contractor** shall be solely responsible to the **City** for the acts or defaults of its **Subcontractor** and of such **Subcontractor's** officers, agents, and employees, each of whom shall, for this purpose, be deemed to be the agent or employee of the **Contractor** to the extent of its subcontract.

17.9 If the **Subcontractor** fails to maintain the necessary facilities, skill, integrity, past experience, and financial resources (other than due to the **Contractor's** failure to make payments where required) to perform the **Work** in accordance with the terms and conditions of this **Contract**, the **Contractor** shall promptly notify the **Commissioner** and replace such **Subcontractor** with a newly approved **Subcontractor** in accordance with this Article 17.

17.10 The **Contractor** shall be responsible for ensuring that all **Subcontractors** performing **Work** at the **Site** maintain all insurance required by **Law**.

17.11 The **Contractor** shall promptly, upon request, file with the **Engineer** a conformed copy of the subcontract and its cost. The subcontract shall provide the following:

17.11.1 **Payment to Subcontractors:** The agreement between the **Contractor** and its **Subcontractor** shall contain the same terms and conditions as to method of payment for **Work**, labor, and materials, and as to retained percentages, as are contained in this **Contract**.

17.11.2 **Prevailing Rate of Wages:** The agreement between the **Contractor** and its **Subcontractor** shall include the prevailing wage rates and supplemental benefits to be paid in accordance with Labor Law Section 220.

17.11.3 **Section 6-123 of the Administrative Code:** Pursuant to the requirements of Section 6-123 of the Administrative Code, every agreement between the **Contractor** and a **Subcontractor** in excess of fifty thousand (\$50,000) dollars shall include a provision that the **Subcontractor** shall not engage in any unlawful discriminatory practice as defined in Title VIII of the Administrative Code (Section 8-101 *et seq.*).

17.11.4 All requirements required pursuant to federal and/or state grant agreement(s), if applicable to the **Work**.

17.12 The **Commissioner** may deduct from the amounts certified under this **Contract** to be due to the **Contractor**, the sum or sums due and owing from the **Contractor** to the **Subcontractors** according to the terms of the said subcontracts, and in case of dispute between the **Contractor** and its **Subcontractor**, or **Subcontractors**, as to the amount due and owing, the **Commissioner** may deduct and withhold from the amounts certified under this **Contract** to be due to the **Contractor** such sum or sums as may be claimed by such **Subcontractor**, or **Subcontractors**, in a sworn affidavit, to be due and owing until such time as such claim or claims shall have been finally resolved.

17.13 On contracts where performance bonds and payment bonds are executed, the **Contractor** shall include on each requisition for payment the following data: **Subcontractor's** name, value of the subcontract, total amount previously paid to **Subcontractor** for **Work** previously requisitioned, and the amount, including retainage, to be paid to the **Subcontractor** for **Work** included in the requisition.

17.14 On **Contracts** where performance bonds and payment bonds are not executed, the **Contractor** shall include with each requisition for payment submitted hereunder, a signed statement from each and every **Subcontractor** and/or **Materialman** for whom payment is requested in such requisition. Such signed statement shall be on the letterhead of the **Subcontractor** and/or **Materialman** for whom payment is requested and shall (i) verify that such **Subcontractor** and/or **Materialman** has been paid in full for all **Work** performed and/or material supplied to date, exclusive of any amount retained and any amount included on the current requisition, and (ii) state the total amount of retainage to date, exclusive of any amount retained on the current requisition.

ARTICLE 18. ASSIGNMENTS

18.1 The **Contractor** shall not assign, transfer, convey or otherwise dispose of this **Contract**, or the right to execute it, or the right, title or interest in or to it or any part thereof, or assign, by power of attorney or otherwise any of the monies due or to become due under this **Contract**, unless the previous written consent of the **Commissioner** shall first be obtained thereto, and the giving of any such consent to a particular assignment shall not dispense with the necessity of such consent to any further or other assignments.

18.2 Such assignment, transfer, conveyance or other disposition of this **Contract** shall not be valid until filed in the office of the **Commissioner** and the **Comptroller**, with the written consent of the **Commissioner** endorsed thereon or attached thereto.

18.3 Failure to obtain the previous written consent of the **Commissioner** to such an assignment, transfer, conveyance or other disposition, may result in the revocation and annulment of this **Contract**. The **City** shall thereupon be relieved and discharged from any further liability to the **Contractor**, its assignees, transferees or sublessees, who shall forfeit and lose all monies therefor earned under the **Contract**, except so much as may be required to pay the **Contractor's** employees.

18.4 The provisions of this clause shall not hinder, prevent, or affect an assignment by the **Contractor** for the benefit of its creditors made pursuant to the **Laws** of the State of New York.

18.5 This **Contract** may be assigned by the **City** to any corporation, agency or instrumentality having authority to accept such assignment.

**CHAPTER V
CONTRACTOR'S SECURITY AND GUARANTEE**

ARTICLE 19. SECURITY DEPOSIT

19.1 If performance and payment bonds are required, the City shall retain the bid security to ensure that the successful bidder executes the **Contract** and furnishes the required payment and performance security within ten (10) **Days** after notice of the award of the **Contract**. If the successful bidder fails to execute the **Contract** and furnish the required payment and performance security, the City shall retain such bid security as set forth in the Information for Bidders. If the successful bidder executes the **Contract** and furnishes the required payment and performance security, the City shall return the bid security within a reasonable time after the furnishing of such bonds and execution of the **Contract** by the City.

19.2 If performance and payment bonds are not required, the bid security shall be retained by the City as security for the Contractor's faithful performance of the **Contract**. If partial payments are provided, the bid security will be returned to the Contractor after the sum retained under Article 21 equals the amount of the bid security, subject to other provisions of this **Contract**. If partial payments are not provided, the bid security will be released when final payment is certified by the City for payment.

19.3 If the Contractor is declared in default under Article 48 prior to the return of the deposit, or if any claim is made such as referred to in Article 23, the amount of such deposit, or so much thereof as the **Comptroller** may deem necessary, may be retained and then applied by the **Comptroller**:

19.3.1 To compensate the City for any expense, loss or damage suffered or incurred by reason of or resulting from such default, including the cost of re-letting and liquidated damages; or

19.3.2 To indemnify the City against any and all claims.

ARTICLE 20. PAYMENT GUARANTEE

20.1 On **Contracts** where one hundred (100%) percent performance bonds and payment bonds are executed, this Article 20 does not apply.

20.2 In the event the terms of this **Contract** do not require the Contractor to provide a payment bond or where the **Contract** does not require a payment bond for one hundred (100%) percent of the **Contract** price, the City shall, in accordance with the terms of this Article 20, guarantee payment of all lawful claims for:

20.2.1 Wages and compensation for labor performed and/or services rendered; and

20.2.2 Materials, equipment, and supplies provided, whether incorporated into the **Work** or not, when demands have been filed with the City as provided hereinafter by any person, firm, or corporation which furnished labor, material, equipment, supplies, or any combination thereof, in connection with the **Work** performed hereunder (hereinafter referred to as the "beneficiary") at the direction of the City or the Contractor.

20.3 The provisions of Article 20.2 are subject to the following limitations and conditions:

20.3.1 If the **Contractor** provides a payment bond for a value that is less than one hundred (100%) percent of the value of the **Contract Work**, the payment bond provided by the **Contractor** shall be primary (and non-contributing) to the payment guarantee provided under this Article 20.

20.3.2 The guarantee is made for the benefit of all beneficiaries as defined in Article 20.2 provided that those beneficiaries strictly adhere to the terms and conditions of Article 20.3.4 and 20.3.5.

20.3.3 Nothing in this Article 20 shall prevent a beneficiary providing labor, services or material for the **Work** from suing the **Contractor** for any amounts due and owing the beneficiary by the **Contractor**.

20.3.4 Every person who has furnished labor or material, to the **Contractor** or to a **Subcontractor** of the **Contractor**, in the prosecution of the **Work** and who has not been paid in full therefor before the expiration of a period of ninety (90) **Days** after the date on which the last of the labor was performed or material was furnished by him/her for which the claim is made, shall have the right to sue on this payment guarantee in his/her own name for the amount, or the balance thereof, unpaid at the time of commencement of the action; provided, however, that a person having a direct contractual relationship with a **Subcontractor** of the **Contractor** but no contractual relationship express or implied with the **Contractor** shall not have a right of action upon the guarantee unless he/she shall have given written notice to the **Contractor** within one hundred twenty (120) **Days** from the date on which the last of the labor was performed or the last of the material was furnished, for which his/her claim is made, stating with substantial accuracy the amount claimed and the name of the party to whom the material was furnished or for whom the labor was performed. The notice shall be served by delivering the same personally to the **Contractor** or by mailing the same by registered mail, postage prepaid, in an envelope addressed to the **Contractor** at any place where it maintains an office or conducts its business; provided, however, that where such notice is actually received by the **Contractor** by other means, such notice shall be deemed sufficient.

20.3.5 Except as provided in Labor Law Section 220-g, no action on this payment guarantee shall be commenced after the expiration of the one-year limitations period set forth in Section 137(4)(b) of the State Finance Law.

20.3.6 The **Contractor** shall promptly forward to the **City** any notice or demand received pursuant to Article 20.3.4. The **Contractor** shall inform the **City** of any defenses to the notice or demand and shall forward to the **City** any documents the **City** requests concerning the notice or demand.

20.3.7 All demands made against the **City** by a beneficiary of this payment guarantee shall be presented to the **Engineer** along with all written documentation concerning the demand which the **Engineer** deems reasonably appropriate or necessary, which may include, but shall not be limited to: the subcontract; any invoices presented to the **Contractor** for payment; the notarized statement of the beneficiary that the demand is due and payable, that a request for payment has been made of the **Contractor** and that the demand has not been paid by the **Contractor** within the time allowed for such payment by the subcontract; and copies of any correspondence between the beneficiary and the **Contractor** concerning such demand. The **City** shall notify the **Contractor** that a demand has been made. The **Contractor** shall inform the **City** of any defenses to the demand and shall forward to the **City** any documents the **City** requests concerning the demand.

20.3.8 The City shall make payment only if, after considering all defenses presented by the Contractor, it determines that the payment is due and owing to the beneficiary making the demand.

20.3.9 No beneficiary shall be entitled to interest from the City, or to any other costs, including, but not limited to, attorneys' fees, except to the extent required by State Finance Law Section 137.

20.4 Upon the receipt by the City of a demand pursuant to this Article 20, the City may withhold from any payment otherwise due and owing to the Contractor under this Contract an amount sufficient to satisfy the demand.

20.4.1 In the event the City determines that the demand is valid, the City shall notify the Contractor of such determination and the amount thereof and direct the Contractor to immediately pay such amount to the beneficiary. In the event the Contractor, within seven (7) Days of receipt of such notification from the City, fails to pay the beneficiary, such failure shall constitute an automatic and irrevocable assignment of payment by the Contractor to the beneficiary for the amount of the demand determined by the City to be valid. The Contractor, without further notification or other process, hereby gives its unconditional consent to such assignment of payment to the beneficiary and authorizes the City, on its behalf, to take all necessary actions to implement such assignment of payment, including without limitation the execution of any instrument or documentation necessary to effectuate such assignment.

20.4.2 In the event that the amount otherwise due and owing to the Contractor by the City is insufficient to satisfy such demand, the City may, at its option, require payment from the Contractor of an amount sufficient to cover such demand and exercise any other right to require or recover payment which the City may have under Law or Contract.

20.4.3 In the event the City determines that the demand is invalid, any amount withheld pending the City's review of such demand shall be paid to the Contractor; provided, however, no lien has been filed. In the event a claim or an action has been filed, the terms and conditions set forth in Article 23 shall apply. In the event a lien has been filed, the parties will be governed by the provisions of the Lien Law of the State of New York.

20.5 The provisions of this Article 20 shall not prevent the City and the Contractor from resolving disputes in accordance with the PPB Rules, where applicable.

20.6 In the event the City determines that the beneficiary is entitled to payment pursuant to this Article 20, such determination and any defenses and counterclaims raised by the Contractor shall be taken into account in evaluating the Contractor's performance.

20.7 Nothing in this Article 20 shall relieve the Contractor of the obligation to pay the claims of all persons with valid and lawful claims against the Contractor relating to the Work.

20.8 The Contractor shall not require any performance, payment or other bonds of any Subcontractor if this Contract does not require such bonds of the Contractor.

20.9 The payment guarantee made pursuant to this Article 20 shall be construed in a manner consistent with Section 137 of the State Finance Law and shall afford to persons furnishing labor or materials to the Contractor or its Subcontractors in the prosecution of the Work under this Contract all of the rights and remedies afforded to such persons by such section, including but not limited to, the right



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)
4/30/2015

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER Alliant Insurance Services, Inc. 333 Earle Ovington Blvd. Suite 700 Uniondale NY 11553	CONTACT NAME: Matthew Snow PHONE (A/C, No., Ext.): 516-414-8935 FAX (A/C, No.): 877-308-1070 E-MAIL ADDRESS: Msnow@alliant.com													
	<table border="1"> <thead> <tr> <th>INSURER(S) AFFORDING COVERAGE</th> <th>NAIC #</th> </tr> </thead> <tbody> <tr> <td>INSURER A: Starr Indemnity & Liability Company</td> <td>38318</td> </tr> <tr> <td>INSURER B: Chubb Indemnity Insurance Company</td> <td>12777</td> </tr> <tr> <td>INSURER C: Arch Insurance Company</td> <td>11150</td> </tr> <tr> <td>INSURER D:</td> <td></td> </tr> <tr> <td>INSURER E:</td> <td></td> </tr> <tr> <td>INSURER F:</td> <td></td> </tr> </tbody> </table>	INSURER(S) AFFORDING COVERAGE	NAIC #	INSURER A: Starr Indemnity & Liability Company	38318	INSURER B: Chubb Indemnity Insurance Company	12777	INSURER C: Arch Insurance Company	11150	INSURER D:		INSURER E:		INSURER F:
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INSURER D:														
INSURER E:														
INSURER F:														
INSURED MFMCONTR MFM Contracting Corp. 335 Center Avenue Mamaroneck, NY 10543														

COVERAGES **CERTIFICATE NUMBER: 1449692287** **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.


INSR LTR	TYPE OF INSURANCE	ADDL SUBR INSD WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR <input checked="" type="checkbox"/> Contractual Liab <input checked="" type="checkbox"/> XCU GENL AGGREGATE LIMIT APPLIES PER <input type="checkbox"/> POLICY <input checked="" type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC OTHER:		1000090030141	8/13/2014	8/13/2015	EACH OCCURRENCE \$3,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$50,000 MED EXP (Any one person) \$5,000 PERSONAL & ADV INJURY \$1,000,000 GENERAL AGGREGATE \$6,000,000 PRODUCTS - COM/POP AGG \$6,000,000 \$
A	AUTOMOBILE LIABILITY <input checked="" type="checkbox"/> ANY AUTO <input type="checkbox"/> ALL OWNED AUTOS <input type="checkbox"/> SCHEDULED AUTOS <input checked="" type="checkbox"/> HIRED AUTOS <input checked="" type="checkbox"/> NON-OWNED AUTOS		SISIPCA08240414	8/13/2014	8/13/2015	COMBINED SINGLE LIMIT (Ea accident) \$2,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$ \$
A	<input checked="" type="checkbox"/> UMBRELLA LIAB <input checked="" type="checkbox"/> OCCUR <input type="checkbox"/> EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE DED RETENTION \$		1000021154	8/13/2014	8/13/2015	EACH OCCURRENCE \$10,000,000 AGGREGATE \$10,000,000 \$
B	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	Y/N N N/A	4472744402	8/13/2014	8/13/2015	<input checked="" type="checkbox"/> PER STATUTE <input type="checkbox"/> OTH-ER E.L. EACH ACCIDENT \$1,000,000 E.L. DISEASE - EA EMPLOYEE \$1,000,000 E.L. DISEASE - POLICY LIMIT \$1,000,000
C	Railroad Protective Liability		11RRP6274300	4/22/2015	4/22/2018	Each Occurrence \$2,000,000 Aggregate \$6,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

Re: Project Id #MED598B, Trunk Water Mains in West 30th Street Between 10th & 9th Avenue. The City of New York, including its officials and employees, The National Railroad Passenger Corporation (AMTRAK), its subsidiaries and affiliated companies, Consolidated Edison Company of New York, United States Postal Service (USPS), including its officials and employees, Port Authority of New York and New Jersey, including its officials and employees are included as Additional Insureds as respects Liability arising out of operations (work) performed by the Named Insured as required by written contract.

CERTIFICATE HOLDER

CANCELLATION

City of New York Department of Design & Construction 30-30 Thomson Avenue Long Island City, NY 11101	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS. AUTHORIZED REPRESENTATIVE 
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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.

Alliant Insurance Services, Inc
[Name Of Broker (Typewritten)]

333 Earle Ovington Blvd., Suite 700, Uniondale, NY 11553
[Address Of Broker (Typewritten)]

msnow@alliant.com
[E-Mail Address Of Broker (Typewritten)]

516-414-8935/877-308-1070
[Phone Number/Fax Number Of Broker (Typewritten)]


[Signature Of Authorized Official Or Broker]

Matthew Snow, First Vice President
[Name And Title Of Authorized Official (Typewritten)]

State of New York..... }
County of Nassau..... } ss.:

SARAH BASILE
NOTARY PUBLIC-STATE OF NEW YORK
No. 01BA6226789
Qualified in Nassau County
My Commission Expires August 16, 2019

Sworn to before me this 30th day of April, 2015



NOTARY PUBLIC FOR THE STATE OF New York



INSURANCE BINDER

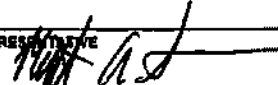
KBANTA

DATE (MM/DD/YYYY)
4/30/2015

THIS BINDER IS A TEMPORARY INSURANCE CONTRACT, SUBJECT TO THE CONDITIONS SHOWN ON THE REVERSE SIDE OF THIS FORM.

AGENCY Uniondale-Alliant Ins Svc Inc 333 Earle Ovington Blvd Ste 700 Uniondale, NY 11553		COMPANY Arch Insurance Company		BINDER # 14684
PHONE (A/C, No, Ext): (516) 414-8900		FAX (A/C, No): (877) 308-1070		<input type="checkbox"/> THIS BINDER IS ISSUED TO EXTEND COVERAGE IN THE ABOVE NAMED COMPANY PER EXPIRING POLICY #:
CODE: AGENCY: MFMCONT-01 License # OC36861 CUSTOMER ID:		DESCRIPTION OF OPERATIONS/VEHICLES/PROPERTY (Including Location) NYC DDC Project #MED 6686 - Excavation, water main installation, storm sewer installation, private utilities (electric and gas) backfilling, street lighting, traffic signals and roadway reconstruction Location: West 30th St between 10th & 9th Avenues, NYC Ref: MFM Contracting Corp.		INSURED The National Railroad Passenger Corporation (AMTRAK) 30th Street Station, 4th Fl South Tower, Mail Box 64 Philadelphia, PA 19104 Its subsidiaries and affiliated companies, the City of New York and all other indemnified parties

COVERAGES		LIMITS		
TYPE OF INSURANCE	COVERAGE/FORMS	DEDUCTIBLE	COINS %	AMOUNT
PROPERTY <input type="checkbox"/> BASIC <input type="checkbox"/> BROAD <input type="checkbox"/> SPEC				
GENERAL LIABILITY <input type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS MADE <input checked="" type="checkbox"/> OCCUR <input checked="" type="checkbox"/> Railroad Protective Liability <input checked="" type="checkbox"/> Pollution Exclusion	Policy Number: 11RRP6274300 Effective Dates: 4/22/2015 - 4/22/2018 RETRO DATE FOR CLAIMS MADE	EACH OCCURRENCE DAMAGE TO RENTED PREMISES MED EXP (Any one person) PERSONAL & ADV INJURY GENERAL AGGREGATE PRODUCTS - COMP/OP AGG	\$ \$ \$ \$ \$	2,000,000 6,000,000
VEHICLE LIABILITY <input type="checkbox"/> ANY AUTO <input type="checkbox"/> ALL OWNED AUTOS <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> HIRED AUTOS <input type="checkbox"/> NON-OWNED AUTOS		COMBINED SINGLE LIMIT BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE MEDICAL PAYMENTS PERSONAL INJURY PROT UNINSURED MOTORIST	\$ \$ \$ \$ \$ \$	\$ \$ \$ \$ \$ \$
VEHICLE PHYSICAL DAMAGE DED <input type="checkbox"/> COLLISION: _____ <input type="checkbox"/> OTHER THAN COL: _____	<input type="checkbox"/> ALL VEHICLES <input type="checkbox"/> SCHEDULED VEHICLES	ACTUAL CASH VALUE STATED AMOUNT	\$ \$	\$ \$
GARAGE LIABILITY <input type="checkbox"/> ANY AUTO		AUTO ONLY - EA ACCIDENT OTHER THAN AUTO ONLY: EACH ACCIDENT AGGREGATE	\$ \$ \$ \$	\$ \$ \$ \$
EXCESS LIABILITY <input type="checkbox"/> UMBRELLA FORM <input type="checkbox"/> OTHER THAN UMBRELLA FORM	RETRO DATE FOR CLAIMS MADE	EACH OCCURRENCE AGGREGATE SELF-INSURED RETENTION	\$ \$ \$	\$ \$ \$
WORKER'S COMPENSATION and EMPLOYER'S LIABILITY		WC STATUTORY LIMITS E.L. EACH ACCIDENT E.L. DISEASE - EA EMPLOYEE E.L. DISEASE - POLICY LIMIT	\$ \$ \$ \$	\$ \$ \$ \$
SPECIAL CONDITIONS / OTHER COVERAGES		FEES TAXES ESTIMATED TOTAL PREMIUM	\$ \$ \$	\$ \$ \$

Name & Address City of New York Department of Design and Construction 30-30 Thomas Avenue Long Island City, NY 11101		<input type="checkbox"/> MORTGAGEE <input type="checkbox"/> LOSS PAYEE	<input type="checkbox"/> ADDITIONAL INSURED
		LOAN #	
		AUTHORIZED REPRESENTATIVE 	

CONDITIONS

This Company binds the kind(s) of insurance stipulated on the reverse side. The Insurance is subject to the terms, conditions and limitations of the policy(ies) in current use by the Company.

This binder may be cancelled by the Insured by surrender of this binder or by written notice to the Company stating when cancellation will be effective. This binder may be cancelled by the Company by notice to the Insured in accordance with the policy conditions. This binder is cancelled when replaced by a policy. If this binder is not replaced by a policy, the Company is entitled to charge a premium for the binder according to the Rules and Rates in use by the Company.

APPLICABLE IN CALIFORNIA

When this form is used to provide insurance in the amount of one million dollars (\$1,000,000) or more, the title of the form is changed from "Insurance Binder" to "Cover Note".

APPLICABLE IN COLORADO

With respect to binders issued to renters of residential premises, home owners, condo unit owners and mobile home owners, the insurer has thirty (30) business days, commencing from the effective date of coverage, to evaluate the issuance of the insurance policy.

Applicable in Delaware

The mortgagee or Obligee of any mortgage or other instrument given for the purpose of creating a lien on real property shall accept as evidence of insurance a written binder issued by an authorized insurer or its agent if the binder includes or is accompanied by: the name and address of the borrower; the name and address of the lender as loss payee; a description of the insured real property; a provision that the binder may not be canceled within the term of the binder unless the lender and the insured borrower receive written notice of the cancellation at least ten (10) days prior to the cancellation; except in the case of a renewal of a policy subsequent to the closing of the loan, a paid receipt of the full amount of the applicable premium, and the amount of insurance coverage.

Chapter 21 Title 25 Paragraph 2119

APPLICABLE IN FLORIDA

Except for Auto Insurance coverage, no notice of cancellation or nonrenewal of a binder is required unless the duration of the binder exceeds 60 days. For auto insurance, the insurer must give 5 days prior notice, unless the binder is replaced by a policy or another binder in the same company.

APPLICABLE IN MARYLAND

The insurer has 45 business days, commencing from the effective date of coverage to confirm eligibility for coverage under the insurance policy.

Applicable in Michigan

The policy may be cancelled at any time at the request of the insured.

APPLICABLE IN NEVADA

Any person who refuses to accept a binder which provides coverage of less than \$1,000,000.00 when proof is required: (A) Shall be fined not more than \$500.00, and (B) is liable to the party presenting the binder as proof of insurance for actual damages sustained therefrom.

Applicable in the Virgin Islands

This binder is effective for only ninety (90) days. Within thirty (30) days of receipt of this binder, you should request an insurance policy or certificate (if applicable) from your agent and/or insurance company.

STATE OF NEW YORK
WORKERS' COMPENSATION BOARD

CERTIFICATE OF NYS WORKERS' COMPENSATION INSURANCE COVERAGE

<p>1a. Legal Name & Address of Insured (Use street address only)</p> <p>MFM Contracting Corp. 335 Center Avenue Mamaroneck, NY 10543</p> <p><i>Work Location of Insured (Only required if coverage is specifically limited to certain locations in New York State, i.e., a Wrap-Up Policy)</i></p>	<p>1b. Business Telephone Number of Insured (914) 777-8292</p> <p>1c. NYS Unemployment Insurance Employer Registration Number of Insured</p> <p>1d. Federal Employer Identification Number of Insured or Social Security Number 13-4130805</p>
<p>2. Name and Address of the Entity Requesting Proof of Coverage (Entity Being Listed as the Certificate Holder)</p> <p>City of New York Department of Design and Construction 30-30 Thomson Ave Long Island City, NY 11101</p>	<p>3a. Name of Insurance Carrier Chubb Indemnity Insurance Company</p> <p>3b. Policy Number of entity listed in box "1a" 4472744402</p> <p>3c. Policy effective period 08/13/2014 – 08/13/2015</p> <p>3d. The Proprietor, Partners or Executive Officers are <input checked="" type="checkbox"/> included. (Only check box if all partners/officers included) <input type="checkbox"/> all excluded or certain partners/officers excluded.</p>

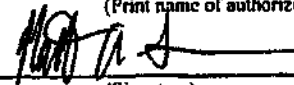
This certifies that the insurance carrier indicated above in box "3" insures the business referenced above in box "1a" for workers' compensation under the New York State Workers' Compensation Law. (To use this form, New York (NY) must be listed under **Item 3A** on the INFORMATION PAGE of the workers' compensation insurance policy). The Insurance Carrier or its licensed agent will send this Certificate of Insurance to the entity listed above as the certificate holder in box "2".

The Insurance Carrier will also notify the above certificate holder within 10 days IF a policy is canceled due to nonpayment of premiums or within 30 days IF there are reasons other than nonpayment of premiums that cancel the policy or eliminate the insured from the coverage indicated on this Certificate. (These notices may be sent by regular mail.) Otherwise, this Certificate is valid for one year after this form is approved by the insurance carrier or its licensed agent, or until the policy expiration date listed in box "3c", whichever is earlier.

Please Note: Upon the cancellation of the workers' compensation policy indicated on this form, if the business continues to be named on a permit, license or contract issued by a certificate holder, the business must provide that certificate holder with a new Certificate of Workers' Compensation Coverage or other authorized proof that the business is complying with the mandatory coverage requirements of the New York State Workers' Compensation Law.

Under penalty of perjury, I certify that I am an authorized representative or licensed agent of the insurance carrier referenced above and that the named insured has the coverage as depicted on this form.

Approved by: Matthew Snow
(Print name of authorized representative or licensed agent of insurance carrier)

Approved by:  4/30/15
(Signature) (Date)

Title: First Vice President, Alliant Insurance Services

Telephone Number of authorized representative or licensed agent of insurance carrier: 516-414-8900

Please Note: Only insurance carriers and their licensed agents are authorized to issue Form C-105.2. Insurance brokers are NOT authorized to issue it.

Workers' Compensation Law

Section 57. Restriction on issue of permits and the entering into contracts unless compensation is secured.

1. The head of a state or municipal department, board, commission or office authorized or required by law to issue any permit for or in connection with any work involving the employment of employees in a hazardous employment defined by this chapter, and notwithstanding any general or special statute requiring or authorizing the issue of such permits, shall not issue such permit unless proof duly subscribed by an insurance carrier is produced in a form satisfactory to the chair, that compensation for all employees has been secured as provided by this chapter. Nothing herein, however, shall be construed as creating any liability on the part of such state or municipal department, board, commission or office to pay any compensation to any such employee if so employed.

2. The head of a state or municipal department, board, commission or office authorized or required by law to enter into any contract for or in connection with any work involving the employment of employees in a hazardous employment defined by this chapter, notwithstanding any general or special statute requiring or authorizing any such contract, shall not enter into any such contract unless proof duly subscribed by an insurance carrier is produced in a form satisfactory to the chair, that compensation for all employees has been secured as provided by this chapter.

STATE OF NEW YORK
WORKERS' COMPENSATION BOARD
CERTIFICATE OF INSURANCE COVERAGE UNDER THE NYS DISABILITY BENEFITS LAW

PART 1. To be completed by Disability Benefits Carrier or Licensed Insurance Agent of that Carrier

<p>1a. Legal Name and Address of Insured (Use street address only)</p> <p>MFM CONTRACTING CORP 335 CENTER AVENUE MAMARONECK, NY 10543</p>	<p>1b. Business Telephone Number of Insured 914-777-8292</p> <p>1c. NYS Unemployment Insurance Employer Registration Number of Insured PENDING</p> <p>1d. Federal Employer Identification Number of Insured or Social Security Number 13-4130805</p>
<p>2. Name and Address of the Entity Requesting Proof of Coverage (Entity Being Listed as the Certificate Holder)</p> <p>NEW YORK CITY DEPARTMENT OF DESIGN AND CONSTRUCTION 30-30 THOMSON AVENUE LONG ISLAND CITY, NY 11101</p>	<p>3a. Name of Insurance Carrier HARTFORD LIFE AND ACCIDENT INSURANCE COMPA</p> <p>3b. Policy Number of entity listed in box "1a": LNy 631248</p> <p>3c. Policy effective period: 07-01-2014 to 06-30-2015</p>

4. Policy covers:

- a. All of the employer's employees eligible under the New York Disability Benefits Law
- b. Only the following class or classes of the employer's employees:

Under penalty of perjury, I certify that I am an authorized representative or licensed agent of the insurance carrier referenced above and that the named insured has NYS Disability Benefits insurance coverage as described above.

Emily Perreault

Date Signed 4/23/2015

By

(Signature of insurance carrier's authorized representative or NYS Licensed Insurance Agent of that insurance carrier)

Telephone Number (800) 454-7020

Title: Manager

IMPORTANT: If box "4a" is checked, and this form is signed by the insurance carrier's authorized representative or NYS Licensed Insurance Agent of that carrier, this certificate is COMPLETE. Mail it directly to the certificate holder.

If box "4b" is checked, this certificate is NOT COMPLETE for purposes of Section 220, Subd. 3 of the Disability Benefits Law. It must be mailed for completion to the Workers' Compensation Board, DB Plans Acceptance Unit, 20 Park Street, Albany, New York 12207.

PART 2. To be completed by NYS Workers' Compensation Board (Only if box "4b" of Part 1 has been checked)

**State Of New York
Workers' Compensation Board**

According to information maintained by the NYS Workers' Compensation Board, the above-named employer has complied with the NYS Disability Benefits Law with respect to all of his/her employees.

Date Signed _____

By _____

(Signature of NYS Workers' Compensation Board Employee)

Telephone Number _____

Title _____

Please Note: Only insurance carriers licensed to write NYS disability benefits insurance policies and NYS licensed insurance agents of those insurance carriers are authorized to issue Form DB-120.1. **Insurance brokers are NOT authorized to issue this form.**

Additional Instructions for Form DB-120.1

By signing this form, the insurance carrier identified in box "3" on this form is certifying that it is insuring the business referenced in box "1a" for disability benefits under the New York State Disability Benefits Law. The Insurance Carrier or its licensed agent will send this Certificate of Insurance to the entity listed as the certificate holder in box "2". *This Certificate is valid for the earlier of one year after this form is approved by the insurance carrier or its licensed agent, or the policy expiration date listed in box "3c".*

Please Note: Upon the cancellation of the disability benefits policy indicated on this form, if the business continues to be named on a permit, license or contract issued by a certificate holder, the business must provide that certificate holder with a new Certificate of NYS Disability Benefits Coverage or other authorized proof that the business is complying with the mandatory coverage requirements of the New York State Disability Benefits Law.

DISABILITY BENEFITS LAW

§220. Subd. 8

(a) The head of a state or municipal department, board, commission or office authorized or required by law to issue any permit for or in connection with any work involving the employment of employees in employment as defined in this article, and notwithstanding any general or special statute requiring or authorizing the issue of such permits, shall not issue such permit unless proof duly subscribed by an insurance carrier is produced in a form satisfactory to the chair, that the payment of disability benefits for all employees has been secured as provided by this article. Nothing herein, however, shall be construed as creating any liability on the part of such state or municipal department, board, commission or office to pay any disability benefits to any such employee if so employed.

(b) The head of a state or municipal department, board, commission or office authorized or required by law to enter into any contract for or in connection with any work involving the employment of employees in employment as defined in this article, and notwithstanding any general or special statute requiring or authorizing any such contract, shall not enter into any such contract unless proof duly subscribed by an insurance carrier is produced in a form satisfactory to the chair, that the payment of disability benefits for all employees has been secured as provided by this article.

to commence an action against the City on the payment guarantee provided by this Article 20 within the one-year limitations period set forth in Section 137(4)(b).

ARTICLE 21. RETAINED PERCENTAGE

21.1 If this **Contract** requires one hundred (100%) percent performance and payment security, then as further security for the faithful performance of this **Contract**, the **Commissioner** shall deduct, and retain until the substantial completion of the **Work**, five (5%) percent of the value of **Work** certified for payment in each partial payment voucher.

21.2 If this **Contract** does not require one hundred (100%) percent performance and payment security and if the price for which this **Contract** was awarded does not exceed one million (\$1,000,000) dollars, then as further security for the faithful performance of this **Contract**, the **Commissioner** shall deduct, and retain until the substantial completion of the **Work**, five (5%) percent of the value of **Work** certified for payment in each partial payment voucher.

21.3 If this **Contract** does not require one hundred (100%) percent performance and payment security and if the price for which this **Contract** was awarded exceeds one million (\$1,000,000) dollars, then as further security for the faithful performance of this **Contract**, the **Commissioner** shall deduct, and retain until the substantial completion of the **Work**, up to ten (10%) percent of the value of **Work** certified for payment in each partial payment voucher. The percentage to be retained is set forth in Schedule A of the General Conditions.

ARTICLE 22. INSURANCE

22.1 Types of Insurance: The **Contractor** shall procure and maintain the following types of insurance if, and as indicated, in Schedule A of the General Conditions (with the minimum limits and special conditions specified in Schedule A). Such insurance shall be maintained from the date the **Contractor** is required to provide Proof of Insurance pursuant to Article 22.3.1 through the date of completion of all required **Work** (including punch list work as certified in writing by the **Resident Engineer**), except for insurance required pursuant to Article 22.1.4, which may terminate upon **Substantial Completion** of the **Contract**. All insurance shall meet the requirements set forth in this Article 22. Wherever this Article requires that insurance coverage be "at least as broad" as a specified form (including all ISO forms), there is no obligation that the form itself be used, provided that the **Contractor** can demonstrate that the alternative form or endorsement contained in its policy provides coverage at least as broad as the specified form.

22.1.1 Commercial General Liability Insurance: The **Contractor** shall provide Commercial General Liability Insurance covering claims for property damage and/or bodily injury, including death, which may arise from any of the operations under this **Contract**. Coverage under this insurance shall be at least as broad as that provided by the latest edition of Insurance Services Office ("ISO") Form CG 0001. Such insurance shall be "occurrence" based rather than "claims-made" and include, without limitation, the following types of coverage: premises operations; products and completed operations; contractual liability (including the tort liability of another assumed in a contract); broad form property damage; independent contractors; explosion, collapse and underground (XCU); construction means and methods; and incidental malpractice. Such insurance shall contain a "per project" aggregate limit, as specified in Schedule A, that applies separately to operations under this **Contract**.

22.1.1(a) Such Commercial General Liability Insurance shall name the City as an Additional Insured. Coverage for the City shall specifically include the City's officials and employees, be at least as broad as the latest edition of ISO Form CG 20 10 and provide completed operations coverage at least as broad as the latest edition of ISO Form CG 20 37.

22.1.1(b) Such Commercial General Liability Insurance shall name all other entities designated as additional insureds in Schedule A but only for claims arising from the Contractor's operations under this Contract, with coverage at least as broad as the latest edition of ISO Form CG 20 26.

22.1.1(c) If the Work requires a permit from the Department of Buildings pursuant to 1 RCNY Section 101-08, at http://www.nyc.gov/html/dob/downloads/rules/1_RCNY_101-08.pdf, the Contractor shall provide Commercial General Liability Insurance with limits of at least those required by 1 RCNY section 101-08. If the Work does not require such a permit, the minimum limits shall be those provided for in Schedule A.

22.1.1(d) If any of the Work includes repair of a waterborne vessel owned by or to be delivered to the City, such Commercial General Liability shall include, or be endorsed to include, Ship Repairer's Legal Liability Coverage to protect against, without limitation, liability arising from navigation of such vessels prior to delivery to and acceptance by the City.

22.1.2 Workers' Compensation Insurance, Employers' Liability Insurance, and Disability Benefits Insurance: The Contractor shall provide, and shall cause its Subcontractors to provide, Workers Compensation Insurance, Employers' Liability Insurance, and Disability Benefits Insurance in accordance with the Laws of the State of New York on behalf of all employees providing services under this Contract (except for those employees, if any, for which the Laws require insurance only pursuant to Article 22.1.3).

22.1.3 United States Longshoremen's and Harbor Workers Act and/or Jones Act Insurance: If specified in Schedule A of the General Conditions or if required by Law, the Contractor shall provide insurance in accordance with the United States Longshoremen's and Harbor Workers Act and/or the Jones Act, on behalf of all qualifying employees providing services under this Contract.

22.1.4 Builders Risk Insurance: If specified in Schedule A of the General Conditions, the Contractor shall provide Builders Risk Insurance on a completed value form for the total value of the Work through Substantial Completion of the Work in its entirety. Such insurance shall be provided on an All Risk basis and include coverage, without limitation, for windstorm (including named windstorm), storm surge, flood and earth movement. Unless waived by the Commissioner, it shall include coverage for ordinance and law, demolition and increased costs of construction, debris removal, pollutant clean up and removal, and expediting costs. Such insurance shall cover, without limitation, (a) all buildings and/or structures involved in the Work, as well as temporary structures at the Site, and (b) any property that is intended to become a permanent part of such building or structure, whether such property is on the Site, in transit or in temporary storage. Policies shall name the Contractor as Named Insured and list the City as both an Additional Insured and a Loss Payee as its interest may appear.

22.1.4(a) Policies of such insurance shall specify that, in the event a loss occurs at an occupied facility, occupancy of such facility is permitted without the consent of the issuing insurance company.

22.1.4(b) Such insurance may be provided through an Installation Floater, at the **Contractor's** option, if it otherwise conforms with the requirements of this Article 22.1.4.

22.1.5 **Commercial Automobile Liability Insurance:** The **Contractor** shall provide Commercial Automobile Liability Insurance for liability arising out of ownership, maintenance or use of any owned (if any), non-owned and hired vehicles to be used in connection with this **Contract**. Coverage shall be at least as broad as the latest edition of ISO Form CA0001. If vehicles are used for transporting hazardous materials, the Automobile Liability Insurance shall be endorsed to provide pollution liability broadened coverage for covered vehicles (endorsement CA 99 48) as well as proof of MCS 90.

22.1.6 **Contractors Pollution Liability Insurance:** If specified in Schedule A of the General Conditions, the **Contractor** shall maintain, or cause the **Subcontractor** doing such **Work** to maintain, Contractors Pollution Liability Insurance covering bodily injury and property damage. Such insurance shall provide coverage for actual, alleged or threatened emission, discharge, dispersal, seepage, release or escape of pollutants (including asbestos), including any loss, cost or expense incurred as a result of any cleanup of pollutants (including asbestos) or in the investigation, settlement or defense of any claim, action, or proceedings arising from the operations under this **Contract**. Such insurance shall be in the **Contractor's** name and list the **City** as an Additional Insured and any other entity specified in Schedule A. Coverage shall include, without limitation, (a) loss of use of damaged property or of property that has not been physically injured, (b) transportation, and (c) non-owned disposal sites.

22.1.6(a) Coverage for the **City** as Additional Insured shall specifically include the **City's** officials and employees and be at least as broad as provided to the **Contractor** for this **Project**.

22.1.6(b) If such insurance is written on a claims-made policy, such policy shall have a retroactive date on or before the effective date of this **Contract**, and continuous coverage shall be maintained, or an extended discovery period exercised, for a period of not less than three (3) years from the time the **Work** under this **Contract** is completed.

22.1.7 **Marine Insurance:**

22.1.7(a) **Marine Protection and Indemnity Insurance:** If specified in Schedule A of the General Conditions or if the **Contractor** engages in marine operations in the execution of any part of the **Work**, the **Contractor** shall maintain, or cause the **Subcontractor** doing such **Work** to maintain, Marine Protection and Indemnity Insurance with coverage at least as broad as Form SP-23. The insurance shall provide coverage for the **Contractor** or **Subcontractor** (whichever is doing this **Work**) and for the **City** (together with its officials and employees) and any other entity specified in Schedule A as an Additional Insured for bodily injury and property damage arising from marine operations under this **Contract**. Coverage shall include, without limitation, injury or death of crew members (if not fully provided through other insurance), removal of wreck, damage to piers, wharves and other fixed or floating objects and loss of or damage to any other vessel or craft, or to property on such other vessel or craft.

22.1.7(b) **Hull and Machinery Insurance:** If specified in Schedule A of the General Conditions or if the **Contractor** engages in marine operations in the execution of any part of the **Work**, the **Contractor** shall maintain, or cause the **Subcontractor** doing such **Work** to maintain, Hull and Machinery Insurance with coverage for the **Contractor** or **Subcontractor** (whichever is doing this **Work**) and for the **City** (together with its officials and employees) as Additional Insured at least as broad as the latest edition of American Institute Tug Form for all tugs used under this **Contract** and Collision Liability at least as broad as the latest edition of American Institute Hull Clauses.

22.1.7(c) **Marine Pollution Liability Insurance:** If specified in Schedule A of the General Conditions or if the **Contractor** engages in marine operations in the execution of any part of the **Work**, the **Contractor** shall maintain, or cause the **Subcontractor** doing such **Work** to maintain, Marine Pollution Liability Insurance covering itself (or the **Subcontractor** doing such **Work**) as Named Insured and the **City** (together with its officials and employees) and any other entity specified in Schedule A as an Additional Insured. Coverage shall be at least as broad as that provided by the latest edition of Water Quality Insurance Syndicate Form and include, without limitation, liability arising from the discharge or substantial threat of a discharge of oil, or from the release or threatened release of a hazardous substance including injury to, or economic losses resulting from, the destruction of or damage to real property, personal property or natural resources.

22.1.8 The **Contractor** shall provide such other types of insurance, at such minimum limits and with such conditions, as are specified in Schedule A of the General Conditions.

22.2 General Requirements for Insurance Coverage and Policies:

22.2.1 All required insurance policies shall be maintained with companies that may lawfully issue the required policy and have an A.M. Best rating of at least A-/VII or a Standard and Poor's rating of at least A, unless prior written approval is obtained from the **City Corporation Counsel**.

22.2.2 The **Contractor** shall be solely responsible for the payment of all premiums for all required policies and all deductibles and self-insured retentions to which such policies are subject, whether or not the **City** is an insured under the policy.

22.2.3 In his/her sole discretion, the **Commissioner** may, subject to the approval of the **Comptroller** and the **City Corporation Counsel**, accept Letters of Credit and/or custodial accounts in lieu of required insurance.

22.2.4 The **City's** limits of coverage for all types of insurance required pursuant to Schedule A of the General Conditions shall be the greater of (i) the minimum limits set forth in Schedule A or (ii) the limits provided to the **Contractor** as Named Insured under all primary, excess, and umbrella policies of that type of coverage.

22.2.5 The **Contractor** may satisfy its insurance obligations under this Article 22 through primary policies or a combination of primary and excess/umbrella policies, so long as all policies provide the scope of coverage required herein.

22.2.6 Policies of insurance provided pursuant to this Article 22 shall be primary and non-contributing to any insurance or self-insurance maintained by the **City**.

22.3 Proof of Insurance:

22.3.1 For all types of insurance required by Article 22.1 and Schedule A, except for insurance required by Articles 22.1.4 and 22.1.7, the **Contractor** shall file proof of insurance in accordance with this Article 22.3 within ten (10) **Days** of award. For insurance provided pursuant to Articles 22.1.4 and 22.1.7, proof shall be filed by a date specified by the **Commissioner** or ten (10) **Days** prior to the commencement of the portion of the **Work** covered by such policy, whichever is earlier.

22.3.2 For Workers' Compensation Insurance provided pursuant to Article 22.1.2, the **Contractor** shall submit one of the following forms: C-105.2 Certificate of Workers' Compensation Insurance; U-26.3 - State Insurance Fund Certificate of Workers' Compensation Insurance; Request for WC/DB Exemption (Form CE-200); equivalent or successor forms used by the New York State Workers' Compensation Board; or other proof of insurance in a form acceptable to the **Commissioner**. For Disability Benefits Insurance provided pursuant to Article 22.1.2, the Contractor shall submit DB-120.1 - Certificate Of Insurance Coverage Under The NYS Disability Benefits Law, Request for WC/DB Exemption (Form CE-200); equivalent or successor forms used by the New York State Workers' Compensation Board; or other proof of insurance in a form acceptable to the **Commissioner**. ACORD forms are not acceptable.

22.3.3 For policies provided pursuant to all of Article 22.1 other than Article 22.1.2, the **Contractor** shall submit one or more Certificates of Insurance on forms acceptable to the **Commissioner**. All such Certificates of Insurance shall certify (a) the issuance and effectiveness of such policies of insurance, each with the specified minimum limits (b) for insurance secured pursuant to Article 22.1.1 that the **City** and any other entity specified in Schedule A is an Additional Insured with coverage at least as broad as the most recent edition of ISO Forms CG 20 10, CG 20 37, and CG 20 26, as applicable; (c) in the event insurance is required pursuant to Article 22.1.6 and/or Article 22.1.7, that the **City** is an Additional Insured thereunder; (d) the company code issued to the insurance company by the National Association of Insurance Commissioners (the NAIC number); and (e) the number assigned to the **Contract** by the **City**. All such Certificates of Insurance shall be accompanied by either a duly executed "Certification by Broker" in the form contained in Part III of Schedule A or copies of all policies referenced in such Certificate of Insurance as certified by an authorized representative of the issuing insurance carrier. If any policy is not available at the time of submission, certified binders may be submitted until such time as the policy is available, at which time a certified copy of the policy shall be submitted.

22.3.4 Documentation confirming renewals of insurance shall be submitted to the **Commissioner** prior to the expiration date of coverage of policies required under this **Contract**. Such proofs of insurance shall comply with the requirements of Articles 22.3.2 and 22.3.3.

22.3.5 The **Contractor** shall be obligated to provide the **City** with a copy of any policy of insurance provided pursuant to this Article 22 upon the demand for such policy by the **Commissioner** or the **City Corporation Counsel**.

22.4 Operations of the Contractor:

22.4.1 The **Contractor** shall not commence the **Work** unless and until all required certificates have been submitted to and accepted by the **Commissioner**. Acceptance by the **Commissioner** of a certificate does not excuse the **Contractor** from securing insurance

consistent with all provisions of this Article 22 or of any liability arising from its failure to do so.

22.4.2 The **Contractor** shall be responsible for providing continuous insurance coverage in the manner, form, and limits required by this **Contract** and shall be authorized to perform **Work** only during the effective period of all required coverage.

22.4.3 In the event that any of the required insurance policies lapse, are revoked, suspended or otherwise terminated, for whatever cause, the **Contractor** shall immediately stop all **Work**, and shall not recommence **Work** until authorized in writing to do so by the **Commissioner**. Upon quitting the **Site**, except as otherwise directed by the **Commissioner**, the **Contractor** shall leave all plant, materials, equipment, tools, and supplies on the **Site**. **Contract** time shall continue to run during such periods and no extensions of time will be granted. The **Commissioner** may also declare the **Contractor** in default for failure to maintain required insurance.

22.4.4 In the event the **Contractor** receives notice, from an insurance company or other person, that any insurance policy required under this Article 22 shall be cancelled or terminated (or has been cancelled or terminated) for any reason, the **Contractor** shall immediately forward a copy of such notice to both the **Commissioner** and the New York City Comptroller, attn: Office of Contract Administration, Municipal Building, One Centre Street, room 1005, New York, New York 10007. Notwithstanding the foregoing, the **Contractor** shall ensure that there is no interruption in any of the insurance coverage required under this Article 22.

22.4.5 Where notice of loss, damage, occurrence, accident, claim or suit is required under an insurance policy maintained in accordance with this Article 22, the **Contractor** shall notify in writing all insurance carriers that issued potentially responsive policies of any such event relating to any operations under this **Contract** (including notice to Commercial General Liability insurance carriers for events relating to the **Contractor's** own employees) no later than 20 days after such event. For any policy where the **City** is an Additional Insured, such notice shall expressly specify that "this notice is being given on behalf of the City of New York as Insured as well as the Named Insured." Such notice shall also contain the following information: the number of the insurance policy, the name of the named insured, the date and location of the damage, occurrence, or accident, and the identity of the persons or things injured, damaged or lost. The **Contractor** shall simultaneously send a copy of such notice to the City of New York c/o Insurance Claims Specialist, Affirmative Litigation Division, New York City Law Department, 100 Church Street, New York, New York 10007.

22.4.6 In the event of any loss, accident, claim, action, or other event that does or can give rise to a claim under any insurance policy required under this Article 22, the **Contractor** shall at all times fully cooperate with the **City** with regard to such potential or actual claim.

22.5 **Subcontractor Insurance:** In the event the **Contractor** requires any **Subcontractor** to procure insurance with regard to any operations under this **Contract** and requires such **Subcontractor** to name the **Contractor** as an **Additional Insured** thereunder, the **Contractor** shall ensure that the **Subcontractor** name the **City**, including its officials and employees, as an **Additional Insured** with coverage at least as broad as the most recent edition of ISO Form CG 20 26.

22.6 Wherever reference is made in Article 7 or this 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 in Schedule A of the General Conditions. In the event no address is set forth in Schedule A, such documents are to be sent to the **Commissioner's** address as provided elsewhere in this **Contract**.

22.7 Apart from damages or losses covered by insurance provided pursuant to Articles 22.1.2, 22.1.3, or 22.1.5, the **Contractor** waives all rights against the **City**, including its officials and employees, for any damages or losses that are covered under any insurance required under this Article 22 (whether or not such insurance is actually procured or claims are paid thereunder) or any other insurance applicable to the operations of the **Contractor** and/or its employees, agents, or **Subcontractors**.

22.8 In the event the **Contractor** utilizes a self-insurance program to satisfy any of the requirements of this Article 22, the **Contractor** shall ensure that any such self-insurance program provides the **City** with all rights that would be provided by traditional insurance under this Article 22, including but not limited to the defense and indemnification obligations that insurers are required to undertake in liability policies.

22.9 **Materiality/Non-Waiver:** The **Contractor's** failure to secure policies in complete conformity with this Article 22, or to give an insurance company timely notice of any sort required in this **Contract** or to do anything else required by this Article 22 shall constitute a material breach of this **Contract**. Such breach shall not be waived or otherwise excused by any action or inaction by the **City** at any time.

22.10 Pursuant to General Municipal Law Section 108, this **Contract** shall be void and of no effect unless **Contractor** maintains Workers' Compensation Insurance for the term of this **Contract** to the extent required and in compliance with the New York State Workers' Compensation Law.

22.11 **Other Remedies:** Insurance coverage provided pursuant to this Article 22 or otherwise shall not relieve the **Contractor** of any liability under this **Contract**, nor shall it preclude the **City** from exercising any rights or taking such other actions available to it under any other provisions of this **Contract** or **Law**.

ARTICLE 23. MONEY RETAINED AGAINST CLAIMS

23.1 If any claim shall be made by any person or entity (including **Other Contractors** with the **City** on this **Project**) against the **City** or against the **Contractor** and the **City** for any of the following:

- (a) An alleged loss, damage, injury, theft or vandalism of any of the kinds referred to in Articles 7 and 12, plus the reasonable costs of defending the **City**, which in the opinion of the **Comptroller** may not be paid by an insurance company (for any reason whatsoever); or
- (b) An infringement of copyrights, patents or use of patented articles, tools, etc., as referred to in Article 57; or
- (c) Damage claimed to have been caused directly or indirectly by the failure of the **Contractor** to perform the **Work** in strict accordance with this **Contract**,

the amount of such claim, or so much thereof as the **Comptroller** may deem necessary, may be withheld by the **Comptroller**, as security against such claim, from any money due hereunder. The **Comptroller**, in his/her discretion, may permit the **Contractor** to substitute other satisfactory security in lieu of the monies so withheld.

23.2 If an action on such claim is timely commenced and the liability of the **City**, or the **Contractor**, or both, shall have been established therein by a final judgment of a court of competent jurisdiction, or if such claim shall have been admitted by the **Contractor** to be valid, the **Comptroller**

shall pay such judgment or admitted claim out of the monies retained by the **Comptroller** under the provisions of this Article 23, and return the balance, if any, without interest, to the **Contractor**.

ARTICLE 24. MAINTENANCE AND GUARANTY

24.1 The **Contractor** shall promptly repair, replace, restore or rebuild, as the **Commissioner** may determine, any finished **Work** in which defects of materials or workmanship may appear or to which damage may occur because of such defects, during the one (1) year period subsequent to the date of **Substantial Completion** (or use and occupancy in accordance with Article 16), except where other periods of maintenance and guaranty are provided for in Schedule A.

24.2 As security for the faithful performance of its obligations hereunder, the **Contractor**, upon filing its requisition for payment on **Substantial Completion**, shall deposit with the **Commissioner** a sum equal to one (1%) percent of the price (or the amount fixed in Schedule A of the General Conditions) in cash or certified check upon a state or national bank and trust company or a check of such bank and trust company signed by a duly authorized officer thereof and drawn to the order of the **Comptroller**, or obligations of the **City**, which the **Comptroller** may approve as of equal value with the sum so required.

24.3 In lieu of the above, the **Contractor** may make such security payment to the **City** by authorizing the **Commissioner** in writing to deduct the amount from the **Substantial Completion** payment which shall be deemed the deposit required above.

24.4 If the **Contractor** has faithfully performed all of its obligations hereunder the **Commissioner** shall so certify to the **Comptroller** within five (5) **Days** after the expiration of one (1) year from the date of **Substantial Completion** and acceptance of the **Work** or within thirty (30) **Days** after the expiration of the guarantee period fixed in the **Specifications**. The security payment shall be repaid to the **Contractor** without interest within thirty (30) **Days** after certification by the **Commissioner** to the **Comptroller** that the **Contractor** has faithfully performed all of its obligations hereunder.

24.5 Notice by the **Commissioner** to the **Contractor** to repair, replace, rebuild or restore such defective or damaged **Work** shall be timely, pursuant to this article; if given not later than ten (10) **Days** subsequent to the expiration of the one (1) year period or other periods provided for herein.

24.6 If the **Contractor** shall fail to repair, replace, rebuild or restore such defective or damaged **Work** promptly after receiving such notice, the **Commissioner** shall have the right to have the **Work** done by others in the same manner as provided for in the completion of a defaulted **Contract**, under Article 51.

24.7 If the security payment so deposited is insufficient to cover the cost of such **Work**, the **Contractor** shall be liable to pay such deficiency on demand by the **Commissioner**.

24.8 The **Engineer's** certificate setting forth the fair and reasonable cost of repairing, replacing, rebuilding or restoring any damaged or defective **Work** when performed by one other than the **Contractor**, shall be binding and conclusive upon the **Contractor** as to the amount thereof.

24.9 The **Contractor** shall obtain all manufacturers' warranties and guaranties of all equipment and materials required by this **Contract** in the name of the **City** and shall deliver same to the **Commissioner**. All of the **City's** rights and title and interest in and to said manufacturers' warranties and guaranties may be assigned by the **City** to any subsequent purchasers of such equipment and materials or lessees of the premises into which the equipment and materials have been installed.

**CHAPTER VI
CHANGES, EXTRA WORK, AND DOCUMENTATION OF CLAIM**

ARTICLE 25. CHANGES

25.1 Changes may be made to this **Contract** only as duly authorized in writing by the **Commissioner** in accordance with the **Law** and this **Contract**. All such changes, modifications, and amendments will become a part of the **Contract**. **Work** so ordered shall be performed by the **Contractor**.

25.2 **Contract** changes will be made only for **Work** necessary to complete the **Work** included in the original scope of the **Contract** and/or for non-material changes to the scope of the **Contract**. Changes are not permitted for any material alteration in the scope of **Work** in the **Contract**.

25.3 The **Contractor** shall be entitled to a price adjustment for **Extra Work** performed pursuant to a written change order. Adjustments to price shall be computed in one or more of the following ways:

25.3.1 By applicable unit prices specified in the **Contract**; and/or

25.3.2 By agreement of a fixed price; and/or

25.3.3 By time and material records; and/or

25.3.4 In any other manner approved by the **CCPO**.

25.4 All payments for change orders are subject to pre-audit by the **Engineering Audit Officer** and may be post-audited by the **Comptroller** and/or the **Agency**.

ARTICLE 26. METHODS OF PAYMENT FOR OVERRUNS AND EXTRA WORK

26.1 **Overrun of Unit Price Item**: An overrun is any quantity of a unit price item which the **Contractor** is directed to provide which is in excess of one hundred twenty-five (125%) percent of the estimated quantity for that item set forth in the bid schedule.

26.1.1 For any unit price item, the **Contractor** will be paid at the unit price bid for any quantity up to one hundred twenty-five (125%) percent of the estimated quantity for that item set forth in the bid schedule. If during the progress of the **Work**, the actual quantity of any unit price item required to complete the **Work** approaches the estimated quantity for that item, and for any reason it appears that the actual quantity of any unit price item necessary to complete the **Work** will exceed the estimated quantity for that item by twenty-five (25%) percent, the **Contractor** shall immediately notify the **Engineer** of such anticipated overrun. The **Contractor** shall not be compensated for any quantity of a unit price item provided which is in excess of one hundred twenty-five (125%) percent of the estimated quantity for that item set forth in the bid schedule without written authorization from the **Engineer**.

26.1.2 If the actual quantity of any unit price item necessary to complete the **Work** will exceed one hundred twenty five (125%) percent of the estimated quantity for that item set forth in the bid schedule, the **City** reserves the right and the **Contractor** agrees to negotiate a new unit price for such item. In no event shall such negotiated new unit price exceed the unit bid price. If the **City** and **Contractor** cannot agree on a new unit price, then the **City** shall order the **Contractor** and the **Contractor** agrees to provide additional quantities of the

item on the basis of time and material records for the actual and reasonable cost as determined under Article 26.2, but in no event at a unit price exceeding the unit price bid.

26.2 Extra Work: For **Extra Work** where payment is by agreement on a fixed price in accordance with Article 25.3.2, the price to be paid for such **Extra Work** shall be based on the fair and reasonable estimated cost of the items set forth below. For **Extra Work** where payment is based on time and material records in accordance with Article 25.3.3, the price to be paid for such **Extra Work** shall be the actual and reasonable cost of the items set forth below, calculated in accordance with the formula specified therein, if any.

26.2.1 Necessary materials (including transportation to the **Site**); plus

26.2.2 Necessary direct labor, including payroll taxes (subject to statutory wage caps) and supplemental benefits; plus

26.2.3 Sales and personal property taxes, if any, required to be paid on materials not incorporated into such **Extra Work**; plus

26.2.4 Reasonable rental value of **Contractor-owned** (or **Subcontractor-owned**, as applicable), necessary plant and equipment other than **Small Tools**, plus fuel/energy costs. Except for fuel costs for pick-up trucks which shall be reimbursed based on a consumption of five (5) gallons per shift, fuel costs shall be reimbursed based on actual costs or, in the absence of auditable documentation, the following fuel consumption formula per operating hour: $(.035) \times (\text{HP rating}) \times (\text{Fuel cost/gallon})$. Reasonable rental value is defined as the lower of either seventy-five percent of the monthly prorated rental rates established in "The AED Green Book, Rental Rates and Specifications for Construction Equipment" published by Equipment Watch (the "Green Book"), or seventy-five percent of the monthly prorated rental rates established in the "Rental Rate Blue Book for Construction Equipment" published by Equipment Watch (the "Blue Book") (the applicable Blue Book rate being for rental only without the addition of any operational costs listed in the Blue Book). The reasonable rental value is deemed to be inclusive of all operating costs except for fuel/energy consumption and equipment operator's wages/costs. For multiple shift utilization, reimbursement shall be calculated as follows: first shift shall be seventy-five (75%) percent of such rental rates; second shift shall be sixty (60%) percent of the first shift rate; and third shift shall be forty (40%) percent of the first shift rate. Equipment on standby shall be reimbursed at one-third (1/3) the prorated monthly rental rate. **Contractor-owned** (or **Subcontractor-owned**, as applicable) equipment includes equipment from rental companies affiliated with or controlled by the **Contractor** (or **Subcontractor**, as applicable), as determined by the **Commissioner**. In establishing cost reimbursement for non-operating **Contractor-owned** (or **Subcontractor-owned**, as applicable) equipment (scaffolding, sheeting systems, road plates, etc.), the City may restrict reimbursement to a purchase-salvage/life cycle basis if less than the computed rental costs; plus

26.2.5 Necessary installation and dismantling of such plant and equipment, including transportation to and from the **Site**, if any, provided that, in the case of non-**Contractor-owned** (or non-**Subcontractor-owned**, as applicable) equipment rented from a third party, the cost of installation and dismantling are not allowable if such costs are included in the rental rate; plus

26.2.6 Necessary fees charged by governmental entities; plus

26.2.7 Necessary construction-related service fees charged by non-governmental entities, such as landfill tipping fees; plus

26.2.8 Reasonable rental costs of non-Contractor-owned (or non-Subcontractor-owned, as applicable) necessary plant and equipment other than **Small Tools**, plus fuel/energy costs. Except for fuel costs for pick-up trucks which shall be reimbursed based on a consumption of five (5) gallons per shift, fuel costs shall be reimbursed based on actual costs or, in the absence of auditable documentation, the following fuel consumption formula per hour of operation: $(.035) \times (\text{HP rating}) \times (\text{Fuel cost/gallon})$. In lieu of renting, the City reserves the right to direct the purchase of non-operating equipment (scaffolding, sheeting systems, road plates, etc.), with payment on a purchase-salvage/life cycle basis, if less than the projected rental costs; plus

26.2.9 Workers' Compensation Insurance, and any insurance coverage expressly required by the City for the performance of the **Extra Work** which is different than the types of insurance required by Article 22 and Schedule A of the General Conditions. The cost of Workers' Compensation Insurance is subject to applicable payroll limitation caps and shall be based upon the carrier's Manual Rate for such insurance derived from the applicable class Loss Cost ("LC") and carrier's Lost Cost Multiplier ("LCM") approved by the New York State Department of Financial Services, and with the exception of experience rating, rate modifiers as promulgated by the New York Compensation Insurance Rating Board ("NYCIRB"); plus

26.2.10 Additional costs incurred as a result of the **Extra Work** for performance and payment bonds; plus

26.2.11 Twelve percent (12%) percent of the total of items in Articles 26.2.1 through 26.2.5 as compensation for overhead, except that no percentage for overhead will be allowed on **Payroll Taxes** or on the premium portion of overtime pay or on sales and personal property taxes. Overhead shall include without limitation, all costs and expenses in connection with administration, management superintendence, small tools, and insurance required by Schedule A of the General Conditions other than Workers' Compensation Insurance; plus

26.2.12 Ten (10%) percent of the total of items in Articles 26.2.1 through 26.2.5, plus the items in Article 26.2.11, as compensation for profit, except that no percentage for profit will be allowed on **Payroll Taxes** or on the premium portion of overtime pay or on sales and personal property taxes; plus

26.2.13 Five (5%) percent of the total of items in Articles 26.2.6 through 26.2.10 as compensation for overhead and profit.

26.3 Where the **Extra Work** is performed in whole or in part by other than the Contractor's own forces pursuant to Article 26.2, the Contractor shall be paid, subject to pre-audit by the **Engineering Audit Officer**, the cost of such **Work** computed in accordance with Article 26.2 above, plus an additional allowance of five (5%) percent to cover the Contractor's overhead and profit.

26.4 Where a change is ordered, involving both **Extra Work** and omitted or reduced **Contract Work**, the **Contract** price shall be adjusted, subject to pre-audit by the **EAO**, in an amount based on the difference between the cost of such **Extra Work** and of the omitted or reduced **Work**.

26.5 Where the Contractor and the Commissioner can agree upon a fixed price for **Extra Work** in accordance with Article 25.3.2 or another method of payment for **Extra Work** in accordance with Article

25.3.4, or for **Extra Work** ordered in connection with omitted **Work**, such method, subject to pre-audit by the **EAO**, may, at the option of the **Commissioner**, be substituted for the cost plus a percentage method provided in Article 26.2; provided, however, that if the **Extra Work** is performed by a **Subcontractor**, the **Contractor** shall not be entitled to receive more than an additional allowance of five (5%) percent for overhead and profit over the cost of such **Subcontractor's Work** as computed in accordance with Article 26.2.

ARTICLE 27. RESOLUTION OF DISPUTES

27.1 All disputes between the **City** and the **Contractor** of the kind delineated in this Article 27.1 that arise under, or by virtue of, this **Contract** shall be finally resolved in accordance with the provisions of this Article 27 and the **PPB Rules**. This procedure for resolving all disputes of the kind delineated herein shall be the exclusive means of resolving any such disputes.

27.1.1 This Article 27 shall not apply to disputes concerning matters dealt with in other sections of the **PPB Rules**, or to disputes involving patents, copyrights, trademarks, or trade secrets (as interpreted by the courts of New York State) relating to proprietary rights in computer software.

27.1.2 This Article 27 shall apply only to disputes about the scope of **Work** delineated by the **Contract**, the interpretation of **Contract** documents, the amount to be paid for **Extra Work** or disputed work performed in connection with the **Contract**, the conformity of the **Contractor's Work** to the **Contract**, and the acceptability and quality of the **Contractor's Work**; such disputes arise when the **Engineer**, **Resident Engineer**, **Engineering Audit Officer**, or other designee of the **Commissioner** makes a determination with which the **Contractor** disagrees.

27.2 All determinations required by this Article 27 shall be made in writing clearly stated, with a reasoned explanation for the determination based on the information and evidence presented to the party making the determination. Failure to make such determination within the time required by this Article 27 shall be deemed a non-determination without prejudice that will allow application to the next level.

27.3 During such time as any dispute is being presented, heard, and considered pursuant to this Article 27, the **Contract** terms shall remain in force and the **Contractor** shall continue to perform **Work** as directed by the **ACCO** or the **Engineer**. Failure of the **Contractor** to continue **Work** as directed shall constitute a waiver by the **Contractor** of its claim.

27.4 Presentation of Disputes to **Commissioner**.

Notice of Dispute and Agency Response. The **Contractor** shall present its dispute in writing ("Notice of Dispute") to the **Commissioner** within thirty (30) Days of receiving written notice of the determination or action that is the subject of the dispute. This notice requirement shall not be read to replace any other notice requirements contained in the **Contract**. The Notice of Dispute shall include all the facts, evidence, documents, or other basis upon which the **Contractor** relies in support of its position, as well as a detailed computation demonstrating how any amount of money claimed by the **Contractor** in the dispute was arrived at. Within thirty (30) Days after receipt of the detailed written submission comprising the complete Notice of Dispute, the **Engineer**, **Resident Engineer**, **Engineering Audit Officer**, or other designee of the **Commissioner** shall submit to the **Commissioner** all materials he or she deems pertinent to the dispute. Following initial submissions to the **Commissioner**, either party may demand of the other the production of any document or other material the demanding party believes may be relevant to the dispute. The requested party shall produce all relevant materials that are not otherwise

protected by a legal privilege recognized by the courts of New York State. Any question of relevancy shall be determined by the **Commissioner** whose decision shall be final. Willful failure of the **Contractor** to produce any requested material whose relevancy the **Contractor** has not disputed, or whose relevancy has been affirmatively determined, shall constitute a waiver by the **Contractor** of its claim.

27.4.1 **Commissioner Inquiry.** The **Commissioner** shall examine the material and may, in his or her discretion, convene an informal conference with the **Contractor**, the **ACCO**, and the **Engineer, Resident Engineer, Engineering Audit Officer**, or other designee of the **Commissioner** to resolve the issue by mutual consent prior to reaching a determination. The **Commissioner** may seek such technical or other expertise as he or she shall deem appropriate, including the use of neutral mediators, and require any such additional material from either or both parties as he or she deems fit. The **Commissioner's** ability to render, and the effect of, a decision hereunder shall not be impaired by any negotiations in connection with the dispute presented, whether or not the **Commissioner** participated therein. The **Commissioner** may or, at the request of any party to the dispute, shall compel the participation of any **Other Contractor** with a contract related to the **Work** of this **Contract**, and that **Contractor** shall be bound by the decision of the **Commissioner**. Any **Other Contractor** thus brought into the dispute resolution proceeding shall have the same rights and obligations under this Article 27 as the **Contractor** initiating the dispute.

27.4.2 **Commissioner Determination.** Within thirty (30) **Days** after the receipt of all materials and information, or such longer time as may be agreed to by the parties, the **Commissioner** shall make his or her determination and shall deliver or send a copy of such determination to the **Contractor**, the **ACCO**, and **Engineer, Resident Engineer, Engineering Audit Officer**, or other designee of the **Commissioner**, as applicable, together with a statement concerning how the decision may be appealed.

27.4.3 **Finality of Commissioner's Decision.** The **Commissioner's** decision shall be final and binding on all parties, unless presented to the Contract Dispute Resolution Board pursuant to this Article 27. The **City** may not take a petition to the Contract Dispute Resolution Board. However, should the **Contractor** take such a petition, the **City** may seek, and the Contract Dispute Resolution Board may render, a determination less favorable to the **Contractor** and more favorable to the **City** than the decision of the **Commissioner**.

27.5 **Presentation of Dispute to the Comptroller.** Before any dispute may be brought by the **Contractor** to the Contract Dispute Resolution Board, the **Contractor** must first present its claim to the **Comptroller** for his or her review, investigation, and possible adjustment.

27.5.1 **Time, Form, and Content of Notice.** Within thirty (30) **Days** of its receipt of a decision by the **Commissioner**, the **Contractor** shall submit to the **Comptroller** and to the **Commissioner** a Notice of Claim regarding its dispute with the **Agency**. The Notice of Claim shall consist of (i) a brief written statement of the substance of the dispute, the amount of money, if any, claimed and the reason(s) the **Contractor** contends the dispute was wrongly decided by the **Commissioner**; (ii) a copy of the written decision of the **Commissioner**; and (iii) a copy of all materials submitted by the **Contractor** to the **Agency**, including the Notice of Dispute. The **Contractor** may not present to the **Comptroller** any material not presented to the **Commissioner**, except at the request of the **Comptroller**.

27.5.2 **Response.** Within thirty (30) **Days** of receipt of the Notice of Claim, the **Agency** shall make available to the **Comptroller** a copy of all material submitted by the **Agency** to the **Commissioner** in connection with the dispute. The **Agency** may not present to the

Comptroller any material not presented to the **Commissioner** except at the request of the **Comptroller**.

27.5.3 Comptroller Investigation. The **Comptroller** may investigate the claim in dispute and, in the course of such investigation, may exercise all powers provided in Sections 7-201 and 7-203 of the Administrative Code. In addition, the **Comptroller** may demand of either party, and such party shall provide, whatever additional material the **Comptroller** deems pertinent to the claim, including original business records of the **Contractor**. Willful failure of the **Contractor** to produce within fifteen (15) **Days** any material requested by the **Comptroller** shall constitute a waiver by the **Contractor** of its claim. The **Comptroller** may also schedule an informal conference to be attended by the **Contractor**, **Agency** representatives, and any other personnel desired by the **Comptroller**.

27.5.4 Opportunity of Comptroller to Compromise or Adjust Claim. The **Comptroller** shall have forty-five (45) **Days** from his or her receipt of all materials referred to in Article 27.5.3 to investigate the disputed claim. The period for investigation and compromise may be further extended by agreement between the **Contractor** and the **Comptroller**, to a maximum of ninety (90) **Days** from the **Comptroller's** receipt of all materials. The **Contractor** may not present its petition to the Contract Dispute Resolution Board until the period for investigation and compromise delineated in this Article 27.5.4 has expired. In compromising or adjusting any claim hereunder, the **Comptroller** may not revise or disregard the terms of the **Contract** between the parties.

27.6 Contract Dispute Resolution Board. There shall be a Contract Dispute Resolution Board composed of:

27.6.1 The chief administrative law judge of the Office of Administrative Trials and Hearings (OATH) or his/her designated OATH administrative law judge, who shall act as chairperson, and may adopt operational procedures and issue such orders consistent with this Article 27 as may be necessary in the execution of the Contract Dispute Resolution Board's functions; including, but not limited to, granting extensions of time to present or respond to submissions;

27.6.2 The **CCPO** or his/her designee; any designee shall have the requisite background to consider and resolve the merits of the dispute and shall not have participated personally and substantially in the particular matter that is the subject of the dispute or report to anyone who so participated; and

27.6.3 A person with appropriate expertise who is not an employee of the **City**. This person shall be selected by the presiding administrative law judge from a prequalified panel of individuals, established and administered by OATH with appropriate background to act as decision-makers in a dispute. Such individual may not have a contract or dispute with the **City** or be an officer or employee of any company or organization that does, or regularly represents persons, companies, or organizations having disputes with the **City**.

27.7 Petition to the Contract Dispute Resolution Board. In the event the claim has not been settled or adjusted by the **Comptroller** within the period provided in this Article 27, the **Contractor**, within thirty (30) **Days** thereafter, may petition the Contract Dispute Resolution Board to review the **Commissioner's** determination.

27.7.1 Form and Content of Petition by Contractor. The **Contractor** shall present its dispute to the Contract Dispute Resolution Board in the form of a petition, which shall

include (i) a brief written statement of the substance of the dispute, the amount of money, if any, claimed, and the reason(s) the **Contractor** contends the dispute was wrongly decided by the **Commissioner**; (ii) a copy of the written Decision of the **Commissioner**, (iii) copies of all materials submitted by the **Contractor** to the Agency; (iv) a copy of the written decision of the **Comptroller**, if any, and (v) copies of all correspondence with, or written material submitted by the **Contractor**, to the **Comptroller**. The **Contractor** shall concurrently submit four (4) complete sets of the Petition: one set to the City Corporation Counsel (Attn: Commercial and Real Estate Litigation Division) and three (3) sets to the Contract Dispute Resolution Board at OATH's offices with proof of service on the City Corporation Counsel. In addition, the **Contractor** shall submit a copy of the written statement of the substance of the dispute, cited in (i) above, to both the **Commissioner** and the **Comptroller**.

27.7.2 Agency Response. Within thirty (30) **Days** of its receipt of the Petition by the City Corporation Counsel, the Agency shall respond to the brief written statement of the **Contractor** and make available to the Contract Dispute Resolution Board all material it submitted to the **Commissioner** and **Comptroller**. Three (3) complete copies of the Agency response shall be provided to the Contract Dispute Resolution Board and one to the **Contractor**. Extensions of time for submittal of the Agency response shall be given as necessary upon a showing of good cause or, upon consent of the parties, for an initial period of up to thirty (30) **Days**.

27.7.3 Further Proceedings. The Contract Dispute Resolution Board shall permit the **Contractor** to present its case by submission of memoranda, briefs, and oral argument. The Contract Dispute Resolution Board shall also permit the Agency to present its case in response to the **Contractor** by submission of memoranda, briefs, and oral argument. If requested by the City Corporation Counsel, the **Comptroller** shall provide reasonable assistance in the preparation of the Agency's case. Neither the **Contractor** nor the Agency may support its case with any documentation or other material that was not considered by the **Comptroller**, unless requested by the Contract Dispute Resolution Board. The Contract Dispute Resolution Board, in its discretion, may seek such technical or other expert advice as it shall deem appropriate and may seek, on its own or upon application of a party, any such additional material from any party as it deems fit. The Contract Dispute Resolution Board, in its discretion, may combine more than one dispute between the parties for concurrent resolution.

27.7.4 Contract Dispute Resolution Board Determination. Within forty-five (45) **Days** of the conclusion of all written submissions and oral arguments, the Contract Dispute Resolution Board shall render a written decision resolving the dispute. In an unusually complex case, the Contract Dispute Resolution Board may render its decision in a longer period, not to exceed ninety (90) **Days**, and shall so advise the parties at the commencement of this period. The Contract Dispute Resolution Board's decision must be consistent with the terms of the **Contract**. Decisions of the Contract Dispute Resolution Board shall only resolve matters before the Contract Dispute Resolution Board and shall not have precedential effect with respect to matters not before the Contract Dispute Resolution Board.

27.7.5 Notification of Contract Dispute Resolution Board Decision. The Contract Dispute Resolution Board shall send a copy of its decision to the **Contractor**, the **ACCO**, the Engineer, the **Comptroller**, the City Corporation Counsel, the **CCPO**, and the **PPB**. A decision in favor of the **Contractor** shall be subject to the prompt payment provisions of the **PPB Rules**. The Required Payment Date shall be thirty (30) **Days** after the date the parties are formally notified of the Contract Dispute Resolution Board's decision.

27.7.6 Finality of Contract Dispute Resolution Board Decision. The Contract Dispute Resolution

Board's decision shall be final and binding on all parties. Any party may seek review of the Contract Dispute Resolution Board's decision solely in the form of a challenge, filed within four (4) months of the date of the Contract Dispute Resolution Board's decision, in a court of competent jurisdiction of the State of New York, County of New York pursuant to Article 78 of the Civil Practice Law and Rules. Such review by the court shall be limited to the question of whether or not the Contract Dispute Resolution Board's decision was made in violation of lawful procedure, was affected by an error of Law, or was arbitrary and capricious or an abuse of discretion. No evidence or information shall be introduced or relied upon in such proceeding that was not presented to the Contract Dispute Resolution Board in accordance with this Article 27.

27.8 Any termination, cancellation, or alleged breach of the Contract prior to or during the pendency of any proceedings pursuant to this Article 27 shall not affect or impair the ability of the Commissioner or Contract Dispute Resolution Board to make a binding and final decision pursuant to this Article 27.

ARTICLE 28. RECORD KEEPING FOR EXTRA OR DISPUTED WORK OR WORK ON A TIME & MATERIALS BASIS

28.1 While the Contractor or any of its Subcontractors is performing Work on a time and material basis or Extra Work on a time and material basis ordered by the Commissioner under Article 25, or where the Contractor believes that it or any of its Subcontractors is performing Extra Work but a final determination by Agency has not been made, or the Contractor or any of its Subcontractors is performing disputed Work (whether on or off the Site), or complying with a determination or order under protest in accordance with Articles 11, 27, and 30, in each such case the Contractor shall furnish the Resident Engineer daily with three (3) copies of written statements signed by the Contractor's representative at the Site showing:

28.1.1 The name, trade, and number of each worker employed on such Work or engaged in complying with such determination or order, the number of hours employed, and the character of the Work each is doing; and

28.1.2 The nature and quantity of any materials, plant and equipment furnished or used in connection with the performance of such Work or compliance with such determination or order, and from whom purchased or rented.

28.2 A copy of such statement will be countersigned by the Resident Engineer, noting thereon any items not agreed to or questioned, and will be returned to the Contractor within two (2) Days after submission.

28.3 The Contractor and its Subcontractors, when required by the Commissioner, or the Comptroller, shall also produce for inspection, at the office of the Contractor or Subcontractor, any and all of its books, bid documents, financial statements, vouchers, records, daily job diaries and reports, and cancelled checks, and any other documents relating to showing the nature and quantity of the labor, materials, plant and equipment actually used in the performance of such Work, or in complying with such determination or order, and the amounts expended therefor, and shall permit the Commissioner and the Comptroller to make such extracts therefrom, or copies thereof, as they or either of them may desire.

28.4 In connection with the examination provided for herein, the Commissioner, upon demand therefor, will produce for inspection by the Contractor such records as the Agency may have with

respect to such **Extra Work** or disputed **Work** performed under protest pursuant to order of the **Commissioner**, except those records and reports which may have been prepared for the purpose of determining the accuracy and validity of the **Contractor's** claim.

28.5 Failure to comply strictly with these requirements shall constitute a waiver of any claim for extra compensation or damages on account of the performance of such **Work** or compliance with such determination or order.

ARTICLE 29. OMITTED WORK

29.1 If any **Contract Work** in a lump sum **Contract**, or if any part of a lump sum item in a unit price, lump sum, or percentage-bid **Contract** is omitted by the **Commissioner** pursuant to Article 33, the **Contract** price, subject to audit by the EAO, shall be reduced by a pro rata portion of the lump sum bid amount based upon the percent of **Work** omitted subject to Article 29.4. For the purpose of determining the pro rata portion of the lump sum bid amount, the bid breakdown submitted in accordance with Article 41 shall be considered, but shall not be the determining factor.

29.2 If the whole of a lump sum item or units of any other item is so omitted by the **Commissioner** in a unit price, lump sum, or percentage-bid **Contract**, then no payment will be made therefor except as provided in Article 29.4.

29.3 For units that have been ordered but are only partially completed, the unit price shall be reduced by a pro rata portion of the unit price bid based upon the percentage of **Work** omitted subject to Article 29.4.

29.4 In the event the **Contractor**, with respect to any omitted **Work**, has purchased any non-cancelable material and/or equipment that is not capable of use except in the performance of this **Contract** and has been specifically fabricated for the sole purpose of this **Contract**, but not yet incorporated into the **Work**, the **Contractor** shall be paid for such material and/or equipment in accordance with Article 64.2.1(b); provided, however, such payment is contingent upon the **Contractor's** delivery of such material and/or equipment in acceptable condition to a location designated by the **City**.

29.5 The **Contractor** agrees to make no claim for damages or for loss of overhead and profit with regard to any omitted **Work**.

ARTICLE 30. NOTICE AND DOCUMENTATION OF COSTS AND DAMAGES; PRODUCTION OF FINANCIAL RECORDS

30.1 If the **Contractor** shall claim to be sustaining damages by reason of any act or omission of the **City** or its agents, it shall submit to the **Commissioner** within forty-five (45) **Days** from the time such damages are first incurred, and every thirty (30) **Days** thereafter for as long as such damages are incurred, verified statements of the details and the amounts of such damages, together with documentary evidence of such damages. The **Contractor** may submit any of the above statements within such additional time as may be granted by the **Commissioner** in writing upon written request therefor. Failure of the **Commissioner** to respond in writing to a written request for additional time within thirty (30) **Days** shall be deemed a denial of the request. On failure of the **Contractor** to strictly comply with the foregoing provisions, such claims shall be deemed waived and no right to recover on such claims shall exist. Damages that the **Contractor** may claim in any action or dispute resolution procedure arising under or by reason of this **Contract** shall not be different from or in excess of the statements and documentation made pursuant to this Article 30.

30.2 In addition to the foregoing statements, the **Contractor** shall, upon notice from the **Commissioner**, produce for examination at the **Contractor's** office, by the **Engineer, Architect** or **Project Manager**, all of its books of account, bills, invoices, payrolls, subcontracts, time books, daily reports, bank deposit books, bank statements, check books, and cancelled checks, showing all of its acts and transactions in connection with or relating to or arising by reason of this **Contract**, and submit itself and persons in its employment, for examination under oath by any person designated by the **Commissioner** or **Comptroller** to investigate claims made or disputes against the **City** under this **Contract**. At such examination, a duly authorized representative of the **Contractor** may be present.

30.3 In addition to the statements required under Article 28 and this Article 30, the **Contractor** and/or its **Subcontractor** shall, within thirty (30) **Days** upon notice from the **Commissioner** or **Comptroller**, produce for examination at the **Contractor's** and/or **Subcontractor's** office, by a representative of either the **Commissioner** or **Comptroller**, all of its books of account, bid documents, financial statements, accountant workpapers, bills, invoices, payrolls, subcontracts, time books, daily reports, bank deposit books, bank statements, check books, and cancelled checks, showing all of its acts and transactions in connection with or relating to or arising by reason of this **Contract**. Further, the **Contractor** and/or its **Subcontractor** shall submit any person in its employment, for examination under oath by any person designated by the **Commissioner** or **Comptroller** to investigate claims made or disputes against the **City** under this **Contract**. At such examination, a duly authorized representative of the **Contractor** may be present.

30.4 Unless the information and examination required under Article 30.3 is provided by the **Contractor** and/or its **Subcontractor** upon thirty (30) **Days'** notice from the **Commissioner** or **Comptroller**, or upon the **Commissioner's** or **Comptroller's** written authorization to extend the time to comply, the **City** shall be released from all claims arising under, relating to or by reason of this **Contract**, except for sums certified by the **Commissioner** to be due under the provisions of this **Contract**. It is further stipulated and agreed that no person has the power to waive any of the foregoing provisions and that in any action or dispute resolution procedure against the **City** to recover any sum in excess of the sums certified by the **Commissioner** to be due under or by reason of this **Contract**, the **Contractor** must allege in its complaint and prove, at trial or during such dispute resolution procedure, compliance with the provisions of this Article 30.

30.5 In addition, after the commencement of any action or dispute resolution procedure by the **Contractor** arising under or by reason of this **Contract**, the **City** shall have the right to require the **Contractor** to produce for examination under oath, up until the trial of the action or hearing before the **Contract Dispute Resolution Board**, the books and documents described in Article 30.3 and submit itself and all persons in its employ for examination under oath. If this Article 30 is not complied with as required, then the **Contractor** hereby consents to the dismissal of the action or dispute resolution procedure.

CHAPTER VII
POWERS OF THE RESIDENT ENGINEER,
THE ENGINEER OR ARCHITECT AND THE COMMISSIONER

ARTICLE 31. THE RESIDENT ENGINEER

31.1 The **Resident Engineer** shall have the power to inspect, supervise, and control the performance of the **Work**, subject to review by the **Commissioner**. The **Resident Engineer** shall not, however, have the power to issue an **Extra Work** order, except as specifically designated in writing by the **Commissioner**.

ARTICLE 32. THE ENGINEER OR ARCHITECT OR PROJECT MANAGER

32.1 The **Engineer or Architect or Project Manager**, in addition to those matters elsewhere herein delegated to the **Engineer** and expressly made subject to his/her determination, direction or approval, shall have the power, subject to review by the **Commissioner**:

32.1.1 To determine the amount, quality, and location of the **Work** to be paid for hereunder; and

32.1.2 To determine all questions in relation to the **Work**, to interpret the **Contract Drawings, Specifications, and Addenda**, and to resolve all patent inconsistencies or ambiguities therein; and

32.1.3 To determine how the **Work** of this **Contract** shall be coordinated with **Work** of **Other Contractors** engaged simultaneously on this **Project**, including the power to suspend any part of the **Work**, but not the whole thereof; and

32.1.4 To make minor changes in the **Work** as he/she deems necessary, provided such changes do not result in a net change in the cost to the **City** or to the **Contractor** of the **Work** to be done under the **Contract**; and

32.1.5 To amplify the **Contract Drawings**, add explanatory information and furnish additional **Specifications** and drawings, consistent with this **Contract**.

32.2 The foregoing enumeration shall not imply any limitation upon the power of the **Engineer or Architect or Project Manager**, for it is the intent of this **Contract** that all of the **Work** shall generally be subject to his/her determination, direction, and approval, except where the determination, direction or approval of someone other than the **Engineer or Architect or Project Manager** is expressly called for herein.

32.3 The **Engineer or Architect or Project Manager** shall not, however, have the power to issue an **Extra Work** order, except as specifically designated in writing by the **Commissioner**.

ARTICLE 33. THE COMMISSIONER

33.1 The **Commissioner**, in addition to those matters elsewhere herein expressly made subject to his/her determination, direction or approval, shall have the power:

33.1.1 To review and make determinations on any and all questions in relation to this **Contract** and its performance; and

33.1.2 To modify or change this **Contract** so as to require the performance of **Extra Work** (subject, however, to the limitations specified in Article 25) or the omission of **Contract Work**; and

33.1.3 To suspend the whole or any part of the **Work** whenever in his/her judgment such suspension is required:

33.1.3(a) In the interest of the **City** generally; or

33.1.3(b) To coordinate the **Work** of the various contractors engaged on this **Project** pursuant to the provisions of Article 12; or

33.1.3(c) To expedite the completion of the entire **Project** even though the completion of this particular **Contract** may thereby be delayed.

ARTICLE 34. NO ESTOPPEL

34.1 Neither the **City** nor any **Agency**, official, agent or employee thereof, shall be bound, precluded or estopped by any determination, decision, approval, order, letter, payment or certificate made or given under or in connection with this **Contract** by the **City**, the **Commissioner**, the **Engineer**, the **Resident Engineer**, or any other official, agent or employee of the **City**, either before or after the final completion and acceptance of the **Work** and payment therefor:

34.1.1 From showing the true and correct classification, amount, quality or character of the **Work** actually done; or that any such determination, decision, order, letter, payment or certificate was untrue, incorrect or improperly made in any particular, or that the **Work**, or any part thereof, does not in fact conform to the requirements of this **Contract**; and

34.1.2 From demanding and recovering from the **Contractor** any overpayment made to it, or such damages as the **City** may sustain by reason of the **Contractor's** failure to perform each and every part of its **Contract**.

CHAPTER VIII LABOR PROVISIONS

ARTICLE 35. EMPLOYEES

35.1 The **Contractor** and its **Subcontractors** shall not employ on the **Work**:

35.1.1 Anyone who is not competent, faithful and skilled in the **Work** for which he/she shall be employed; and whenever the **Commissioner** shall inform the **Contractor**, in writing, that any employee is, in his/her opinion, incompetent, unfaithful or disobedient, that employee shall be discharged from the **Work** forthwith, and shall not again be employed upon it; or

35.1.2 Any labor, materials or means whose employment, or utilization during the course of this **Contract**, may tend to or in any way cause or result in strikes, work stoppages, delays, suspension of **Work** or similar troubles by workers employed by the **Contractor** or its **Subcontractors**, or by any of the trades working in or about the buildings and premises where **Work** is being performed under this **Contract**, or by **Other Contractors** or their **Subcontractors** pursuant to other contracts, or on any other building or premises owned or operated by the **City**, its **Agencies**, departments, boards or authorities. Any violation by the **Contractor** of this requirement may, upon certification of the **Commissioner**, be considered as proper and sufficient cause for declaring the **Contractor** to be in default, and for the **City** to take action against it as set forth in Chapter X of this **Contract**, or such other article of this **Contract** as the **Commissioner** may deem proper; or

35.1.3 In accordance with Section 220.3-e of the Labor Law of the State of New York (hereinafter "Labor Law"), the **Contractor** and its **Subcontractors** shall not employ on the **Work** any apprentice, unless he/she is a registered individual, under a bona fide program

registered with the New York State Department of Labor. The allowable ratio of apprentices to journey-level workers in any craft classification shall not be greater than the ratio permitted to the **Contractor** as to its work force on any job under the registered program. Any employee listed on a payroll at an apprentice wage rate, who is not registered as above, shall be paid the wage rate determined by the **Comptroller** of the **City** for the classification of **Work** actually performed. The **Contractor** or **Subcontractor** will be required to furnish written evidence of the registration of its program and apprentices as well as all the appropriate ratios and wage rates, for the area of the construction prior to using any apprentices on the **Contract Work**.

35.2 If the total cost of the **Work** under this **Contract** is at least two hundred fifty thousand (\$250,000) dollars, all laborers, workers, and mechanics employed in the performance of the **Contract** on the public work site, either by the **Contractor**, **Subcontractor** or other person doing or contracting to do the whole or a part of the **Work** contemplated by the **Contract**, shall be certified prior to performing any **Work** as having successfully completed a course in construction safety and health approved by the United States Department of Labor's Occupational Safety and Health Administration that is at least ten (10) hours in duration.

35.3 In accordance with Local Law Nos. 30-2012 and 33-2012, codified at sections 6-132 and 12-113 of the Administrative Code, respectively,

35.3.1 The **Contractor** shall not take an adverse personnel action with respect to an officer or employee in retaliation for such officer or employee making a report of information concerning conduct which such officer or employee knows or reasonably believes to involve corruption, criminal activity, conflict of interest, gross mismanagement or abuse of authority by any officer or employee relating to this **Contract** to (a) the Commissioner of the Department of Investigation, (b) a member of the New York City Council, the Public Advocate, or the **Comptroller**, or (c) the **CCPO**, **ACCO**, **Agency** head, or **Commissioner**.

35.3.2 If any of the **Contractor's** officers or employees believes that he or she has been the subject of an adverse personnel action in violation of Article 35.3.1, he or she shall be entitled to bring a cause of action against the **Contractor** to recover all relief necessary to make him or her whole. Such relief may include but is not limited to: (a) an injunction to restrain continued retaliation, (b) reinstatement to the position such employee would have had but for the retaliation or to an equivalent position, (c) reinstatement of full fringe benefits and seniority rights, (d) payment of two times back pay, plus interest, and (e) compensation for any special damages sustained as a result of the retaliation, including litigation costs and reasonable attorney's fees.

35.3.3 The **Contractor** shall post a notice provided by the **City** in a prominent and accessible place on any site where work pursuant to the **Contract** is performed that contains information about:

35.3.3(a) how its employees can report to the New York City Department of Investigation allegations of fraud, false claims, criminality or corruption arising out of or in connection with the **Contract**; and

35.3.3(b) the rights and remedies afforded to its employees under Administrative Code sections 7-805 (the New York City False Claims Act) and 12-113 (the Whistleblower Protection Expansion Act) for lawful acts taken in connection with the reporting of allegations of fraud, false claims, criminality or corruption in connection with the **Contract**.

35.3.4 For the purposes of this Article 35.3, "adverse personnel action" includes dismissal, demotion, suspension, disciplinary action, negative performance evaluation, any action resulting in loss of staff, office space, equipment or other benefit, failure to appoint, failure to promote, or any transfer or assignment or failure to transfer or assign against the wishes of the affected officer or employee.

35.3.5 This Article 35.3 is applicable to all of the **Contractor's Subcontractors** having subcontracts with a value in excess of \$100,000; accordingly, the **Contractor** shall include this rider in all subcontracts with a value a value in excess of \$100,000.

35.4 Article 35.3 is not applicable to this **Contract** if it is valued at \$100,000 or less. Articles 35.3.1, 35.3.2, 35.3.4, and 35.3.5 are not applicable to this **Contract** if it was solicited pursuant to a finding of an emergency.

ARTICLE 36. NO DISCRIMINATION

36.1 The **Contractor** specifically agrees, as required by Labor Law Section 220-e, as amended, that:

36.1.1 In the hiring of employees for the performance of **Work** under this **Contract** or any subcontract hereunder, neither the **Contractor**, **Subcontractor**, nor any person acting on behalf of such **Contractor** or **Subcontractor**, shall by reason of race, creed, color or national origin discriminate against any citizen of the State of New York who is qualified and available to perform the **Work** to which the employment relates;

36.1.2 Neither the **Contractor**, **Subcontractor**, nor any person on its behalf shall, in any manner, discriminate against or intimidate any employee hired for the performance of **Work** under this **Contract** on account of race, creed, color or national origin;

36.1.3 There may be deducted from the amount payable to the **Contractor** by the **City** under this **Contract** a penalty of fifty (\$50.00) dollars for each person for each **Day** during which such person was discriminated against or intimidated in violation of the provisions of this **Contract**; and

36.1.4 This **Contract** may be cancelled or terminated by the **City** and all moneys due or to become due hereunder may be forfeited, for a second or any subsequent violation of the terms or conditions of this Article 36.

36.1.5 This Article 36 covers all construction, alteration and repair of any public building or public work occurring in the State of New York and the manufacture, sale, and distribution of materials, equipment, and supplies to the extent that such operations are performed within the State of New York pursuant to this **Contract**.

36.2 The **Contractor** specifically agrees, as required by Section 6-108 of the Administrative Code, as amended, that:

36.2.1 It shall be unlawful for any person engaged in the construction, alteration or repair of buildings or engaged in the construction or repair of streets or highways pursuant to a **Contract** with the **City** or engaged in the manufacture, sale or distribution of materials, equipment or supplies pursuant to a **Contract** with the **City** to refuse to employ or to refuse to continue in any employment any person on account of the race, color or creed of such person.

36.2.2 It shall be unlawful for any person or any servant, agent or employee of any person, described in Article 36.1.2, to ask, indicate or transmit, orally or in writing, directly or indirectly, the race, color or creed or religious affiliation of any person employed or seeking employment from such person, firm or corporation.

36.2.3 Breach of the foregoing provisions shall be deemed a violation of a material provision of this **Contract**.

36.2.4 Any person, or the employee, manager or owner of or officer of such firm or corporation who shall violate any of the provisions of this Article 36.2 shall, upon conviction thereof, be punished by a fine of not more than one hundred (\$100.00) dollars or by imprisonment for not more than thirty (30) **Days**, or both.

36.3 This **Contract** is subject to the requirements of Executive Order No. 50 (1980) ("E.O. 50"), as revised, and the rules and regulations promulgated thereunder. No contract will be awarded unless and until these requirements have been complied with in their entirety. By signing this **Contract**, the **Contractor** agrees that it:

36.3.1 Will not engage in any unlawful discrimination against any employee or applicant for employment because of race, creed, color, national origin, sex, age, disability, marital status or sexual orientation with respect to all employment decisions including, but not limited to, recruitment, hiring, upgrading, demotion, downgrading, transfer, training, rates of pay or other forms of compensation, layoff, termination, and all other terms and conditions of employment; and

36.3.2 Will not engage in any unlawful discrimination in the selection of **Subcontractors** on the basis of the owner's race, color, creed, national origin, sex, age, disability, marital status or sexual orientation; and

36.3.3 Will state in all solicitations or advertisements for employees placed by or on behalf of the **Contractor** that all qualified applicants will receive consideration for employment without unlawful discrimination based on race, creed, color, national origin, sex, age, citizens status, disability, marital status, sexual orientation, or that it is an equal employment opportunity employer; and

36.3.4 Will send to each labor organization or representative of workers with which it has a collective bargaining agreement or other contract or memorandum of understanding, written notification of its equal employment opportunity commitments under E.O. 50 and the rules and regulations promulgated thereunder; and

36.3.5 Will furnish, before the award of the **Contract**, all information and reports, including an employment report, that are required by E.O. 50, the rules and regulations promulgated thereunder, and orders of the **City Department of Business Services, Division of Labor Services (DLS)** and will permit access to its books, records, and accounts by the **DLS** for the purposes of investigation to ascertain compliance with such rules, regulations, and orders.

36.4 The **Contractor** understands that in the event of its noncompliance with the nondiscrimination clauses of this **Contract** or with any of such rules, regulations, or orders, such noncompliance shall constitute a material breach of this **Contract** and noncompliance with E.O. 50 and the rules and regulations promulgated thereunder. After a hearing held pursuant to the rules of the **DLS**, the Director of the **DLS** may direct the **Commissioner** to impose any or all of the following sanctions:

36.4.1 Disapproval of the **Contractor**; and/or

36.4.2 Suspension or termination of the **Contract**; and/or

36.4.3 Declaring the **Contractor** in default; and/or

36.4.4 In lieu of any of the foregoing sanctions, the Director of the **DLS** may impose an employment program.

In addition to any actions taken under this **Contract**, failure to comply with E.O. 50 and the rules and regulations promulgated thereunder, in one or more instances, may result in a **City Agency** declaring the **Contractor** to be non-responsible in future procurements. The **Contractor** further agrees that it will refrain from entering into any **Contract** or **Contract** modification subject to E.O. 50 and the rules and regulations promulgated thereunder with a **Subcontractor** who is not in compliance with the requirements of E.O. 50 and the rules and regulations promulgated thereunder.

36.5 The **Contractor** specifically agrees, as required by Section 6-123 of the Administrative Code, that:

36.5.1 The **Contractor** will not engage in any unlawful discriminatory practice in violation of Title 8 of the Administrative Code; and

36.5.2 Any failure to comply with this Article 36.5 may subject the **Contractor** to the remedies set forth in Section 6-123 of the Administrative Code, including, where appropriate, sanctions such as withholding of payment, imposition of an employment program, finding the **Contractor** to be in default, cancellation of the **Contract**, or any other sanction or remedy provided by Law or **Contract**.

ARTICLE 37. LABOR LAW REQUIREMENTS

37.1 The **Contractor** shall strictly comply with all applicable provisions of the Labor Law, as amended. Such compliance is a material term of this **Contract**.

37.2 The **Contractor** specifically agrees, as required by Labor Law Sections 220 and 220-d, as amended, that:

37.2.1 **Hours of Work:** No laborer, worker, or mechanic in the employ of the **Contractor**, **Subcontractor** or other person doing or contracting to do the whole or a part of the **Work** contemplated by this **Contract** shall be permitted or required to work more than eight (8) hours in any one (1) **Day**, or more than five (5) **Days** in any one (1) week, except as provided in the Labor Law and in cases of extraordinary emergency including fire, flood, or danger to life or property, or in the case of national emergency when so proclaimed by the President of the United States of America.

37.2.2 In situations in which there are not sufficient laborers, workers, and mechanics who may be employed to carry on expeditiously the **Work** contemplated by this **Contract** as a result of such restrictions upon the number of hours and **Days** of labor, and the immediate commencement or prosecution or completion without undue delay of the **Work** is necessary for the preservation of the **Site** and/or for the protection of the life and limb of the persons using the same, such laborers, workers, and mechanics shall be permitted or required to

work more than eight (8) hours in any one (1) Day; or five (5) Days in any one (1) week; provided, however, that upon application of any Contractor, the Commissioner shall have first certified to the Commissioner of Labor of the State of New York (hereinafter "Commissioner of Labor") that such public Work is of an important nature and that a delay in carrying it to completion would result in serious disadvantage to the public; and provided, further, that such Commissioner of Labor shall have determined that such an emergency does in fact exist as provided in Labor Law Section 220.2.

37.2.3 Failure of the Commissioner to make such a certification to the Commissioner of Labor shall not entitle the Contractor to damages for delay or for any cause whatsoever.

37.2.4 Prevailing Rate of Wages: The wages to be paid for a legal day's Work to laborers, workers, or mechanics employed upon the Work contemplated by this Contract or upon any materials to be used thereon shall not be less than the "prevailing rate of wage" as defined in Labor Law Section 220, and as fixed by the Comptroller in the attached Schedule of Wage Rates and in updated schedules thereof. The prevailing wage rates and supplemental benefits to be paid are those in effect at the time the Work is being performed.

37.2.5 Requests for interpretation or correction in the Information for Bidders includes all requests for clarification of the classification of trades to be employed in the performance of the Work under this Contract. In the event that a trade not listed in the Contract is in fact employed during the performance of this Contract, the Contractor shall be required to obtain from the Agency the prevailing wage rates and supplementary benefits for the trades used and to complete the performance of this Contract at the price at which the Contract was awarded.

37.2.6 Minimum Wages: Except for employees whose wage is required to be fixed pursuant to Labor Law Section 220, all persons employed by the Contractor and any Subcontractor in the manufacture or furnishing of the supplies, materials, or equipment, or the furnishing of work, labor, or services, used in the performance of this Contract, shall be paid, without subsequent deduction or rebate unless expressly authorized by Law, not less than the sum mandated by Law.

37.3 Working Conditions: No part of the Work, labor or services shall be performed or rendered by the Contractor in any plants, factories, buildings or surroundings or under working conditions which are unsanitary or hazardous or dangerous to the health and safety of employees engaged in the performance of this Contract. Compliance with the safety, sanitary, and factory inspection Laws of the state in which the Work is to be performed shall be prima facie evidence of compliance with this Article 37.3.

37.4 Prevailing Wage Enforcement: The Contractor agrees to pay for all costs incurred by the City in enforcing prevailing wage requirements, including the cost of any investigation conducted by or on behalf of the Agency or the Comptroller, where the City discovers a failure to comply with any of the requirements of this Article 37 by the Contractor or its Subcontractor(s). The Contractor also agrees that, should it fail or refuse to pay for any such investigation, the Agency is hereby authorized to deduct from a Contractor's account an amount equal to the cost of such investigation.

37.4.1 The Labor Law Section 220 and Section 220-d, as amended, provide that this Contract shall be forfeited and no sum paid for any Work done hereunder on a second conviction for willfully paying less than:

37.4.1(a) The stipulated prevailing wage scale as provided in Labor Law section 220, as amended, or

37.4.1(b) The stipulated minimum hourly wage scale as provided in Labor Law section 220-d, as amended.

37.4.2 For any breach or violation of either working conditions (Article 37.3) or minimum wages (Article 37.2.6) provisions, the party responsible therefor shall be liable to the City for liquidated damages, which may be withheld from any amounts due on any contracts with the City of such party responsible, or may be recovered in actions brought by the City Corporation Counsel in the name of the City, in addition to damages for any other breach of this Contract, for a sum equal to the amount of any underpayment of wages due to any employee engaged in the performance of this Contract. In addition, the Commissioner shall have the right to cancel contracts and enter into other contracts for the completion of the original contract, with or without public letting, and the original Contractor shall be liable for any additional cost. All sums withheld or recovered as deductions, rebates, refunds, or underpayment of wages hereunder, shall be held in a special deposit account and shall be paid without interest, on order of the Comptroller, directly to the employees who have been paid less than minimum rates of pay as set forth herein and on whose account such sums were withheld or recovered, provided that no claims by employees for such payments shall be entertained unless made within two (2) years from the date of actual notice to the Contractor of the withholding or recovery of such sums by the City.

37.4.3 A determination by the Comptroller that a Contractor and/or its Subcontractor willfully violated Labor Law Section 220 will be forwarded to the City's five District Attorneys for review.

37.4.4 The Contractor's or Subcontractor's noncompliance with this Article 37.4 and Labor Law Section 220 may result in an unsatisfactory performance evaluation and the Comptroller may also find and determine that the Contractor or Subcontractor willfully violated the New York Labor Law.

37.4.4(a) An unsatisfactory performance evaluation for noncompliance with this Article 37.4 may result in a determination that the Contractor is a non-responsible bidder on subsequent procurements with the City and thus a rejection of a future award of a contract with the City, as well as any other sanctions provided for by Law.

37.4.4(b) Labor Law Section 220-b, as amended, provides that when two (2) final determinations have been rendered against a Contractor or Subcontractor within any consecutive six (6) year period determining that such Contractor or Subcontractor has willfully failed to pay the prevailing rate of wages or to provide supplements in accordance with the Labor Law and this Article 37.4, whether such failures were concurrent or consecutive and whether or not such final determinations concerning separate public works projects are rendered simultaneously, such Contractor or Subcontractor shall be ineligible to submit a bid on or be awarded any public works contract with the City for a period of five (5) years from the second final determination. If the final determination involves the falsification of payroll records or the kickback of wages or supplements, the Contractor or Subcontractor shall be ineligible to submit a bid on or be awarded any public works contract with the City for a period of five (5) years from the first final determination.

37.4.4(c) Labor Law Section 220, as amended, provides that the Contractor or Subcontractor found to have violated this Article 37.4 may be directed to make payment of wages or supplements including interest found to be due, and the Contractor or Subcontractor may be directed to make payment of a further sum as

a civil penalty in an amount not exceeding twenty-five (25%) percent of the total amount found to be due.

37.5 The **Contractor** and its **Subcontractors** shall within ten (10) **Days** after mailing of a Notice of Award or written order, post in prominent and conspicuous places in each and every plant, factory, building, and structure where employees of the **Contractor** and its **Subcontractors** engaged in the performance of this **Contract** are employed, notices furnished by the **City**, in relation to prevailing wages and supplements, minimum wages, and other stipulations contained in Sections 220 and 220-h of the Labor Law, and the **Contractor** and its **Subcontractors** shall continue to keep such notices posted in such prominent and conspicuous places until **Final Acceptance** of the supplies, materials, equipment, or **Work**, labor, or services required to be furnished or rendered under this **Contract**.

37.6 The **Contractor** shall strictly comply with all of the provisions of Articles 37.6.1 through 37.6.5, and provide for all workers, laborers or mechanics in its employ, the following:

37.6.1 **Notices Posted At Site:** Post, in a location designated by the **City**, schedules of prevailing wages and supplements for this **Project**, a copy of all re-determinations of such schedules for the **Project**, the Workers' Compensation Law Section 51 notice, all other notices required by Law to be posted at the **Site**, the **City** notice that this **Project** is a public works project on which each worker is entitled to receive the prevailing wages and supplements for the occupation at which he or she is working, and all other notices which the **City** directs the **Contractor** to post. The **Contractor** shall provide a surface for such notices which is satisfactory to the **City**. The **Contractor** shall maintain and keep current such notices in a legible manner and shall replace any notice or schedule which is damaged, defaced, illegible or removed for any reason. The **Contractor** shall post such notices before commencing any **Work** on the **Site** and shall maintain such notices until all **Work** on the **Site** is complete; and

37.6.2 **Daily Site Sign-in Sheets:** Maintain daily **Site** sign-in sheets, and require that **Subcontractors** maintain daily **Site** sign-in sheets for its employees, which include blank spaces for an employee's name to be both printed and signed, job title, date started and Social Security number, the time the employee began work and the time the employee left work, until **Final Acceptance** of the supplies, materials, equipment, or **Work**, labor, or services to be furnished or rendered under this **Contract** unless exception is granted by the **Comptroller** upon application by the **Agency**. In the alternative, subject to the approval of the **CCPO**, the **Contractor** and **Subcontractor** may maintain an electronic or biometric sign-in system, which provides the information required by this Article 37.6.2; and

37.6.3 **Individual Employee Information Notices:** Distribute a notice to each worker, laborer or mechanic employed under this **Contract**, in a form provided by the **Agency**, that this **Project** is a public works project on which each worker, laborer or mechanic is entitled to receive the prevailing rate of wages and supplements for the occupation at which he or she is working. If the total cost of the **Work** under this **Contract** is at least two hundred fifty thousand (\$250,000) dollars, such notice shall also include a statement that each worker, laborer or mechanic must be certified prior to performing any **Work** as having successfully completed a course in construction safety and health approved by the United States Department of Labor's Occupational Safety and Health Administration that is at least ten (10) hours in duration. Such notice shall be distributed to each worker before he or she starts performing any **Work** of this **Contract** and with the first paycheck after July first of each year. "Worker, laborer or mechanic" includes employees of the **Contractor** and all **Subcontractors** and all employees of suppliers entering the **Site**. At the time of distribution, the **Contractor** shall have each worker, laborer or mechanic sign a statement, in a form provided by the **Agency**, certifying that the worker has received the notice required by this

Article 37.6.3, which signed statement shall be maintained with the payroll records required by this Contract; and

37.6.3(a) The Contractor and each Subcontractor shall notify each worker, laborer or mechanic employed under this Contract in writing of the prevailing rate of wages for their particular job classification. Such notification shall be given to every worker, laborer, and mechanic on their first pay stub and with every pay stub thereafter; and

37.6.4 Site Laminated Identification Badges: The Contractor shall provide laminated identification badges which include a photograph of the worker's, laborer's or mechanic's face and indicate the worker's, laborer's or mechanic's name, trade, employer's name, and employment starting date (month/day/year). Further, the Contractor shall require as a condition of employment on the Site, that each and every worker, laborer or mechanic wear the laminated identification badge at all times and that it may be seen by any representative of the City. The Commissioner may grant a written waiver from the requirement that the laminated identification badge include a photograph if the Contractor demonstrates that the identity of an individual wearing a laminated identification badge can be easily verified by another method; and

37.6.5 Language Other Than English Used On Site: Provide the ACCO notice when three (3) or more employees (worker and/or laborer and/or mechanic) on the Site, at any time, speak a language other than English. The ACCO will then provide the Contractor the notices described in Article 37.6.1 in that language or languages as may be required. The Contractor is responsible for all distributions under this Article 37; and

37.6.6 Provision of Records: The Contractor and Subcontractor(s) shall produce within five (5) Days on the Site of the Work and upon a written order of the Engineer, the Commissioner, the ACCO, the Agency EAO, or the Comptroller, such records as are required to be kept by this Article 37.6; and

37.6.7 The Contractor and Subcontractor(s) shall pay employees by check or direct deposit. If this Contract is for an amount greater than one million (\$1,000,000) dollars, checks issued by the Contractor to covered employees shall be generated by a payroll service or automated payroll system (an in-house system may be used if approved by the Agency). For any subcontract for an amount greater than seven hundred fifty thousand (\$750,000) dollars, checks issued by a Subcontractor to covered employees shall be generated by a payroll service or automated payroll system (an in-house system may be used if approved by the Agency); and

37.6.8 The failure of the Contractor or Subcontractor(s) to comply with the provisions of Articles 37.6.1 through 37.6.7 may result in the Commissioner declaring the Contractor in default and/or the withholding of payments otherwise due under the Contract.

37.7 The Contractor and its Subcontractors shall keep such employment and payroll records as are required by Section 220 of the Labor Law. The failure of the Contractor or Subcontractor(s) to comply with the provisions of this Article 37.7 may result in the Commissioner declaring the Contractor in default and/or the withholding of payments otherwise due under the Contract.

37.8 At the time the Contractor makes application for each partial payment and for final payment, the Contractor shall submit to the Commissioner a written payroll certification, in the form provided by this Contract, of compliance with the prevailing wage, minimum wage, and other provisions and stipulations required by Labor Law Section 220 and of compliance with the training requirements of

Labor Law Section 220-h set forth in Article 35.2. This certification of compliance shall be a condition precedent to payment and no payment shall be made to the **Contractor** unless and until each such certification shall have been submitted to and received by the **Commissioner**.

37.9 This **Contract** is executed by the **Contractor** with the express warranty and representation that the **Contractor** is not disqualified under the provisions of Section 220 of the Labor Law from the award of the **Contract**.

37.10 Any breach or violation of any of the foregoing shall be deemed a breach or violation of a material provision of this **Contract**, and grounds for cancellation thereof by the **City**.

ARTICLE 38. PAYROLL REPORTS

38.1 The **Contractor** and its **Subcontractor(s)** shall maintain on the **Site** during the performance of the **Work** the original payrolls or transcripts thereof which the **Contractor** and its **Subcontractor(s)** are required to maintain and shall submit such original payrolls or transcripts, subscribed and affirmed by it as true, within thirty (30) **Days** after issuance of its first payroll, and every thirty (30) **Days** thereafter, pursuant to Labor Law Section 220(3-a)(a)(iii). The **Contractor** and **Subcontractor(s)** shall submit such original payrolls or transcripts along with each and every payment requisition. If payment requisitions are not submitted at least once a month, the **Contractor** and its **Subcontractor(s)** shall submit original payrolls and transcripts both along with its payment requisitions and independently of its payment requisitions.

38.2 The **Contractor** shall maintain payrolls or transcripts thereof for six (6) years from the date of completion of the **Work** on this **Contract**. If such payrolls and transcripts are maintained outside of New York City after the completion of the **Work** and their production is required pursuant to this Article 38, the **Contractor** shall produce such records in New York City upon request by the **City**.

38.3 The **Contractor** and **Subcontractor(s)** shall comply with any written order, direction, or request made by the **Engineer**, the **Commissioner**, the **ACCO**, the **Agency EAO**, the **Agency Labor Law Investigator(s)**, or the **Comptroller**, to provide to the requesting party any of the following information and/or records within five (5) **Days** of such written order, direction, or request:

38.3.1 Such original payrolls or transcripts thereof subscribed and affirmed by it as true and the statements signed by each worker pursuant to this Chapter VIII; and/or

38.3.2 Attendance sheets for each **Day** on which any employee of the **Contractor** and/or any of the **Subcontractor(s)** performed **Work** on the **Site**, which attendance sheet shall be in a form acceptable to the **Agency** and shall provide information acceptable to the **Agency** to identify each such employee; and/or

38.3.3 Any other information to satisfy the **Engineer**, the **Commissioner**, the **ACCO**, the **Agency EAO**, the **Agency Labor Law Investigator(s)** or the **Comptroller**, that this Chapter VIII and the Labor Law, as to the hours of employment and prevailing rates of wages and/or supplemental benefits, are being observed.

38.4 The failure of the **Contractor** or **Subcontractor(s)** to comply with the provisions of Articles 38.1 and/or 38.2 may result in the **Commissioner** declaring the **Contractor** in default and/or the withholding of payments otherwise due under the **Contract**.

ARTICLE 39. DUST HAZARDS

39.1 Should a harmful dust hazard be created in performing the **Work** of this **Contract**, for the elimination of which appliances or methods have been approved by the Board of Standards and Appeals of the City of New York, such appliances and methods shall be installed, maintained, and effectively operated during the continuance of such harmful dust hazard. Failure to comply with this provision after notice shall make this **Contract** voidable at the sole discretion of the **City**.

CHAPTER IX PARTIAL AND FINAL PAYMENTS

ARTICLE 40. CONTRACT PRICE

40.1 The **City** shall pay, and the **Contractor** agrees to accept, in full consideration for the **Contractor's** performance of the **Work** subject to the terms and conditions hereof, the lump sum price or unit prices for which this **Contract** was awarded, plus the amount required to be paid for any **Extra Work** ordered by the **Commissioner** under Article 25, less credit for any **Work** omitted pursuant to Article 29.

ARTICLE 41. BID BREAKDOWN ON LUMP SUM

41.1 Within fifteen (15) **Days** after the commencement date specified in the **Notice to Proceed** or **Order to Work**, unless otherwise directed by the **Resident Engineer**, the **Contractor** shall submit to the **Resident Engineer** a breakdown of its bid price, or of lump sums bid for items of the **Contract**, showing the various operations to be performed under the **Contract**, as directed in the progress schedule required under Article 9, and the value of each of such operations, the total of such items to equal the lump sum price bid. Said breakdown must be approved in writing by the **Resident Engineer**.

41.2 No partial payment will be approved until the **Contractor** submits a bid breakdown that is acceptable to the **Resident Engineer**.

41.3 The **Contractor** shall also submit such other information relating to the bid breakdown as directed by the **Resident Engineer**. Thereafter, the breakdown may be used only for checking the **Contractor's** applications for partial payments hereunder, but shall not be binding upon the **City**, the **Commissioner**, or the **Engineer** for any purpose whatsoever.

ARTICLE 42. PARTIAL PAYMENTS

42.1 From time to time as the **Work** progresses satisfactorily, but not more often than once each calendar month (except where the **Commissioner** approves in writing the submission of invoices on a more frequent basis and for invoices relating to **Work** performed pursuant to a change order), the **Contractor** may submit to the **Engineer** a requisition for a partial payment in the prescribed form, which shall contain an estimate of the quantity and the fair value of the **Work** done during the payment period.

42.2 Partial payments may be made for materials, fixtures, and equipment in advance of their actual incorporation in the **Work**, as the **Commissioner** may approve, and upon the terms and conditions set forth in the General Conditions.

42.3 The **Contractor** shall also submit to the **Commissioner** in connection with every application for partial payment a verified statement in the form prescribed by the **Comptroller** setting forth the information required under Labor Law Section 220-a.

42.4 Within thirty (30) **Days** after receipt of a satisfactory payment application, and within sixty (60) **Days** after receipt of a satisfactory payment application in relation to **Work** performed pursuant to a change order, the **Engineer** will prepare and certify, and the **Commissioner** will approve, a voucher for a partial payment in the amount of such approved estimate, less any and all deductions authorized to be made by the **Commissioner** under the terms of this **Contract** or by **Law**.

ARTICLE 43. PROMPT PAYMENT

43.1 The Prompt Payment provisions of the **PPB** Rules in effect at the time of the bid will be applicable to payments made under this **Contract**. The provisions require the payment to the **Contractor** of interest on payments made after the required payment date, except as set forth in the **PPB** Rules.

43.2 The **Contractor** shall submit a proper invoice to receive payment, except where the **Contract** provides that the **Contractor** will be paid at predetermined intervals without having to submit an invoice for each scheduled payment.

43.3 Determination of interest due will be made in accordance with the **PPB** Rules.

43.4 If the **Contractor** is paid interest, the proportionate share(s) of that interest shall be forwarded by the **Contractor** to its **Subcontractor(s)**.

43.5 The **Contractor** shall pay each **Subcontractor** or **Materialman** not later than seven (7) **Days** after receipt of payment out of amounts paid to the **Contractor** by the **City** for **Work** performed by the **Subcontractor** or **Materialman** under this **Contract**.

43.5.1 If **Contractor** fails to make any payment to any **Subcontractor** or **Materialman** within seven (7) **Days** after receipt of payment by the **City** pursuant to this Article 43.5, then the **Contractor** shall pay interest on amounts due to such **Subcontractor** or **Materialman** at the rate of interest in effect on the date such payment is made by the **Contractor** computed in accordance with Section 756-b (1)(b) of the New York General Business Law. Accrual of interest shall commence on the **Day** immediately following the expiration of the seventh **Day** following receipt of payment by the **Contractor** from the **City** and shall end on the date on which payment is made.

43.6 The **Contractor** shall include in each of its subcontracts a provision requiring each **Subcontractor** to make payment to each of its **Subcontractors** or **Materialmen** for **Work** performed under this **Contract** in the same manner and within the same time period set forth above.

ARTICLE 44. SUBSTANTIAL COMPLETION PAYMENT

44.1 The **Contractor** shall submit with the **Substantial Completion** requisition:

44.1.1 A final verified statement of any pending Article 27 disputes in accordance with the **PPB** Rules and this **Contract** and any and all alleged claims against the **City**, in any way connected with or arising out of this **Contract** (including those as to which details may have been furnished pursuant to Articles 11, 27, 28, and 30) setting forth with respect to each

such claim the total amount thereof, the various items of labor and materials included therein, and the alleged value of each item; and if the alleged claim be one for delay, the alleged cause of each such delay, the period or periods of time, giving the dates when the **Contractor** claims the performance of the **Work** or a particular part thereof was delayed, and an itemized statement and breakdown of the amount claimed for each such delay.

44.1.1(a) With respect to each such claim, the **Commissioner**, the **Comptroller** and, in the event of litigation, the City Corporation Counsel shall have the same right to inspect, and to make extracts or copies of, the **Contractor's** books, vouchers, records, etc., as is referred to in Articles 11, 27, 28, and 30. Nothing contained in this Article 44.1.1(a) is intended to or shall relieve the **Contractor** from the obligation of complying strictly with Articles 11, 27, 28, and 30. The **Contractor** is warned that unless such claims are completely set forth as herein required, the **Contractor** upon acceptance of the **Substantial Completion** payment pursuant to this Article 44, will have waived any such claims.

44.1.2 A Final Approved Punch List.

44.1.3 Where required, a request for an extension of time to achieve **Substantial Completion** or final extension of time.

44.2 The **Commissioner** shall issue a voucher calling for payment of any part or all of the balance due for **Work** performed under the **Contract**, including monies retained under Article 21, less any and all deductions authorized to be made by the **Commissioner**, under this **Contract** or by **Law**, and less twice the amount the **Commissioner** considers necessary to ensure the completion of the balance of the **Work** by the **Contractor**. Such a payment shall be considered a partial and not a final payment. No **Substantial Completion** payment shall be made under this Article 44 where the **Contractor** failed to complete the **Work** within the time fixed for such completion in the Schedule A of the General Conditions, or within the time to which completion may have been extended, until an extension or extensions of time for the completion of **Work** have been acted upon pursuant to Article 13.

44.3 No further partial payments shall be made to the **Contractor** after **Substantial Completion**, except the **Substantial Completion** payment and payment pursuant to any **Contractor's** requisition that were properly filed with the **Commissioner** prior to the date of **Substantial Completion**; however, the **Commissioner** may grant a waiver for further partial payments after the date of **Substantial Completion** to permit payments for change order **Work** and/or release of retainage and deposits pursuant to Articles 21 and 24. Such waiver shall be in writing.

44.4 The **Contractor** acknowledges that nothing contained in this Article 44 is intended to or shall in any way diminish the force and effect of Article 13.

ARTICLE 45. FINAL PAYMENT

45.1 After completion and **Final Acceptance** of the **Work**, the **Contractor** shall submit all required certificates and documents, together with a requisition for the balance claimed to be due under the **Contract**, less the amount authorized to be retained for maintenance under Article 24. Such submission shall be within 90 days of the date of the **Commissioner's** written determination of **Final Acceptance**, or within such additional time as may be granted by the **Commissioner** in writing. If the **Contractor** fails to submit all required certificates and documents within the time allowed, no payment of the balance claimed shall be made to the **Contractor** and the **Contractor** shall be deemed to have forfeited its right to

payment of any balance claimed. A verified statement similar to that required in connection with applications for partial payments shall also be submitted to the **Commissioner**.

45.2 Amended Verified Statement of Claims: The **Contractor** shall also submit with the final requisition any amendments to the final verified statement of any pending dispute resolution procedures in accordance with the **PPB** Rules and this **Contract** and any and all alleged claims against the **City**, in any way connected with or arising out of this **Contract** (including those as to which details may have been furnished pursuant to Articles 11, 27, 28, and 30) that have occurred subsequent to **Substantial Completion**, setting forth with respect to each such claim the total amount thereof, the various items of labor and materials included therein, and the alleged value of each such item; and if the alleged claim be one for delay, the alleged cause of each such delay, the period or periods of time, giving the dates when the **Contractor** claims the performance of the **Work** or a particular part thereof was delayed, and an itemized statement and breakdown of the amount claimed for each such delay. With reference to each such claim, the **Commissioner**, the **Comptroller** and, in the event of litigation, the **City Corporation Counsel** shall have the same right to inspect, and to make extracts or copies of, the **Contractor's** books, vouchers, records, etc., as is referred to in Articles 11, 27, 28, and 30. Nothing contained in this Article 45.2, is intended to or shall relieve the **Contractor** from the obligation of complying strictly with Articles 11, 27, 28, and 30. The **Contractor** is warned that unless such claims are completely set forth as herein required, the **Contractor**, upon acceptance of the Final Payment pursuant to Article 46, will have waived any such claims.

45.3 Preparation of Final Voucher: Upon determining the balance due hereunder other than on account of claims, the **Engineer** will prepare and certify, for the **Commissioner's** approval, a voucher for final payment in that amount less any and all deductions authorized to be made by the **Commissioner** under this **Contract** or by **Law**. In the case of a lump sum **Contract**, the **Commissioner** shall certify the voucher for final payment within thirty (30) **Days** from the date of completion and acceptance of the **Work**, provided all requests for extensions of time have been acted upon.

45.3.1 All prior certificates and vouchers upon which partial payments were made, being merely estimates made to enable the **Contractor** to prosecute the **Work** more advantageously, shall be subject to correction in the final voucher, and the certification of the **Engineer** thereon and the approval of the **Commissioner** thereof, shall be conditions precedent to the right of the **Contractor** to receive any money hereunder. Such final voucher shall be binding and conclusive upon the **Contractor**.

45.3.2 Payment pursuant to such final voucher, less any deductions authorized to be made by the **Commissioner** under this **Contract** or by **Law**, shall constitute the final payment, and shall be made by the **Comptroller** within thirty (30) **Days** after the filing of such voucher in his/her office.

45.4 The **Contractor** acknowledges that nothing contained in this Article 45 is intended to or shall in any way diminish the force and effect of Article 13.

ARTICLE 46. ACCEPTANCE OF FINAL PAYMENT

46.1 The acceptance by the **Contractor**, or by anyone claiming by or through it, of the final payment, whether such payment be made pursuant to any judgment of any court, or otherwise, shall constitute and operate as a release of the **City** from any and all claims of and liability to the **Contractor** for anything heretofore done or furnished for the **Contractor** relating to or arising out of this **Contract** and the **Work** done hereunder, and for any prior act, neglect or default on the part of the **City** or any of its officials, agents or employees, excepting only a claim against the **City** for the amounts deducted or retained in accordance with the terms and provisions of this **Contract** or by **Law**, and excepting any

claims, not otherwise waived, or any pending dispute resolution procedures which are contained in the verified statement filed with the **Contractor's** substantial and final requisitions pursuant to Articles 44 and 45.

46.2 The **Contractor** is warned that the execution by it of a release, in connection with the acceptance of the final payment, containing language purporting to reserve claims other than those herein specifically excepted from the operation of this Article 46, or those for amounts deducted by the **Commissioner** from the final requisition or from the final payment as certified by the **Engineer** and approved by the **Commissioner**, shall not be effective to reserve such claims, anything stated to the **Contractor** orally or in writing by any official, agent or employee of the **City** to the contrary notwithstanding.

46.3 Should the **Contractor** refuse to accept the final payment as tendered by the **Comptroller**, it shall constitute a waiver of any right to interest thereon.

46.4 The **Contractor**, however, shall not be barred by this Article 46 from commencing an action for breach of **Contract** to the extent permitted by **Law** and by the terms of the **Contract** for any claims that are contained in the verified statement filed with the **Contractor's** substantial and final requisitions pursuant to Articles 44 and 45 or that arose after submission of the final payment requisition, provided that a detailed and verified statement of claim is served upon the contracting **Agency** and **Comptroller** not later than forty (40) **Days** after the making of such final payment by electronic funds transfer (EFT) or the mailing of such final payment. The statement shall specify the items upon which the claim will be based and any such claim shall be limited to such items.

ARTICLE 47. APPROVAL BY PUBLIC DESIGN COMMISSION

47.1 All works of art, including paintings, mural decorations, stained glass, statues, bas-reliefs, and other sculptures, monuments, fountains, arches, and other structures of a permanent character intended for ornament or commemoration, and every design of the same to be used in the performance of this **Contract**, and the design of all bridges, approaches, buildings, gates, fences, lamps, or structures to be erected, pursuant to the terms of this **Contract**, shall be submitted to the **Art Commission**, d/b/a the **Public Design Commission** of the **City of New York**, and shall be approved by the **Public Design Commission** prior to the erection or placing in position of the same. The final payment shall not become due or payable under this **Contract** unless and until the **Public Design Commission** shall certify that the design for the **Work** herein contracted for has been approved by the said **Public Design Commission**, and that the same has been executed in substantial accordance with the design so approved, pursuant to the provisions of Chapter 37, Section 854 of the **City Charter**, as amended.

CHAPTER X CONTRACTOR'S DEFAULT

ARTICLE 48. COMMISSIONER'S RIGHT TO DECLARE CONTRACTOR IN DEFAULT

48.1 In addition to those instances specifically referred to in other Articles herein, the **Commissioner** shall have the right to declare the **Contractor** in default of this **Contract** if:

48.1.1 The **Contractor** fails to commence **Work** when notified to do so by the **Commissioner**; or
if

48.1.2 The **Contractor** shall abandon the **Work**; or if

48.1.3 The **Contractor** shall refuse to proceed with the **Work** when and as directed by the **Commissioner**; or if

48.1.4 The **Contractor** shall, without just cause, reduce its working force to a number which, if maintained, would be insufficient, in the opinion of the **Commissioner**, to complete the **Work** in accordance with the progress schedule; or if

48.1.5 The **Contractor** shall fail or refuse to increase sufficiently such working force when ordered to do so by the **Commissioner**; or if

48.1.6 The **Contractor** shall sublet, assign, transfer, convert or otherwise dispose of this **Contract** other than as herein specified; or sell or assign a majority interest in the **Contractor**; or if

48.1.7 The **Contractor** fails to secure and maintain all required insurance; or if

48.1.8 A receiver or receivers are appointed to take charge of the **Contractor's** property or affairs; or if

48.1.9 The **Commissioner** shall be of the opinion that the **Contractor** is or has been unnecessarily or unreasonably or willfully delaying the performance and completion of the **Work**, or the award of necessary subcontracts, or the placing of necessary material and equipment orders; or if

48.1.10 The **Commissioner** shall be of the opinion that the **Contractor** is or has been willfully or in bad faith violating any of the provisions of this **Contract**; or if

48.1.11 The **Commissioner** shall be of the opinion that the **Work** cannot be completed within the time herein provided therefor or within the time to which such completion may have been extended; provided, however, that the impossibility of timely completion is, in the **Commissioner's** opinion, attributable to conditions within the **Contractor's** control; or if

48.1.12 The **Work** is not completed within the time herein provided therefor or within the time to which the **Contractor** may be entitled to have such completion extended; or if

48.1.13 Any statement or representation of the **Contractor** in the **Contract** or in any document submitted by the **Contractor** with respect to the **Work**, the **Project**, or the **Contract** (or for purposes of securing the **Contract**) was untrue or incorrect when made; or if

48.1.14 The **Contractor** or any of its officers, directors, partners, five (5%) percent shareholders, principals, or other persons substantially involved in its activities, commits any of the acts or omissions specified as the grounds for debarment in the **PPB Rules**.

48.2 Before the **Commissioner** shall exercise his/her right to declare the **Contractor** in default, the **Commissioner** shall give the **Contractor** an opportunity to be heard, upon not less than two (2) **Days** notice.

ARTICLE 49. EXERCISE OF THE RIGHT TO DECLARE DEFAULT

49.1 The right to declare the **Contractor** in default for any of the grounds specified or referred to in Article 48 shall be exercised by sending the **Contractor** a notice, signed by the **Commissioner**, setting forth the ground or grounds upon which such default is declared (hereinafter referred to as a "Notice of Default").

49.2 The **Commissioner's** determination that the **Contractor** is in default shall be conclusive, final, and binding on the parties and such a finding shall preclude the **Contractor** from commencing a plenary action for any damages relating to the **Contract**. If the **Contractor** protests the determination of the **Commissioner**, the **Contractor** may commence an action in a court of competent jurisdiction of the State of New York under Article 78 of the New York Civil Practice Law and Rules.

ARTICLE 50. QUITTING THE SITE

50.1 Upon receipt of such notice the **Contractor** shall immediately discontinue all further operations under this **Contract** and shall immediately quit the **Site**, leaving untouched all plant, materials, equipment, tools, and supplies then on the **Site**.

ARTICLE 51. COMPLETION OF THE WORK

51.1 The **Commissioner**, after declaring the **Contractor** in default, may then have the **Work** completed by such means and in such manner, by contract with or without public letting, or otherwise, as he/she may deem advisable, utilizing for such purpose such of the **Contractor's** plant, materials, equipment, tools, and supplies remaining on the **Site**, and also such **Subcontractors**, as he/she may deem advisable.

51.2 After such completion, the **Commissioner** shall make a certificate stating the expense incurred in such completion, which shall include the cost of re-letting and also the total amount of liquidated damages (at the rate provided for in the **Contract**) from the date when the **Work** should have been completed by the **Contractor** in accordance with the terms hereof to the date of actual completion of the **Work**. Such certificate shall be binding and conclusive upon the **Contractor**, its sureties, and any person claiming under the **Contractor**, as to the amount thereof.

51.3 The expense of such completion, including any and all related and incidental costs, as so certified by the **Commissioner**, and any liquidated damages assessed against the **Contractor**, shall be charged against and deducted out of monies which are earned by the **Contractor** prior to the date of default. Should the expense of such completion, as certified by the **Commissioner**, exceed the total sum which would have been payable under the **Contract** if it had been completed by the **Contractor**, any excess shall be paid by the **Contractor**.

ARTICLE 52. PARTIAL DEFAULT

52.1 In case the **Commissioner** shall declare the **Contractor** in default as to a part of the **Work** only, the **Contractor** shall discontinue such part, shall continue performing the remainder of the **Work** in strict conformity with the terms of this **Contract**, and shall in no way hinder or interfere with any **Other**

Contractor(s) or persons whom the **Commissioner** may engage to complete the **Work** as to which the **Contractor** was declared in default.

52.2 The provisions of this Chapter relating to declaring the **Contractor** in default as to the entire **Work** shall be equally applicable to a declaration of partial default, except that the **Commissioner** shall be entitled to utilize for completion of the part of the **Work** as to which the **Contractor** was declared in default only such plant, materials, equipment, tools, and supplies as had been previously used by the **Contractor** on such part.

ARTICLE 53. PERFORMANCE OF UNCOMPLETED WORK

53.1 In completing the whole or any part of the **Work** under the provisions of this Chapter X, the **Commissioner** shall have the power to depart from or change or vary the terms and provisions of this **Contract**, provided, however, that such departure, change or variation is made for the purpose of reducing the time or expense of such completion. Such departure, change or variation, even to the extent of accepting a lesser or different performance, shall not affect the conclusiveness of the **Commissioner's** certificate of the cost of completion referred to in Article 51, nor shall it constitute a defense to an action to recover the amount by which such certificate exceeds the amount which would have been payable to the **Contractor** hereunder but for its default.

ARTICLE 54. OTHER REMEDIES

54.1 In addition to the right to declare the **Contractor** in default pursuant to this Chapter X, the **Commissioner** shall have the absolute right, in his/her sole discretion and without a hearing, to complete or cause to be completed in the same manner as described in Articles 51 and 53, any or all unsatisfactory or uncompleted punch list **Work** that remains after the completion date specified in the **Final Approved Punch List**. A written notice of the exercise of this right shall be sent to the **Contractor** who shall immediately quit the **Site** in accordance with the provisions of Article 50.

54.2 The expense of completion permitted under Article 54.1, including any and all related and incidental costs, as so certified by the **Commissioner**, shall be charged against and deducted out of monies which have been earned by the **Contractor** prior to the date of the exercise of the right set forth in Article 54.1; the balance of such monies, if any, subject to the other provisions of this **Contract**, to be paid to the **Contractor** without interest after such completion. Should the expense of such completion, as certified by the **Commissioner**, exceed the total sum which would have been payable under the **Contract** if it had been completed by the **Contractor**, any excess shall be paid by the **Contractor**.

54.3 The previous provisions of this Chapter X shall be in addition to any and all other remedies available under **Law** or in equity.

54.4 The exercise by the **City** of any remedy set forth herein shall not be deemed a waiver by the **City** of any other legal or equitable remedy contained in this **Contract** or provided under **Law**.

**CHAPTER XI
MISCELLANEOUS PROVISIONS**

ARTICLE 55. CONTRACTOR'S WARRANTIES

55.1 In consideration of, and to induce, the award of this **Contract** to the **Contractor**, the **Contractor** represents and warrants:

55.1.1 That it is financially solvent, sufficiently experienced and competent to perform the **Work**; and

55.1.2 That the facts stated in its bid and the information given by it pursuant to the Information for Bidders is true and correct in all respects; and

55.1.3 That it has read and complied with all requirements set forth in the **Contract**.

ARTICLE 56. CLAIMS AND ACTIONS THEREON

56.1 Any claim, that is not subject to dispute resolution under the **PPB Rules** or this **Contract**, against the **City** for damages for breach of **Contract** shall not be made or asserted in any action, unless the **Contractor** shall have strictly complied with all requirements relating to the giving of notice and of information with respect to such claims, as herein before provided.

56.2 Nor shall any action be instituted or maintained on any such claims unless such action is commenced within six (6) months after **Substantial Completion**; except that:

56.2.1 Any claims arising out of events occurring after **Substantial Completion** and before **Final Acceptance** of the **Work** shall be asserted within six (6) months of **Final Acceptance** of the **Work**;

56.2.2 Any claims for monies deducted, retained or withheld under the provisions of this **Contract** shall be asserted within six (6) months after the date when such monies otherwise become due and payable hereunder; and

56.2.3 If the **Commissioner** exercises his/her right to terminate the **Contract** pursuant to Article 64, any such action shall be commenced within six (6) months of the date the **Commissioner** exercises said right.

ARTICLE 57. INFRINGEMENT

57.1 The **Contractor** shall be solely responsible for and shall defend, indemnify, and hold the **City** harmless from any and all claims (even if the allegations of the lawsuit are without merit) and judgments for damages and from costs and expenses to which the **City** may be subject to or which it may suffer or incur allegedly arising out of or in connection with any infringement by the **Contractor** of any copyright, trade secrets, trademark or patent rights or any other property or personal right of any third party by the **Contractor** and/or its **Subcontractors** in the performance or completion of the **Work**. Insofar as the facts or **Law** relating to any claim would preclude the **City** from being completely indemnified by the **Contractor**, the **City** shall be partially indemnified by the **Contractor** to the fullest extent permitted by **Law**.

ARTICLE 58. NO CLAIM AGAINST OFFICIALS, AGENTS OR EMPLOYEES

58.1 No claim whatsoever shall be made by the **Contractor** against any official, agent or employee of the **City** for, or on account of, anything done or omitted to be done in connection with this **Contract**.

ARTICLE 59. SERVICE OF NOTICES

59.1 The **Contractor** hereby designates the business address, fax number, and email address specified in its bid, as the place where all notices, directions or other communications to the **Contractor** may be delivered, or to which they may be mailed. Any notice, direction, or communication from either party to the other shall be in writing and shall be deemed to have been given when (i) delivered personally; (ii) sent by certified mail, return receipt requested; (iii) delivered by overnight or same day courier service in a properly addressed envelope with confirmation; or (iv) sent by fax or email and, unless receipt of the fax or e-mail is acknowledged by the recipient by fax or e-mail, deposited in a post office box regularly maintained by the United States Postal Service in a properly addressed, postage pre-paid envelope.

59.2 **Contractor's** notice address, email address, or fax number may be changed at any time by an instrument in writing, executed and acknowledged by the **Contractor**, and delivered to the **Commissioner**.

59.3 Nothing herein contained shall, however, be deemed to preclude or render inoperative the service of any notice, direction or other communication upon the **Contractor** personally, or, if the **Contractor** is a corporation, upon any officer thereof.

ARTICLE 60. UNLAWFUL PROVISIONS DEEMED STRICKEN FROM CONTRACT

60.1 If this **Contract** contains any unlawful provision not an essential part of the **Contract** and which shall not appear to have been a controlling or material inducement to the making thereof, the same shall be deemed of no effect and shall, upon notice by either party, be deemed stricken from the **Contract** without affecting the binding force of the remainder.

ARTICLE 61. ALL LEGAL PROVISIONS DEEMED INCLUDED

61.1 It is the intent and understanding of the parties to this **Contract** that each and every provision of **Law** required to be inserted in this **Contract** shall be and is inserted herein. Furthermore, it is hereby stipulated that every such provision is to be deemed to be inserted herein, and if, through mistake or otherwise, any such provision is not inserted, or is not inserted in correct form, then this **Contract** shall forthwith upon the application of either party be amended by such insertion so as to comply strictly with the **Law** and without prejudice to the rights of either party hereunder.

ARTICLE 62. TAX EXEMPTION

62.1 The **City** is exempt from payment of Federal, State, and local taxes, including sales and compensating use taxes of the State of New York and its cities and counties on all tangible personal property sold to the **City** pursuant to the provisions of this **Contract**. These taxes are not to be included in bids. However, this exemption does not apply to tools, machinery, equipment or other property leased by or to the **Contractor**, **Subcontractor** or **Materialman** or to tangible personal property which, even

though it is consumed, is not incorporated into the completed **Work** (consumable supplies) and tangible personal property that the **Contractor** is required to remove from the **Site** during or upon completion of the **Work**. The **Contractor** and its **Subcontractors** and **Materialmen** shall be responsible for and pay any and all applicable taxes, including sales and compensating use taxes, on such leased tools, machinery, equipment or other property and upon all such consumable supplies and tangible personal property that the **Contractor** is required to remove from the **Site** during or upon completion of the **Work**.

62.2 The **Contractor** agrees to sell and the **City** agrees to purchase all tangible personal property, other than consumable supplies and other tangible personal property that the **Contractor** is required to remove from the **Site** during or upon completion of the **Work**, that is required, necessary or proper for or incidental to the construction of the **Project** covered by this **Contract**. The sum paid under this **Contract** for such tangible personal property shall be in full payment and consideration for the sale of such tangible personal property.

62.2.1 The **Contractor** agrees to construct the **Project** and to perform all **Work**, labor and services rendered, necessary, proper or incidental thereto for the sum shown in the bid for the performance of such **Work**, labor, and services, and the sum so paid pursuant to this **Contract** for such **Work**, labor, and services, shall be in full consideration for the performance by the **Contractor** of all its duties and obligations under this **Contract** in connection with said **Work**, labor, and services.

62.3 20 NYCRR Section 541.3(d) provides that a **Contractor's** purchases of tangible personal property that is either incorporated into real property owned by a governmental entity or purchased for and sold to a governmental entity are exempt from sales and use tax. The **City** shall not pay sales tax for any such tangible personal property that it purchases from the **Contractor** pursuant to the **Contract**. With respect to such tangible personal property, the **Contractor**, at the request of the **City**, shall furnish to the **City** such bills of sale and other instruments as may be required by the **City**, properly executed, acknowledged and delivered assuring to the **City** title to such tangible personal property, free of liens and/or encumbrances, and the **Contractor** shall mark or otherwise identify all such tangible personal property as the property of the **City**.

62.4 Title to all tangible personal property to be sold by the **Contractor** to the **City** pursuant to the provisions of the **Contract** shall immediately vest in and become the sole property of the **City** upon delivery of such tangible personal property to the **Site**. Notwithstanding such transfer of title, the **Contractor** shall have the full and continuing responsibility to install such tangible personal property in accordance with the provisions of this **Contract**, protect it, maintain it in a proper condition and forthwith repair, replace and make good any damage thereto, theft or disappearance thereof, and furnish additional tangible personal property in place of any that may be lost, stolen or rendered unusable, without cost to the **City**, until such time as the **Work** covered by the **Contract** is fully accepted by the **City**. Such transfer of title shall in no way affect any of the **Contractor's** obligations hereunder. In the event that, after title has passed to the **City**, any of the tangible personal property is rejected as being defective or otherwise unsatisfactory, title to all such tangible personal property shall be deemed to have been transferred back to the **Contractor**.

62.5 The purchase by **Subcontractors** or **Materialmen** of tangible personal property to be sold hereunder shall be a purchase or procurement for resale to the **Contractor** (either directly or through other **Subcontractors**) and therefore not subject to the aforesaid sales and compensating use taxes, provided that the subcontracts and purchase agreements provide for the resale of such tangible personal property and that such subcontracts and purchase agreements are in a form similar to this **Contract** with respect to the separation of the sale of consumable supplies and tangible personal property that the **Contractor** is required to remove from the **Site** during or upon completion of the **Work** from the **Work** and labor, services, and any other matters to be provided, and provided further that the subcontracts and

purchase agreements provide separate prices for tangible personal property and all other services and matters. Such separation shall actually be followed in practice, including the separation of payments for tangible personal property from the payments for other **Work** and labor and other things to be provided.

62.6 The **Contractor** and its **Subcontractors** and **Materialmen** shall furnish a **Contractor Exempt Purchase Certificate** to all persons, firms or corporations from which they purchase tangible personal property for the performance of the **Work** covered by this **Contract**.

62.7 In the event any of the provisions of this Article 62 shall be deemed to be in conflict with any other provisions of this **Contract** or create any ambiguity, then the provisions of this Article 62 shall control.

ARTICLE 63. INVESTIGATION(S) CLAUSE

63.1 The parties to this **Contract** agree to cooperate fully and faithfully with any investigation, audit or inquiry conducted by a United States, a State of New York (State) or a **City** governmental agency or authority that is empowered directly or by designation to compel the attendance of witnesses and to examine witnesses under oath, or conducted by the Inspector General of a governmental agency that is a party in interest to the transaction, submitted bid, submitted proposal, contract, lease, permit or license that is the subject of the investigation, audit or inquiry.

63.2 If any person who has been advised that his/her statement, and any information from such statement, will not be used against him/her in any subsequent criminal proceeding refuses to testify before a grand jury or other governmental agency or authority empowered directly or by designation to compel the attendance of witnesses and to examine witnesses under oath concerning the award of or performance under any transaction, agreement, lease, permit, contract, or license entered into with the **City**, the State, or any political subdivision or public authority thereof, or the Port Authority of New York and New Jersey, or any local development corporation within the **City**, or any public benefit corporation organized under the **Laws** of the State of New York, or;

63.3 If any person refuses to testify for a reason other than the assertion of his/her privilege against self incrimination in an investigation, audit or inquiry conducted by a **City** or State governmental agency or authority empowered directly or by designation to compel the attendance of witnesses and to take testimony under oath, or by the Inspector General of the governmental agency that is a party in interest in, and is seeking testimony concerning the award of, or performance under any transaction, agreement, lease, permit, contract, or license entered into with the **City**, the State, or any political subdivision thereof or any local development corporation within the **City**, then;

63.4 The **Commissioner** whose **Agency** is a party in interest to the transaction, submitted bid, submitted proposal, contract, lease, permit, or license shall convene a hearing, upon not less than five (5) **Days'** written notice to the parties involved to determine if any penalties should attach for the failure of a person to testify.

63.5 If any non-governmental party to the hearing requests an adjournment, the **Commissioner** who convened the hearing may, upon granting the adjournment, suspend any contract, lease, permit, or license, pending the final determination pursuant to Article 63.7 without the **City** incurring any penalty or damages for delay or otherwise.

63.6 The penalties which may attach after a final determination by the **Commissioner** may include but shall not exceed:

63.6.1 The disqualification for a period not to exceed five (5) years from the date of an adverse determination for any person, or any entity of which such person was a member at the time the testimony was sought, from submitting bids for, or transacting business with, or entering into or obtaining any contract, lease, permit or license with or from the City; and/or

63.6.2 The cancellation or termination of any and all such existing City contracts, leases, permits or licenses that the refusal to testify concerns and that have not been assigned as permitted under this Contract, nor the proceeds of which pledged, to an unaffiliated and unrelated institutional lender for fair value prior to the issuance of the notice scheduling the hearing, without the City incurring any penalty or damages on account of such cancellation or termination; monies lawfully due for goods delivered, work done, rentals, or fees accrued prior to the cancellation or termination shall be paid by the City.

63.7 The Commissioner shall consider and address in reaching his/her determination and in assessing an appropriate penalty the factors in Articles 63.7.1 and 63.7.2. The Commissioner may also consider, if relevant and appropriate, the criteria established in Articles 63.7.3 and 63.7.4, in addition to any other information which may be relevant and appropriate:

63.7.1 The party's good faith endeavors or lack thereof to cooperate fully and faithfully with any governmental investigation or audit, including but not limited to the discipline, discharge, or disassociation of any person failing to testify, the production of accurate and complete books and records, and the forthcoming testimony of all other members, agents, assignees or fiduciaries whose testimony is sought.

63.7.2 The relationship of the person who refused to testify to any entity that is a party to the hearing, including but not limited to, whether the person whose testimony is sought has an ownership interest in the entity and/or the degree of authority and responsibility the person has within the entity.

63.7.3 The nexus of the testimony sought to the subject entity and its contracts, leases, permits or licenses with the City.

63.7.4 The effect a penalty may have on an unaffiliated and unrelated party or entity that has a significant interest in an entity subject to penalties under Article 63.6, provided that the party or entity has given actual notice to the Commissioner upon the acquisition of the interest, or at the hearing called for in Article 63.4, gives notice and proves that such interest was previously acquired. Under either circumstance the party or entity shall present evidence at the hearing demonstrating the potential adverse impact a penalty will have on such person or entity.

63.8 Definitions:

63.8.1 The term "license" or "permit" as used in this Article 63 shall be defined as a license, permit, franchise or concession not granted as a matter of right.

63.8.2 The term "person" as used in this Article 63 shall be defined as any natural person doing business alone or associated with another person or entity as a partner, director, officer, principal or employee.

63.8.3 The term "entity" as used in this Article 63 shall be defined as any firm, partnership, corporation, association, joint venture, or person that receives monies, benefits, licenses, leases, or permits from or through the City or otherwise transacts business with the City.

63.8.4 The term "member" as used in this Article 63 shall be defined as any person associated with another person or entity as a partner, director, officer, principal or employee.

63.9 In addition to and notwithstanding any other provision of this **Contract**, the **Commissioner** may in his/her sole discretion terminate this **Contract** upon not less than three (3) **Days**' written notice in the event the **Contractor** fails to promptly report in writing to the **Commissioner** of the Department of Investigations ("DOI") of the **City** any solicitation of money, goods, requests for future employment or other benefit or thing of value, by or on behalf of any employee of the **City** or other person, firm, corporation or entity for any purpose which may be related to the procurement or obtaining of this **Contract** by the **Contractor**, or affecting the performance of this **Contract**.

ARTICLE 64. TERMINATION BY THE CITY

64.1 In addition to termination pursuant to any other article of this **Contract**, the **Commissioner** may, at any time, terminate this **Contract** by written notice to the **Contractor**. In the event of termination, the **Contractor** shall, upon receipt of such notice, unless otherwise directed by the **Commissioner**:

64.1.1 Stop **Work** on the date specified in the notice;

64.1.2 Take such action as may be necessary for the protection and preservation of the **City's** materials and property;

64.1.3 Cancel all cancelable orders for material and equipment;

64.1.4 Assign to the **City** and deliver to the **Site** or another location designated by the **Commissioner**, any non-cancelable orders for material and equipment that is not capable of use except in the performance of this **Contract** and has been specifically fabricated for the sole purpose of this **Contract** and not incorporated in the **Work**;

64.1.5 Take no action which will increase the amounts payable by the **City** under this **Contract**.

64.2 In the event of termination by the **City** pursuant to this Article 64, payment to the **Contractor** shall be in accordance with Articles 64.2.1, 64.2.2 or 64.2.3, to the extent that each respective article applies.

64.2.1 Lump Sum Contracts or Items: On all lump sum **Contracts**, or on lump sum items in a **Contract**, the **City** will pay the **Contractor** the sum of the amounts described in Articles 64.2.1(a) and 64.2.1(b), less all payments previously made pursuant to this **Contract**. On lump sum **Contracts** only, the **City** will also pay the **Contractor** an additional sum as provided in Article 64.2.1(c).

64.2.1(a) For **Work** completed prior to the notice of termination, the **Contractor** shall be paid a pro rata portion of the lump sum bid amount, plus approved change orders, based upon the percent completion of the **Work**, as determined by the **Commissioner**. For the purpose of determining the pro rata portion of the lump sum bid amount to which the **Contractor** is entitled, the bid breakdown submitted in accordance with Article 41 shall be considered, but shall not be dispositive. The **Commissioner's** determination hereunder shall be final, binding, and conclusive.

64.2.1(b) For non-cancelable material and equipment that is not capable of use except in the performance of this **Contract** and has been specifically fabricated for the sole purpose of this **Contract**, but not yet incorporated in the **Work**, the **Contractor** shall be paid the lesser of the following, less salvage value:

64.2.1(b)(i) The Direct Cost, as defined in Article 64.2.4; or

64.2.1(b)(ii) The fair and reasonable value, if less than Direct Cost, of such material and equipment, plus necessary and reasonable delivery costs.

64.2.1(b)(iii) In addition, the **Contractor** shall be paid five (5%) percent of the amount described in Article 64.2.1(b)(i) or Article 64.2.1(b)(ii), whichever applies.

64.2.1(c) Except as otherwise provided in Article 64.2.1(d), on all lump sum **Contracts**, the **Contractor** shall be paid the percentage indicated below applied to the difference between the total lump sum bid amount and the total of all payments made prior to the notice of termination plus all payments allowed pursuant to Articles 64.2.1(a) and 64.2.1(b):

64.2.1(c)(i) Five (5%) percent of the first five million (\$5,000,000) dollars; and

64.2.1(c)(ii) Three (3%) percent of any amount between five million (\$5,000,000) dollars and fifteen million (\$15,000,000) dollars; plus

64.2.1(c)(iii) One (1%) percent of any amount over fifteen million (\$15,000,000) dollars.

64.2.1(d) In the event the **City** terminates a lump sum **Contract** pursuant to this Article 64 within ninety (90) **Days** after registration of the **Contract** with the **Comptroller**, the **Contractor** shall be paid one (1%) percent of the difference between the lump sum bid amount and the total of all payments made pursuant to this Article 64.2.

64.2.2 Unit Price Contracts or Items: On all unit price **Contracts**, or on unit price items in a **Contract**, the **City** will pay the **Contractor** the sum of the amounts described in Articles 64.2.2(a) and 64.2.2(b), less all payments previously made pursuant to this **Contract**:

64.2.2(a) For all completed units, the unit price stated in the **Contract**, and

64.2.2(b) For units that have been ordered but are only partially completed, the **Contractor** will be paid:

64.2.2(b)(i) A pro rata portion of the unit price stated in the **Contract** based upon the percent completion of the unit and

64.2.2(b)(ii) For non-cancelable material and equipment, payment will be made pursuant to Article 64.2.1(b).

64.2.3 Time and Materials Contracts or Items Based on Time and Material Records: On all **Contracts** or items in a **Contract** where payment for the **Work** is based on time and

material records, the **Contractor** shall be paid in accordance with Article 26, less all payments previously made pursuant to this **Contract**.

64.2.4 Direct Costs: Direct Costs as used in this Article 64.2 shall mean:

64.2.4(a) The actual purchase price of material and equipment, plus necessary and reasonable delivery costs,

64.2.4(b) The actual cost of labor involved in construction and installation at the **Site**, and

64.2.4(c) The actual cost of necessary bonds and insurance purchased pursuant to requirements of this **Contract** less any amounts that have been or should be refunded by the **Contractor's** sureties or insurance carriers.

64.2.4(d) Direct Costs shall not include overhead.

64.3 In no event shall any payments under this Article 64 exceed the **Contract** price for such items.

64.4 All payments pursuant to Article 64 shall be in the nature of liquidated damages and shall be accepted by the **Contractor** in full satisfaction of all claims against the **City**.

64.5 The **City** may deduct or set off against any sums due and payable pursuant to this Article 64, any deductions authorized by this **Contract** or by **Law** (including but not limited to liquidated damages) and any claims it may have against the **Contractor**. The **City's** exercise of the right to terminate the **Contract** pursuant to this Article 64 shall not impair or otherwise effect the **City's** right to assert any claims it may have against the **Contractor** in a plenary action.

64.6 Where the **Work** covered by the **Contract** has been substantially completed, as determined in writing by the **Commissioner**, termination of the **Work** shall be handled as an omission of **Work** pursuant to Articles 29 and 33, in which case a change order will be issued to reflect an appropriate reduction in the **Contract** sum, or if the amount is determined after final payment, such amount shall be paid by the **Contractor**.

ARTICLE 65. CHOICE OF LAW, CONSENT TO JURISDICTION AND VENUE

65.1 This **Contract** shall be deemed to be executed in the **City** regardless of the domicile of the **Contractor**, and shall be governed by and construed in accordance with the **Laws** of the State of New York and the **Laws** of the United States, where applicable.

65.2 The parties agree that any and all claims asserted against the **City** arising under this **Contract** or related thereto shall be heard and determined in the courts of the State of New York ("New York State Courts") located in the **City** and County of New York. To effect this **Contract** and intent, the **Contractor** agrees:

65.2.1 If the **City** initiates any action against the **Contractor** in Federal court or in a New York State Court, service of process may be made on the **Contractor** either in person, wherever such **Contractor** may be found, or by registered mail addressed to the **Contractor** at its address as set forth in this **Contract**, or to such other address as the **Contractor** may provide to the **City** in writing; and

65.2.2 With respect to any action between the **City** and the **Contractor** in a New York State Court, the **Contractor** hereby expressly waives and relinquishes any rights it might otherwise have:

65.2.2(a) To move to dismiss on grounds of forum non conveniens;

65.2.2(b) To remove to Federal Court; and

65.2.2(c) To move for a change of venue to a New York State Court outside New York County.

65.2.3 With respect to any action brought by the **City** against the **Contractor** in a Federal Court located in the **City**, the **Contractor** expressly waives and relinquishes any right it might otherwise have to move to transfer the action to a Federal Court outside the **City**.

65.2.4 If the **Contractor** commences any action against the **City** in a court located other than in the **City** and County of New York, upon request of the **City**, the **Contractor** shall either consent to a transfer of the action to a New York State Court of competent jurisdiction located in the **City** and County of New York or, if the Court where the action is initially brought will not or cannot transfer the action, the **Contractor** shall consent to dismiss such action without prejudice and may thereafter reinstate the action in a New York State Court of competent jurisdiction in New York County.

65.3 If any provision(s) of this Article 65 is held unenforceable for any reason, each and all other provision(s) shall nevertheless remain in full force and effect.

ARTICLE 66. PARTICIPATION IN AN INTERNATIONAL BOYCOTT

66.1 The **Contractor** agrees that neither the **Contractor** nor any substantially owned affiliated company is participating or shall participate in an international boycott in violation of the provisions of the Federal Export Administration Act of 1979, as amended, or the regulations of the United States Department of Commerce (Commerce Department) promulgated thereunder.

66.2 Upon the final determination by the Commerce Department or any other agency of the United States as to, or conviction of the **Contractor** or a substantially-owned affiliated company thereof for participation in an international boycott in violation of the provisions of the Export Administration Act of 1979, as amended, or the regulations promulgated thereunder, the **Comptroller** may, at his/her option, render forfeit and void this **Contract**.

66.3 The **Contractor** shall comply in all respects, with the provisions of Section 6-114 of the Administrative Code and the rules and regulations issued by the **Comptroller** thereunder.

ARTICLE 67. LOCALLY BASED ENTERPRISE PROGRAM

67.1 This **Contract** is subject to the requirements of Section 6-108.1 of the Administrative Code and regulations promulgated thereunder. No construction contract shall be awarded unless and until these requirements have been complied with in their entirety; however, compliance with this Article 67 is not required if the Agency sets Subcontractor Participation Goals for Minority- and Women-Owned Business Enterprises (M/WBEs).

67.2 Unless specifically waived by the **Commissioner** with the approval of the Division of Economic and Financial Opportunity of the **City Department of Business Services**, if any portion of the **Contract** is subcontracted, not less than ten (10%) percent of the total dollar amount of the **Contract** shall be awarded to locally based enterprises (LBEs); except that where less than ten (10%) percent of the total dollar amount of the **Contract** is subcontracted, such lesser percentage shall be so awarded.

67.3 The **Contractor** shall not require performance and payment bonds from **LBE Subcontractors**.

67.4 If the **Contractor** has indicated prior to award that no **Work** will be subcontracted, no **Work** shall be subcontracted without the prior approval of the **Commissioner**, which shall be granted only if the **Contractor** makes a good faith effort beginning at least six (6) weeks before the **Work** is to be performed to obtain **LBE Subcontractors** to perform the **Work**.

67.5 If the **Contractor** has not identified sufficient **LBE Subcontractors** prior to award, it shall sign a letter of compliance stating that it complies with Section 6-108.1 of the Administrative Code, recognizes that achieving the LBE requirement is a condition of its **Contract**, and shall submit documentation demonstrating its good faith efforts to obtain LBEs. After award, the **Contractor** shall begin to solicit LBE's to perform subcontracted **Work** at least six (6) weeks before the date such **Work** is to be performed and shall demonstrate that a good faith effort has been made to obtain LBEs on each subcontract until it meets the required percentage.

67.6 Failure of the **Contractor** to comply with the requirements of Section 6-108.1 of the Administrative Code and the regulations promulgated thereunder shall constitute a material breach of this **Contract**. Remedy for such breach may include the imposition of any or all of the following sanctions:

67.6.1 Reducing the **Contractor's** compensation by an amount equal to the dollar value of the percentage of the LBE subcontracting requirement not complied with;

67.6.2 Declaring the **Contractor** in default;

67.6.3 If the **Contractor** is an LBE, de-certifying and declaring the **Contractor** ineligible to participate in the LBE program for a period of up to three (3) years.

ARTICLE 68. ANTITRUST

68.1 The **Contractor** hereby assigns, sells, and transfers to the **City** all right, title, and interest in and to any claims and causes of action arising under the antitrust **Laws** of New York State or of the United States relating to the particular goods or services purchased or procured by the **City** under this **Contract**.

ARTICLE 69. MacBRIDE PRINCIPLES PROVISIONS

69.1 Notice To All Prospective **Contractors**:

69.1.1 Local Law No. 34 of 1991 became effective on September 10, 1991 and added Section 6-115.1 of the Administrative Code. The local **Law** provides for certain restrictions on **City Contracts** to express the opposition of the people of the **City** to employment discrimination practices in Northern Ireland to promote freedom of work-place opportunity.

69.1.2 Pursuant to Section 6-115.1, prospective **Contractors** for **Contracts** to provide goods or services involving an expenditure of an amount greater than ten thousand

(\$10,000.) dollars, or for construction involving an amount greater than fifteen thousand (\$15,000.) dollars, are asked to sign a rider in which they covenant and represent, as a material condition of their **Contract**, that any business operations in Northern Ireland conducted by the **Contractor** and any individual or legal entity in which the **Contractor** holds a ten (10%) percent or greater ownership interest in the **Contractor** will be conducted in accordance with the MacBride Principles of nondiscrimination in employment.

69.1.3 Prospective **Contractors** are not required to agree to these conditions. However, in the case of **Contracts** let by competitive sealed bidding, whenever the lowest responsible bidder has not agreed to stipulate to the conditions set forth in this notice and another bidder who has agreed to stipulate to such conditions has submitted a bid within five (5%) percent of the lowest responsible bid for a **Contract** to supply goods, services or construction of comparable quality, the **Agency** shall refer such bids to the Mayor, the Speaker or other officials, as appropriate, who may determine, in accordance with applicable **Law**, that it is in the best interest of the **City** that the **Contract** be awarded to other than the lowest responsible pursuant to Section 313(b)(2) of the **City Charter**.

69.1.4 In the case of **Contracts** let by other than competitive sealed bidding, if a prospective **Contractor** does not agree to these conditions, no **Agency**, elected official or the **City Council** shall award the **Contract** to that bidder unless the **Agency** seeking to use the goods, services or construction certifies in writing that the **Contract** is necessary for the **Agency** to perform its functions and there is no other responsible **Contractor** who will supply goods, services or construction of comparable quality at a comparable price.

69.2 In accordance with Section 6-115.1 of the Administrative Code, the **Contractor** stipulates that such **Contractor** and any individual or legal entity in which the **Contractor** holds a ten (10%) percent or greater ownership interest in the **Contractor** either:

69.2.1 Have no business operations in Northern Ireland, or

69.2.2 Shall take lawful steps in good faith to conduct any business operations they have in Northern Ireland in accordance with the MacBride Principles, and shall permit independent monitoring of their compliance with such principles.

69.3 For purposes of this Article, the following terms shall have the following meanings:

69.3.1 "MacBride Principles" shall mean those principles relating to nondiscrimination in employment and freedom of work-place opportunity which require employers doing business in Northern Ireland to:

69.3.1(a) increase the representation of individuals from under-represented religious groups in the workforce, including managerial, supervisory, administrative, clerical and technical jobs;

69.3.1(b) take steps to promote adequate security for the protection of employees from under-represented religious groups both at the work-place and while traveling to and from **Work**;

69.3.1(c) ban provocative religious or political emblems from the workplace;

69.3.1(d) publicly advertise all job openings and make special recruitment efforts to attract applicants from under-represented religious groups;

69.3.1(e) establish layoff, recall, and termination procedures which do not in practice favor a particular religious group;

69.3.1(f) abolish all job reservations, apprenticeship restrictions and different employment criteria which discriminate on the basis of religion;

69.3.1(g) develop training programs that will prepare substantial numbers of current employees from under-represented religious groups for skilled jobs, including the expansion of existing programs and the creation of new programs to train, upgrade, and improve the skills of workers from under-represented religious groups;

69.3.1(h) establish procedures to assess, identify, and actively recruit employees from under-represented religious groups with potential for further advancement; and

69.3.1(i) appoint a senior management staff member to oversee affirmative action efforts and develop a timetable to ensure their full implementation.

69.4 The Contractor agrees that the covenants and representations in Article 69.2 are material conditions to this Contract. In the event the Agency receives information that the Contractor who made the stipulation required by this Article 69 is in violation thereof, the Agency shall review such information and give the Contractor an opportunity to respond. If the Agency finds that a violation has occurred, the Agency shall have the right to declare the Contractor in default and/or terminate this Contract for cause and procure supplies, services or Work from another source in the manner the Agency deems proper. In the event of such termination, the Contractor shall pay to the Agency, or the Agency in its sole discretion may withhold from any amounts otherwise payable to the Contractor, the difference between the Contract price for the uncompleted portion of this Contract and the cost to the Agency of completing performance of this Contract either itself or by engaging another Contractor or Contractors. In the case of a requirement Contract, the Contractor shall be liable for such difference in price for the entire amount of supplies required by the Agency for the uncompleted term of Contractor's Contract. In the case of a construction Contract, the Agency shall also have the right to hold the Contractor in partial or total default in accordance with the default provisions of this Contract, and/or may seek debarment or suspension of the Contractor. The rights and remedies of the Agency hereunder shall be in addition to, and not in lieu of, any rights and remedies the Agency has pursuant to this Contract or by operation of Law.

ARTICLE 70. ELECTRONIC FILING/NYC DEVELOPMENT HUB

70.1 The Contractor shall electronically file all alteration type-2 and alteration type-3 applications via the New York City Development Hub Web site, except applications for the following types of minor alterations: enlargements, curb cuts, legalizations, fire alarms, builders pavement plans, and jobs filed on Landmark Preservation Commission calendared properties. All such filings must be professionally certified. Information about electronic filing via the New York City Development Hub is available on the City Department of Buildings Web site at www.nyc.gov/buildings.

ARTICLE 71. PROHIBITION OF TROPICAL HARDWOODS

71.1 Tropical hardwoods, as defined in Section 165 of the New York State Finance Law (Finance Law), shall not be utilized in the performance of this Contract except as expressly permitted by Section 165 of the Finance Law.

ARTICLE 72. CONFLICTS OF INTEREST

72.1 Section 2604 of the City Charter and other related provisions of the City Charter, the Administrative Code, and the Penal Law are applicable under the terms of this Contract in relation to conflicts of interest and shall be extended to Subcontractors authorized to perform Work, labor and services pursuant to this Contract and further, it shall be the duty and responsibility of the Contractor to so inform its respective Subcontractors. Notice is hereby given that, under certain circumstances, penalties may be invoked against the donor as well as the recipient of any form of valuable gift.

ARTICLE 73. MERGER CLAUSE

73.1 The written Contract herein, contains all the terms and conditions agreed upon by the parties hereto, and no other agreement, oral or otherwise, regarding the subject matter of this Contract shall be deemed to exist or to bind any of the parties hereto, or to vary any of the terms contained herein.

ARTICLE 74. STATEMENT OF WORK

74.1 The Contractor shall furnish all labor and materials and perform all Work in strict accordance with the Specifications and Addenda thereto, numbered 11.

ARTICLE 75. COMPENSATION TO BE PAID TO CONTRACTOR

75.1 The City will pay and the Contractor will accept in full consideration for the performance of the Contract, subject to additions and deductions as provided herein, the total sum of: Thirtyseven million six hundred Dollars, (\$ 37,683,676.33), 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. eighty three thousand six hundred Seventy Six dollars and thirty three cents.

ARTICLE 76. ELECTRONIC FUNDS TRANSFER

76.1 In accordance with Section 6-107.1 of the Administrative Code, the Contractor agrees to accept payments under this Contract from the City by electronic funds transfer (EFT). An EFT is any transfer of funds, other than a transaction originated by check, draft or similar paper instrument, which is initiated through an electronic terminal, telephonic instrument or computer or magnetic tape so as to order, instruct or authorize a financial institution to debit or credit an account. Prior to the first payment made under this Contract, the Contractor shall designate one financial institution or other authorized payment agent and shall complete the attached "EFT Vendor Payment Enrollment Form" in order to provide the Commissioner of the City Department of Finance with information necessary for the Contractor to receive electronic funds transfer payments through a designated financial institution or authorized payment agent. The crediting of the amount of a payment to the appropriate account on the books of a financial institution or other authorized payment agent designated by the Contractor shall constitute full satisfaction by the City for the amount of the payment under this Contract. The account information supplied by the Contractor to facilitate the electronic funds transfer shall remain confidential to the fullest extent provided by Law.

76.2 The Commissioner may waive the application of the requirements of this Article 76 to payments on contracts entered into pursuant to Section 315 of the City Charter. In addition, the Commissioner of the Department of Finance and the Comptroller may jointly issue standards pursuant to

which the Agency may waive the requirements of this Article 76 for payment in the following circumstances: (i) for individuals or classes of individuals for whom compliance imposes a hardship; (ii) for classifications or types of checks; or (iii) in other circumstances as may be necessary in the interest of the City.

ARTICLE 77. RECORDS RETENTION

77.1 The Contractor agrees to retain all books, records, and other documents relevant to this Contract for six years after the final payment or termination of this Contract, whichever is later. City, state, and federal auditors and any other persons duly authorized by the City shall have full access to and the right to examine any such books, records, and other documents during the retention period.

ARTICLE 78. PARTICIPATION BY MINORITY-OWNED AND WOMEN-OWNED BUSINESS ENTERPRISES IN CITY PROCUREMENT

NOTICE TO ALL PROSPECTIVE CONTRACTORS

ARTICLE I. M/WBE PROGRAM

Local Law No. 129 of 2005 added and Local Law 1 of 2013 amended Section 6-129 of the Administrative Code of the City of New York (hereinafter "Section 6-129"). Section 6-129 establishes the program for participation in City procurement ("M/WBE Program") by minority-owned business enterprises ("MBEs") and women-owned business enterprises ("WBEs"), certified in accordance with Section 1304 of the New York City Charter. As stated in Section 6-129, the intent of the program is to address the impact of discrimination on the City's procurement process, and to promote the public interest in avoiding fraud and favoritism in the procurement process, increasing competition for City business, and lowering contract costs. The contract provisions contained herein are pursuant to Section 6-129, and the rules of the Department of Small Business Services ("DSBS") promulgated thereunder.

If this Contract is subject to the M/WBE Program established by Section 6-129, the specific requirements of MBE and/or WBE participation for this Contract are set forth in Schedule B of the Contract (entitled the "M/WBE Utilization Plan"), and are detailed below. The Contractor must comply with all applicable MBE and WBE requirements for this Contract.

All provisions of Section 6-129 are hereby incorporated in the Contract by reference and all terms used herein that are not defined herein shall have the meanings given such terms in Section 6-129. Article I, Part A, below, sets forth provisions related to the participation goals for construction, standard and professional services contracts. Article I, Part B, below, sets forth miscellaneous provisions related to the M/WBE Program.

PART A

PARTICIPATION GOALS FOR CONSTRUCTION, STANDARD AND PROFESSIONAL SERVICES CONTRACTS OR TASK ORDERS

1. The MBE and/or WBE Participation Goals established for this Contract or Task Orders issued pursuant to this Contract, ("Participation Goals"), as applicable, are set forth on Schedule B, Part I to this Contract (see Page 1, line 1 Total Participation Goals) or will be set forth on Schedule B, Part I to Task Orders issued pursuant to this Contract, as applicable.

The **Participation Goals** represent a percentage of the total dollar value of the Contract or Task Order, as applicable, that may be achieved by awarding subcontracts to firms certified with New York City Department of Small Business Services as MBEs and/or WBEs, and/or by crediting the participation of prime contractors and/or qualified joint ventures as provided in Section 3 below, unless the goals have been waived or modified by Agency in accordance with Section 6-129 and Part A, Sections 10 and 11 below, respectively.

2. If **Participation Goals** have been established for this Contract or Task Orders issued pursuant to this Contract, Contractor agrees or shall agree as a material term of the Contract that Contractor shall be subject to the **Participation Goals**, unless the goals are waived or modified by Agency in accordance with Section 6-129 and Part A, Sections 10 and 11 below, respectively.

3. If **Participation Goals** have been established for this Contract or Task Order issued pursuant to this Contract, a Contractor that is an MBE and/or WBE shall be permitted to count its own participation toward fulfillment of the relevant **Participation Goal**, provided that in accordance with Section 6-129 the value of Contractor's participation shall be determined by subtracting from the total value of the Contract or Task Order, as applicable, any amounts that the Contractor pays to direct subcontractors (as defined in Section 6-129(c)(13)), and provided further that a Contractor that is certified as both an MBE and a WBE may count its own participation either toward the goal for MBEs or the goal for WBEs, but not both.

A Contractor that is a qualified joint venture (as defined in Section 6-129(c)(30)) shall be permitted to count a percentage of its own participation toward fulfillment of the relevant **Participation Goal**. In accordance with Section 6-129, the value of Contractor's participation shall be determined by subtracting from the total value of the Contract or Task Order, as applicable, any amounts that Contractor pays to direct subcontractors, and then multiplying the remainder by the percentage to be applied to total profit to determine the amount to which an MBE or WBE is entitled pursuant to the joint venture agreement, provided that where a participant in a joint venture is certified as both an MBE and a WBE, such amount shall be counted either toward the goal for MBEs or the goal for WBEs, but not both.

4. A. If **Participation Goals** have been established for this Contract, a prospective contractor shall be required to submit with its bid or proposal, as applicable, a completed Schedule B, M/WBE Utilization Plan, Part II (see Pages 2-4) indicating: (a) whether the contractor is an MBE or WBE, or qualified joint venture; (b) the percentage of work it intends to award to direct subcontractors; and (c) in cases where the contractor intends to award direct subcontracts, a description of the type and dollar value of work designated for participation by MBEs and/or WBEs, and the time frames in which such work is scheduled to begin and end. In the event that this M/WBE Utilization Plan indicates that the bidder or proposer, as applicable, does not intend to meet the **Participation Goals**, the bid or proposal, as applicable, shall be deemed non-responsive, unless Agency has granted the bidder or proposer, as applicable, a pre-award waiver of the Participation Goals in accordance with Section 6-129 and Part A, Section 10 below.

B. (i) If this Contract is for a master services agreement or other requirements type contract that will result in the issuance of Task Orders that will be individually registered ("Master Services Agreement") and is subject to M/WBE **Participation Goals**, a prospective contractor shall be required to submit with its bid or proposal, as applicable, a completed Schedule B, M/WBE Participation Requirements for Master Services Agreements That Will Require Individually Registered Task Orders, Part II (page 2) indicating the prospective contractor's certification and required affirmations to make all reasonable good faith efforts to meet participation goals established on each individual Task Order issued pursuant to this Contract, or if a partial waiver is obtained or such goals are modified by the Agency, to meet the modified **Participation Goals** by soliciting and obtaining the participation of certified MBE and/or WBE firms. In the event that the Schedule B indicates that the bidder or proposer, as applicable, does not intend to meet the **Participation Goals** that may be established on Task Orders issued pursuant to this Contract, the bid or proposal, as applicable, shall be deemed nonresponsive.

(ii) **Participation Goals** on a Master Services Agreement will be established for individual Task Orders issued after the Master Services Agreement is awarded. If **Participation Goals** have been established on a Task Order, a contractor shall be required to submit a Schedule B – M/WBE Utilization Plan For Independently Registered Task Orders That Are Issued Pursuant to Master Services Agreements, Part II (see Pages 2-4) indicating: (a) whether the contractor is an MBE or WBE, or qualified joint venture; (b) the percentage of work it intends to award to direct subcontractors; and (c) in cases where the contractor intends to award direct subcontracts, a description of the type and dollar value of work designated for participation by MBEs and/or WBEs, and the time frames in which such work is scheduled to begin and end. The contractor must engage in good faith efforts to meet the **Participation Goals** as established for the Task Order unless Agency has granted the contractor a pre-award waiver of the Participation Goals in accordance with Section 6-129 and Part A, Section 10 below.

C. THE BIDDER/PROPOSER MUST COMPLETE THE SCHEDULE B INCLUDED HEREIN (SCHEDULE B, PART II). A SCHEDULE B SUBMITTED BY THE BIDDER/PROPOSER WHICH DOES NOT INCLUDE THE VENDOR CERTIFICATION AND REQUIRED AFFIRMATIONS (SEE SECTION V OF PART II) WILL BE DEEMED TO BE NON-RESPONSIVE, UNLESS A FULL WAIVER OF THE PARTICIPATION GOALS IS GRANTED (SCHEDULE B, PART III). IN THE EVENT THAT THE CITY DETERMINES THAT THE BIDDER/PROPOSER HAS SUBMITTED A SCHEDULE B WHERE THE VENDOR CERTIFICATION AND REQUIRED AFFIRMATIONS ARE COMPLETED BUT OTHER ASPECTS OF THE SCHEDULE B ARE NOT COMPLETE, OR CONTAIN A COPY OR COMPUTATION ERROR THAT IS AT ODDS WITH THE VENDOR CERTIFICATION AND AFFIRMATIONS, THE BIDDER/PROPOSER WILL BE NOTIFIED BY THE AGENCY AND WILL BE GIVEN FOUR (4) CALENDAR DAYS FROM RECEIPT OF NOTIFICATION TO CURE THE SPECIFIED DEFICIENCIES AND RETURN A COMPLETED SCHEDULE B TO THE AGENCY. FAILURE TO DO SO WILL RESULT IN A DETERMINATION THAT THE BID/PROPOSAL IS NON-RESPONSIVE. RECEIPT OF NOTIFICATION IS DEFINED AS THE DATE NOTICE IS E-MAILED OR FAXED (IF THE BIDDER/PROPOSER HAS PROVIDED AN E-MAIL ADDRESS OR FAX NUMBER), OR NO LATER THAN FIVE (5) CALENDAR DAYS FROM THE DATE OF MAILING OR UPON DELIVERY, IF DELIVERED.

5. Where an M/WBE Utilization Plan has been submitted, the Contractor shall, within 30 days of issuance by Agency of a notice to proceed, submit a list of proposed persons or entities to which it intends to award subcontracts within the subsequent 12 months. In the case of multiyear contracts, such list shall also be submitted every year thereafter. The Agency may also require the Contractor to report periodically about the contracts awarded by its direct subcontractors to indirect subcontractors (as defined in Section 6-129(c)(22)). **PLEASE NOTE: If this Contract is a public works project subject to GML §101(5) (i.e., a contract valued at or below \$3M for projects in New York City) or if the Contract is subject to a project labor agreement in accordance with Labor Law §222, and the bidder is required to identify at the time of bid submission its intended subcontractors for the Wicks trades (plumbing and gas fitting; steam heating, hot water heating, ventilating and air conditioning (HVAC); and electric wiring), the Contractor must identify all those to which it intends to award construction subcontracts for any portion of the Wicks trade work at the time of bid submission, regardless of what point in the life of the contract such subcontracts will occur. In identifying intended subcontractors in the bid submission, bidders may satisfy any Participation Goals established for this Contract by proposing one or more subcontractors that are MBEs and/or WBEs for any portion of the Wicks trade work. In the event that the Contractor's selection of a subcontractor is disapproved, the Contractor shall have a reasonable time to propose alternate subcontractors.**

6. MBE and WBE firms must be certified by DSBS in order for the Contractor to credit such firms' participation toward the attainment of the **Participation Goals**. Such certification must occur prior to the

firms' commencement of work. A list of MBE and WBE firms may be obtained from the DSBS website at www.nyc.gov/buycertified, by emailing DSBS at buyer@sbs.nyc.gov, by calling (212) 513-6356, or by visiting or writing DSBS at 110 William St., New York, New York, 10038, 7th floor. Eligible firms that have not yet been certified may contact DSBS in order to seek certification by visiting www.nyc.gov/getcertified, emailing MWBE@sbs.nyc.gov, or calling the DSBS certification helpline at (212) 513-6311. A firm that is certified as both an MBE and a WBE may be counted either toward the goal for MBEs or the goal for WBEs, but not both. No credit shall be given for participation by a graduate MBE or graduate WBE, as defined in Section 6-129(c)(20).

7. Where an **M/WBE Utilization Plan** has been submitted, the Contractor shall, with each voucher for payment, and/or periodically as Agency may require, submit statements, certified under penalty of perjury, which shall include, but not be limited to, the total amount the Contractor paid to its direct subcontractors, and, where applicable pursuant to Section 6-129(j), the total amount direct subcontractors paid to indirect subcontractors; the names, addresses and contact numbers of each MBE or WBE hired as a subcontractor by the Contractor, and, where applicable, hired by any of the Contractor's direct subcontractors; and the dates and amounts paid to each MBE or WBE. The Contractor shall also submit, along with its voucher for final payment: the total amount it paid to subcontractors, and, where applicable pursuant to Section 6-129(j), the total amount its direct subcontractors paid directly to their indirect subcontractors; and a final list, certified under penalty of perjury, which shall include the name, address and contact information of each subcontractor that is an MBE or WBE, the work performed by, and the dates and amounts paid to each.

8. If payments made to, or work performed by, MBEs or WBEs are less than the amount specified in the Contractor's **M/WBE Utilization Plan**, Agency shall take appropriate action, in accordance with Section 6-129 and Article II below, unless the Contractor has obtained a modification of its **M/WBE Utilization Plan** in accordance with Section 6-129 and Part A, Section 11 below.

9. Where an **M/WBE Utilization Plan** has been submitted, and the Contractor requests a change order the value of which exceeds the greater of 10 percent of the Contract or Task Order, as applicable, or \$500,000, Agency shall review the scope of work for the Contract or Task Order, as applicable, and the scale and types of work involved in the change order, and determine whether the **Participation Goals** should be modified.

10. Pre-award waiver of the **Participation Goals**. (a) A bidder or proposer, or contractor with respect to a Task Order, may seek a pre-award full or partial waiver of the **Participation Goals** in accordance with Section 6-129, which requests that Agency change one or more **Participation Goals** on the grounds that the **Participation Goals** are unreasonable in light of the availability of certified firms to perform the services required, or by demonstrating that it has legitimate business reasons for proposing a lower level of subcontracting in its **M/WBE Utilization Plan**.

(b) To apply for a full or partial waiver of the **Participation Goals**, a bidder, proposer, or contractor, as applicable, must complete Part III (Page 5) of Schedule B and submit such request no later than seven (7) calendar days prior to the date and time the bids, proposals, or Task Orders are due, in writing to the Agency by email at poped@ddc.nyc.gov or via facsimile at (718) 391-1886. Bidders, proposers, or contractors, as applicable, who have submitted requests will receive an Agency response by no later than two (2) calendar days prior to the due date for bids, proposals, or Task Orders; provided, however, that if that date would fall on a weekend or holiday, an Agency response will be provided by close-of-business on the business day before such weekend or holiday date.

(c) If the Agency determines that the **Participation Goals** are unreasonable in light of the availability of certified firms to perform the services required, it shall revise the solicitation and extend the deadline for bids and proposals, or revise the Task Order, as applicable.

(d) Agency may grant a full or partial waiver of the **Participation Goals** to a bidder, proposer or contractor, as applicable, who demonstrates—before submission of the bid, proposal or Task Order, as applicable—that it has legitimate business reasons for proposing the level of subcontracting in its **M/WBE Utilization Plan**. In making its determination, Agency shall consider factors that shall include, but not be limited to, whether the bidder, proposer or contractor, as applicable, has the capacity and the bona fide intention to perform the Contract without any subcontracting, or to perform the Contract without awarding the amount of subcontracts represented by the **Participation Goals**. In making such determination, Agency may consider whether the **M/WBE Utilization Plan** is consistent with past subcontracting practices of the bidder, proposer or contractor, as applicable, whether the bidder, proposer or contractor, as applicable, has made efforts to form a joint venture with a certified firm, and whether the bidder, proposer, or contractor, as applicable, has made good faith efforts to identify other portions of the Contract that it intends to subcontract.

11. **Modification of M/WBE Utilization Plan.** (a) A Contractor may request a modification of its **M/WBE Utilization Plan** after award of this Contract. **PLEASE NOTE: If this Contract is a public works project subject to GML §101(5) (i.e., a contract valued at or below \$3M for projects in New York City) or if the Contract is subject to a project labor agreement in accordance with Labor Law §222, and the bidder is required to identify at the time of bid submission its intended subcontractors for the Wicks trades (plumbing and gas fitting; steam heating, hot water heating, ventilating and air conditioning (HVAC); and electric wiring), the Contractor may request a Modification of its M/WBE Utilization Plan as part of its bid submission.** The Agency may grant a request for Modification of a Contractor's **M/WBE Utilization Plan** if it determines that the Contractor has established, with appropriate documentary and other evidence, that it made reasonable, good faith efforts to meet the **Participation Goals**. In making such determination, Agency shall consider evidence of the following efforts, as applicable, along with any other relevant factors:

- (i) The Contractor advertised opportunities to participate in the Contract, where appropriate, in general circulation media, trade and professional association publications and small business media, and publications of minority and women's business organizations;
- (ii) The Contractor provided notice of specific opportunities to participate in the Contract, in a timely manner, to minority and women's business organizations;
- (iii) The Contractor sent written notices, by certified mail or facsimile, in a timely manner, to advise MBEs or WBEs that their interest in the Contract was solicited;
- (iv) The Contractor made efforts to identify portions of the work that could be substituted for portions originally designated for participation by MBEs and/or WBEs in the **M/WBE Utilization Plan**, and for which the Contractor claims an inability to retain MBEs or WBEs;
- (v) The Contractor held meetings with MBEs and/or WBEs prior to the date their bids or proposals were due, for the purpose of explaining in detail the scope and requirements of the work for which their bids or proposals were solicited;
- (vi) The Contractor made efforts to negotiate with MBEs and/or WBEs as relevant to perform specific subcontracts, or act as suppliers or service providers;
- (vii) Timely written requests for assistance made by the Contractor to Agency's **M/WBE liaison officer** and to DSBS;
- (viii) Description of how recommendations made by DSBS and Agency were acted upon and an explanation of why action upon such recommendations did not lead to the desired level of participation of MBEs and/or WBEs.

Agency's **M/WBE officer** shall provide written notice to the Contractor of the determination.

(b) The Agency may modify the **Participation Goals** when the scope of the work has been changed by the Agency in a manner that affects the scale and types of work that the Contractor indicated in its **M/WBE Utilization Plan** would be awarded to subcontractors.

12. If this Contract is for an indefinite quantity of construction, standard or professional services or is a requirements type contract and the Contractor has submitted an **M/WBE** Utilization Plan and has committed to subcontract work to MBEs and/or WBEs in order to meet the **Participation Goals**, the Contractor will not be deemed in violation of the M/WBE Program requirements for this Contract with regard to any work which was intended to be subcontracted to an MBE and/or WBE to the extent that the Agency has determined that such work is not needed.

13. If **Participation Goals** have been established for this Contract or a Task Order issued pursuant to this Contract, at least once annually during the term of the Contract or Task Order, as applicable, Agency shall review the Contractor's progress toward attainment of its M/WBE Utilization Plan, including but not limited to, by reviewing the percentage of work the Contractor has actually awarded to MBE and/or WBE subcontractors and the payments the Contractor made to such subcontractors.

14. If **Participation Goals** have been established for this Contract or a Task Order issued pursuant to this Contract, Agency shall evaluate and assess the Contractor's performance in meeting those goals, and such evaluation and assessment shall become part of the Contractor's overall contract performance evaluation.

PART B: MISCELLANEOUS

1. The Contractor shall take notice that, if this solicitation requires the establishment of an **M/WBE** Utilization Plan, the resulting contract may be audited by DSBS to determine compliance with Section 6-129. See §6-129(e)(10). Furthermore, such resulting contract may also be examined by the City's Comptroller to assess compliance with the **M/WBE** Utilization Plan.

2. Pursuant to DSBS rules, construction contracts that include a requirement for an **M/WBE** Utilization Plan shall not be subject to the law governing Locally Based Enterprises set forth in Section 6-108.1 of the Administrative Code of the City of New York.

3. DSBS is available to assist contractors and potential contractors in determining the availability of MBEs and/or WBEs to participate as subcontractors, and in identifying opportunities that are appropriate for participation by MBEs and/or WBEs in contracts.

4. Prospective contractors are encouraged to enter into qualified joint venture agreements with MBEs and/or WBEs as defined by Section 6-129(c)(30).

5. By submitting a bid or proposal the Contractor hereby acknowledges its understanding of the **M/WBE** Program requirements set forth herein and the pertinent provisions of Section 6-129, and any rules promulgated thereunder, and if awarded this Contract, the Contractor hereby agrees to comply with the **M/WBE** Program requirements of this Contract and pertinent provisions of Section 6-129, and any rules promulgated thereunder, all of which shall be deemed to be material terms of this Contract. The Contractor hereby agrees to make all reasonable, good faith efforts to solicit and obtain the participation of MBEs and/or WBEs to meet the required **Participation Goals**.

ARTICLE II. ENFORCEMENT

1. If Agency determines that a bidder or proposer, as applicable, has, in relation to this procurement, violated Section 6-129 or the DSBS rules promulgated pursuant to Section 6-129, Agency may disqualify such bidder or proposer, as applicable, from competing for this Contract and the Agency may revoke such bidder's or proposer's prequalification status, if applicable.

2. Whenever Agency believes that the Contractor or a subcontractor is not in compliance with Section 6-129 or the DSBS rules promulgated pursuant to Section 6-129, or any provision of this Contract that implements Section 6-129, including, but not limited to any **M/WBE** Utilization Plan, Agency shall send a written notice to the Contractor describing the alleged noncompliance and offering the Contractor an opportunity to be heard. Agency shall then conduct an investigation to determine whether such Contractor or subcontractor is in compliance.

3. In the event that the Contractor has been found to have violated Section 6-129, the DSBS rules promulgated pursuant to Section 6-129, or any provision of this Contract that implements Section 6-129, including, but not limited to, any **M/WBE** Utilization Plan, Agency may determine that one of the following actions should be taken:

- (a) entering into an agreement with the Contractor allowing the Contractor to cure the violation;
- (b) revoking the Contractor's pre-qualification to bid or make proposals for future contracts;
- (c) making a finding that the Contractor is in default of the Contract;
- (d) terminating the Contract;
- (e) declaring the Contractor to be in breach of Contract;
- (f) withholding payment or reimbursement;
- (g) determining not to renew the Contract;
- (h) assessing actual and consequential damages;
- (i) assessing liquidated damages or reducing fees, provided that liquidated damages may be based on amounts representing costs of delays in carrying out the purposes of the **M/WBE** Program, or in meeting the purposes of the Contract, the costs of meeting utilization goals through additional procurements, the administrative costs of investigation and enforcement, or other factors set forth in the Contract;
- (j) exercising rights under the Contract to procure goods, services or construction from another contractor and charge the cost of such contract to the Contractor that has been found to be in noncompliance; or
- (k) taking any other appropriate remedy.

4. If an **M/WBE** Utilization Plan has been submitted, and pursuant to this Article II, Section 3, the Contractor has been found to have failed to fulfill its **Participation Goals** contained in its **M/WBE** Utilization Plan or the **Participation Goals** as modified by Agency pursuant to Article I, Part A, Section 11, Agency may assess liquidated damages in the amount of ten percent (10%) of the difference between the dollar amount of work required to be awarded to MBE and/or WBE firms to meet the **Participation Goals** and the dollar amount the Contractor actually awarded and paid, and/or credited, to MBE and/or WBE firms. In view of the difficulty of accurately ascertaining the loss which the City will suffer by reason of Contractor's failure to meet the **Participation Goals**, the foregoing amount is hereby fixed and agreed as the liquidated damages that the City will suffer by reason of such failure, and not as a penalty. Agency may deduct and retain out of any monies which may become due under this Contract the amount of any such liquidated damages; and in case the amount which may become due under this Contract shall be less than the amount of liquidated damages suffered by the City, the Contractor shall be liable to pay the difference.

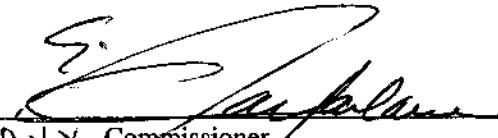
5. Whenever Agency has reason to believe that an MBE and/or WBE is not qualified for certification, or is participating in a contract in a manner that does not serve a commercially useful function (as defined in Section 6-129(c)(8)), or has violated any provision of Section 6-129, Agency shall notify the Commissioner of DSBS who shall determine whether the certification of such business enterprise should be revoked.

6. Statements made in any instrument submitted to Agency pursuant to Section 6-129 shall be submitted under penalty of perjury and any false or misleading statement or omission shall be grounds for the application of any applicable criminal and/or civil penalties for perjury. The making of a false or fraudulent statement by an MBE and/or WBE in any instrument submitted pursuant to Section 6-129 shall, in addition, be grounds for revocation of its certification.

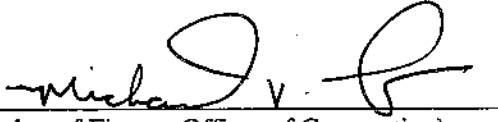
7. The Contractor's record in implementing its M/WBE Utilization Plan shall be a factor in the evaluation of its performance. Whenever Agency determines that a Contractor's compliance with an M/WBE Utilization Plan has been unsatisfactory, Agency shall, after consultation with the City Chief Procurement Officer, file an advice of caution form for inclusion in VENDEX as caution data.

IN WITNESS WHEREOF, the Commissioner, on behalf of the City of New York, and the Contractor, have executed this agreement in quadruplicate, two parts of which are to remain with the Commissioner, another to be filed with the Comptroller of the City, and the fourth to be delivered to the Contractor.

THE CITY OF NEW YORK

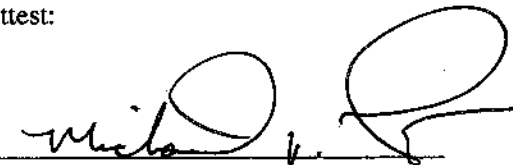
By: 
Deputy Commissioner

CONTRACTOR: MFM Contracting Corp.

By: 
(Member of Firm or Officer of Corporation)

Title: President

(Where Contractor is a Corporation, add):
Attest:


Secretary

(Seal)

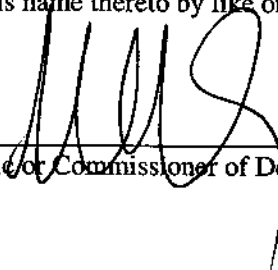
ACKNOWLEDGEMENT OF PRINCIPAL, IF A CORPORATION

State of New York County of Queens ss:

On this 24th day of April, 2015, before me personally came Michael V. Petrillo to me known who, being by me duly sworn did depose and say that he resides at Purchase, NY that he is the President

of the corporation described in and which executed the foregoing instrument; that he knows the seal of said corporation; that one of the seals affixed to said instrument is such seal; that it was so affixed by order of the directors of said corporation, and that he signed his name thereto by like order.

VICTORIA AYO-VAUGHAN
Notary Public, State of New York
Registration #01AY5014042
Qualified in Queens County
Commission Expires July 16, 2015



Notary Public or Commissioner of Deeds

ACKNOWLEDGEMENT OF PRINCIPAL, IF A PARTNERSHIP

State of _____ County of _____ ss:

On this _____ day of _____, _____, before me personally appeared _____ to me known, and known to me to be one of the members of the firm of _____ described in and who executed the foregoing instrument; and he acknowledged to me that he executed the same as and for the act and deed of said firm.

Notary Public or Commissioner of Deeds

ACKNOWLEDGEMENT OF PRINCIPAL, IF AN INDIVIDUAL

State of _____ County of _____ ss:

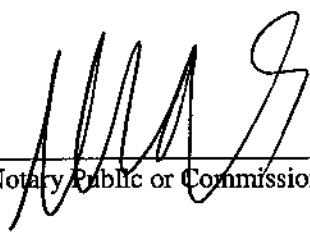
On this _____ day of _____, _____, before me personally appeared _____ to me known, and known to me to be the person described in and who executed the foregoing instrument; and acknowledged that he executed the same.

Notary Public or Commissioner of Deeds

ACKNOWLEDGEMENT BY COMMISSIONER

State of New York County of Queens ss:

On this 7 day of May, 2015, before me personally came Eric Martarlane to me known, and known to be the Deputy Commissioner of the Department of Design and Construction of The City of New York, the person described as such in and who as such executed the foregoing instrument and acknowledged to me that he executed the same as Deputy Commissioner for the purposes therein mentioned.



Notary Public or Commissioner of Deeds

VICTORIA AYO-VAUGHAN
Notary Public, State of New York
Registration #01AY5014042
Qualified in Queens County
Commission Expires July 15, 2015

AUTHORITY

MAYOR'S CERTIFICATE NO. CBX
BUDGET DIRECTOR'S CERTIFICATE NO.

DATED
DATED

APPROPRIATION
COMMISSIONER'S CERTIFICATE

In conformity with the provisions of Section 6-101 of the Administrative Code of the City of New York, it is hereby certified that the estimated cost of the work, materials and supplies required by the within Contract, amounting to

*Thirty seven million six hundred & eighty
Three Thousand Six hundred & Seventy six dollars
And thirty three cents.*

Dollars (\$ 37,683,676.33)

is chargeable to the fund of the Department of Design and Construction entitled Code

Department of Design and Construction

I hereby certify that the specifications contained herein comply with the terms and conditions of the BUDGET.

[Handwritten Signature]
Deputy Commissioner

COMPTROLLER'S CERTIFICATE

The City of New York _____

Pursuant to the provisions of Section 6-101 of the Administrative Code of the City of New York, I hereby certify that there remains unapplied and unexpended a balance of the above mentioned fund applicable to this Contract sufficient to pay the estimated expense of executing the same viz:

\$ _____

Comptroller

MAYOR'S CERTIFICATE OR
CERTIFICATE OF THE DIRECTOR
OF THE BUDGET

Performance Bond #1 (Pages 92 to 95): Use if the total contract price is \$5 Million Or Less. Performance Bond #1 has been approved by the U.S. Small Business Administration ("SBA") for participation in its Bond Guarantee Program.

PERFORMANCE BOND #1 (Page 1)

PERFORMANCE BOND #1

KNOW ALL PERSONS BY THESE PRESENTS,;

That we, _____

hereinafter referred to as the "Principal,"
and, _____

hereinafter referred to as the "Surety" ("Sureties") are held and firmly bound to THE CITY OF NEW YORK, hereinafter referred to as the "City" or to its successors and assigns in the penal sum of _____

(\$ _____) Dollars, lawful money of the United States for the payment of which said sum of money well and truly to be made, we, and each of us, bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal is about to enter, or has entered, into a Contract in writing with the City for _____

a copy of which Contract is annexed to and hereby made a part of this bond as though herein set forth in full;

NOW, THEREFORE, the conditions of this obligation are such that if the Principal, his or its representatives or assigns, shall well and faithfully perform the said Contract and all modifications, amendments, additions and alterations thereto that may hereafter be made, according to its terms and its true intent and meaning, including repair and or replacement of defective work and guarantees of maintenance for the periods stated in the Contract, and shall fully indemnify and save harmless the City from all cost and damage which it may suffer by reason of the Principal's default of the Contract, and shall fully reimburse and repay the City for all outlay and expense which the City may incur in making

Performance Bond #2 (Pages 82 to 85): Use if the total contract price is more than \$5 Million.

BOND NO. SU1132368

PERFORMANCE BOND #2 (Page 1)

PERFORMANCE BOND #2

KNOW ALL PERSONS BY THESE PRESENTS:

That we, _____

MFM Contracting Corporation

335 Center Avenue, Mamaroneck, NY 10543

hereinafter referred to as the "Principal,"

and, _____

Arch Insurance Company

Three Parkway, Suite 1500, Philadelphia, PA 19102

hereinafter referred to as the "Surety" ("Sureties") are held and firmly bound to THE CITY OF NEW YORK, hereinafter referred to as the "City" or to its successors and assigns in the penal sum of _____

Thirty Seven Million Six Hundred Eighty Three Thousand Six Hundred Seventy Six

and 33/100 Dollars

(\$ 37,683,676.33) Dollars, lawful money of the United States for the payment of which said sum of money well and truly to be made, we, and each of us, bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal is about to enter, or has entered, into a Contract in writing with the City for

MED598B Trunk Water Mains in West 30th Street between 10th Avenue and 9th Avenue Etc.

To Connect to Shaft 26B to the Distribution System, Borough of Manhattan.

a copy of which Contract is annexed to and hereby made a part of this bond as though herein set forth in full;

NOW, THEREFORE, the conditions of this obligation are such that if the Principal, his or its representatives or assigns, shall well and faithfully perform the said Contract and all modifications, amendments, additions and alterations thereto that may hereafter be made, according to its terms and its true intent and meaning, including repair and or replacement of defective work and guarantees of maintenance for the periods stated in the Contract, and shall fully indemnify and save harmless the City from all cost and damage which it may suffer by reason of the Principal's default of the Contract, and shall fully reimburse and repay the City for all outlay and expense which the City may incur in making

Performance Bond #2 (Pages 82 to 85): Use if the total contract price is more than \$5 Million.

PERFORMANCE BOND #2 (Page 2)

good any such default and shall protect the said City of New York against, and pay any and all amounts, damages, cost and judgments which may or shall be recovered against said City or its officers or agents or which the said City of New York may be called upon to pay any person or corporation by reason of any damages arising or growing out of the Principal's default of the Contract, then this obligation shall be null and void, otherwise to remain in full force and effect.

The Surety (Sureties), for value received, hereby stipulates and agrees, upon written notice from the City that the City has determined that the Principal is in default of the Contract, to either (1) pay the full amount of the above penal sum in complete discharge and exoneration of this bond and of all the liabilities of the Surety relating to this bond, or (2) fully perform and complete the Work to be performed under the Contract, pursuant to the terms, conditions, and covenants thereof. The Surety (Sureties) further agrees, at its option, either to tender the penal sum or to commence and diligently perform the Work specified in the Contract, including physical site work, within twenty-five (25) business days after written notice thereof from the City and to complete all Work within the time set forth in the Contract or such other time as agreed to between the City and Surety in accordance with the Contract. The Surety and the City reserve all rights and defenses each may have against the other, provided, however, that the Surety expressly agrees that its reservation of rights shall not provide a basis for non-performance of its obligation to commence and to complete all Work as provided herein.

The Surety (Sureties), for value received, for itself and its successors and assigns, hereby stipulates and agrees that the obligation of said Surety (Sureties) and its bond shall be in no way impaired or affected by any extension of time, modification, omission, addition, or change in or to the said Contract or the Work to be performed thereunder, or by any payment thereunder before the time required therein, or by any waiver of any provisions thereof, or by any assignment, subletting or other transfer thereof or of any Work to be performed or any moneys due or to become due thereunder, and said Surety (Sureties) does hereby waive notice of any and all of such extensions, modifications, omissions, additions, changes, payments, waivers, assignments, subcontracts and transfers, and hereby expressly stipulates and agrees that any and all things done and omitted to be done by and in relation to assignees, subcontractors, and other transferees shall have the same effect as to said Surety (Sureties) as though done or omitted to be done by or in relation to said Principal.

Performance Bond #2 (Pages 82 to 85): Use if the total contract price is more than \$5 Million.

PERFORMANCE BOND #2 (Page 3)

IN WITNESS WHEREOF, The Principal and the Surety (Sureties) have hereunto set their hands and seals, and such of them as are corporations have caused their corporate seals to be hereunto affixed and these presents to be signed by their proper officers, this

17th day of April 20 15

(Seal)

MFM Contracting Corporation (In S.)

Principal

By: Michael V. [Signature]

(Seal)

Surety

Arch Insurance Company

By: [Signature]

Susan Lupski, Attorney-in-Fact

(Seal)

Surety

By: _____

(Seal)

Surety

By: _____

(Seal)

Surety

By: _____

(Seal)

Surety

By: _____

Bond Premium Rate \$14.45/M Sliding Scale

Bond Premium Cost \$246,382.00

If the Contractor (Principal) is a partnership, the bond should be signed by each of the individuals who are partners.

If the Contractor (Principal) is a corporation, the bond should be signed in its correct corporate name by a duly authorized officer, agent, or attorney-in-fact.

There should be executed an appropriate number of counterparts of the bond corresponding to the number of counterparts of the Contract.

Performance Bond #2 (Pages 82 to 85): Use if the total contract price is more than \$5 Million.

PERFORMANCE BOND #2 (Page 4)

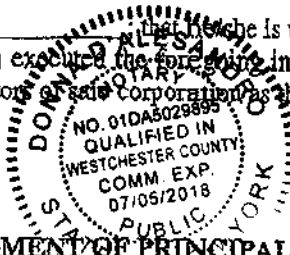
ACKNOWLEDGMENT OF PRINCIPAL OF A CORPORATION

State of New York County of Westchester ss:

On this 20th day of April, 2015 before me personally came Michael V. Petrillo to me known, who, being by me duly sworn did depose and say that he resides at Purchase, N.Y. 10577

that he is the President of the corporation described in and which executed the foregoing instrument; that he/she signed his/her name to the foregoing instrument by order of the directors of said Corporation as the duly authorized and binding act thereof.

[Signature]
Notary Public or Commissioner of Deeds.



ACKNOWLEDGMENT OF PRINCIPAL IF A PARTNERSHIP

State of _____ County of _____ ss:

On this _____ day of _____, 20____ before me personally came _____ to me known, who, being by me duly sworn did depose and say that he/she resides at _____

_____ ; that he/she is _____ partner of _____, a limited/general partnership existing under the laws of the State of _____, the partnership described in and which executed the foregoing instrument; and that he/she signed his/her name to the foregoing instrument as the duly authorized and binding act of said partnership.

Notary Public or Commissioner of Deeds

ACKNOWLEDGMENT OF PRINCIPAL IF AN INDIVIDUAL

State of _____ County of _____ ss:

On this _____ day of _____, 20____ before me personally came _____ to me known, who, being by me duly sworn did depose and say that he/she resides at _____

_____ and that he/she is the individual whose name is subscribed to the within instrument and acknowledged to me that by his/her signature on the instrument, said individual executed the instrument.

Notary Public or Commissioner of Deeds

Each executed bond should be accompanied by: (a) appropriate acknowledgments of the respective parties; (b) appropriate duly certified copy of Power of Attorney or other certificate of authority where bond is executed by agent, officer or other representative of Principal or Surety; (c) a duly certified extract from By-Laws or resolutions of Surety under which Power of Attorney or other certificate of authority of its agent, officer or representative was issued, and (d) certified copy of latest published financial statement of assets and liabilities of Surety.

Affix Acknowledgments and Justification of Sureties.



THIS POWER OF ATTORNEY IS NOT VALID UNLESS IT IS PRINTED ON BLUE BACKGROUND.

This Power of Attorney limits the acts of those named herein, and they have no authority to bind the Company except in the manner and to the extent herein stated. Not valid for Mortgage, Note, Loan, Letter of Credit, Bank Deposit, Currency Rate, Interest Rate or Residential Value Guarantees.

POWER OF ATTORNEY

Know All Persons By These Presents:

That the Arch Insurance Company, a corporation organized and existing under the laws of the State of Missouri, having its principal administrative office in Jersey City, New Jersey (hereinafter referred to as the "Company") does hereby appoint:

Camille Maitland, Colette R. Chisholm, Desires Cardin, George O. Brewster, Gerard S. Macholz, Lee Ferrucci, Nelly Renciwich, Rita Sagistano, Robert T. Pearson, Susan Lupski, Thomas Bean and Vincent A. Walsh of Uniondale, NY (EACH)

its true and lawful Attorney(s)in-Fact, to make, execute, seal, and deliver from the date of issuance of this power for and on its behalf as surety, and as its act and deed:

Any and all bonds, undertakings, recognizances and other surety obligations, in the penal sum not exceeding Ninety Million Dollars (\$90,000,000.00).

This authority does not permit the same obligation to be split into two or more bonds in order to bring each such bond within the dollar limit of authority as set forth herein.

The execution of such bonds, undertakings, recognizances and other surety obligations in pursuance of these presents shall be as binding upon the said Company as fully and amply to all intents and purposes, as if the same had been duly executed and acknowledged by its regularly elected officers at its principal administrative office in Jersey City, New Jersey.

This Power of Attorney is executed by authority of resolutions adopted by unanimous consent of the Board of Directors of the Company on September 15, 2011, true and accurate copies of which are hereinafter set forth and are hereby certified to by the undersigned Secretary as being in full force and effect:

"VOTED, That the Chairman of the Board, the President, or the Executive Vice President, or any Senior Vice President, of the Surety Business Division, or their appointees designated in writing and filed with the Secretary, or the Secretary shall have the power and authority to appoint agents and attorneys-in-fact, and to authorize them subject to the limitations set forth in their respective powers of attorney, to execute on behalf of the Company, and attach the seal of the Company thereto, bonds, undertakings, recognizances and other surety obligations obligatory in the nature thereof, and any such officers of the Company may appoint agents for acceptance of process."

This Power of Attorney is signed, sealed and certified by facsimile under and by authority of the following resolution adopted by the unanimous consent of the Board of Directors of the Company on September 15, 2011:

VOTED, That the signature of the Chairman of the Board, the President, or the Executive Vice President, or any Senior Vice President, of the Surety Business Division, or their appointees designated in writing and filed with the Secretary, and the signature of the Secretary, the seal of the Company, and certifications by the Secretary, may be affixed on any power of attorney or bond executed pursuant to the resolution adopted by the Board of Directors on September 15, 2011, and any such power so executed, sealed and certified with respect to any bond or undertaking to which it is attached, shall continue to be valid and binding upon the Company.

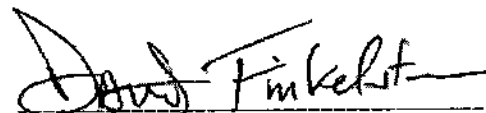
In Testimony Whereof, the Company has caused this instrument to be signed and its corporate seal to be affixed by their authorized officers, this 9th day of March, 2015.

Attested and Certified

Arch Insurance Company

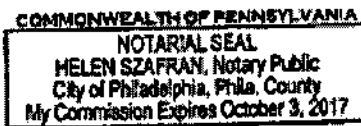

Patrick K. Nails, Secretary

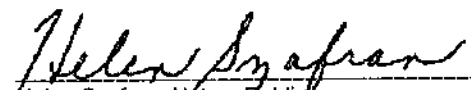



David M. Finkelstein, Executive Vice President

STATE OF PENNSYLVANIA SS
COUNTY OF PHILADELPHIA SS

I, Helen Szafran, a Notary Public, do hereby certify that Patrick K. Nails and David M. Finkelstein personally known to me to be the same persons whose names are respectively as Secretary and Executive Vice President of the Arch Insurance Company, a Corporation organized and existing under the laws of the State of Missouri, subscribed to the foregoing instrument, appeared before me this day in person and severally acknowledged that they being thereunto duly authorized signed, sealed with the corporate seal and delivered the said instrument as the free and voluntary act of said corporation and as their own free and voluntary acts for the uses and purposes therein set forth.

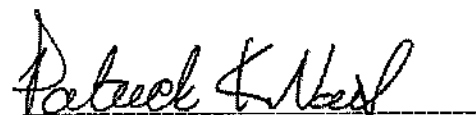



Helen Szafran, Notary Public
My commission expires 10/03/2017

CERTIFICATION

I, Patrick K. Nails, Secretary of the Arch Insurance Company, do hereby certify that the attached Power of Attorney dated March 9, 2015 on behalf of the person(s) as listed above is a true and correct copy and that the same has been in full force and effect since the date thereof and is in full force and effect on the date of this certificate; and I do further certify that the said David M. Finkelstein, who executed the Power of Attorney as Executive Vice President, was on the date of execution of the attached Power of Attorney the duly elected Executive Vice President of the Arch Insurance Company.

IN TESTIMONY WHEREOF, I have hereunto subscribed my name and affixed the corporate seal of the Arch Insurance Company on this _____ day of APR 17 2015, 20_____.


Patrick K. Nails, Secretary

This Power of Attorney limits the acts of those named therein to the bonds and undertakings specifically named therein and they have no authority to bind the Company except in the manner and to the extent herein stated.

PLEASE SEND ALL CLAIM INQUIRIES RELATING TO THIS BOND TO THE FOLLOWING ADDRESS:

Arch Insurance – Surety Division
3 Parkway, Suite 1500
Philadelphia, PA 19102

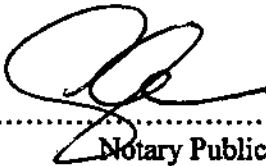


ACKNOWLEDGMENT OF SURETY COMPANY

STATE OF New York } ss
COUNTY OF Nassau }

On this APRIL 17, 2015 before me personally came..... SUSAN LUPSKI
to me know, who, being by me duly sworn, did depose and say; that he/she resides in
Nassau County....., State of NEW YORK....., that he/she is the Attorney-In-Fact of the
ARCH INSURANCE COMPANY.....the corporation described in which
executed the above instrument; that he/she knows the seal of said corporation; that the
seal affixed to said instrument is such corporate seal; that it was so affixed by order of
the Board of Directors of said corporation; and that he/she signed his/her name thereto by
like order; and the affiant did further depose and say that the Superintendent of Insurance
of the State of New York, has, pursuant to Section 1111 of the Insurance Law of the State
of New York, issued to..... ARCH INSURANCE COMPANY.....(Surety) his/her
certificate of qualification evidencing the qualification of said Company and its
sufficiency under any law of the State of New York as surety and guarantor, and the
propriety of accepting and approving it as such; and that such certificate has not been
revoked.

GRACE ACKERSON
Notary Public, State of New York
Nassau County
Lic. #01AC6111590
Term Expires June 14, 2016


.....
Notary Public

NY acknowledgment

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ARCH INSURANCE COMPANY
STATEMENT OF FINANCIAL CONDITION
DECEMBER 31, 2014

Assets

Cash in Banks	\$ 127,486,649
Bonds owned	2,003,424,640
Stocks	441,536,973
Premiums in course of collection	318,366,265
Accrued interest and other assets	<u>310,044,748</u>

Total Assets \$ 3,200,859,275

Liabilities


Reserve for losses and adjustment expenses	\$ 1,356,487,805
Reserve for unearned premiums	347,898,150
Ceded reinsurance premiums payable	168,613,930
Amounts withheld or retained by company for account of others	199,971,426
Reserve for taxes, expenses and other liabilities	<u>349,520,028</u>

Total Liabilities 2,422,491,339

Surplus as regards policyholders 778,367,936

Total Surplus and Liabilities \$ 3,200,859,275

By: 
Senior Vice President, Chief
Financial Officer and Treasurer

Attest: 
Senior Vice President,
General Counsel and Secretary

State of New Jersey)
) SS
County of Hudson)

Thomas James Ahern, Senior Vice President, Chief Financial Officer and Treasurer and Patrick Kenneth Nails, Senior Vice President, General Counsel and Secretary being duly sworn, of ARCH INSURANCE COMPANY, Missouri; and that the foregoing is a true and correct statement of financial condition of said company, as of December 31, 2014.

Subscribed and sworn to before me, this 10th day of March, 2015

Notary Public



MARY E. KEATING
NOTARY PUBLIC OF NEW JERSEY
ID # 2449626
My Commission Expires 8/28/2019

Payment Bond (Pages 100 to 103): Use for any contract for which a Payment Bond is required.

BOND NO. SU1132368

PAYMENT BOND (Page 1)

PAYMENT BOND**KNOW ALL PERSONS BY THESE PRESENTS, That we,** _____

MEM Contracting Corporation

335 Center Avenue, Mamaroneck, NY 10543

hereinafter referred to as the "Principal", and _____

Arch Insurance Company

Three Parkway, Suite 1500, Philadelphia, PA 19102

hereinafter referred to as the "Surety" ("Sureties") are held and firmly bound to **THE CITY OF NEW YORK**, hereinafter referred to as the "City" or to its successors and assigns, in the penal sum of

Thirty Seven Million Six Hundred Eighty Three Thousand Six Hundred Seventy Six

and 33/100 Dollars

37,683,676.33

(\$ _____) Dollars, lawful money of the United States, for the payment of which said sum of money well and truly to be made, we, and each of us, bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal is about to enter, or has entered, into a Contract in writing with the City for

MED598B Trunk Water Mains in West 30th Street between 10th Avenue and 9th Avenue Etc.

To Connect to Shaft 26B to the Distribution System - Borough of Manhattan.

a copy of which Contract is annexed to and hereby made a part of this bond as though herein set forth in full;

NOW, THEREFORE, the conditions of this obligation are such that if the Principal, his or its representatives or assigns and other Subcontractors to whom Work under this Contract is sublet and his or their successors and assigns shall promptly pay or cause to be paid all lawful claims for

(a) Wages and compensation for labor performed and services rendered by all persons engaged in the prosecution of the Work under said Contract, and any amendment or extension thereof or addition thereto, whether such persons be agents servants or employees of the Principal or any such Subcontractor, including all persons so engaged who perform the work of laborers or mechanics at or in the vicinity of the site

Payment Bond (Pages 100 to 103): Use for any contract for which a Payment Bond is required.

PAYMENT BOND (Page 2)

of the Project regardless of any contractual relationship between the Principal or such Subcontractors, or his or their successors or assigns, on the one hand and such laborers or mechanics on the other, but not including office employees not regularly stationed at the site of the project; and

(b) Materials and supplies (whether incorporated in the permanent structure or not), as well as teams, fuels, oils, implements or machinery furnished, used or consumed by said Principal or any subcontractor at or in the vicinity of the site of the Project in the prosecution of the Work under said Contract and any amendment or extension thereof or addition thereto; then this obligation shall be void, otherwise to remain in full force and effect.

This bond is subject to the following additional conditions, limitations and agreements:

(a) The Principal and Surety (Sureties) agree that this bond shall be for the benefit of any materialmen or laborer having a just claim, as well as the City itself.

(b) All persons who have performed labor, rendered services or furnished materials and supplies, as aforesaid, shall have a direct right of action against the Principal and his, its or their successors and assigns, and the Surety (Sureties) herein, or against either or both or any of them and their successors and assigns. Such persons may sue in their own name, and may prosecute the suit to judgment and execution without the necessity of joining with any other persons as party plaintiff.

(c) The Principal and Surety (Sureties) agree that neither of them will hold the City liable for any judgment for costs of otherwise, obtained by either or both of them against a laborer or materialman in a suit brought by either a laborer or materialman under this bond for moneys allegedly due for performing work or furnishing material.

(d) The Surety (Sureties) or its successors and assigns shall not be liable for any compensation recoverable by an employee or laborer under the Workmen's Compensation Law.

(e) In no event shall the Surety (Sureties), or its successors or assigns, be liable for a greater sum than the penalty of this bond or be subject to any suit, action or proceeding hereon that is instituted by any person, firm, or corporation hereunder later than two years after the complete performance of said Contract and final settlement thereof.

The Principal, for himself and his successors and assigns, and the Surety (Sureties), for itself and its successors and assigns, do hereby expressly waive any objection that might be interposed as to the right of the City to require a bond containing the foregoing provisions, and they do hereby further expressly waive any defense which they or either of them might interpose to an action brought hereon by any person, firm or corporation, including subcontractors, materialmen and third persons, for work, labor, services, supplies or material performed rendered, or furnished as aforesaid upon the ground that there is no law authorizing the City to require the foregoing provisions to be place in this bond.

And the Surety (Sureties), for value received, for itself and its successors and assigns, hereby stipulates and agrees that the obligation of said Surety (Sureties), and its bonds shall be in no way impaired or affected by any extension of time, modification, omission, addition, or change in or of the said Contract or the work to be performed thereunder, or by any payment thereunder before the time required therein, or by any waiver of any provisions thereof, or by any assignment, subletting or other transfer thereof or of any part thereof, or of any Work to be performed, or any moneys due to become due thereunder and said Surety (Sureties) does hereby waive notice of any and all of such extensions, modifications, omissions, additions, changes, payments, waivers, assignments, subcontracts and transfers, and hereby expressly stipulates and agrees that any and all things done and omitted to be done by and in relation to assignees, Subcontractors, and other transferees shall have the same effect as to said Surety (Sureties) as though done or omitted to be done or in relation to said Principal.

Payment Bond (Pages 100 to 103): Use for any contract for which a Payment Bond is required.

PAYMENT BOND (Page 3)

IN WITNESS WHEREOF, the Principal and the Surety (Sureties) have hereunto set their hands and seals, and such of them as are corporations have caused their corporate seals to be hereunto affixed and these presents to be signed by their proper officers, this 17th day of April, 2015

(Seal)

MEM Contracting Corporation (U.S.)
Principal
By: [Signature]

(Seal)

Arch Insurance Company
Surety
By: [Signature]
Susan Lupski, Attorney-in-Fact

(Seal)

Surety
By: _____

(Seal)

Surety
By: _____

(Seal)

Surety
By: _____

If the Contractor (Principal) is a partnership, the bond should be signed by each of the individuals who are partners.

If the Contractor (Principal) is a corporation, the bond should be signed in its correct corporate name by a duly authorized officer, agent, or attorney-in-fact.

There should be executed an appropriate number of counterparts of the bond corresponding to the number of counterparts of the Contract.

Payment Bond (Pages 100 to 103): Use for any contract for which a Payment Bond is required.

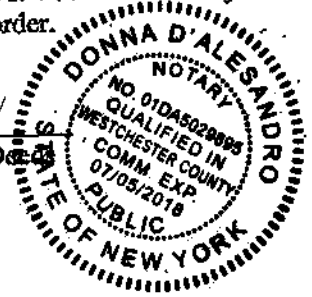
PAYMENT BOND (Page 4)

ACKNOWLEDGMENT OF PRINCIPAL, IF A CORPORATION

State of New York County of Westchester ss:

On this 20th day of April, 2015, before me personally came Michael V. Petrillo to me known, who, being by me duly sworn did depose and say that he resides at Purchase, N.Y. 10577 that he is the President of the corporation described in and which executed the foregoing instrument; that he knows the seal of said corporation; that one of the seals affixed to said instrument is such seal; that it was so affixed by order of the directors of said corporation, and that he signed his name thereto by like order.

Donna D'Alessandro
Notary Public or Commissioner of Deeds



ACKNOWLEDGMENT OF PRINCIPAL, IF A PARTNERSHIP

State of _____ County of _____ ss:

On this _____ day of _____, before me personally appeared _____ to me known, and known to me to be one of the members of the firm of _____ described in and who executed the foregoing instrument; and he acknowledged to me that he executed the same as and for the act and deed of said firm.

Notary Public or Commissioner of Deeds

ACKNOWLEDGMENT OF PRINCIPAL, IF AN INDIVIDUAL

State of _____ County of _____ ss:

On this _____ day of _____, before me personally appeared _____ to me known, and known to me to be the person described in and who executed the foregoing instrument; and acknowledged that he executed the same.

Notary Public or Commissioner of Deeds

Each executed bond should be accompanied by: (a) appropriate acknowledgments of the respective parties; (b) appropriate duly certified copy of Power of Attorney or other certificate of authority where bond is executed by agent, officer or other representative of Principal or Surety; (c) a duly certified extract from By-Laws or resolutions of Surety under which Power of Attorney or other certificate of authority of its agent, officer or representative was issued, and (d) certified copy of latest published financial statement of assets and liabilities of Surety.

Affix Acknowledgments and Justification of Sureties.



THIS POWER OF ATTORNEY IS NOT VALID UNLESS IT IS PRINTED ON BLUE BACKGROUND.

This Power of Attorney limits the acts of those named herein, and they have no authority to bind the Company except in the manner and to the extent herein stated. Not valid for Mortgage, Note, Loan, Letter of Credit, Bank Deposit, Currency Rate, Interest Rate or Residential Value Guarantees.

POWER OF ATTORNEY

Know All Persons By These Presents:

That the Arch Insurance Company, a corporation organized and existing under the laws of the State of Missouri, having its principal administrative office in Jersey City, New Jersey (hereinafter referred to as the "Company") does hereby appoint:

Camille Maitland, Colette R. Chisholm, Desiree Cardlin, George O. Brewster, Gerard S. Macholz, Lee Ferrucci, Nelly Benchwich, Rita Sagliano, Robert T. Pearson, Susan Lupski, Thomas Bean and Vincent A. Walsh of Uniondale, NY (EACH)

its true and lawful Attorney(s)-in-Fact, to make, execute, seal, and deliver from the date of issuance of this power for and on its behalf as surety, and as its act and deed:

Any and all bonds, undertakings, recognizances and other surety obligations, in the penal sum not exceeding Ninety Million Dollars (\$90,000,000.00).

This authority does not permit the same obligation to be split into two or more bonds in order to bring each such bond within the dollar limit of authority as set forth herein.

The execution of such bonds, undertakings, recognizances and other surety obligations in pursuance of these presents shall be as binding upon the said Company as fully and amply to all intents and purposes, as if the same had been duly executed and acknowledged by its regularly elected officers at its principal administrative office in Jersey City, New Jersey.

This Power of Attorney is executed by authority of resolutions adopted by unanimous consent of the Board of Directors of the Company on September 15, 2011, true and accurate copies of which are hereinafter set forth and are hereby certified to by the undersigned Secretary as being in full force and effect:

"VOTED, That the Chairman of the Board, the President, or the Executive Vice President, or any Senior Vice President, of the Surety Business Division, or their appointees designated in writing and filed with the Secretary, or the Secretary shall have the power and authority to appoint agents and attorneys-in-fact, and to authorize them subject to the limitations set forth in their respective powers of attorney, to execute on behalf of the Company, and attach the seal of the Company thereto, bonds, undertakings, recognizances and other surety obligations obligatory in the nature thereof, and any such officers of the Company may appoint agents for acceptance of process."

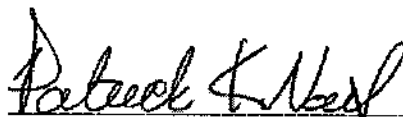
This Power of Attorney is signed, sealed and certified by facsimile under and by authority of the following resolution adopted by the unanimous consent of the Board of Directors of the Company on September 15, 2011:

VOTED, That the signature of the Chairman of the Board, the President, or the Executive Vice President, or any Senior Vice President, of the Surety Business Division, or their appointees designated in writing and filed with the Secretary, and the signature of the Secretary, the seal of the Company, and certifications by the Secretary, may be affixed by facsimile on any power of attorney or bond executed pursuant to the resolution adopted by the Board of Directors on September 15, 2011, and any such power so executed, sealed and certified with respect to any bond or undertaking to which it is attached, shall continue to be valid and binding upon the Company.

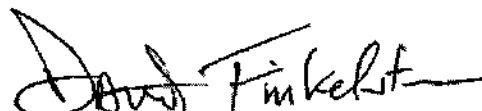
In Testimony Whereof, the Company has caused this instrument to be signed and its corporate seal to be affixed by their authorized officers, this 9th day of March, 2015.

Attested and Certified

Arch Insurance Company


Patrick K. Nails, Secretary

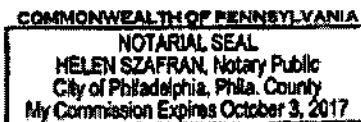


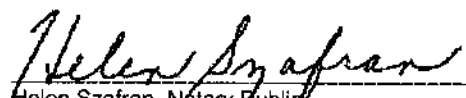

David M. Finkelstein, Executive Vice President

STATE OF PENNSYLVANIA SS

COUNTY OF PHILADELPHIA SS

I, Helen Szafran, a Notary Public, do hereby certify that Patrick K. Nails and David M. Finkelstein personally known to me to be the same persons whose names are respectively as Secretary and Executive Vice President of the Arch Insurance Company, a Corporation organized and existing under the laws of the State of Missouri, subscribed to the foregoing instrument, appeared before me this day in person and severally acknowledged that they being thereunto duly authorized signed, sealed with the corporate seal and delivered the said instrument as the free and voluntary act of said corporation and as their own free and voluntary acts for the uses and purposes therein set forth.





Helen Szafran, Notary Public
My commission expires 10/03/2017

CERTIFICATION

I, Patrick K. Nails, Secretary of the Arch Insurance Company, do hereby certify that the attached Power of Attorney dated March 9, 2015 on behalf of the person(s) as listed above is a true and correct copy and that the same has been in full force and effect since the date thereof and is in full force and effect on the date of this certificate; and I do further certify that the said David M. Finkelstein, who executed the Power of Attorney as Executive Vice President, was on the date of execution of the attached Power of Attorney the duly elected Executive Vice President of the Arch Insurance Company.

IN TESTIMONY WHEREOF, I have hereunto subscribed my name and affixed the corporate seal of the Arch Insurance Company on this _____ day of APR 17 2015, 20_____.


Patrick K. Nails, Secretary

This Power of Attorney limits the acts of those named therein to the bonds and undertakings specifically named therein and they have no authority to bind the Company except in the manner and to the extent herein stated.

PLEASE SEND ALL CLAIM INQUIRIES RELATING TO THIS BOND TO THE FOLLOWING ADDRESS:

Arch Insurance – Surety Division
3 Parkway, Suite 1500
Philadelphia, PA 19102



ACKNOWLEDGMENT OF SURETY COMPANY

STATE OF New York } ss
COUNTY OF Nassau }

On this APRIL 17, 2015, before me personally came SUSAN LUPSKI
to me know, who, being by me duly sworn, did depose and say; that he/she resides in
Nassau County, State of NEW YORK, that he/she is the Attorney-In-Fact of the
ARCH INSURANCE COMPANY the corporation described in which
executed the above instrument; that he/she knows the seal of said corporation; that the
seal affixed to said instrument is such corporate seal; that it was so affixed by order of
the Board of Directors of said corporation; and that he/she signed his/her name thereto by
like order; and the affiant did further depose and say that the Superintendent of Insurance
of the State of New York, has, pursuant to Section 1111 of the Insurance Law of the State
of New York, issued to ARCH INSURANCE COMPANY (Surety) his/her
certificate of qualification evidencing the qualification of said Company and its
sufficiency under any law of the State of New York as surety and guarantor, and the
propriety of accepting and approving it as such; and that such certificate has not been
revoked.

GRACE ACKERSON
Notary Public, State of New York
Nassau County
Lic. #01AC6111590
Term Expires June 14, 2016


Notary Public

NY acknowledgment

ARCH INSURANCE COMPANY
STATEMENT OF FINANCIAL CONDITION
DECEMBER 31, 2014

Assets

Cash in Banks	\$ 127,486,649
Bonds owned	2,003,424,640
Stocks	441,536,973
Premiums in course of collection	318,366,265
Accrued interest and other assets	<u>310,044,748</u>

Total Assets \$ 3,200,859,275

Liabilities

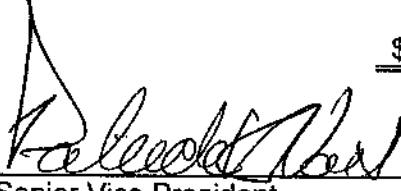
Reserve for losses and adjustment expenses	\$ 1,356,487,805
Reserve for unearned premiums	347,898,150
Ceded reinsurance premiums payable	168,613,930
Amounts withheld or retained by company for account of others	199,971,426
Reserve for taxes, expenses and other liabilities	<u>349,520,028</u>

Total Liabilities 2,422,491,339

Surplus as regards policyholders 778,367,936

Total Surplus and Liabilities \$ 3,200,859,275

By: 
Senior Vice President, Chief
Financial Officer and Treasurer

Attest: 
Senior Vice President,
General Counsel and Secretary

State of New Jersey)
) SS
County of Hudson)

Thomas James Ahern, Senior Vice President, Chief Financial Officer and Treasurer and Patrick Kenneth Nails, Senior Vice President, General Counsel and Secretary being duly sworn, of ARCH INSURANCE COMPANY, Missouri; and that the foregoing is a true and correct statement of financial condition of said company, as of December 31, 2014.

Subscribed and sworn to before me, this 10th day of March, 2015

Notary Public



MARY E. KEATING
NOTARY PUBLIC OF NEW JERSEY
ID # 2449626
My Commission Expires 8/28/2019

Performance Bond #1 (Pages 92 to 95): Use if the total contract price is \$5 Million Or Less. Performance Bond #1 has been approved by the U.S. Small Business Administration ("SBA") for participation in its Bond Guarantee Program.

PERFORMANCE BOND #1 (Page 2)

good any such default and shall protect the said City of New York against, and pay any and all amounts, damages, cost and judgments which may or shall be recovered against said City or its officers or agents or which the said City of New York may be called upon to pay any person or corporation by reason of any damages arising or growing out of the Principal's default of the Contract, then this obligation shall be null and void, otherwise to remain in full force and effect.

The Surety (Sureties), for value received, hereby stipulates and agrees, upon written notice from the City that the City has determined that the Principal is in default of the Contract, to (1) pay the City the cost to complete the contract as determined by the City in excess of the balance of the Contract held by the City, plus any damages or costs to which the City is entitled, up to the full amount of the above penal sum, (2) fully perform and complete the Work to be performed under the Contract, pursuant to the terms, conditions, and covenants thereof, or (3) tender a completion Contractor that is acceptable to the City. The Surety (Sureties) further agrees, at its option, either to notify the City that it elects to pay the city the cost of completion plus any applicable damages and costs under option (1) above, or to commence and diligently perform the Work specified in the Contract, including physical site work, within twenty-five (25) business days after written notice thereof from the City and, if the Surety elects to fully perform and complete the Work, then to complete all Work within the time set forth in the Contract or such other time as agreed to between the City and Surety in accordance with the Contract. If the Surety elects to tender payment pursuant to (1) above, then the Surety shall tender such amount within fifteen (15) business days notification from the City of the cost of completion. The Surety and the City reserve all rights and defenses each may have against the other; provided, however, that the Surety expressly agrees that its reservation of rights shall not provide a basis for non-performance of its obligation to pay the City the cost of completion, to commence and complete all Work as provided herein, or to tender a completion contractor.

The Surety (Sureties), for value received, for itself and its successors and assigns, hereby stipulates and agrees that the obligation of said Surety (Sureties) and its bond shall be in no way impaired or affected by any extension of time, modification, omission, addition, or change in or to the said Contract or the Work to be performed thereunder, or by any payment thereunder before the time required therein, or by any waiver of any provisions thereof, or any moneys due or to become due thereunder; and said Surety (Sureties) does hereby waive notice of any and all of such extensions, modifications, omissions, additions, changes, payments, and waivers, and hereby expressly stipulates and agrees that any and all things done and omitted to be done by and in relation to subcontractors shall have the same effect as to said Surety (Sureties) as though done or omitted to be done by or in relation to said Principal. Notwithstanding the above, if the City makes payments to the Principal before the time required by the contract that in the aggregate exceed \$100,000 or 10% of the Contract price, whichever is less, and that have not become earned prior to the Principal being found to be in default, then all payments made to the Principal before the time required by the Contract shall be added to the remaining contract value available to be paid for the completion of the Contract as if such sums had not been paid to the Principal, but shall not provide a basis for non-performance of its obligation to pay the City the cost of completion, to commence and to complete all Work as provided herein, or to tender a completion contractor.

Performance Bond #1 (Pages 92 to 95): Use if the total contract price is \$5 Million Or Less. Performance Bond #1 has been approved by the U.S. Small Business Administration ("SBA") for participation in its Bond Guarantee Program.

PERFORMANCE BOND #1 (Page 3)

IN WITNESS WHEREOF, The Principal and the Surety (Sureties) have hereunto set their hands and seals, and such of them as are corporations have caused their corporate seals to be hereunto affixed and these presents to be signed by their proper officers, this

_____ day of _____, 20_____
(Seal)

Principal (L.S.)

By: _____
(Seal) Surety

By: _____
(Seal) Surety

By: _____
(Seal) Surety

By: _____
(Seal) Surety

By: _____
(Seal) Surety

By: _____

Bond Premium Rate _____

Bond Premium Cost _____

If the Contractor (Principal) is a partnership, the bond should be signed by each of the individuals who are partners.

If the Contractor (Principal) is a corporation, the bond should be signed in its correct corporate name by a duly authorized officer, agent, or attorney-in-fact.

There should be executed an appropriate number of counterparts of the bond corresponding to the number of counterparts of the Contract.

Performance Bond #1 (Pages 92 to 95): Use if the total contract price is \$5 Million Or Less. Performance Bond #1 has been approved by the U.S. Small Business Administration ("SBA") for participation in its Bond Guarantee Program.

PERFORMANCE BOND #1 (Page 4)

ACKNOWLEDGMENT OF PRINCIPAL IF A CORPORATION

State of _____ County of _____ ss:

On this _____ day of _____, 20 _____ before me personally came _____

to me known, who, being by me duly sworn did depose and say that he/she resides at _____

_____ ; that he/she is the _____ of the corporation described in and which executed the foregoing instrument; and that he/she signed his/her name to the foregoing instrument by order of the directors of said corporation as the duly authorized and binding act thereof.

Notary Public or Commissioner of Deeds.

ACKNOWLEDGMENT OF PRINCIPAL IF A PARTNERSHIP

State of _____ County of _____ ss:

On this _____ day of _____, 20 _____ before me personally came _____

to me known, who, being by me duly sworn did depose and say that he/she resides at _____

_____ ; that he/she is _____ partner of _____, a limited/general partnership existing under the laws of the State of _____, the partnership described in and which executed the foregoing instrument; and that he/she signed his/her name to the foregoing instrument as the duly authorized and binding act of said partnership.

Notary Public or Commissioner of Deeds.

ACKNOWLEDGMENT OF PRINCIPAL IF AN INDIVIDUAL

State of _____ County of _____ ss:

On this _____ day of _____, 20 _____ before me personally came _____

to me known, who, being by me duly sworn did depose and say that he/she resides at _____

_____ , and that he/she is the individual whose name is subscribed to the within instrument and acknowledged to me that by his/her signature on the instrument, said individual executed the instrument.

Notary Public or Commissioner of Deeds

Each executed bond should be accompanied by: (a) appropriate acknowledgments of the respective parties; (b) appropriate duly certified copy of Power of Attorney or other certificate of authority where bond is executed by agent, officer or other representative of Principal or Surety; (c) a duly certified extract from By-Laws or resolutions of Surety under which Power of Attorney or other certificate of authority of its agent, officer or representative was issued, and (d) certified copy of latest published financial statement of assets and liabilities of Surety.

Affix Acknowledgments and Justification of Sureties.

Performance Bond #2 (Pages 96 to 99): Use if the total contract price is more than \$5 Million.

PERFORMANCE BOND #2 (Page 1)

PERFORMANCE BOND #2

KNOW ALL PERSONS BY THESE PRESENTS:,

That we, _____

hereinafter referred to as the "Principal,"
and, _____

hereinafter referred to as the "Surety" ("Sureties") are held and firmly bound to THE CITY OF NEW YORK, hereinafter referred to as the "City" or to its successors and assigns in the penal sum of _____

(\$ _____) Dollars, lawful money of the United States for the payment of which said sum of money well and truly to be made, we, and each of us, bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal is about to enter, or has entered, into a Contract in writing with the City for _____

a copy of which Contract is annexed to and hereby made a part of this bond as though herein set forth in full;

NOW, THEREFORE, the conditions of this obligation are such that if the Principal, his or its representatives or assigns, shall well and faithfully perform the said Contract and all modifications, amendments, additions and alterations thereto that may hereafter be made, according to its terms and its true intent and meaning, including repair and or replacement of defective work and guarantees of maintenance for the periods stated in the Contract, and shall fully indemnify and save harmless the City from all cost and damage which it may suffer by reason of the Principal's default of the Contract, and shall fully reimburse and repay the City for all outlay and expense which the City may incur in making

Performance Bond #2 (Pages 96 to 99): Use if the total contract price is more than \$5 Million.

PERFORMANCE BOND #2 (Page 2)

good any such default and shall protect the said City of New York against, and pay any and all amounts, damages, cost and judgments which may or shall be recovered against said City or its officers or agents or which the said City of New York may be called upon to pay any person or corporation by reason of any damages arising or growing out of the Principal's default of the Contract, then this obligation shall be null and void, otherwise to remain in full force and effect.

The Surety (Sureties), for value received, hereby stipulates and agrees, upon written notice from the City that the City has determined that the Principal is in default of the Contract, to either (1) pay the full amount of the above penal sum in complete discharge and exoneration of this bond and of all the liabilities of the Surety relating to this bond, or (2) fully perform and complete the Work to be performed under the Contract, pursuant to the terms, conditions, and covenants thereof. The Surety (Sureties) further agrees, at its option, either to tender the penal sum or to commence and diligently perform the Work specified in the Contract, including physical site work, within twenty-five (25) business days after written notice thereof from the City and to complete all Work within the time set forth in the Contract or such other time as agreed to between the City and Surety in accordance with the Contract. The Surety and the City reserve all rights and defenses each may have against the other; provided, however, that the Surety expressly agrees that its reservation of rights shall not provide a basis for non-performance of its obligation to commence and to complete all Work as provided herein.

The Surety (Sureties), for value received, for itself and its successors and assigns, hereby stipulates and agrees that the obligation of said Surety (Sureties) and its bond shall be in no way impaired or affected by any extension of time, modification, omission, addition, or change in or to the said Contract or the Work to be performed thereunder, or by any payment thereunder before the time required therein, or by any waiver of any provisions thereof, or by any assignment, subletting or other transfer thereof or of any Work to be performed or any moneys due or to become due thereunder; and said Surety (Sureties) does hereby waive notice of any and all of such extensions, modifications, omissions, additions, changes, payments, waivers, assignments, subcontracts and transfers, and hereby expressly stipulates and agrees that any and all things done and omitted to be done by and in relation to assignees, subcontractors, and other transferees shall have the same effect as to said Surety (Sureties) as though done or omitted to be done by or in relation to said Principal.

Performance Bond #2 (Pages 96 to 99): Use if the total contract price is more than \$5 Million.

PERFORMANCE BOND #2 (Page 3)

IN WITNESS WHEREOF, The Principal and the Surety (Sureties) have hereunto set their hands and seals, and such of them as are corporations have caused their corporate seals to be hereunto affixed and these presents to be signed by their proper officers, this

_____ day of _____ 20_____ .

(Seal) _____ (L.S.)
Principal

By: _____

(Seal) _____
Surety

By: _____

(Seal) _____
Surety

By: _____

(Seal) _____
Surety

By: _____

(Seal) _____
Surety

By: _____

(Seal) _____
Surety

By: _____

Bond Premium Rate _____

Bond Premium Cost _____

If the Contractor (Principal) is a partnership, the bond should be signed by each of the individuals who are partners.

If the Contractor (Principal) is a corporation, the bond should be signed in its correct corporate name by a duly authorized officer, agent, or attorney-in-fact.

There should be executed an appropriate number of counterparts of the bond corresponding to the number of counterparts of the Contract.

Performance Bond #2 (Pages 96 to 99): Use if the total contract price is more than \$5 Million.

PERFORMANCE BOND #2 (Page 4)

ACKNOWLEDGMENT OF PRINCIPAL IF A CORPORATION

State of _____ County of _____ ss:

On this _____ day of _____, 20 _____ before me personally came _____

to me known, who, being by me duly sworn did depose and say that he resides at _____

_____ ; that he/she is the _____ of the corporation described in and which executed the foregoing instrument; that he/she signed his/her name to the foregoing instrument by order of the directors of said corporation as the duly authorized and binding act thereof.

Notary Public or Commissioner of Deeds.

ACKNOWLEDGMENT OF PRINCIPAL IF A PARTNERSHIP

State of _____ County of _____ ss:

On this _____ day of _____, 20 _____ before me personally came _____

to me known, who, being by me duly sworn did depose and say that he/she resides at _____

_____ ; that he/she is _____ partner of _____, a limited/general partnership existing under the laws of the State of _____, the partnership described in and which executed the foregoing instrument; and that he/she signed his/her name to the foregoing instrument as the duly authorized and binding act of said partnership.

Notary Public or Commissioner of Deeds

ACKNOWLEDGMENT OF PRINCIPAL IF AN INDIVIDUAL

State of _____ County of _____ ss:

On this _____ day of _____, 20 _____ before me personally came _____

to me known, who, being by me duly sworn did depose and say that he/she resides at _____

_____ , and that he/she is the individual whose name is subscribed to the within instrument and acknowledged to me that by his/her signature on the instrument, said individual executed the instrument.

Notary Public or Commissioner of Deeds

Each executed bond should be accompanied by: (a) appropriate acknowledgments of the respective parties; (b) appropriate duly certified copy of Power of Attorney or other certificate of authority where bond is executed by agent, officer or other representative of Principal or Surety; (c) a duly certified extract from By-Laws or resolutions of Surety under which Power of Attorney or other certificate of authority of its agent, officer or representative was issued, and (d) certified copy of latest published financial statement of assets and liabilities of Surety.

Affix Acknowledgments and Justification of Sureties.

Payment Bond (Pages 100 to 103): Use for any contract for which a Payment Bond is required.

PAYMENT BOND (Page 1)

PAYMENT BOND

KNOW ALL PERSONS BY THESE PRESENTS, That we, _____

hereinafter referred to as the "Principal", and _____

hereinafter referred to as the "Surety" ("Sureties") are held and firmly bound to THE CITY OF NEW YORK, hereinafter referred to as the "City" or to its successors and assigns, in the penal sum of

(\$ _____) Dollars, lawful money of the United States, for the payment of which said sum of money well and truly to be made, we, and each of us, bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal is about to enter, or has entered, into a Contract in writing with the City for

a copy of which Contract is annexed to and hereby made a part of this bond as though herein set forth in full;

NOW, THEREFORE, the conditions of this obligation are such that if the Principal, his or its representatives or assigns and other Subcontractors to whom Work under this Contract is sublet and his or their successors and assigns shall promptly pay or cause to be paid all lawful claims for

(a) Wages and compensation for labor performed and services rendered by all persons engaged in the prosecution of the Work under said Contract, and any amendment or extension thereof or addition thereto, whether such persons be agents servants or employees of the Principal or any such Subcontractor, including all persons so engaged who perform the work of laborers or mechanics at or in the vicinity of the site

Payment Bond (Pages 100 to 103): Use for any contract for which a Payment Bond is required.

PAYMENT BOND (Page 2)

of the Project regardless of any contractual relationship between the Principal or such Subcontractors, or his or their successors or assigns, on the one hand and such laborers or mechanics on the other, but not including office employees not regularly stationed at the site of the project; and

(b) Materials and supplies (whether incorporated in the permanent structure or not), as well as teams, fuels, oils, implements or machinery furnished, used or consumed by said Principal or any subcontractor at or in the vicinity of the site of the Project in the prosecution of the Work under said Contract and any amendment or extension thereof or addition thereto; then this obligation shall be void, otherwise to remain in full force and effect.

This bond is subject to the following additional conditions, limitations and agreements:

(a) The Principal and Surety (Sureties) agree that this bond shall be for the benefit of any materialmen or laborer having a just claim, as well as the City itself.

(b) All persons who have performed labor, rendered services or furnished materials and supplies, as aforesaid, shall have a direct right of action against the Principal and his, its or their successors and assigns, and the Surety (Sureties) herein, or against either or both or any of them and their successors and assigns. Such persons may sue in their own name, and may prosecute the suit to judgment and execution without the necessity of joining with any other persons as party plaintiff.

(c) The Principal and Surety (Sureties) agree that neither of them will hold the City liable for any judgment for costs of otherwise, obtained by either or both of them against a laborer or materialman in a suit brought by either a laborer or materialman under this bond for moneys allegedly due for performing work or furnishing material.

(d) The Surety (Sureties) or its successors and assigns shall not be liable for any compensation recoverable by an employee or laborer under the Workmen's Compensation Law.

(e) In no event shall the Surety (Sureties), or its successors or assigns, be liable for a greater sum than the penalty of this bond or be subject to any suit, action or proceeding hereon that is instituted by any person, firm, or corporation hereunder later than two years after the complete performance of said Contract and final settlement thereof.

The Principal, for himself and his successors and assigns, and the Surety (Sureties), for itself and its successors and assigns, do hereby expressly waive any objection that might be interposed as to the right of the City to require a bond containing the foregoing provisions, and they do hereby further expressly waive any defense which they or either of them might interpose to an action brought hereon by any person, firm or corporation, including subcontractors, materialmen and third persons, for work, labor, services, supplies or material performed rendered, or furnished as aforesaid upon the ground that there is no law authorizing the City to require the foregoing provisions to be place in this bond.

And the Surety (Sureties), for value received, for itself and its successors and assigns, hereby stipulates and agrees that the obligation of said Surety (Sureties), and its bonds shall be in no way impaired or affected by any extension of time, modification, omission, addition, or change in or of the said Contract or the work to be performed thereunder, or by any payment thereunder before the time required therein, or by any waiver of any provisions thereof, or by any assignment, subletting or other transfer thereof or of any part thereof, or of any Work to be performed, or any moneys due to become due thereunder and said Surety (Sureties) does hereby waive notice of any and all of such extensions, modifications, omissions, additions, changes, payments, waivers, assignments, subcontracts and transfers, and hereby expressly stipulates and agrees that any and all things done and omitted to be done by and in relation to assignees, Subcontractors, and other transferees shall have the same effect as to said Surety (Sureties) as though done or omitted to be done or in relation to said Principal.

Payment Bond (Pages 100 to 103): Use for any contract for which a Payment Bond is required.

PAYMENT BOND (Page 3)

IN WITNESS WHEREOF, the Principal and the Surety (Sureties) have hereunto set their hands and seals, and such of them as are corporations have caused their corporate seals to be hereunto affixed and these presents to be signed by their proper officers, this _____ day of _____, _____.

(Seal) _____ (L.S.)
Principal

By: _____

(Seal) _____
Surety

By: _____

(Seal) _____
Surety

By: _____

(Seal) _____
Surety

By: _____

(Seal) _____
Surety

By: _____

If the Contractor (Principal) is a partnership, the bond should be signed by each of the individuals who are partners.

If the Contractor (Principal) is a corporation, the bond should be signed in its correct corporate name by a duly authorized officer, agent, or attorney-in-fact.

There should be executed an appropriate number of counterparts of the bond corresponding to the number of counterparts of the Contract.

Payment Bond (Pages 100 to 103): Use for any contract for which a Payment Bond is required.

PAYMENT BOND (Page 4)

ACKNOWLEDGMENT OF PRINCIPAL, IF A CORPORATION

State of _____ County of _____ ss:

On this ____ day of _____, _____, before me personally came _____ to me known, who, being by me duly sworn did depose and say that he resides at _____ that he is the _____ of the corporation described in and which executed the foregoing instrument; that he knows the seal of said corporation; that one of the seals affixed to said instrument is such seal; that it was so affixed by order of the directors of said corporation, and that he signed his name thereto by like order.

Notary Public or Commissioner of Deeds

ACKNOWLEDGMENT OF PRINCIPAL, IF A PARTNERSHIP

State of _____ County of _____ ss:

On this ____ day of _____, _____, before me personally appeared _____ to me known, and known to me to be one of the members of the firm of _____ described in and who executed the foregoing instrument; and he acknowledged to me that he executed the same as and for the act and deed of said firm.

Notary Public or Commissioner of Deeds

ACKNOWLEDGMENT OF PRINCIPAL, IF AN INDIVIDUAL

State of _____ County of _____ ss:

On this ____ day of _____, _____, before me personally appeared _____ to me known, and known to me to be the person described in and who executed the foregoing instrument; and acknowledged that he executed the same.

Notary Public or Commissioner of Deeds

Each executed bond should be accompanied by: (a) appropriate acknowledgments of the respective parties; (b) appropriate duly certified copy of Power of Attorney or other certificate of authority where bond is executed by agent, officer or other representative of Principal or Surety; (c) a duly certified extract from By-Laws or resolutions of Surety under which Power of Attorney or other certificate of authority of its agent, officer or representative was issued, and (d) certified copy of latest published financial statement of assets and liabilities of Surety.

Affix Acknowledgments and Justification of Sureties.

(NO TEXT ON THIS PAGE)

SCHEDULE OF WORKMEN, MECHANICS AND LABORERS

The following is a list of classifications for workmen, mechanics and laborers which are anticipated to be employed in the performance of work under this contract, followed by a schedule of the prevailing wage rates and supplemental benefits for all classifications as established by the Comptroller of the City of New York.

Request for interpretation or correction under Subsection A of Section No. 3 in the Information for Bidders includes all requests for clarification of the classification of trades to be employed in the performance of the work under this contract.

In the event that a trade not listed in the classification of trades required to be used at the time of the award of the contract is in fact employed during the performance of this contract, the Contractor shall be required to obtain from the agency the prevailing wage rates and supplementary benefits for the trades used and to complete the performance of this contract at the price at which the contract was awarded.

<u>CODE</u>	<u>CLASSIFICATION</u>
15 42 001	Rigger
15 42 002	Sign Erector
16 11 001	Gardener
16 11 002	Tree Pruner
16 11 003	Tree Remover
16 11 011	Asphalt Raker (Highway & Paving)
16 11 012	Tamper (Highway & Paving)
16 11 013	Curbsetter (Highway & Paving)
16 11 014	Formsetter (Highway & Paving)
16 11 015	Rammerman (Highway & Paving)
16 11 016	Laborer (Highway & Paving)
16 11 017	ALL OTHER TITLES (Highway & Paving)
16 23 001	Laborer
16 23 002	Operating Engineer (Heavy Construction-Maintenance)
16 23 003	Junior Operating Engineer
16 23 004	Junior Operating Engineer
16 23 005	Junior Operating Engineer
16 23 006	Fireman (Heavy Construction)
16 23 007	Oiler (Heavy Construction)
16 23 051	Surveyor-Heavy Construction
16 23 052	Surveyor-Heavy Construction-Instrument Man
16 23 053	Surveyor-Heavy Construction-Rodman
16 23 057	Surveyor-Land Surveying-Party Chief
16 23 058	Surveyor-Land Surveying-Instrument Man
16 23 059	Surveyor-Land Surveying-Rodman

<u>CODE</u>	<u>CLASSIFICATION</u>
16 23 061	Operating Engineer-Road & Heavy Construction
16 23 062	Operating Engineer-Paving
16 23 063	Operating Engineer-Concrete
16 23 071	Teamster-Heavy Equipment Trailer Driver
16 23 072	Teamster-Dump Truck Driver
16 23 073	Teamster-Flat Bed Trailer Driver (3-Axle)
16 23 074	Teamster-Redi-Mix (Sand and Gravel)
16 29 011	Drill Runners
17 11 001	Plumbers
17 21 001	Painter (Brush & Roller)
17 31 001	Electrician
17 41 001	Bricklayer
17 41 002	Mason Tender
17 41 004	Cement Mason
17 42 002	Metallic Lather
17 51 001	Carpenter
17 51 002	Dock Builder
17 71 001	Cement & Concrete Worker
17 91 001	Structural Iron Worker
17 95 001	Barman
17 96 021	Derrickmen & Riggers
17 99 001	Ornamental Iron Worker
17 99 002	Sandblaster
17 99 005	Pointers (Waterproofer)
17 99 011	Welders

Each classification may include trainees depending upon project staffing schedules and as required by the terms of this contract.

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

LABOR LAW §220 PREVAILING WAGE SCHEDULE

Workers, Laborers and Mechanics employed on a public work project must receive not less than the prevailing rate of wage and benefits for the classification of work performed by each upon such public work. Pursuant to Labor Law §220 the Comptroller of the City of New York has promulgated this schedule solely for Workers, Laborers and Mechanics engaged by private contractors on New York City public work contracts.

This schedule is a compilation of separate determinations of the prevailing rate of wage and supplements made by the Comptroller for each trade classification listed herein pursuant to New York State Labor Law section 220 (5). The source of the wage and supplement rates, whether a collective bargaining agreement, survey data or other, is listed at the end of each classification.

Agency Chief Contracting Officers should contact the Bureau of Labor Law's Classification Unit with any questions concerning trade classifications, prevailing rates or prevailing practices with respect to procurement on New York City public works contracts. Contractors are advised to review the Comptroller's Prevailing Wage Schedule before bidding on public works contracts. Contractors with questions concerning trade classifications, prevailing rates or prevailing practices with respect to public works contracts in the procurement stage must contact the contracting agency responsible for the procurement.

Any error as to compensation under the prevailing wage law or other information as to trade classification, made by the contracting agency in the contract documents or in any other communication, will not preclude a finding against the contractor of prevailing wage violation.

Any questions concerning trade classifications, prevailing rates or prevailing practices on New York City public works contracts that have already been awarded may be directed to the Bureau of Labor Law's Classification Unit by calling (212) 669-7974. All callers must have the agency name and contract registration number available when calling with questions on public works contracts. Please direct all other compliance issues to: Bureau of Labor Law, Attn: Wasyl Kinach, P.E., Office of the Comptroller, 1 Centre Street, Room 1122, New York, N.Y. 10007; Fax (212) 669-4002.

The appropriate schedule of prevailing wages and benefits must be posted at all public work sites pursuant to Labor Law §220 (3-a) (a).

This schedule is applicable to work performed during the effective period, unless otherwise noted. Changes to this schedule are published on our web site www.comptroller.nyc.gov. Contractors must pay the wages and supplements in effect when the worker, laborer, mechanic performs the work. Preliminary schedules for future one-year periods appear in the City Record on or about June 1 each succeeding year. Final schedules appear on or about July 1 in the City Record and on our web site www.comptroller.nyc.gov.

The Comptroller's Office has attempted to include all overtime, shift and night differential, Holiday, Saturday, Sunday or other premium time work. However, this schedule does not set forth every prevailing practice with respect to such rates with which employers must comply. All such practices are nevertheless part of the employer's prevailing wage obligation and contained in the collective bargaining agreements of the prevailing wage unions. These collective bargaining agreements are available for inspection by appointment. Requests for appointments may be made by calling (212) 669-4443, Monday through Friday between the hours of 9 a.m. and 5 p.m.

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Prevailing rates and ratios for apprentices are attached to this schedule in the Appendix. Pursuant to Labor Law §220 (3-e), only apprentices who are individually registered in a bona fide program to which the employer contractor is a participant, registered with the New York State Department of Labor, may be employed on a public work project. Workers who are not journey persons or not registered apprentices pursuant to Labor Law §220 (3-e) may not be substituted for apprentices and must be paid as journey persons.

Public Work construction, reconstruction, demolition, excavation, rehabilitation, repair, renovation, alteration, or improvement contracts awarded pursuant to a Project Labor Agreement ("PLA") in accordance with Labor Law section 222 may have different labor standards for shift, premium and overtime work. Please refer to the PLA's pre-negotiated labor agreements for wage and benefit rates applicable to work performed outside of the regular workday. More information is available at the Mayor's Office of Contract Services (MOCS) web page at <http://www.nyc.gov/html/mocs/html/vendors/pla.shtml>.

All the provisions of Labor Law section 220 remain applicable to PLA work including, but not limited to, the enforcement of prevailing wage requirements by the Comptroller; however, we will enforce shift, premium, overtime and other non-standard rates as they appear in a project's pre-negotiated labor agreement.

In order to meet their obligation to provide prevailing supplemental benefits to each covered employee, employers must either:

- 1) Provide bona-fide benefits which cost the employer no less than the prevailing supplemental benefits rate; or
- 2) Supplement the employee's hourly wage by an amount no less than the prevailing supplemental benefits rate; or
- 3) Provide a combination of bona-fide benefits and wage supplements which cost the employer no less than the prevailing supplemental benefits rate in total.

Particular attention should be given to the supplemental benefits requirement. Although in most instances the payment or provision for supplemental benefits is for each hour worked, some classifications require the payment or provision of supplemental benefits for each hour paid. Consequently, some prevailing practices require benefits to be purchased at the overtime, shift differential, Holiday, Saturday, Sunday or other premium time rate.

Benefits are paid for EACH HOUR WORKED unless otherwise noted.

Wasył Kinach, P.E.
Director of Classifications
Bureau of Labor Law

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

TABLE OF CONTENTS

<u>CLASSIFICATION</u>	<u>PAGE</u>
ASBESTOS HANDLER	5
BLASTER	5
BOILERMAKER.....	7
BRICKLAYER.....	8
CARPENTER - BUILDING COMMERCIAL	9
CARPENTER - HEAVY CONSTRUCTION WORK.....	10
CEMENT & CONCRETE WORKER.....	11
CEMENT MASON.....	11
CORE DRILLER	12
DERRICKPERSON AND RIGGER	14
DIVER	14
DOCKBUILDER - PILE DRIVER.....	15
DRIVER: TRUCK (TEAMSTER)	16
ELECTRICIAN	18
ELECTRICIAN - ALARM TECHNICIAN.....	22
ELECTRICIAN-STREET LIGHTING WORKER	23
ELEVATOR CONSTRUCTOR	24
ELEVATOR REPAIR & MAINTENANCE.....	25
ENGINEER	26
ENGINEER - CITY SURVEYOR AND CONSULTANT.....	31
ENGINEER - FIELD (BUILDING CONSTRUCTION)	32
ENGINEER - FIELD (HEAVY CONSTRUCTION)	33
ENGINEER - FIELD (STEEL ERECTION)	34
ENGINEER - OPERATING	35
FLOOR COVERER	42
GLAZIER	43
GLAZIER - REPAIR & MAINTENANCE	44
HEAT AND FROST INSULATOR	45
HOUSE WRECKER	46
IRON WORKER - ORNAMENTAL.....	47
IRON WORKER - STRUCTURAL.....	48
LABORER	48
LANDSCAPING	49
MARBLE MECHANIC.....	51
MASON TENDER	52

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

MASON TENDER (INTERIOR DEMOLITION WORKER).....	53
METALLIC LATHER.....	54
MILLWRIGHT	55
MOSAIC MECHANIC.....	56
PAINTER	57
PAINTER - SIGN.....	57
PAINTER - STRIPER.....	58
PAINTER - STRUCTURAL STEEL.....	59
PAPERHANGER	60
PAVER AND ROADBUILDER.....	61
PLASTERER	63
PLASTERER - TENDER.....	63
PLUMBER	64
PLUMBER (MECHANICAL EQUIPMENT AND SERVICE).....	65
PLUMBER (RESIDENTIAL RATES FOR 1, 2 AND 3 FAMILY HOME CONSTRUCTION).....	66
PLUMBER: PUMP & TANK.....	67
POINTER - WATERPROOFER, CAULKER MECHANIC (EXTERIOR BUILDING RENOVATION).....	67
ROOFER.....	68
SANDBLASTER - STEAMBLASTER	69
SHEET METAL WORKER.....	70
SHEET METAL WORKER - SPECIALTY.....	71
SHIPYARD WORKER.....	72
SIGN ERECTOR.....	73
STEAMFITTER.....	74
STEAMFITTER - REFRIGERATION AND AIR CONDITIONER	75
STONE MASON - SETTER.....	77
TAPER.....	78
TELECOMMUNICATION WORKER.....	79
TILE FINISHER.....	80
TILE LAYER - SETTER	80
TIMBERPERSON	81
TUNNEL WORKER	82
WELDER.....	84

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
\$220 PREVAILING WAGE SCHEDULE

ASBESTOS HANDLER

(Hazardous Material; Disturbs, removes, encapsulates, repairs, or encloses friable asbestos material)

Asbestos Handler

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: \$36.00

Supplemental Benefit Rate per Hour: \$15.45

Overtime

Time and one half the regular rate after an 8 hour day.

Time and one half the regular rate for Sunday.

Time and one half the regular hourly rate after 40 hours in any work week.

Overtime Holidays

Time and one half the regular rate for work on the following holiday(s).

New Year's Day

Good Friday

Memorial Day

Independence Day

Labor Day

Thanksgiving Day

Christmas Day

Easter

Paid Holidays

None

(Local #78 and Local #12A)

BLASTER

Blaster

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: \$45.70

Supplemental Benefit Rate per Hour: \$39.69

Blaster (Hydraulic)

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: \$46.49

Supplemental Benefit Rate per Hour: \$39.69

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
\$220 PREVAILING WAGE SCHEDULE

Blaster - Trac Drill Hydraulic

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate per Hour: \$41.20
Supplemental Benefit Rate per Hour: \$39.69

Blaster - Wagon: Air Trac: Quarry Bar: Drillrunners

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate per Hour: \$40.44
Supplemental Benefit Rate per Hour: \$39.69

Blaster - Operators of Jack Hammers

Chippers: Spaders: Concrete Breakers: and all other pneumatic tools of like usage: Walk Behind Self Propelled Hydraulic Asphalt and Concrete Breakers: Hydro (Water) Demolition

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate per Hour: \$39.43
Supplemental Benefit Rate per Hour: \$39.69

Blaster - Powder Carriers

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate per Hour: \$35.66
Supplemental Benefit Rate per Hour: \$39.69

Blaster - Hydraulic Trac Drill Chuck Tender

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate per Hour: \$34.42
Supplemental Benefit Rate per Hour: \$39.69

Blaster - Chuck Tender & Nipper

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate per Hour: \$33.69
Supplemental Benefit Rate per Hour: \$39.69

Blaster - Magazine Keepers: (Watch Person)

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate per Hour: \$20.30
Supplemental Benefit Rate per Hour: \$39.69

Overtime Description

Magazine Keepers:

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Time and one half for work performed in excess of forty (40) hours per week and for work performed on Saturdays, Sundays and Holidays.

All Other Employees:

Time and one-half for the first eight hours of work on Saturday and for Make-up Time. Double time for all hours over eight Monday through Friday (except make-up hours) and for all hours worked on Sunday and Holidays.

Overtime

Double time the regular rate after an 8 hour day.
Time and one half the regular rate for Saturday.
Double time the regular rate for Sunday.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).

New Year's Day
Memorial Day
Independence Day
Labor Day
Columbus Day
Presidential Election Day
Thanksgiving Day
Christmas Day

Paid Holidays

None

Shift Rates

A single shift shall be 8 hours plus an unpaid lunch, starting at 8:00 A.M (or between 6:00 A.M. and 10:00 A.M. on weekdays). When two (2) shifts are employed, each shift shall be 8 hours plus ½ hour unpaid lunch. When three (3) shifts are employed, each shift will work seven and one-half (7 ½) hours, but will be paid for eight (8) hours, since only one-half (½) hour is allowed for mealtime. When two (2) or more shifts are employed, single time will be paid for each shift. The first 8 hours of any and all work performed Monday through Friday inclusive of any off-shift shall be at the single time rate.

(Local #29)

BOILERMAKER

Boilermaker

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: \$50.45

Supplemental Benefit Rate per Hour: \$41.31

Supplemental Note: For time and one half overtime - \$61.37; For double overtime - \$81.43.

Overtime Description

For Repair and Maintenance work:

Time and one half the regular rate after an 8 hour day.
Time and one half the regular rate for Saturday.

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Double time the regular rate for Sunday.
For New Construction work:
Double time the regular rate after an 8 hour day.
Double time the regular time rate for Saturday.
Double time the regular rate for Sunday.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).

New Year's Day
President's Day
Memorial Day
Independence Day
Columbus Day
Election Day
Veteran's Day
Thanksgiving Day
Christmas Day

Quadruple time the regular rate for work on the following holiday(s).

Labor Day

Paid Holidays

Good Friday
Day after Thanksgiving
Day before Christmas
Day before New Year's Day

Shift Rates

When shifts are required, the first shift shall work eight (8) hours at the regular straight-time hourly rate. The second shift shall work seven and one-half (7 ½) hours and receive eight hours at the regular straight time hourly rate plus twenty-five cents (\$0.25) per hour. The third shift shall work seven (7) hours and receive eight hours at the regular straight time hourly rate plus fifty cents (\$0.50) per hour. A thirty (30) minute lunch period shall not be considered as time worked. Work in excess of the above shall be paid overtime at the appropriate new construction work or repair work overtime wage and supplemental benefit hourly rate.

(Local #5)

BRICKLAYER

Bricklayer

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: \$47.78

Supplemental Benefit Rate per Hour: \$28.03

Overtime

Time and one half the regular rate after a 7 hour day.
Time and one half the regular rate for Saturday.
Double time the regular rate for Sunday.

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Saturday may be used as a make-up day at straight time when a day is lost during that week to inclement weather.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).

New Year's Day
Memorial Day
Independence Day
Labor Day
Thanksgiving Day
Christmas Day

Paid Holidays

None

Shift Rates

Overtime rates to be paid outside the regular scheduled work day.

(Bricklayer District Council)

CARPENTER - BUILDING COMMERCIAL

Building Commercial

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: \$49.88

Supplemental Benefit Rate per Hour: \$44.10

Overtime

Time and half the regular rate after an 8 hour day.

Time and one half the regular rate for Saturday.

Double time the regular rate for Sunday.

Saturday may be used as a make-up day at straight time when a day is lost during that week to inclement weather.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).

New Year's Day
Washington's Birthday
Memorial Day
Independence Day
Labor Day
Columbus Day
Presidential Election Day
Thanksgiving Day
Day after Thanksgiving
Christmas Day

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Paid Holidays

None

Shift Rates

The second shift will receive one hour at the double time rate of pay for the last hour of the shift; eight hours pay for seven hours of work, nine hours pay for eight hours of work. There must be a first shift in order to work a second shift.

(Carpenters District Council)

CARPENTER - HEAVY CONSTRUCTION WORK
(Construction of Engineering Structures and Building Foundations)

Heavy Construction Work

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: \$48.35

Supplemental Benefit Rate per Hour: \$46.12

Overtime

Time and one half the regular rate after an 8 hour day.

Time and one half the regular rate for Saturday.

Double time the regular rate for Sunday.

Saturday may be used as a make-up day at straight time when a day is lost during that week to inclement weather.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).

New Year's Day

President's Day

Memorial Day

Independence Day

Labor Day

Columbus Day

Presidential Election Day

Thanksgiving Day

Christmas Day

Paid Holidays

None

Shift Rates

Off shift work commencing between 5:00 P.M. and 11:00 P.M. shall work eight and one half hours allowing for one half hour for lunch. The wage rate shall be 113% of the straight time hourly wage rate.

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Carpenters District Council)

CEMENT & CONCRETE WORKER

Cement & Concrete Worker

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: \$42.38

Supplemental Benefit Rate per Hour: \$26.17

Supplemental Note: \$28.92 on Saturdays; \$31.67 on Sundays & Holidays

Overtime Description

Time and one half the regular rate after 7 hour day (time and one half the regular rate after an 8 hour day when working with Dockbuilders on pile cap forms and for work below street level to the top of the foundation wall, not to exceed 2 feet or 3 feet above the sidewalk-brick shelf, when working on the foundation and structure.)

Overtime

Time and one half the regular rate for Saturday.
Double time the regular rate for Sunday.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).

New Year's Day

President's Day

Good Friday

Memorial Day

Independence Day

Labor Day

Columbus Day

Presidential Election Day

Thanksgiving Day

Christmas Day

Paid Holidays

1/2 day before Christmas Day

1/2 day before New Year's Day

Shift Rates

On shift work extending over a twenty-four hour period, all shifts are paid at straight time.

(Cement Concrete Workers District Council)

CEMENT MASON

Cement Mason

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: \$38.88

Supplemental Benefit Rate per Hour: \$39.80

Supplemental Note: For time and one half overtime - \$49.05; For double overtime - \$58.30

Overtime Description

Time and one-half the regular rate after an 8 hour day, double time the regular rate after 10 hours. Time and one-half the regular rate on Saturday, double time the regular rate after 10 hours. Double time the regular rate on Sunday.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).

New Year's Day

President's Day

Good Friday

Memorial Day

Independence Day

Labor Day

Columbus Day

Presidential Election Day

Thanksgiving Day

Christmas Day

Paid Holidays

Any worker who reports to work on Christmas Eve or New Year's Eve pursuant to his employer's instruction shall be entitled to three (3) hours afternoon pay without working.

Shift Rates

For an off shift day, (work at times other than the regular 7:00 A.M. to 3:30 P.M. work day) a cement mason shall be paid at the regular hourly rate plus a 25% per hour differential. Four Days a week at Ten (10)hour day.

(Local #780)

CORE DRILLER

Core Driller

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: \$35.71

Supplemental Benefit Rate per Hour: \$21.69

Core Driller Helper

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: \$28.60

Supplemental Benefit Rate per Hour: \$21.69

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Core Driller Helper(Third year in the industry)

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: \$25.74

Supplemental Benefit Rate per Hour: \$21.69

Core Driller Helper (Second year in the industry)

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: \$22.88

Supplemental Benefit Rate per Hour: \$21.69

Core Driller Helper (First year in the industry)

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: \$20.02

Supplemental Benefit Rate per Hour: \$21.69

Overtime Description

Time and one half the regular rate for work on a holiday plus Holiday pay when worked.

Overtime

Time and one half the regular rate after an 8 hour day.

Time and one half the regular rate for Saturday.

Double time the regular rate for Sunday.

Time and one half the regular rate for work on the following holiday(s).

Paid Holidays

New Year's Day

Memorial Day

Independence Day

Labor Day

Thanksgiving Day

Christmas Day

Shift Rates

The shift day shall be the continuous eight and one-half (8½) hours from 6:00 A.M. to 2:30 P.M. and from 2:30 P.M. to 11:00 P.M., including one-half (½) hour of employees regular rate of pay for lunch. When two (2) or more shifts are employed, single time shall be paid for each shift, but those employees employed on a shift other than from 8:00 A.M. to 5:00 P.M. shall, in addition, receive seventy-five cents (\$0.75) per hour differential for each hour worked. When three (3) shifts are needed, each shift shall work seven and one-half (7 ½) hours paid for eight (8) hours of labor and be permitted one-half (½) hour for mealtime.

(Carpenters District Council)

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

DERRICKPERSON AND RIGGER

Derrick Person & Rigger

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: \$42.25

Supplemental Benefit Rate per Hour: \$47.81

Supplemental Note: The above supplemental rate applies for work performed in Manhattan, Bronx, Brooklyn and Queens. \$49.23 - For work performed in Staten Island.

Overtime Description

The first two hours of overtime on weekdays and the first seven hours of work on Saturdays are paid at time and one half for wages and supplemental benefits. All additional overtimes is paid at double time for wages and supplemental benefits. Deduct \$1.42 from the Staten Island hourly benefits rate before computing overtime.

Overtime

Double time the regular rate for Sunday.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).

New Year's Day

Washington's Birthday

Good Friday

Memorial Day

Independence Day

Labor Day

Thanksgiving Day

Christmas Day

Paid Holidays

1/2 day on Christmas Eve if work is performed in the A.M.

(Local #197)

DIVER

Diver (Marine)

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: \$61.30

Supplemental Benefit Rate per Hour: \$46.12

Diver Tender (Marine)

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: \$43.45

Supplemental Benefit Rate per Hour: \$46.12

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Overtime

Time and one half the regular rate after an 8 hour day.

Time and one half the regular rate for Saturday.

Double time the regular rate for Sunday.

Saturday may be used as a make-up day at straight time when a day is lost during that week to inclement weather.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).

New Year's Day

President's Day

Memorial Day

Independence Day

Labor Day

Columbus Day

Presidential Election Day

Thanksgiving Day

Christmas Day

Paid Holidays

None

Shift Rates

When three shifts are utilized each shift shall work seven and one half-hours (7 1/2 hours) and paid for 8 hours, allowing for one half hour for lunch.

(Carpenters District Council)

DOCKBUILDER - PILE DRIVER

Dockbuilder - Pile Driver

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: \$48.35

Supplemental Benefit Rate per Hour: \$46.12

Overtime

Time and one half the regular rate after an 8 hour day.

Time and one half the regular rate for Saturday.

Double time the regular rate for Sunday.

Saturday may be used as a make-up day at straight time when a day is lost during that week to inclement weather.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).

New Year's Day

President's Day

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Memorial Day
Independence Day
Labor Day
Columbus Day
Presidential Election Day
Thanksgiving Day
Christmas Day

Paid Holidays

None

Shift Rates

Off shift work commencing between 5:00 P.M. and 11:00 P.M. shall work eight and one half hours allowing for one half hour for lunch. The wage rate shall be 113% of the straight time hourly wage rate.

(Carpenters District Council)

DRIVER: TRUCK (TEAMSTER)

Driver - Dump Truck

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: **\$38.86**

Supplemental Benefit Rate per Hour: **\$40.44**

Supplemental Note: Over 40 hours worked: time and one half rate \$16.94, double time rate \$22.59

Driver - Tractor Trailer

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: **\$38.88**

Supplemental Benefit Rate per Hour: **\$41.70**

Supplemental Note: For over 40 hours worked: at time and one half - \$15.90; at double time - \$21.21

Driver - Euclid & Turnapull Operator

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: **\$39.44**

Supplemental Benefit Rate per Hour: **\$41.70**

Supplemental Note: Over 40 hours worked: time and one half rate \$15.90, double time rate \$21.21

Overtime Description

For Paid Holidays: Holiday pay for all holidays shall be prorated based two hours per day for each day worked in the holiday week, not to exceed 8 hours of holiday pay. For Thanksgiving week, the prorated share shall be 5 1/3 hours of holiday pay for each day worked in Thanksgiving week.

Overtime

Time and one half the regular rate after an 8 hour day.

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Time and one half the regular rate for Saturday.
Double time the regular rate for Sunday.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).

New Year's Day
President's Day
Memorial Day
Independence Day
Labor Day
Columbus Day
Veteran's Day
Thanksgiving Day
Day after Thanksgiving
Christmas Day

Paid Holidays

New Year's Day
President's Day
Memorial Day
Independence Day
Labor Day
Columbus Day
Veteran's Day
Thanksgiving Day
Day after Thanksgiving
Christmas Day

Driver Redi-Mix (Sand & Gravel)

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: \$36.05

Supplemental Benefit Rate per Hour: \$38.60

Supplemental Note: Over 40 hours worked: time and one half rate \$13.53, double time rate \$18.04

Overtime Description

For Paid Holidays: Employees working two (2) days in the calendar week in which the holiday falls are to paid for these holidays, provided they shape each remaining workday during that calendar week.

Overtime

Time and one half the regular rate after an 8 hour day.
Time and one half the regular rate for Saturday.
Double time the regular rate for Sunday.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).

President's Day
Columbus Day
Veteran's Day

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Triple time the regular rate for work on the following holiday(s).

New Year's Day
Memorial Day
Independence Day
Labor Day
Thanksgiving Day
Christmas Day

Paid Holidays

New Year's Day
President's Day
Memorial Day
Independence Day
Labor Day
Columbus Day
Election Day
Thanksgiving Day
Christmas Day

(Local #282)

ELECTRICIAN

(Including all low voltage cabling carrying data; video; and voice in combination with data and or video.)

Electrician "A" (Regular Day)

Effective Period: 7/1/2014 - 5/12/2015

Wage Rate per Hour: \$53.00

Supplemental Benefit Rate per Hour: \$47.54

Effective Period: 5/13/2015 - 6/30/2015

Wage Rate per Hour: \$54.00

Supplemental Benefit Rate per Hour: \$50.03

Electrician "A" (Regular Day Overtime)

Effective Period: 7/1/2014 - 5/12/2015

Wage Rate per Hour: \$79.50

Supplemental Benefit Rate per Hour: \$50.86

Effective Period: 5/13/2015 - 6/30/2015

Wage Rate per Hour: \$81.00

Supplemental Benefit Rate per Hour: \$53.41

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
\$220 PREVAILING WAGE SCHEDULE

Electrician "A" (Day Shift)

Effective Period: 7/1/2014 - 5/12/2015
Wage Rate per Hour: **\$53.00**
Supplemental Benefit Rate per Hour: **\$47.54**

Effective Period: 5/13/2015 - 6/30/2015
Wage Rate per Hour: **\$54.00**
Supplemental Benefit Rate per Hour: **\$50.03**

Electrician "A" (Day Shift Overtime After 8 hours)

Effective Period: 7/1/2014 - 5/12/2015
Wage Rate per Hour: **\$79.50**
Supplemental Benefit Rate per Hour: **\$50.86**

Effective Period: 5/13/2015 - 6/30/2015
Wage Rate per Hour: **\$81.00**
Supplemental Benefit Rate per Hour: **\$53.41**

Electrician "A" (Swing Shift)

Effective Period: 7/1/2014 - 5/12/2015
Wage Rate per Hour: **\$62.19**
Supplemental Benefit Rate per Hour: **\$54.07**

Effective Period: 5/13/2015 - 6/30/2015
Wage Rate per Hour: **\$63.36**
Supplemental Benefit Rate per Hour: **\$56.94**

Electrician "A" (Swing Shift Overtime After 7.5 hours)

Effective Period: 7/1/2014 - 5/12/2015
Wage Rate per Hour: **\$93.29**
Supplemental Benefit Rate per Hour: **\$57.97**

Effective Period: 5/13/2015 - 6/30/2015
Wage Rate per Hour: **\$95.04**
Supplemental Benefit Rate per Hour: **\$60.91**

Electrician "A" (Graveyard Shift)

Effective Period: 7/1/2014 - 5/12/2015
Wage Rate per Hour: **\$69.66**
Supplemental Benefit Rate per Hour: **\$59.59**

Effective Period: 5/13/2015 - 6/30/2015
Wage Rate per Hour: **\$70.97**
Supplemental Benefit Rate per Hour: **\$62.78**

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
\$220 PREVAILING WAGE SCHEDULE

Electrician "A" (Graveyard Shift Overtime After 7 hours)

Effective Period: 7/1/2014 - 5/12/2015

Wage Rate per Hour: **\$104.49**

Supplemental Benefit Rate per Hour: **\$63.96**

Effective Period: 5/13/2015 - 6/30/2015

Wage Rate per Hour: **\$106.46**

Supplemental Benefit Rate per Hour: **\$67.23**

Overtime

Time and one half the regular rate after a 7 hour day.

Time and one half the regular rate for Saturday.

Time and one half the regular rate for Sunday.

Overtime Holidays

Time and one half the regular rate for work on a holiday.

New Year's Day

Martin Luther King Jr. Day

President's Day

Memorial Day

Independence Day

Labor Day

Columbus Day

Veteran's Day

Thanksgiving Day

Day after Thanksgiving

Christmas Day

Paid Holidays

None

Shift Rates

When so elected by the Employer, one or more shifts of at least five days duration may be scheduled as follows:

Day Shift: 8:00 am to 4:30 pm, Swing Shift 4:30 pm to 12:30 am, Graveyard Shift: 12:30 am to 8:00 am.

For multiple shifts of temporary light and/or power, the temporary light and/or power employee shall be paid for 8 hours at the straight time rate. For three or less workers performing 8 hours temporary light and/or power the supplemental benefit rate is \$23.63. Effective 5/13/2015 - \$24.39.

Electrician "M" (First 8 hours)

"M" rated work shall be defined as jobbing: electrical work of limited duration and scope, also consisting of repairs and/or replacement of electrical and tele-data equipment. Includes all work necessary to retrofit, service, maintain and repair all kinds of lighting fixtures and local lighting controls and washing and cleaning of foregoing fixtures.

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Effective Period: 7/1/2014 - 5/12/2015

Wage Rate per Hour: **\$27.00**

Supplemental Benefit Rate per Hour: **\$20.32**

First and Second Year "M" Wage Rate Per Hour - Hired on or before 5/10/07: \$26.30

First and Second Year "M" Supplemental Rate- Hired on or before 5/10/07: \$19.96

First and Second Year "M" Wage Rate Per Hour - Hired after 5/10/07: \$22.50

First and Second Year "M" Supplemental Rate- Hired after 5/10/07: \$18.06

Effective Period: 5/13/2015 - 6/30/2015

Wage Rate per Hour: **\$27.50**

Supplemental Benefit Rate per Hour: **\$20.82**

First and Second Year "M" Wage Rate Per Hour - Hired on or before 5/10/07: \$26.80

First and Second Year "M" Supplemental Rate- Hired on or before 5/10/07: \$20.46

First and Second Year "M" Wage Rate Per Hour - Hired after 5/10/07: \$23.00

First and Second Year "M" Supplemental Rate- Hired after 5/10/07: \$18.56

Electrician "M" (Overtime After First 8 hours)

"M" rated work shall be defined as jobbing: electrical work of limited duration and scope, also consisting of repairs and/or replacement of electrical and tele-data equipment. Includes all work necessary to retrofit, service, maintain and repair all kinds of lighting fixtures and local lighting controls and washing and cleaning of foregoing fixtures.

Effective Period: 7/1/2014 - 5/12/2015

Wage Rate per Hour: **\$40.50**

Supplemental Benefit Rate per Hour: **\$22.01**

First and Second Year "M" Wage Rate Per Hour - Hired on or before 5/10/07: \$39.45

First and Second Year "M" Supplemental Rate- Hired on or before 5/10/07: \$21.61

First and Second Year "M" Wage Rate Per Hour - Hired after 5/10/07: \$33.75

First and Second Year "M" Supplemental Rate- Hired after 5/10/07: \$19.47

Effective Period: 5/13/2015 - 6/30/2015

Wage Rate per Hour: **\$41.25**

Supplemental Benefit Rate per Hour: **\$22.54**

First and Second Year "M" Wage Rate Per Hour - Hired on or before 5/10/07: \$40.20

First and Second Year "M" Supplemental Rate- Hired on or before 5/10/07: \$22.14

First and Second Year "M" Wage Rate Per Hour - Hired after 5/10/07: \$34.50

First and Second Year "M" Supplemental Rate- Hired after 5/10/07: \$20.00

Overtime

Time and one half the regular rate after an 8 hour day.

Time and one half the regular rate for Saturday.

Time and one half the regular rate for Sunday.

Overtime Holidays

Time and one half the regular rate for work on the following holiday(s).

New Year's Day

Martin Luther King Jr. Day

President's Day

Memorial Day

Independence Day

Labor Day

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Columbus Day
Veteran's Day
Thanksgiving Day
Day after Thanksgiving
Christmas Day

Paid Holidays

None

(Local #3)

ELECTRICIAN - ALARM TECHNICIAN

(Scope of Work - Inspect, test, repair, and replace defective, malfunctioning, or broken devices, components and controls of Fire, Burglar and Security Systems)

Alarm Technician

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: \$30.40

Supplemental Benefit Rate per Hour: \$13.90

Supplemental Note: \$12.40 only after 8 hours worked in a day

Overtime Description

Time and one half the regular rate for work on the following holidays: Columbus Day, Veterans Day, Day after Thanksgiving.

Double time the regular rate for work on the following holidays: New Year's day, Martin Luther King Jr. Day, President's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Christmas Day.

Overtime

Time and one half the regular rate after an 8 hour day.

Time and one half the regular rate for Saturday.

Double time the regular rate for Sunday.

Paid Holidays

New Year's Day
Martin Luther King Jr. Day
President's Day
Memorial Day
Independence Day
Labor Day
Columbus Day
Veteran's Day
Thanksgiving Day
Day after Thanksgiving
Christmas Day

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Shift Rates

Night Differential is based upon a ten percent (10%) differential between the hours of 4:00 P.M. and 12:30 A.M. and a fifteen percent (15%) differential for the hours 12:00 A.M. to 8:00 A.M.

Vacation

At least 1 year of employment.....ten (10) days
5 years or more of employment.....fifteen (15) days
10 years of employment.....twenty (20) days
Plus one Personal Day per year

Sick Days:
One day per Year

(Local #3)

ELECTRICIAN-STREET LIGHTING WORKER

Electrician - Electro Pole Electrician

Effective Period: 7/1/2014 - 5/19/2015
Wage Rate per Hour: **\$53.00**
Supplemental Benefit Rate per Hour: **\$49.34**

Effective Period: 5/20/2015 - 6/30/2015
Wage Rate per Hour: **\$54.00**
Supplemental Benefit Rate per Hour: **\$51.86**

Electrician - Electro Pole Foundation Installer

Effective Period: 7/1/2014 - 5/19/2015
Wage Rate per Hour: **\$40.18**
Supplemental Benefit Rate per Hour: **\$37.73**

Effective Period: 5/20/2015 - 6/30/2015
Wage Rate per Hour: **\$40.93**
Supplemental Benefit Rate per Hour: **\$39.46**

Electrician - Electro Pole Maintainer

Effective Period: 7/1/2014 - 5/19/2015
Wage Rate per Hour: **\$34.40**
Supplemental Benefit Rate per Hour: **\$34.00**

Effective Period: 5/20/2015 - 6/30/2015
Wage Rate per Hour: **\$35.05**
Supplemental Benefit Rate per Hour: **\$35.51**

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Overtime Description

Electrician - Electro Pole Electrician: Time and one half the regular rate after a 7 hour day and after 5 consecutive days worked per week.

Electrician - Electro Pole Foundation Installer: Time and one half the regular rate after 8 hours within a 24 hour period and Saturday and Sunday.

Electrician - Electro Pole Maintainer: Time and one half the regular rate after a 7 hour day and after 5 consecutive days worked per week. Saturdays and Sundays may be used as a make-up day at straight time when a day is lost during the week to inclement weather.

Overtime Holidays

Time and one half the regular rate for work on the following holiday(s).

New Year's Day

Martin Luther King Jr. Day

President's Day

Memorial Day

Independence Day

Labor Day

Columbus Day

Veteran's Day

Thanksgiving Day

Day after Thanksgiving

Christmas Day

Paid Holidays

None

(Local #3)

ELEVATOR CONSTRUCTOR

Elevator Constructor

Effective Period: 7/1/2014 - 3/16/2015

Wage Rate per Hour: \$58.23

Supplemental Benefit Rate per Hour: \$29.47

Effective Period: 3/17/2015 - 6/30/2015

Wage Rate per Hour: \$59.55

Supplemental Benefit Rate per Hour: \$31.07

Overtime Description

For New Construction: work performed after 7 or 8 hour day, Saturday, Sunday or between 4:30pm and 7:00am shall be paid at double time rate.

Existing buildings: work performed after an 8 hour day, Saturday, Sunday or between 5:30pm and 7:00 am shall be paid time and one half.

Overtime

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Double time the regular rate for work on the following holiday(s).

Paid Holidays

New Year's Day
President's Day
Good Friday
Memorial Day
Independence Day
Labor Day
Columbus Day
Veteran's Day
Thanksgiving Day
Day after Thanksgiving
Christmas Day

Vacation

Employer contributes 8% of regular basic hourly rate as vacation pay for employees with more than 15 years of service, and 6% for employees with 5 to 15 years of service, and 4% for employees with less than 5 years of service.

(Local #1)

ELEVATOR REPAIR & MAINTENANCE

Elevator Service/Modernization Mechanic

Effective Period: 7/1/2014 - 3/16/2015

Wage Rate per Hour: \$46.00

Supplemental Benefit Rate per Hour: \$28.78

Effective Period: 3/17/2015 - 6/30/2015

Wage Rate per Hour: \$46.92

Supplemental Benefit Rate per Hour: \$30.91

Overtime Description

For Service Work: Double time - all work performed on Sundays, Holidays, and between midnight and 7:00am.

Overtime

Time and one half the regular rate after an 8 hour day.

Time and one half the regular rate for Saturday.

Time and one half the regular rate for Sunday.

Time and one half the regular rate for work on a holiday plus the day's pay.

Paid Holidays

New Year's Day
President's Day
Good Friday
Memorial Day
Independence Day

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Labor Day
Columbus Day
Veteran's Day
Thanksgiving Day
Day after Thanksgiving
Christmas Day

Shift Rates

For Modernization Work (4pm to 12:30am) - regularly hourly rate plus a (15%) fifteen percent differential.

Vacation

Employer contributes 8% of regular basic hourly rate as vacation pay for employees with more than 15 years of service, and 6% for employees with 5 to 15 years of service, and 4% for employees with less than 5 years of service.

(Local #1)

ENGINEER

Engineer - Heavy Construction Operating Engineer I

Cherry pickers 20 tons and over and Loaders (rubber tired and/or tractor type with a manufacturer's minimum rated capacity of six cubic yards and over).

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: **\$61.05**

Supplemental Benefit Rate per Hour: **\$31.93**

Supplemental Note: \$57.46 on overtime

Shift Wage Rate: **\$97.68**

Engineer - Heavy Construction Operating Engineer II

Backhoes, Basin Machines, Groover, Mechanical Sweepers, Bobcat, Boom Truck, Barrier Transport (Barrier Mover) & machines of similar nature. Operation of Churn Drills and machines of a similar nature, Stetco Silent Hoist and machines of similar nature, Vac-Alls, Meyers Machines, John Beam and machines of a similar nature, Ross Carriers and Travel Lifts and machines of a similar nature, Bulldozers, Scrapers and Turn-a-Pulls: Tugger Hoists (Used exclusively for handling excavated material); Tractors with attachments, Hyster and Roustabout Cranes, Cherry pickers. Austin Western, Grove and machines of a similar nature, Scoopmobiles, Monorails, Conveyors, Trenchers: Loaders-Rubber Tired and Tractor: Barber Greene and Eimco Loaders and Eimco Backhoes; Mighty Midget and similar breakers and Tampers, Curb and Gutter Pavers and Motor Patrol, Motor Graders and all machines of a similar nature. Locomotives 10 Tons or under. Mini-Max, Break-Tech and machines of a similar nature; Milling machines, robotic and demolition machines and machines of a similar nature, shot blaster, skid steer machines and machines of a similar nature including bobcat, pile rig rubber-tired excavator (37,000 lbs. and under), 2 man auger.

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: **\$59.24**

Supplemental Benefit Rate per Hour: **\$31.93**

Supplemental Note: \$57.46 on overtime

Shift Wage Rate: **\$94.78**

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Engineer - Heavy Construction Operating Engineer III

Minor Equipment such as Tractors, Post Hole Diggers, Ditch Witch (Walk Behind), Road Finishing Machines, Rollers five tons and under, Tugger Hoists, Dual Purpose Trucks, Fork Lifts, and Dempsey Dumpers, Fireperson.

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: \$56.22

Supplemental Benefit Rate per Hour: \$31.93

Supplemental Note: \$57.46 on overtime

Shift Wage Rate: \$89.95

Engineer - Heavy Construction Maintenance Engineer I

Installing, Repairing, Maintaining, Dismantling and Manning of all equipment including Steel Cutting, Bending and Heat Sealing Machines, Mechanical Heaters, Grout Pumps, Bentonite Pumps & Plants, Screening Machines, Fusion Coupling Machines, Tunnel Boring Machines Moles and Machines of a similar nature, Power Packs, Mechanical Hydraulic Jacks; all drill rigs including but not limited to Churn, Rotary Caisson, Raised Bore & Drills of a similar nature; Personnel, Inspection & Safety Boats or any boats used to perform functions of same, Mine Hoists, Whirlies, all Climbing Cranes, all Tower Cranes, including but not limited to Truck Mounted and Crawler Type and machines of similar nature; Maintaining Hydraulic Drills and machines of a similar nature; Well Point System-Installation and dismantling; Burning, Welding, all Pumps regardless of size and/or motor power, except River Cofferdam Pumps and Wells Point Pumps; Motorized Buggies (three or more); equipment used in the cleaning and televising of sewers, but not limited to jet-rodder/vacuum truck, vacall/vactor, closed circuit television inspection equipment; high powered water pumps, jet pumps; screed machines and concrete finishing machines of a similar nature; vermeers.

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: \$58.97

Supplemental Benefit Rate per Hour: \$31.93

Supplemental Note: \$57.46 on overtime

Shift Wage Rate: \$94.35

Engineer - Heavy Construction Maintenance Engineer II

On Base Mounted Tower Cranes

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: \$77.30

Supplemental Benefit Rate per Hour: \$31.93

Supplemental Note: \$57.46 on overtime

Shift Wage Rate: \$123.68

Engineer - Heavy Construction Maintenance Engineer III

On Generators, Light Towers

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: \$39.10

Supplemental Benefit Rate per Hour: \$31.93

Supplemental Note: \$57.46 on overtime

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Shift Wage Rate: \$62.56

Engineer - Heavy Construction Maintenance Engineer IV

On Pumps and Mixers including mud sucking

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: \$40.11

Supplemental Benefit Rate per Hour: \$31.93

Supplemental Note: \$57.46 on overtime

Shift Wage Rate: \$64.18

Engineer - Heavy Construction Oilers I

Gradalls, Cold Planer Grader, Concrete Pumps, Driving Truck Cranes, Driving and Operating Fuel and Grease Trucks.

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: \$53.22

Supplemental Benefit Rate per Hour: \$31.93

Supplemental Note: \$57.46 on overtime

Shift Wage Rate: \$85.15

Engineer - Heavy Construction Oilers II

All gasoline, electric, diesel or air operated Shovels, Draglines, Backhoes, Keystones, Pavers, Gunite Machines, Battery of Compressors, Crawler Cranes, two-person Trenching Machines.

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: \$36.97

Supplemental Benefit Rate per Hour: \$31.93

Supplemental Note: \$57.46 on overtime

Shift Wage Rate: \$59.15

Engineer - Steel Erection Maintenance Engineers

Derrick, Travelers, Tower, Crawler Tower and Climbing Cranes

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: \$57.05

Supplemental Benefit Rate per Hour: \$31.93

Supplemental Note: \$57.46 on overtime

Shift Wage Rate: \$91.28

Engineer - Steel Erection Oiler I

On a Truck Crane

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: \$53.43

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Supplemental Benefit Rate per Hour: **\$31.93**
Supplemental Note: \$57.46 on overtime
Shift Wage Rate: **\$85.49**

Engineer - Steel Erection Oiler II

On a Crawler Crane

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate per Hour: **\$40.84**
Supplemental Benefit Rate per Hour: **\$31.93**
Supplemental Note: \$57.46 on overtime
Shift Wage Rate: **\$65.34**

Overtime Description

On jobs of more than one shift, if the next shift employee fails to report for work through any cause over which the employer has no control, the employee on duty who works the next shift continues to work at the single time rate.

Overtime

Double time the regular rate after an 8 hour day.
Double time the regular time rate for Saturday.
Double time the regular rate for Sunday.
Double time the regular rate for work on the following holiday(s).

Paid Holidays

New Year's Day
Lincoln's Birthday
President's Day
Memorial Day
Independence Day
Labor Day
Columbus Day
Veteran's Day
Thanksgiving Day
Day after Thanksgiving
Christmas Day
Employees must work at least one day in the payroll week in which the holiday occurs to receive the paid holiday

Engineer - Building Work Maintenance Engineers I

Installing, repairing, maintaining, dismantling (of all equipment including: Steel Cutting and Bending Machines, Mechanical Heaters, Mine Hoists, Climbing Cranes, Tower Cranes, Linden Peine, Lorain, Liebherr, Mannes, or machines of a similar nature, Well Point Systems, Deep Well Pumps, Concrete Mixers with loading Device, Concrete Plants, Motor Generators when used for temporary power and lights), skid steer machines of a similar nature including bobcat.

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate per Hour: **\$54.04**

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Supplemental Benefit Rate per Hour: \$31.93
Supplemental Note: \$57.46 on overtime

Engineer - Building Work Maintenance Engineers II

On Pumps, Generators, Mixers and Heaters

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate per Hour: \$42.10
Supplemental Benefit Rate per Hour: \$31.93
Supplemental Note: \$57.46 on overtime

Engineer - Building Work Oilers I

All gasoline, electric, diesel or air operated Gradealls: Concrete Pumps, Overhead Cranes in Power Houses: Their duties shall be to assist the Engineer in oiling, greasing and repairing of all machines; Driving Truck Cranes: Driving and Operating Fuel and Grease Trucks, Cherrypickers (hydraulic cranes) over 70,000 GVW, and machines of a similar nature.

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate per Hour: \$51.40
Supplemental Benefit Rate per Hour: \$31.93
Supplemental Note: \$57.46 on overtime

Engineer - Building Work Oilers II

Oilers on Crawler Cranes, Backhoes, Trenching Machines, Gunite Machines, Compressors (three or more in Battery).

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate per Hour: \$38.31
Supplemental Benefit Rate per Hour: \$31.93
Supplemental Note: \$57.46 on overtime

Overtime Description

On jobs of more than one shift, if an Employee fails to report for work through any cause over which the Employer has no control, the Employee on duty will continue to work at the rate of single time.

Overtime

Double time the regular rate after an 8 hour day.
Double time the regular time rate for Saturday.
Double time the regular rate for Sunday.
Double time the regular rate for work on the following holiday(s).

Paid Holidays

New Year's Day
Lincoln's Birthday
President's Day
Memorial Day
Independence Day
Labor Day

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Columbus Day
Veteran's Day
Thanksgiving Day
Christmas Day

Employees must work at least one day in the payroll week in which the holiday occurs to receive the paid holiday

Shift Rates

Off Shift: double time the regular hourly rate.

(Local #15)

ENGINEER - CITY SURVEYOR AND CONSULTANT

Party Chief

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate per Hour: **\$35.55**
Supplemental Benefit Rate per Hour: **\$17.65**

Instrument Person

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate per Hour: **\$29.41**
Supplemental Benefit Rate per Hour: **\$17.65**

Rodperson

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate per Hour: **\$25.54**
Supplemental Benefit Rate per Hour: **\$17.65**

Overtime Description

Overtime Benefit Rate - \$23.63 per hour (time & one half) \$29.95 per hour (double time).
Time and one half the regular rate after an 8 hour day, Time and one half the regular rate for Saturday for the first eight hours worked, Double time the regular time rate for Saturday for work performed in excess of eight hours, Double time the regular rate for Sunday and Double time the regular rate for work on a holiday.

Paid Holidays

New Year's Day
Lincoln's Birthday
President's Day
Memorial Day
Independence Day
Labor Day
Columbus Day
Veteran's Day
Thanksgiving Day
Day after Thanksgiving

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Christmas Day

Employees must work at least one day in the payroll week in which the holiday occurs to receive the paid holiday

(Operating Engineer Local #15-D)

ENGINEER - FIELD (BUILDING CONSTRUCTION)
(Construction of Building Projects, Concrete Superstructures, etc.)

Field Engineer - BC Party Chief

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: **\$55.40**

Supplemental Benefit Rate per Hour: **\$30.62**

Supplemental Note: Overtime Benefit Rate - \$42.73 per hour (time & one half) \$54.84 per hour (double time).

Field Engineer - BC Instrument Person

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: **\$43.10**

Supplemental Benefit Rate per Hour: **\$30.62**

Supplemental Note: Overtime Benefit Rate - \$42.73 per hour (time & one half) \$54.84 per hour (double time).

Field Engineer - BC Rodperson

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: **\$27.96**

Supplemental Benefit Rate per Hour: **\$30.62**

Supplemental Note: Overtime Benefit Rate - \$42.73 per hour (time & one half) \$54.84 per hour (double time).

Overtime Description

Time and one half the regular rate after a 7 hour work and time and one half the regular rate for Saturday for the first seven hours worked, Double time the regular time rate for Saturday for work performed in excess of seven hours, Double time the regular rate for Sunday and Double time the regular rate for work on a holiday.

Paid Holidays

New Year's Day

President's Day

Good Friday

Memorial Day

Independence Day

Labor Day

Columbus Day

Veteran's Day

Thanksgiving Day

Christmas Day

Employees must work at least one day in the payroll week in which the holiday occurs to receive the paid holiday

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

(Operating Engineer Local #15-D)

ENGINEER - FIELD (HEAVY CONSTRUCTION)
(Construction of Roads, Tunnels, Bridges, Sewers, Building Foundations,
Engineering Structures etc.)

Field Engineer - HC Party Chief

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: \$62.61

Supplemental Benefit Rate per Hour: \$30.62

Supplemental Note: Overtime benefit rate - \$42.73 per hour (time & one half), \$54.84 per hour (double time).

Field Engineer - HC Instrument Person

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: \$46.00

Supplemental Benefit Rate per Hour: \$30.62

Supplemental Note: Overtime benefit rate - \$42.73 per hour (time & one half), \$54.84 per hour (double time).

Field Engineer - HC Rodperson

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: \$38.61

Supplemental Benefit Rate per Hour: \$30.62

Supplemental Note: Overtime benefit rate - \$42.73 per hour (time & one half), \$54.84 per hour (double time).

Overtime Description

Time and one half the regular rate after an 8 hour day, Time and one half the regular rate for Saturday for the first eight hours worked, Double time the regular time rate for Saturday for work performed in excess of eight hours, Double time the regular rate for Sunday and Double time the regular rate for work on a holiday.

Paid Holidays

New Year's Day

Lincoln's Birthday

President's Day

Memorial Day

Independence Day

Labor Day

Columbus Day

Veteran's Day

Thanksgiving Day

Christmas Day

Employees must work at least one day in the payroll week in which the holiday occurs to receive the paid holiday

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

(Operating Engineer Local #15-D)

ENGINEER - FIELD (STEEL ERECTION)

Field Engineer - Steel Erection Party Chief

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: **\$58.50**

Supplemental Benefit Rate per Hour: **\$30.62**

Supplemental Note: Overtime benefit rate - \$42.73 per hour (time & one half), \$54.84 per hour (double time).

Field Engineer - Steel Erection Instrument Person

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: **\$45.53**

Supplemental Benefit Rate per Hour: **\$30.62**

Supplemental Note: Overtime benefit rate - \$42.73 per hour (time & one half), \$54.84 per hour (double time).

Field Engineer - Steel Erection Rodperson

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: **\$30.43**

Supplemental Benefit Rate per Hour: **\$30.62**

Supplemental Note: Overtime benefit rate - \$42.73 per hour (time & one half), \$54.84 per hour (double time).

Overtime Description

Time and one half the regular rate for Saturday for the first eight hours worked.

Double time the regular rate for Saturday for work performed in excess of eight hours.

Overtime

Time and one half the regular rate after an 8 hour day.

Double time the regular rate for Sunday.

Double time the regular rate for work on the following holiday(s).

Paid Holidays

New Year's Day

Lincoln's Birthday

President's Day

Memorial Day

Independence Day

Labor Day

Columbus Day

Veteran's Day

Thanksgiving Day

Christmas Day

Employees must work at least one day in the payroll week in which the holiday occurs to receive the paid holiday

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

(Operating Engineer Local #15-D)

ENGINEER - OPERATING

Operating Engineer - Road & Heavy Construction I

Back Filling Machines, Cranes, Mucking Machines and Dual Drum Paver.

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: **\$67.70**

Supplemental Benefit Rate per Hour: **\$28.60**

Supplemental Note: \$51.75 overtime hours

Shift Wage Rate: **\$108.32**

Operating Engineer - Road & Heavy Construction II

Backhoes, Power Shovels, Hydraulic Clam Shells, Steel Erection, Moles and machines of a similar nature.

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: **\$70.10**

Supplemental Benefit Rate per Hour: **\$28.60**

Supplemental Note: 51.75 overtime hours

Shift Wage Rate: **\$112.16**

Operating Engineer - Road & Heavy Construction III

Mine Hoists, Cranes, etc. (Used as Mine Hoists)

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: **\$72.34**

Supplemental Benefit Rate per Hour: **\$28.60**

Supplemental Note: \$51.75 overtime hours

Shift Wage Rate: **\$115.74**

Operating Engineer - Road & Heavy Construction IV

Gradealls, Keystones, Cranes on land or water (with digging buckets), Bridge Cranes, Vermeer Cutter and machines of a similar nature, Trenching Machines.

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: **\$70.63**

Supplemental Benefit Rate per Hour: **\$28.60**

Supplemental Note: \$51.75 overtime hours

Shift Wage Rate: **\$113.01**

Operating Engineer - Road & Heavy Construction V

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Pile Drivers & Rigs (employing Dock Builder foreperson): Derrick Boats, Tunnel Shovels.

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate per Hour: \$69.23
Supplemental Benefit Rate per Hour: \$28.60
Supplemental Note: \$51.75 overtime hours
Shift Wage Rate: \$110.77

Operating Engineer - Road & Heavy Construction VI

Mixers (Concrete with loading attachment), Concrete Pavers, Cableways, Land Derricks, Power Houses (Low Air Pressure Units).

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate per Hour: \$65.76
Supplemental Benefit Rate per Hour: \$28.60
Supplemental Note: \$51.75 overtime hours
Shift Wage Rate: \$105.22

Operating Engineer - Road & Heavy Construction VII

Barrier Movers , Barrier Transport and Machines of a Similar Nature.

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate per Hour: \$53.08
Supplemental Benefit Rate per Hour: \$28.60
Supplemental Note: \$51.75 overtime hours
Shift Wage Rate: \$84.93

Operating Engineer - Road & Heavy Construction VIII

Utility Compressors

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate per Hour: \$41.18
Supplemental Benefit Rate per Hour: \$28.60
Supplemental Note: \$51.75 overtime hours
Shift Wage Rate: \$51.93

Operating Engineer - Road & Heavy Construction IX

Horizontal Boring Rig

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate per Hour: \$62.53
Supplemental Benefit Rate per Hour: \$28.60
Supplemental Note: \$51.75 overtime hours
Shift Wage Rate: \$100.05

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Operating Engineer - Road & Heavy Construction X

Elevators (manually operated as personnel hoist).

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: \$57.46

Supplemental Benefit Rate per Hour: \$28.60

Supplemental Note: \$51.75 overtime hours

Shift Wage Rate: \$91.94

Operating Engineer - Road & Heavy Construction XI

Compressors (Portable 3 or more in battery), Driving of Truck Mounted Compressors, Well-point Pumps, Tugger Machines Well Point Pumps, Churn Drill.

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: \$44.63

Supplemental Benefit Rate per Hour: \$28.60

Supplemental Note: \$51.75 overtime hours

Shift Wage Rate: \$71.41

Operating Engineer - Road & Heavy Construction XII

All Drills and Machines of a similar nature.

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: \$66.45

Supplemental Benefit Rate per Hour: \$28.60

Supplemental Note: \$51.75 overtime hours

Shift Wage Rate: \$106.32

Operating Engineer - Road & Heavy Construction XIII

Concrete Pumps, Concrete Plant, Stone Crushers, Double Drum Hoist, Power Houses (other than above).

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: \$64.34

Supplemental Benefit Rate per Hour: \$28.60

Supplemental Note: \$51.75 overtime hours

Shift Wage Rate: \$102.94

Operating Engineer - Road & Heavy Construction XIV

Concrete Mixer

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: \$61.53

Supplemental Benefit Rate per Hour: \$28.60

Supplemental Note: \$51.75 overtime hours

Shift Wage Rate: \$98.45

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Operating Engineer - Road & Heavy Construction XV

Compressors (Portable Single or two in Battery, not over 100 feet apart), Pumps (River Cofferdam) and Welding Machines, Push Button Machines, All Engines Irrespective of Power (Power-Pac) used to drive auxiliary equipment, Air, Hydraulic, etc.

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: \$41.44

Supplemental Benefit Rate per Hour: \$28.60

Supplemental Note: \$51.75 overtime hours

Shift Wage Rate: \$66.30

Operating Engineer - Road & Heavy Construction XVI

Concrete Breaking Machines, Hoists (Single Drum), Load Masters, Locomotives (over ten tons) and Dinkies over ten tons, Hydraulic Crane-Second Engineer.

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: \$58.74

Supplemental Benefit Rate per Hour: \$28.60

Supplemental Note: \$51.85 overtime hours

Shift Wage Rate: \$93.98

Operating Engineer - Road & Heavy Construction XVII

On-Site concrete plant engineer, On-site Asphalt Plant Engineer, and Vibratory console.

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: \$59.21

Supplemental Benefit Rate per Hour: \$28.60

Supplemental Note: \$51.75 overtime hours

Shift Wage Rate: \$94.74

Operating Engineer - Road & Heavy Construction XVIII

Tower Crane

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: \$85.00

Supplemental Benefit Rate per Hour: \$28.60

Supplemental Note: \$51.75 overtime hours

Shift Wage Rate: \$136.00

Operating Engineer - Paving I

Asphalt Spreaders, Autogrades (C.M.I.), Roto/Mil

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: \$65.76

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Supplemental Benefit Rate per Hour: **\$28.60**
Supplemental Note: \$51.75 overtime hours
Shift Wage Rate: **\$105.22**

Operating Engineer - Paving II

Asphalt Roller

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate per Hour: **\$64.04**
Supplemental Benefit Rate per Hour: **\$28.60**
Supplemental Note: \$51.75 overtime hours
Shift Wage Rate: **\$102.46**

Operating Engineer - Paving III

Asphalt Plants

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate per Hour: **\$54.17**
Supplemental Benefit Rate per Hour: **\$28.60**
Supplemental Note: \$51.75 overtime hours
Shift Wage Rate: **\$86.67**

Operating Engineer - Concrete I

Cranes

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate per Hour: **\$70.32**
Supplemental Benefit Rate per Hour: **\$28.60**
Supplemental Note: \$51.75 overtime hours

Operating Engineer - Concrete II

Compressors

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate per Hour: **\$41.76**
Supplemental Benefit Rate per Hour: **\$28.60**
Supplemental Note: \$51.75 overtime hours

Operating Engineer - Concrete III

Micro-traps (Negative Air Machines), Vac-All Remediation System.

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate per Hour: **\$56.16**
Supplemental Benefit Rate per Hour: **\$28.60**
Supplemental Note: \$51.75 overtime hours

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Operating Engineer - Steel Erection I

Three Drum Derricks

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: \$73.37

Supplemental Benefit Rate per Hour: \$28.60

Supplemental Note: \$51.75 overtime hours

Shift Wage Rate: \$117.39

Operating Engineer - Steel Erection II

Cranes, 2 Drum Derricks, Hydraulic Cranes, Fork Lifts and Boom Trucks.

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: \$70.50

Supplemental Benefit Rate per Hour: \$28.60

Supplemental Note: \$51.75 overtime hours

Shift Wage Rate: \$112.80

Operating Engineer - Steel Erection III

Compressors, Welding Machines.

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: \$41.84

Supplemental Benefit Rate per Hour: \$28.60

Supplemental Note: \$51.75 overtime hours

Shift Wage Rate: \$66.94

Operating Engineer - Steel Erection IV

Compressors - Not Combined with Welding Machine.

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: \$39.85

Supplemental Benefit Rate per Hour: \$28.60

Supplemental Note: \$51.75 overtime hours

Shift Wage Rate: \$63.76

Operating Engineer - Building Work I

Forklifts, Plaster (Platform machine), Plaster Bucket, Concrete Pump and all other equipment used for hoisting material.

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: \$57.82

Supplemental Benefit Rate per Hour: \$28.60

Supplemental Note: \$51.75 overtime hours

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Operating Engineer - Building Work II

Compressors, Welding Machines (Cutting Concrete-Tank Work), Paint Spraying, Sandblasting, Pumps (with the exclusion of Concrete Pumps), All Engines irrespective of Power (Power-Pac) used to drive Auxiliary Equipment, Air, Hydraulic, Jacking System, etc.

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: \$43.28

Supplemental Benefit Rate per Hour: \$28.60

Supplemental Note: \$51.75 overtime hours

Operating Engineer - Building Work III

Double Drum

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: \$65.83

Supplemental Benefit Rate per Hour: \$28.60

Supplemental Note: \$51.75 overtime hours

Operating Engineer - Building Work IV

Stone Derrick, Cranes, Hydraulic Cranes Boom Trucks.

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: \$69.74

Supplemental Benefit Rate per Hour: \$28.60

Supplemental Note: \$51.75 overtime hours

Operating Engineer - Building Work V

Dismantling and Erection of Cranes, Relief Engineer.

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: \$64.26

Supplemental Benefit Rate per Hour: \$28.60

Supplemental Note: \$51.75 overtime hours

Operating Engineer - Building Work VI

4 Pole Hoist, Single Drum Hoists.

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: \$63.58

Supplemental Benefit Rate per Hour: \$28.60

Supplemental Note: \$51.75 overtime hours

Operating Engineer - Building Work VII

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
\$220 PREVAILING WAGE SCHEDULE

Rack & Pinion and House Cars

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: \$50.53

Supplemental Benefit Rate per Hour: \$28.60

Supplemental Note: \$51.75 overtime hours

For New House Car projects started after 7/1/11 only: Wage Rate per Hour \$40.31

Overtime Description

On jobs of more than one shift, if an Employee fails to report for work through any cause over which the Employer has no control, the Employee on duty will continue to work at the rate of single time.

For House Cars and Rack & Pinion only: Overtime paid at time and one-half for all hours in excess of eight hours in a day, Saturday, Sunday and Holidays worked.

Overtime

Double time the regular rate after an 8 hour day.

Double time the regular time rate for Saturday.

Double time the regular rate for Sunday.

Double time the regular rate for work on the following holiday(s).

Paid Holidays

New Year's Day

Lincoln's Birthday

President's Day

Memorial Day

Independence Day

Labor Day

Columbus Day

Veteran's Day

Thanksgiving Day

Day after Thanksgiving

Christmas Day

Employees must work at least one day in the payroll week in which the holiday occurs to receive the paid holiday

Shift Rates

For Steel Erection Only: Shifts may be worked at the single time rate at other than the regular working hours (8:00 A.M. to 4:30 P.M.) on the following work ONLY: Heavy construction jobs on work below the street level, over railroad tracks and on building jobs.

(Operating Engineer Local #14)

FLOOR COVERER

(Interior vinyl composition tile, sheath vinyl linoleum and wood parquet tile including site preparation and synthetic turf not including site preparation)

Floor Coverer

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: **\$49.88**

Supplemental Benefit Rate per Hour: **\$44.10**

Overtime

Time and one half the regular rate after an 8 hour day.

Time and one half the regular rate for Saturday.

Double time the regular rate for Sunday.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).

New Year's Day

President's Day

Memorial Day

Independence Day

Labor Day

Columbus Day

Presidential Election Day

Thanksgiving Day

Day after Thanksgiving

Christmas Day

Paid Holidays

1/2 day on Christmas Eve if work is performed in the A.M.

1/2 day on New Year's Eve if work is performed in the A.M.

Shift Rates

Two shifts may be utilized with the first shift working 8:00 A.M. to the end of the shift at the straight time of pay. The second shift will receive one hour at double time rate for the last hour of the shift. (eight for seven, nine for eight).

(Carpenters District Council)

GLAZIER

(New Construction, Remodeling, and Alteration)

Glazier

Effective Period: 7/1/2014 - 10/31/2014

Wage Rate per Hour: **\$42.50**

Supplemental Benefit Rate per Hour: **\$35.09**

Supplemental Note: Supplemental Benefit Overtime Rate: **\$43.59**

Effective Period: 11/1/2014 - 6/30/2015

Wage Rate per Hour: **\$42.85**

Supplemental Benefit Rate per Hour: **\$35.59**

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Supplemental Note: Supplemental Benefit Overtime Rate: \$44.09

Overtime Description

An optional 8th hour can be worked at straight time rate. If 9th hour is worked, then both hours or more (8th & 9th or more) will be at the double time rate of pay.

Overtime

Double time the regular rate after a 7 hour day.
Double time the regular time rate for Saturday.
Double time the regular rate for Sunday.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).

New Year's Day
President's Day
Memorial Day
Independence Day
Labor Day
Thanksgiving Day
Day after Thanksgiving
Christmas Day

Paid Holidays

None

Shift Rates

Shifts shall be any 7 hours beyond 4:00 P.M. for which the glazier shall receive 8 hours pay for 7 hours worked.

(Local #1281)

GLAZIER - REPAIR & MAINTENANCE

(For the Installation of Glass - All repair and maintenance work on a particular building, whenever performed, where the total cumulative contract value is under \$105,000. Except where enumerated (i.e. plate glass windows) does not apply to non-residential buildings.)

Craft Jurisdiction for repair, maintenance and fabrication

Plate glass replacement, Residential glass replacement, Residential mirrors and shower doors, Storm windows and storm doors, Residential replacement windows, Herculite door repairs, Door closer repairs, Retrofit apartment house (non commercial buildings), Glass tinting.

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: \$23.60

Supplemental Benefit Rate per Hour: \$19.04

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Overtime

Time and one half the regular rate after an 8 hour day.
Double time the regular rate for Sunday.
Time and one half the regular hourly rate after 40 hours in any work week.

Paid Holidays

New Year's Day
President's Day
Memorial Day
Independence Day
Labor Day
Thanksgiving Day
Day after Thanksgiving
Christmas Day

(Local #1281)

HEAT AND FROST INSULATOR

Heat & Frost Insulator

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate per Hour: \$56.98
Supplemental Benefit Rate per Hour: \$34.81

Overtime Description

Double time shall be paid for supplemental benefits during overtime work.
8th hour paid at time and one half.

Overtime

Double time the regular rate after an 8 hour day.
Double time the regular time rate for Saturday.
Double time the regular rate for Sunday.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).
New Year's Day
Martin Luther King Jr. Day
President's Day
Memorial Day
Independence Day
Columbus Day
Veteran's Day
Thanksgiving Day
Day after Thanksgiving
Christmas Day

Triple time the regular rate for work on the following holiday(s).
Labor Day

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Paid Holidays

None

Shift Rates

The first shift shall work seven hours at the regular straight time rate. The second and third shift shall work seven hours the regular straight time hourly rate plus a fourteen percent wage and benefit premium. Off hour work in occupied or retail buildings may be worked on weekdays with an increment of \$1.00 per hour and eight hours pay for seven (7) hours worked. Double time will apply for over seven (7) hours worked on weekdays, weekends or holidays.

(Local #12)

**HOUSE WRECKER
(TOTAL DEMOLITION)**

House Wrecker - Tier A

On all work sites the first, second, eleventh and every third House Wrecker thereafter will be Tier A House Wreckers (i.e. 1st, 2nd, 11th, 14th etc). Other House Wreckers may be Tier B House Wreckers.

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: **\$34.51**

Supplemental Benefit Rate per Hour: **\$25.59**

House Wrecker - Tier B

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: **\$24.02**

Supplemental Benefit Rate per Hour: **\$19.12**

Overtime

Time and one half the regular rate after an 8 hour day.

Time and one half the regular rate for Saturday.

Double time the regular rate for Sunday.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).

New Year's Day

President's Day

Memorial Day

Independence Day

Labor Day

Thanksgiving Day

Christmas Day

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Paid Holidays

None

(Mason Tenders District Council)

IRON WORKER - ORNAMENTAL

Iron Worker - Ornamental

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: \$42.70

Supplemental Benefit Rate per Hour: \$45.77

Supplemental Note: Supplemental benefits are to be paid at the applicable overtime rate when overtime is in effect.

Overtime Description

Time and one half the regular rate after a 7 hour day for a maximum of two hours on any regular work day (the 8th and 9th hour) and double time shall be paid for all work on a regular work day thereafter, time and one half the regular rate for Saturday for the first seven hours of work and double time shall be paid for all work on a Saturday thereafter.

Overtime

Double time the regular rate for Sunday.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).

New Year's Day

President's Day

Memorial Day

Independence Day

Labor Day

Thanksgiving Day

Christmas Day

Paid Holidays

None

Shift Rates

For off shift work - 8 hours pay for 7 hours of work. When two or three shifts are employed on a job, Monday through Friday, the workday for each shift shall be seven hours and paid for ten and one-half hours at the single time rate. When two or three shifts are worked on Saturday, Sunday or holidays, each shift shall be seven hours and paid fifteen and three-quarters hours.

(Local #580)

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

IRON WORKER - STRUCTURAL

Iron Worker - Structural

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: \$47.75

Supplemental Benefit Rate per Hour: \$65.35

Supplemental Note: Supplemental benefits are to be paid at the applicable overtime rate when overtime is in effect.

Overtime Description

Monday through Friday- the first eight hours are paid at straight time, the 9th and 10th hours are paid at time and one-half the regular rate, all additional weekday overtime is paid at double the regular rate. Saturdays- the first eight hours are paid at time and one-half the regular rate, double time thereafter. Sunday-all shifts are paid at double time.

Overtime

Time and one half the regular rate after an 8 hour day.

Time and one half the regular rate for Saturday.

Double time the regular rate for Sunday.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).

New Year's Day

Good Friday

Memorial Day

Independence Day

Labor Day

Thanksgiving Day

Christmas Day

Paid Holidays

1/2 day on Christmas Eve if work is performed in the A.M.

1/2 day on New Year's Eve if work is performed in the A.M.

Shift Rates

Monday through Friday - First Shift: First eight hours are paid at straight time, the 9th & 10th hours are paid at time and a half, double time paid thereafter. Second and third Shifts: First eight hours are paid at time and one-half, double time thereafter. Saturdays: All shifts, first eight hours paid at time and one-half, double time thereafter: Sunday all shifts are paid at double time.

(Local #40 & #361)

LABORER

(Foundation, Concrete, Excavating, Street Pipe Layer and Common)

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Laborer

Excavation and foundation work for buildings, heavy construction, engineering work, and hazardous waste removal in connection with the above work. Landscaping tasks in connection with heavy construction work, engineering work and building projects. Projects include, but are not limited to pollution plants, sewers, parks, subways, bridges, highways, etc.

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: \$39.85

Supplemental Benefit Rate per Hour: \$34.88

Overtime

Time and one half the regular rate after an 8 hour day.

Time and one half the regular rate for Saturday.

Double time the regular rate for Sunday.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).

New Year's Day

Memorial Day

Independence Day

Labor Day

Columbus Day

Presidential Election Day

Thanksgiving Day

Christmas Day

Paid Holidays

Labor Day

Thanksgiving Day

Shift Rates

When two shifts are employed, single time rate shall be paid for each shift. When three shifts are found necessary, each shift shall work seven and one half hours (7 ½), but shall be paid for eight (8) hours of labor, and be permitted one half hour for lunch.

(Local #731)

LANDSCAPING

(Landscaping tasks, as well as tree pruning, tree removing, spraying and maintenance in connection with the planting of street trees and the planting of trees in city parks but not when such activities are performed as part of, or in connection with, other construction or reconstruction projects.)

Landscaper (Above 6 years experience)

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
\$220 PREVAILING WAGE SCHEDULE

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate per Hour: \$25.75
Supplemental Benefit Rate per Hour: \$13.80

Landscaper (3 - 6 years experience)

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate per Hour: \$24.75
Supplemental Benefit Rate per Hour: \$13.80

Landscaper (up to 3 years experience)

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate per Hour: \$22.25
Supplemental Benefit Rate per Hour: \$13.80

Groundperson

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate per Hour: \$22.25
Supplemental Benefit Rate per Hour: \$13.80

Tree Remover / Pruner

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate per Hour: \$30.75
Supplemental Benefit Rate per Hour: \$13.80

Landscaper Sprayer (Pesticide Applicator)

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate per Hour: \$20.75
Supplemental Benefit Rate per Hour: \$13.80

Watering - Plant Maintainer

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate per Hour: \$15.75
Supplemental Benefit Rate per Hour: \$13.80

Overtime Description

For all overtime work performed, supplemental benefits shall include an additional seventy-five (\$0.75) cents per hour.

Overtime

Time and one half the regular rate after an 8 hour day.
Time and one half the regular rate for Saturday.
Double time the regular rate for Sunday.
Time and one half the regular rate for work on a holiday plus the day's pay.

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Paid Holidays

New Year's Day
Memorial Day
Independence Day
Labor Day
Thanksgiving Day
Christmas Day

Shift Rates

Work performed on a 4pm to 12am shift has a 15% differential. Work performed on a 12am to 8am shift has a 20% differential.

(Local #175)

MARBLE MECHANIC

Marble Setter

Effective Period: 7/1/2014 - 12/31/2014
Wage Rate per Hour: \$50.85
Supplemental Benefit Rate per Hour: \$34.21

Effective Period: 1/1/2015 - 6/30/2015
Wage Rate per Hour: \$51.15
Supplemental Benefit Rate per Hour: \$34.87

Marble Finisher

Effective Period: 7/1/2014 - 12/31/2014
Wage Rate per Hour: \$39.99
Supplemental Benefit Rate per Hour: \$33.34

Effective Period: 1/1/2015 - 6/30/2015
Wage Rate per Hour: \$40.26
Supplemental Benefit Rate per Hour: \$33.90

Marble Polisher

Effective Period: 7/1/2014 - 12/31/2014
Wage Rate per Hour: \$35.96
Supplemental Benefit Rate per Hour: \$25.92

Effective Period: 1/1/2015 - 6/30/2015
Wage Rate per Hour: \$36.25
Supplemental Benefit Rate per Hour: \$26.28

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Overtime Description

Supplemental Benefit contributions are to be made at the applicable overtime rates. Time and one half the regular rate after a 7 hour day or time and one half the regular rate after an 8 hour day - chosen by Employer at the start of the project and then would last for the full duration of the project.

Overtime

Time and one half the regular rate for Saturday.
Double time the regular rate for Sunday.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).

New Year's Day
President's Day
Good Friday
Memorial Day
Independence Day
Labor Day
Columbus Day
Veteran's Day
Thanksgiving Day
Day after Thanksgiving
Christmas Day

Paid Holidays

None

(Local #7)

MASON TENDER

Mason Tender

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate per Hour: \$36.05
Supplemental Benefit Rate per Hour: \$26.74

Overtime

Time and one half the regular rate after an 8 hour day.
Time and one half the regular rate for Saturday.
Double time the regular rate for Sunday.
Saturday may be used as a make-up day at straight time when a day is lost during that week to inclement weather.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).
New Year's Day
President's Day

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Memorial Day
Independence Day
Labor Day
Thanksgiving Day
Christmas Day

Paid Holidays

None

Shift Rates

The Employer may work two (2) shifts with the first shift at the straight time wage rate and the second shift receiving eight (8) hours paid for seven (7) hours work at the straight time wage rate.

(Local #79)

MASON TENDER (INTERIOR DEMOLITION WORKER)

(The erection, building, moving, servicing and dismantling of enclosures, scaffolding, barricades, protection and site safety structures etc., on Interior Demolition jobs.)

Mason Tender Tier A

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: **\$34.99**

Supplemental Benefit Rate per Hour: **\$21.10**

Mason Tender Tier B

On Interior Demolition job sites 33 1/3 % of the employees shall be classified as Tier A Interior Demolition Workers and 66 2/3 % shall be classified as Tier B Interior Demolition Workers; provided that the employer may employ more than 33 1/3 % Tier A Interior Demolition Workers on the job site. Where the number of employees on a job site is not divisible by 3, the first additional employee (above the number of employees divisible by three) shall be a Tier B Interior Demolition Worker, and the second additional employee shall be a Tier A Interior Demolition Worker.

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: **\$24.18**

Supplemental Benefit Rate per Hour: **\$15.42**

Overtime

Time and one half the regular rate after an 8 hour day.

Time and one half the regular rate for Sunday.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).

New Year's Day

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

President's Day
Memorial Day
Independence Day
Labor Day
Thanksgiving Day
Christmas Day

Paid Holidays

None

(Local #79)

METALLIC LATHER

Metallic Lather

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: \$42.03

Supplemental Benefit Rate per Hour: \$41.07

Supplemental Note: Supplemental benefits for overtime are paid at the appropriate overtime rate.

Overtime Description

Overtime would be time and one half the regular rate after a seven (7) or eight (8) hours workday, which would be set at the start of the job.

Overtime

Time and one half the regular rate for Saturday.

Double time the regular rate for Sunday.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).

New Year's Day
Washington's Birthday
Good Friday
Memorial Day
Independence Day
Labor Day
Columbus Day
Presidential Election Day
Thanksgiving Day
Christmas Day

Paid Holidays

1/2 day on Christmas Eve if work is performed in the A.M.

1/2 day on New Year's Eve if work is performed in the A.M.

Shift Rates

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

There shall be either two (2) or three (3) shifts, each shift shall be eight (8) hours with nine (9) hours pay, including one half (½) hour for lunch. Off-Hour Start shall commence after 3:30 P.M. and shall conclude by 6:00 A.M. The first consecutive seven (7) hours shall be at straight time with a differential of twelve dollars (\$12.00) per hour. Fringes shall be paid at the straight time rate.

(Local #46)

MILLWRIGHT

Millwright

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: **\$48.44**

Supplemental Benefit Rate per Hour: **\$50.52**

Overtime

Time and one half the regular rate after an 8 hour day.

Time and one half the regular rate for Saturday.

Double time the regular rate for Sunday.

Saturday may be used as a make-up day at straight time when a day is lost during that week to inclement weather.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).

New Year's Day

President's Day

Good Friday

Memorial Day

Independence Day

Labor Day

Columbus Day

Presidential Election Day

Thanksgiving Day

Christmas Day

Paid Holidays

1/2 day on Christmas Eve if work is performed in the A.M.

1/2 day on New Year's Eve if work is performed in the A.M.

Shift Rates

The first shift shall receive the straight time rate of pay. The second shift receives the straight time rate of pay plus fifteen (15%) per cent. Members of the second shift shall be allowed one half hour to eat, with this time being included in the hours of the workday established. There must be a first shift to work a second shift. All additional hours worked shall be paid at the time and one-half rate of pay plus fifteen (15%) per cent for weekday hours.

(Local #740)

MOSAIC MECHANIC

Mosaic Mechanic - Mosaic & Terrazzo Mechanic

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: **\$45.23**

Supplemental Benefit Rate per Hour: **\$36.59**

Supplemental Note: Supplemental benefits for overtime to be paid at the rate of \$47.56 per hour.

Mosaic Mechanic - Mosaic & Terrazzo Finisher

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: **\$43.63**

Supplemental Benefit Rate per Hour: **\$36.57**

Supplemental Note: Supplemental benefits for overtime to be paid at the rate of \$47.54 per hour.

Mosaic Mechanic - Machine Operator Grinder

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: **\$43.63**

Supplemental Benefit Rate per Hour: **\$36.57**

Supplemental Note: Supplemental benefits for overtime to be paid at the rate of \$47.54 per hour.

Overtime

Time and one half the regular rate after a 7 hour day.

Time and one half the regular rate for Saturday.

Double time the regular rate for Sunday.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).

New Year's Day

Washington's Birthday

Good Friday

Independence Day

Labor Day

Columbus Day

Veteran's Day

Thanksgiving Day

Day after Thanksgiving

Christmas Day

Paid Holidays

None

(Local #7)

PAINTER

Painter - Brush & Roller

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate per Hour: \$39.50
Supplemental Benefit Rate per Hour: \$26.12
Supplemental Note: \$30.75 on overtime

Spray & Scaffold / Decorative / Sandblast

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate per Hour: \$42.50
Supplemental Benefit Rate per Hour: \$26.12
Supplemental Note: \$30.75 on overtime

Overtime

Time and one half the regular rate after a 7 hour day.
Time and one half the regular rate for Saturday.
Time and one half the regular rate for Sunday.

Overtime Holidays

Time and one half the regular rate for work on the following holiday(s).

New Year's Day
President's Day
Memorial Day
Independence Day
Labor Day
Columbus Day
Thanksgiving Day
Christmas Day

Paid Holidays

None

(District Council of Painters #9)

PAINTER - SIGN

Designer

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate per Hour: \$36.15
Supplemental Benefit Rate per Hour: \$9.66

Journey person

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
\$220 PREVAILING WAGE SCHEDULE

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: \$33.62

Supplemental Benefit Rate per Hour: \$9.66

Overtime

Time and one half the regular rate after an 8 hour day.

Time and one half the regular rate for Saturday.

Time and one half the regular rate for Sunday.

Double time the regular rate for work on the following holiday(s).

Paid Holidays

New Year's Day

President's Day

Memorial Day

Independence Day

Labor Day

Columbus Day

Election Day

Thanksgiving Day

Day after Thanksgiving

Christmas Day

Shift Rates

All work performed outside the regular 8 hour work day (either 7:00 A.M to 3:30 P.M or 8:00 A.M. to 4:30 P.M) shall be paid at time and one half the regular hourly rate.

(Local #8A-28A)

PAINTER - STRIPER

Striper (paint)

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: \$34.00

Supplemental Benefit Rate per Hour: \$12.60

Supplemental Note: Overtime Supplemental Benefit rate - \$8.35 New Hire Rate (0-3 months) - \$0.00

Lineperson (thermoplastic)

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: \$38.00

Supplemental Benefit Rate per Hour: \$12.60

Supplemental Note: Overtime Supplemental Benefit rate - \$8.35; New Hire Rate (0-3 months) - \$0.00

Overtime

Time and one half the regular rate after an 8 hour day.

Time and one half the regular rate for Saturday.

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Double time the regular rate for Sunday.
Time and one half the regular rate for work on the following holiday(s).

Paid Holidays

New Year's Day
Good Friday
Memorial Day
Independence Day
Labor Day
Columbus Day
Presidential Election Day
Thanksgiving Day
Day after Thanksgiving
Christmas Day

Shift Rates

Employees hired before April 1, 2003: 15% night shift premium differential for work commenced at 9:00 PM or later.

Vacation

Employees with one to two years service shall accrue vacation based on hours worked: 250 hours worked - 1 day vacation; 500 hours worked - 2 days vacation; 750 hours worked - 3 days vacation; 900 hours worked - 4 days vacation; 1,000 hours worked - 5 days vacation. Employees with two to five years service receive two weeks vacation. Employees with five to twenty years service receive three weeks vacation. Employees with twenty to twenty-five years service receive four weeks vacation. Employees with 25 or more years service receive five weeks vacation. Vacation must be taken during winter months. 2 Personal Days except employees hired after 4/1/12 who do not have 2 years of service.

(Local #917)

PAINTER - STRUCTURAL STEEL

Painters on Structural Steel

Effective Period: 7/1/2014 - 9/30/2014

Wage Rate per Hour: \$47.00

Supplemental Benefit Rate per Hour: \$33.58

Effective Period: 10/1/2014 - 6/30/2015

Wage Rate per Hour: \$48.75

Supplemental Benefit Rate per Hour: \$34.58

Painter - Power Tool

Effective Period: 7/1/2014 - 9/30/2014

Wage Rate per Hour: \$53.00

Supplemental Benefit Rate per Hour: \$33.58

Effective Period: 10/1/2014 - 6/30/2015

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Wage Rate per Hour: **\$54.75**

Supplemental Benefit Rate per Hour: **\$34.58**

Overtime Description

Supplemental Benefits shall be paid for each hour worked, up to forty (40) hours per week for the period of May 1st to November 15th or up to fifty (50) hours per week for the period of November 16th to April 30th.

Overtime

Time and one half the regular rate after a 7 hour day.

Time and one half the regular rate for Saturday.

Time and one half the regular rate for Sunday.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).

New Year's Day

Memorial Day

Independence Day

Labor Day

Thanksgiving Day

Christmas Day

Paid Holidays

None

Shift Rates

Regular hourly rates plus a ten per cent (10%) differential

(Local #806)

PAPERHANGER

Paperhanger

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: **\$41.08**

Supplemental Benefit Rate per Hour: **\$29.23**

Supplemental Note: Supplemental benefits are to be paid at the appropriate straight time and overtime rate.

Overtime

Time and one half the regular rate after a 7 hour day.

Time and one half the regular rate for Saturday.

Time and one half the regular rate for Sunday.

Overtime Holidays

Time and one half the regular rate for work on the following holiday(s).

New Year's Day

President's Day

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Memorial Day
Independence Day
Labor Day
Thanksgiving Day
Day after Thanksgiving
Christmas Day

Paid Holidays

None

Shift Rates

Evening shift - 4:30 P.M. to 12:00 Midnight (regular rate of pay); any work performed before 7:00 A.M. shall be at time and one half the regular base rate of pay.

(District Council of Painters #9)

PAVER AND ROADBUILDER

Paver & Roadbuilder - Formsetter

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: \$44.19

Supplemental Benefit Rate per Hour: \$35.15

Paver & Roadbuilder - Laborer

Paving and road construction work, regardless of material used, including but not limited to preparation of job sites, removal of old surfaces, asphalt and/or concrete, by whatever method, including but not limited to milling; laying of concrete; laying of asphalt for temporary, patchwork, and utility paving (but not production paving); site preparation and incidental work before the installation of rubberized materials and similar surfaces; installation and repair of temporary construction fencing; slurry seal coating, maintenance of safety surfaces; play equipment installation, and other related work.

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: \$40.32

Supplemental Benefit Rate per Hour: \$35.15

Production Paver & Roadbuilder - Screed Person

(Production paving is asphalt paving when using a paving machine or on a project where a paving machine is traditionally used)

Adjustment of paving machinery on production paving jobs.

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: \$45.24

Supplemental Benefit Rate per Hour: \$35.15

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Production Paver & Roadbuilder - Raker

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: **\$44.73**

Supplemental Benefit Rate per Hour: **\$35.15**

Production Paver & Roadbuilder - Shoveler

General laborer (except removal of surfaces - see Paver and Roadbuilder-Laborer) including but not limited to tamper, AC paint and liquid tar work.

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: **\$41.44**

Supplemental Benefit Rate per Hour: **\$35.15**

Overtime Description

Veteran's Day is a Paid Holiday for employees working on production paving.

If an employee works New Year's Day or Christmas Day, they receive the single time rate plus 25%.

Employees who work on a holiday listed below receive the straight time rate plus one day's pay for the holiday.

Overtime

Time and one half the regular rate after an 8 hour day.

Time and one half the regular rate for Saturday.

Double time the regular rate for Sunday.

Paid Holidays

Memorial Day

Independence Day

Labor Day

Presidential Election Day

Thanksgiving Day

Shift Rates

When two shifts are employed, the work period for each shift shall be a continuous eight (8) hours. When three shifts are employed, each shift will work seven and one half (7 ½) hours but will be paid for eight (8) hours since only one half (1/2) hour is allowed for meal time.

When two or more shifts are employed, single time will be paid for each shift.

Night Work - On night work, the first eight (8) hours of work will be paid for at the single time rate, except that production paving work shall be paid at 15% over the single time rate for the screed person, rakers and shovelers directly involved only. All other workers will be exempt. Hours worked over eight (8) hours during said shift shall be paid for at the time and one-half rate.

(Local #1010)

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

PLASTERER

Plasterer

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: \$42.43

Supplemental Benefit Rate per Hour: \$27.95

Overtime

Time and one half the regular rate after a 7 hour day.

Time and one half the regular rate for Saturday.

Double time the regular rate for Sunday.

Saturday may be used as a make-up day at straight time when a day is lost during that week to inclement weather.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).

New Year's Day

Martin Luther King Jr. Day

President's Day

Good Friday

Memorial Day

Independence Day

Labor Day

Columbus Day

Presidential Election Day

Thanksgiving Day

Christmas Day

Paid Holidays

None

Shift Rates

When it is not possible to conduct alteration work during regular work hours, in a building occupied by tenants, said work shall proceed on a shift basis; however work over seven (7) hours in any twenty four (24) hour period, the time after seven (7) hours shall be considered overtime.

The second shift shall start at a time between 3:30 p.m. and 7:00 p.m. and shall consist of seven (7) working hours and shall receive eight (8) hours of wages and benefits at the straight time rate. The workers on the second shift shall be allowed one-half (½) hour to eat with this time being included in the seven (7) hours of work.

(Local #530)

PLASTERER - TENDER

Plasterer - Tender

Effective Period: 7/1/2014 - 6/30/2015

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Wage Rate per Hour: \$35.53

Supplemental Benefit Rate per Hour: \$26.31

Overtime

Time and one half the regular rate after an 8 hour day.

Time and one half the regular rate for Saturday.

Double time the regular rate for Sunday.

Saturday may be used as a make-up day at straight time when a day is lost during that week to inclement weather.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).

New Year's Day

Washington's Birthday

Memorial Day

Independence Day

Labor Day

Presidential Election Day

Thanksgiving Day

Christmas Day

Paid Holidays

None

Shift Rates

When work commences outside regular work hours, workers receive an hour additional (differential) wage and supplement payment. Eight hours pay for seven hours work or nine hours pay for eight hours work.

(Mason Tenders District Council)

PLUMBER

Plumber

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: \$65.27

Supplemental Benefit Rate per Hour: \$25.78

Supplemental Note: Overtime supplemental benefit rate per hour: \$40.78

Plumber - Temporary Services

Temporary Services - When there are no Plumbers on the job site, there may be three shifts designed to cover the entire twenty-four hour period, including weekends if necessary, at the following rate straight time.

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: \$52.24

Supplemental Benefit Rate per Hour: \$20.20

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Overtime Description

Double time the regular rate after a 7 hour day - unless for new construction site work where the plumbing contract price is \$1.5 million or less, the hours of labor can be 8 hours per day at the employers option. On Alteration jobs when other mechanical trades at the site are working an eighth hour at straight time, then the plumber shall also work an eighth hour at straight time.

Overtime

Double time the regular time rate for Saturday.
Double time the regular rate for Sunday.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).

- New Year's Day
- President's Day
- Memorial Day
- Independence Day
- Labor Day
- Columbus Day
- Veteran's Day
- Thanksgiving Day
- Day after Thanksgiving
- Christmas Day

Shift Rates

Shift work, when directly specified in public agency or authority documents where plumbing contract is \$8 million or less, will be permitted. 30% shift premium shall be paid for wages and fringe benefits for 4:00 pm and midnight shifts Monday to Friday. 50% shift premium shall be paid for wages and fringe benefits for 4:00 pm and midnight shift work performed on weekends. For shift work on holidays, double time wages and fringe benefits shall be paid.

(Plumbers Local #1)

PLUMBER (MECHNICAL EQUIPMENT AND SERVICE)
(Mechanical Equipment and Service work shall include any repair and/or replacement of the present plumbing system.)

Plumber

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate per Hour: \$38.27
Supplemental Benefit Rate per Hour: \$12.84

Overtime

Time and one half the regular rate after an 8 hour day.
Time and one half the regular rate for Saturday.
Time and one half the regular rate for Sunday.

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Overtime Holidays

Time and one half the regular rate for work on the following holiday(s).

New Year's Day
President's Day
Memorial Day
Independence Day
Thanksgiving Day
Day after Thanksgiving
Christmas Day

Paid Holidays

None

(Plumbers Local # 1)

**PLUMBER (RESIDENTIAL RATES FOR 1, 2 AND 3 FAMILY HOME
CONSTRUCTION)**

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: **\$45.19**

Supplemental Benefit Rate per Hour: **\$18.79**

Overtime

Double time the regular rate after an 8 hour day.
Double time the regular time rate for Saturday.
Double time the regular rate for Sunday.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).

New Year's Day
President's Day
Memorial Day
Independence Day
Labor Day
Columbus Day
Veteran's Day
Thanksgiving Day
Day after Thanksgiving
Christmas Day

Paid Holidays

None

Shift Rates

30% shift premium shall be paid for wages and fringe benefits for 4:00 pm and midnight shifts Monday to Friday.
50% shift premium shall be paid for wages and fringe benefits for 4:00 pm and midnight shift work performed on weekends. For shift work on holidays, double time wages and fringe benefits shall be paid.

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

(Plumbers Local #1)

PLUMBER: PUMP & TANK
Oil Trades (Installation and Maintenance)

Plumber - Pump & Tank

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: **\$62.83**

Supplemental Benefit Rate per Hour: **\$21.37**

Overtime

Time and one half the regular rate after an 8 hour day.

Time and one half the regular rate for Saturday.

Time and one half the regular rate for Sunday.

Overtime Holidays

Time and one half the regular rate for work on the following holiday(s).

New Year's Day

President's Day

Memorial Day

Independence Day

Labor Day

Columbus Day

Veteran's Day

Thanksgiving Day

Day after Thanksgiving

Christmas Day

Paid Holidays

None

Shift Rates

All work outside the regular workday (8:00 A.M. to 3:30 P.M.) is to be paid at time and one half the regular hourly rate

(Plumbers Local #1)

POINTER - WATERPROOFER, CAULKER MECHANIC (EXTERIOR BUILDING RENOVATION)

Pointer - Waterproofer, Caulker Mechanic

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: **\$47.41**

Supplemental Benefit Rate per Hour: **\$24.40**

Overtime

Time and one half the regular rate after an 8 hour day.

Time and one half the regular rate for Saturday.

Time and one half the regular rate for Sunday.

Saturday may be used as a make-up day at straight time when a day is lost during that week to inclement weather.

Overtime Holidays

Time and one half the regular rate for work on the following holiday(s).

New Year's Day

Martin Luther King Jr. Day

President's Day

Memorial Day

Independence Day

Labor Day

Thanksgiving Day

Christmas Day

Paid Holidays

None

Shift Rates

All work outside the regular work day (an eight hour workday between the hours of 6:00 A.M. and 4:30 P.M.) is to be paid at time and one half the regular rate.

(Bricklayer District Council)

ROOFER

Roofer

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: **\$40.70**

Supplemental Benefit Rate per Hour: **\$28.67**

Overtime

Time and one half the regular rate after an 8 hour day.

Time and one half the regular rate for Saturday.

Time and one half the regular rate for Sunday.

Overtime Holidays

Time and one half the regular rate for work on the following holiday(s).

New Year's Day

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

President's Day
Memorial Day
Independence Day
Labor Day
Presidential Election Day
Thanksgiving Day
Christmas Day

Paid Holidays

None

Shift Rates

Second shift - Regular hourly rate plus a 10% differential. Third shift - Regular hourly rate plus a 15% differential.

(Local #8)

**SANDBLASTER - STEAMBLASTER
(Exterior Building Renovation)**

Sandblaster / Steamblaster

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate per Hour: \$47.41
Supplemental Benefit Rate per Hour: \$24.40

Overtime

Time and one half the regular rate after an 8 hour day.
Time and one half the regular rate for Saturday.
Time and one half the regular rate for Sunday.
Saturday may be used as a make-up day at straight time when a day is lost during that week to inclement weather.

Overtime Holidays

Time and one half the regular rate for work on the following holiday(s).

New Year's Day
Martin Luther King Jr. Day
President's Day
Memorial Day
Independence Day
Labor Day
Thanksgiving Day
Christmas Day

Paid Holidays

None

Shift Rates

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

All work outside the regular work day (an eight hour workday between the hours of 6:00 A.M. and 4:30 P.M.) is to be paid at time and one half the regular rate.

(Bricklayer District Council)

SHEET METAL WORKER

Sheet Metal Worker

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: **\$46.21**

Supplemental Benefit Rate per Hour: **\$43.89**

Supplemental Note: Supplemental benefit contributions are to be made at the applicable overtime rates.

Sheet Metal Worker - Fan Maintenance

(The temporary operation of fans or blowers in new or existing buildings for heating and/or ventilation, and/or air conditioning prior to the completion of the project.)

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: **\$36.97**

Supplemental Benefit Rate per Hour: **\$43.89**

Sheet Metal Worker - Duct Cleaner

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: **\$12.90**

Supplemental Benefit Rate per Hour: **\$8.07**

Overtime

Time and one half the regular rate after a 7 hour day.

Time and one half the regular rate for Saturday.

Double time the regular rate for Sunday.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).

New Year's Day

Martin Luther King Jr. Day

President's Day

Memorial Day

Independence Day

Labor Day

Columbus Day

Veteran's Day

Thanksgiving Day

Day after Thanksgiving

Christmas Day

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Paid Holidays

None

Shift Rates

Work that can only be performed outside regular working hours (seven hours of work between 7:30 A.M. and 3:30 P.M.) - First shift (work between 3:30 P.M. and 11:30 P.M.) - 10% differential above the established hourly rate.
Second shift (work between 11:30 P.M. and 7:30 A.M.) - 15% differential above the established hourly rate.

For Fan Maintenance: On all full shifts of fan maintenance work the straight time hourly rate of pay will be paid for each shift, including nights, Saturdays, Sundays, and holidays. No journey person engaged in fan maintenance shall work in excess of forty (40) hours in any work week.

(Local #28)

**SHEET METAL WORKER - SPECIALTY
(Decking & Siding)**

Sheet Metal Specialty Worker

The first worker to perform this work must be paid at the rate of the Sheet Metal Worker. The second and third workers shall be paid the Specialty Worker Rate. The ratio of One Sheet Metal Worker, then Two Specialty Workers shall be utilized thereafter.

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: **\$40.78**

Supplemental Benefit Rate per Hour: **\$23.38**

Supplemental Note: Supplemental benefit contributions are to be made at the applicable overtime rates.

Overtime

Time and one half the regular rate after an 8 hour day.

Time and one half the regular rate for Saturday.

Double time the regular rate for Sunday.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).

New Year's Day

Martin Luther King Jr. Day

President's Day

Memorial Day

Independence Day

Labor Day

Columbus Day

Veteran's Day

Thanksgiving Day

Christmas Day

Paid Holidays

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
\$220 PREVAILING WAGE SCHEDULE

None

(Local #28)

SHIPYARD WORKER

Shipyard Mechanic - First Class

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate per Hour: **\$23.83**
Supplemental Benefit Rate per Hour: **\$2.87**

Shipyard Mechanic - Second Class

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate per Hour: **\$15.44**
Supplemental Benefit Rate per Hour: **\$2.54**

Shipyard Laborer - First Class

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate per Hour: **\$19.28**
Supplemental Benefit Rate per Hour: **\$2.69**

Shipyard Laborer - Second Class

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate per Hour: **\$12.36**
Supplemental Benefit Rate per Hour: **\$2.43**

Shipyard Dockhand - First Class

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate per Hour: **\$22.68**
Supplemental Benefit Rate per Hour: **\$2.82**

Shipyard Dockhand - Second Class

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate per Hour: **\$14.22**
Supplemental Benefit Rate per Hour: **\$2.50**

Overtime Description

Work performed on holiday is paid double time the regular hourly wage rate plus holiday pay.

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Overtime

Time and one half the regular rate after an 8 hour day.
Time and one half the regular rate for Saturday.
Double time the regular rate for Sunday.
Time and one half the regular hourly rate after 40 hours in any work week.

Paid Holidays

New Year's Day
Martin Luther King Jr. Day
President's Day
Good Friday
Memorial Day
Independence Day
Labor Day
Thanksgiving Day
Day after Thanksgiving
Christmas Day

Based on Survey Data

SIGN ERECTOR
(Sheet Metal, Plastic, Electric, and Neon)

Sign Erector

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate per Hour: **\$44.20**
Supplemental Benefit Rate per Hour: **\$44.10**

Overtime

Time and one half the regular rate after a 7 hour day.
Time and one half the regular rate for Saturday.
Time and one half the regular rate for Sunday.
Time and one half the regular rate for work on the following holiday(s).

Paid Holidays

New Year's Day
Washington's Birthday
Memorial Day
Independence Day
Labor Day
Columbus Day
Election Day
Thanksgiving Day
Day after Thanksgiving
Christmas Day

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
\$220 PREVAILING WAGE SCHEDULE

Shift Rates

Time and one half the regular hourly rate is to be paid for all hours worked outside the regular workday either (7:00 A.M. through 2:30 P.M.) or (8:00 A.M. through 3:30 P.M.)

(Local #137)

STEAMFITTER

Steamfitter I

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: \$53.25

Supplemental Benefit Rate per Hour: \$51.04

Supplemental Note: Overtime supplemental benefit rate: \$101.34

Overtime

Double time the regular rate after a 7 hour day.

Double time the regular time rate for Saturday.

Double time the regular rate for Sunday.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).

New Year's Day

President's Day

Memorial Day

Independence Day

Labor Day

Columbus Day

Veteran's Day

Thanksgiving Day

Day after Thanksgiving

Christmas Day

Paid Holidays

None

Shift Rates

Work performed between 3:30 P.M. and 7:00 A.M. and on Saturdays, Sundays and Holidays shall be at double time the regular hourly rate and paid at the overtime supplemental benefit rate above.

Steamfitter II

For heating, ventilation, air conditioning and mechanical public works contracts with a dollar value not to exceed \$15,000,000 and for fire protection/sprinkler public works contracts not to exceed \$1,500,000.

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: \$53.25

Supplemental Benefit Rate per Hour: \$51.04

Supplemental Note: Overtime supplemental benefit rate: \$101.34

Overtime

Double time the regular rate after an 8 hour day.

Double time the regular time rate for Saturday.

Double time the regular rate for Sunday.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).

New Year's Day

President's Day

Memorial Day

Independence Day

Labor Day

Columbus Day

Veteran's Day

Thanksgiving Day

Day after Thanksgiving

Christmas Day

Paid Holidays

None

Shift Rates

May be performed outside of the regular workday except Saturday, Sunday and Holidays. A shift shall consist of eight working hours. All work performed in excess of eight hours shall be paid at double time. No shift shall commence after 7:00 P.M. on Friday or 7:00 P.M. the day before holidays. All work performed after 12:01 A.M. Saturday or 12:01 A.M. the day before a Holiday will be paid at double time. When shift work is performed the wage rate for regular time worked is a thirty percent premium together with fringe benefits.

On Transit Authority projects, where work is performed in the vicinity of tracks all shift work on weekends and holidays may be performed at the regular shift rates.

Local #638

STEAMFITTER - REFRIGERATION AND AIR CONDITIONER (Maintenance and Installation Service Person)

Refrigeration and Air Conditioner Mechanic

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: \$38.30

Supplemental Benefit Rate per Hour: \$12.76

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
\$220 PREVAILING WAGE SCHEDULE

Refrigeration and Air Conditioner Service Person V

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate per Hour: \$31.47
Supplemental Benefit Rate per Hour: \$11.55

Refrigeration and Air Conditioner Service Person IV

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate per Hour: \$26.07
Supplemental Benefit Rate per Hour: \$10.52

Refrigeration and Air Conditioner Service Person III

Filter changing and maintenance thereof, oil and greasing, tower and coil cleaning, scraping and painting, general housekeeping, taking of water samples.

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate per Hour: \$22.38
Supplemental Benefit Rate per Hour: \$9.76

Refrigeration and Air Conditioner Service Person II

Filter changing and maintenance thereof, oil and greasing, tower and coil cleaning, scraping and painting, general housekeeping, taking of water samples.

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate per Hour: \$18.56
Supplemental Benefit Rate per Hour: \$9.06

Refrigeration and Air Conditioner Service Person I

Filter changing and maintenance thereof, oil and greasing, tower and coil cleaning, scraping and painting, general housekeeping, taking of water samples.

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate per Hour: \$13.57
Supplemental Benefit Rate per Hour: \$8.30

Overtime

Time and one half the regular rate after an 8 hour day.
Time and one half the regular rate for Saturday.
Double time the regular rate for Sunday.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).
New Year's Day
Independence Day
Labor Day
Veteran's Day

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Thanksgiving Day
Christmas Day

Double time and one half the regular rate for work on the following holiday(s).

Martin Luther King Jr. Day
President's Day
Memorial Day
Columbus Day

Paid Holidays

New Year's Day
Martin Luther King Jr. Day
President's Day
Memorial Day
Independence Day
Labor Day
Columbus Day
Veteran's Day
Thanksgiving Day
Christmas Day

(Local #638B)

STONE MASON - SETTER

Stone Mason - Setters

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: **\$46.56**

Supplemental Benefit Rate per Hour: **\$36.40**

Overtime

Time and one half the regular rate after a 7 hour day.

Time and one half the regular rate for Saturday.

Double time the regular rate for Sunday.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).

New Year's Day
Washington's Birthday
Good Friday
Memorial Day
Independence Day
Labor Day
Thanksgiving Day
Christmas Day

Paid Holidays

1/2 day on Christmas Eve if work is performed in the A.M.

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Shift Rates

For all work outside the regular workday (8:00 A.M. to 3:30 P.M. Monday through Friday), the pay shall be straight time plus a ten percent (10%) differential.

(Bricklayers District Council)

TAPER

Drywall Taper

Effective Period: 7/1/2014 - 12/30/2014

Wage Rate per Hour: \$45.32

Supplemental Benefit Rate per Hour: \$22.66

Effective Period: 12/31/2014 - 6/30/2015

Wage Rate per Hour: \$45.82

Supplemental Benefit Rate per Hour: \$22.66

Overtime

Time and one half the regular rate after a 7 hour day.

Time and one half the regular rate for Saturday.

Time and one half the regular rate for Sunday.

Overtime Holidays

Time and one half the regular rate for work on the following holiday(s).

New Year's Day

Martin Luther King Jr. Day

President's Day

Good Friday

Memorial Day

Independence Day

Labor Day

Columbus Day

Thanksgiving Day

Christmas Day

Paid Holidays

Any worker who reports to work on Christmas Eve or New Year's Eve pursuant to his employer's instruction shall be entitled to three (3) hours afternoon pay without working.

Shift Rates

Time and one half the regular rate outside the regular work hours (8:00 A.M. through 3:30 P.M.)

(Local #1974)

**TELECOMMUNICATION WORKER
(Voice Installation Only)**

Telecommunication Worker

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: **\$39.18**

Supplemental Benefit Rate per Hour: **\$13.19**

Supplemental Note: The above rate applies for Manhattan, Bronx, Brooklyn, Queens. \$12.64 for Staten Island only.

Overtime

Time and one half the regular rate after a 7 hour day.

Time and one half the regular rate for Saturday.

Time and one half the regular rate for Sunday.

Overtime Holidays

Time and one half the regular rate for work on the following holiday(s).

New Year's Day

Lincoln's Birthday

Washington's Birthday

Memorial Day

Independence Day

Labor Day

Columbus Day

Election Day

Veteran's Day

Thanksgiving Day

Christmas Day

Paid Holidays

New Year's Day

Lincoln's Birthday

Washington's Birthday

Memorial Day

Independence Day

Labor Day

Columbus Day

Election Day

Veteran's Day

Thanksgiving Day

Christmas Day

Employees have the option of observing either Martin Luther King's Birthday or the day after Thanksgiving instead of Lincoln's Birthday

Shift Rates

For any workday that starts before 8A.M. or ends after 6P.M. there is a 10% differential for the applicable worker's hourly rate.

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Vacation

After 6 months.....one week.
After 12 months but less than 7 years.....two weeks.
After 7 or more but less than 15 years.....three weeks.
After 15 years or more but less than 25 years.....four weeks.

(C.W.A.)

TILE FINISHER

Tile Finisher

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate per Hour: \$38.80
Supplemental Benefit Rate per Hour: \$28.03

Overtime

Time and one half the regular rate after a 7 hour day.
Time and one half the regular rate for Saturday.
Double time the regular rate for Sunday.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).

New Year's Day
President's Day
Good Friday
Memorial Day
Independence Day
Labor Day
Columbus Day
Veteran's Day
Thanksgiving Day
Day after Thanksgiving
Christmas Day

Paid Holidays

None

Shift Rates

Off shift work day (work performed outside the regular 8:00 A.M. to 3:30 P.M. workday): shift differential of one and one quarter (1¼) times the regular straight time rate of pay for the seven hours of actual off-shift work.

(Local #7)

TILE LAYER - SETTER

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Tile Layer - Setter

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate per Hour: **\$49.88**
Supplemental Benefit Rate per Hour: **\$32.36**

Overtime

Time and one half the regular rate after a 7 hour day.
Time and one half the regular rate for Saturday.
Double time the regular rate for Sunday.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).
New Year's Day
President's Day
Good Friday
Memorial Day
Independence Day
Labor Day
Columbus Day
Veteran's Day
Thanksgiving Day
Day after Thanksgiving
Christmas Day

Shift Rates

Off shift work day (work performed outside the regular 8:00 A.M. to 3:30 P.M. workday): shift differential of one and one quarter (1¼) times the regular straight time rate of pay for the seven hours of actual off-shift work.

(Local #7)

TIMBERPERSON

Timberperson

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate per Hour: **\$44.33**
Supplemental Benefit Rate per Hour: **\$45.39**

Overtime

Time and one half the regular rate after an 8 hour day.
Time and one half the regular rate for Saturday.
Double time the regular rate for Sunday.
Saturday may be used as a make-up day at straight time when a day is lost during that week to inclement weather.
Time and one half the regular hourly rate after 40 hours in any work week.

Overtime Holidays

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Double time the regular rate for work on the following holiday(s).

New Year's Day
President's Day
Memorial Day
Independence Day
Labor Day
Columbus Day
Presidential Election Day
Thanksgiving Day
Christmas Day

Paid Holidays

None

Shift Rates

Off shift work commencing between 5:00 P.M. and 11:00 P.M. shall work eight and one half hours allowing for one half hour for lunch. The wage rate shall be 113% of the straight time hourly wage rate.

(Local #1536)

TUNNEL WORKER

Blasters, Mucking Machine Operators (Compressed Air Rates)

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: \$54.20

Supplemental Benefit Rate per Hour: \$48.20

Tunnel Workers (Compressed Air Rates)

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: \$52.31

Supplemental Benefit Rate per Hour: \$46.59

Top Nipper (Compressed Air Rates)

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: \$51.35

Supplemental Benefit Rate per Hour: \$45.78

Outside Lock Tender, Outside Gauge Tender, Muck Lock Tender (Compressed Air Rates)

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: \$50.42

Supplemental Benefit Rate per Hour: \$44.91

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Bottom Bell & Top Bell Signal Person: Shaft Person (Compressed Air Rates)

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate per Hour: \$50.42
Supplemental Benefit Rate per Hour: \$44.92

Changehouse Attendant: Powder Watchperson (Compressed Air Rates)

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate per Hour: \$43.94
Supplemental Benefit Rate per Hour: \$42.55

Blasters (Free Air Rates)

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate per Hour: \$51.72
Supplemental Benefit Rate per Hour: \$46.03

Tunnel Workers (Free Air Rates)

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate per Hour: \$49.48
Supplemental Benefit Rate per Hour: \$44.06

All Others (Free Air Rates)

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate per Hour: \$45.73
Supplemental Benefit Rate per Hour: \$40.75

Microtunneling (Free Air Rates)

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate per Hour: \$39.58
Supplemental Benefit Rate per Hour: \$35.25

Overtime Description

For Repair-Maintenance Work on Existing Equipment and Facilities - Time and one half the regular rate after a 7 hour day, or for Saturday, or for Sunday. Double time the regular rate for work on a holiday.

For Small-Bore Micro Tunneling Machines - Time and one-half the regular rate shall be paid for all overtime.

Overtime

Double time the regular rate after an 8 hour day.
Double time the regular time rate for Saturday.
Double time the regular rate for Sunday.
Double time the regular rate for work on the following holiday(s).

Paid Holidays

New Year's Day

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Lincoln's Birthday
President's Day
Memorial Day
Independence Day
Labor Day
Columbus Day
Election Day
Veteran's Day
Thanksgiving Day
Christmas Day

(Local #147)

WELDER
TO BE PAID AT THE RATE OF THE JOURNEYPERSON IN THE TRADE
PERFORMING THE WORK.

OFFICE OF THE COMPTROLLER

CITY OF NEW YORK

220 APPRENTICESHIP PREVAILING WAGE SCHEDULE

APPENDIX

Pursuant to Labor Law §220 (3-e), only apprentices who are individually registered in a bona fide program to which the employer contractor is a participant and registered with the New York State Department of Labor, may be employed on a public work project.

Any employee listed on a payroll at an apprentice wage rate, who is not registered as above, shall be paid the journey person wage rate for the classification of work he actually performed.

Apprentice ratios are established to ensure the proper safety, training and supervision of apprentices. A ratio establishes the number of journey workers required for each apprentice in a program and on a job site. Ratios are interpreted as follows: in the case of a 1:1, 1:4 ratio, there must be one journey worker for the first apprentice, and four additional journey workers for each subsequent apprentice.

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
 §220 APPRENTICESHIP PREVAILING WAGE SCHEDULE

TABLE OF CONTENTS

<u>CLASSIFICATION</u>	<u>PAGE</u>
ASBESTOS HANDLER.....	3
BOILERMAKER	3
BRICKLAYER	4
CARPENTER	5
CEMENT MASON	6
CEMENT AND CONCRETE WORKER.....	6
DERRICKPERSON & RIGGER (STONE).....	7
DOCKBUILDER/PILE DRIVER.....	8
ELECTRICIAN.....	8
ELEVATOR CONSTRUCTOR	11
ELEVATOR REPAIR & MAINTENANCE.....	12
ENGINEER.....	13
ENGINEER - OPERATING.....	14
FLOOR COVERER.....	14
GLAZIER.....	15
HEAT & FROST INSULATOR	16
HOUSE WRECKER.....	17
IRON WORKER - ORNAMENTAL.....	17
IRON WORKER - STRUCTURAL.....	18
LABORER (FOUNDATION, CONCRETE, EXCAVATING, STREET PIPE LAYER & COMMON)....	19
MARBLE MECHANICS.....	19
MASON TENDER.....	21
METALLIC LATHER	21
MILLWRIGHT.....	22
PAVER AND ROADBUILDER	23
PAINTER.....	24
PAINTER - STRUCTURAL STEEL.....	24
PLASTERER.....	25
PLUMBER.....	26
POINTER - WATERPROOFER, CAULKER MECHANIC (EXTERIOR BUILDING RENOVATION) .	27
ROOFER	27
SHEET METAL WORKER	28
SIGN ERECTOR	29
STEAMFITTER.....	31
STONE MASON - SETTER.....	31
TAPER.....	32
TILE LAYER - SETTER.....	33
TIMBERPERSON	33

ASBESTOS HANDLER

(Ratio of Apprentice Journeyperson: 1 to 1, 1 to 3)

Asbestos Handler (First 1000 Hours)

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate Per Hour: 78% of Journeyperson's rate
Supplemental Benefit Rate Per Hour: \$15.45

Asbestos Handler (Second 1000 Hours)

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate Per Hour: 80% of Journeyperson's rate
Supplemental Benefit Rate Per Hour: \$15.45

Asbestos Handler (Third 1000 Hours)

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate Per Hour: 83% of Journeyperson's rate
Supplemental Benefit Rate Per Hour: \$15.45

Asbestos Handler (Fourth 1000 Hours)

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate Per Hour: 89% of Journeyperson's rate
Supplemental Benefit Rate Per Hour: \$15.45

(Local #78)

BOILERMAKER

(Ratio of Apprentice to Journeyperson: 1 to 1, 1 to 3)

Boilermaker (First Year)

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate Per Hour: 65% of Journeyperson's rate
Supplemental Benefit Rate Per Hour: \$29.74

Boilermaker (Second Year: 1st Six Months)

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate Per Hour: 75% of Journeyperson's rate
Supplemental Benefit Rate Per Hour: \$31.40

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
\$220 APPRENTICESHIP PREVAILING WAGE SCHEDULE

Boilermaker (Second Year: 2nd Six Months)

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate Per Hour: 75% of Journeyman's rate
Supplemental Benefit Rate Per Hour: \$33.05

Boilermaker (Third Year: 1st Six Months)

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate Per Hour: 80% of Journeyman's rate
Supplemental Benefit Rate Per Hour: \$34.69

Boilermaker (Third Year: 2nd Six Months)

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate Per Hour: 85% of Journeyman's rate
Supplemental Benefit Rate Per Hour: \$36.34

Boilermaker (Fourth Year: 1st Six Months)

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate Per Hour: 90% of Journeyman's rate
Supplemental Benefit Rate Per Hour: \$38.00

Boilermaker (Fourth Year: 2nd Six Months)

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate Per Hour: 95% of Journeyman's rate
Supplemental Benefit Rate Per Hour: \$39.65

(Local #5)

BRICKLAYER

(Ratio of Apprentice to Journeyman: 1 to 1, 1 to 4)

Bricklayer (First 750 Hours)

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate Per Hour: 50% of Journeyman's rate
Supplemental Benefit Rate Per Hour: \$17.10

Bricklayer (Second 750 Hours)

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate Per Hour: 60% of Journeyman's rate

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 APPRENTICESHIP PREVAILING WAGE SCHEDULE

Supplemental Benefit Rate Per Hour: \$17.10

Bricklayer (Third 750 Hours)

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate Per Hour: 70% of Journeyperson's rate
Supplemental Benefit Rate Per Hour: \$17.10

Bricklayer (Fourth 750 Hours)

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate Per Hour: 80% of Journeyperson's rate
Supplemental Benefit Rate Per Hour: \$17.10

Bricklayer (Fifth 750 Hours)

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate Per Hour: 90% of Journeyperson's rate
Supplemental Benefit Rate Per Hour: \$17.10

Bricklayer (Sixth 750 Hours)

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate Per Hour: 95% of Journeyperson's rate
Supplemental Benefit Rate Per Hour: \$17.10

(Bricklayer District Council)

CARPENTER

(Ratio of Apprentice to Journeyperson: 1 to 1, 1 to 4)

Carpenter (First Year)

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate Per Hour: 40% of Journeyperson's rate
Supplemental Benefit Rate Per Hour: \$30.25

Carpenter (Second Year)

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate Per Hour: 50% of Journeyperson's rate
Supplemental Benefit Rate Per Hour: \$30.25

Carpenter (Third Year)

Effective Period: 7/1/2014 - 6/30/2015

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
\$220 APPRENTICESHIP PREVAILING WAGE SCHEDULE

Wage Rate Per Hour: 65% of Journeyperson's rate
Supplemental Benefit Rate Per Hour: \$30.25

Carpenter (Fourth Year)

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate Per Hour: 80% of Journeyperson's rate
Supplemental Benefit Rate Per Hour: \$30.25

(Carpenters District Council)

CEMENT MASON
(Ratio of Apprentice to Journeyperson: 1 to 1, 1 to 4)

Cement Mason (First Year)

Effective Period: 7/1/2014 - 6/30/2015
Wage and Supplemental Rate Per Hour: 50% of Journeyperson's Rate

Cement Mason (Second Year)

Effective Period: 7/1/2014 - 6/30/2015
Wage and Supplemental Rate Per Hour: 60% of Journeyperson's Rate

Cement Mason (Third Year)

Effective Period: 7/1/2014 - 6/30/2015
Wage and Supplemental Rate Per Hour: 70% of Journeyperson's Rate

(Local #780)

CEMENT AND CONCRETE WORKER
(Ratio of Apprentice to Journeyperson: 1 to 1, 1 to 3)

Cement & Concrete Worker (0 - 500 hours)

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate Per Hour: 50% of Journeyperson's rate
Supplemental Benefit Rate Per Hour: \$18.04

Cement & Concrete Worker (501 - 1000 hours)

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 APPRENTICESHIP PREVAILING WAGE SCHEDULE

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate Per Hour: 65% of Journeyman's rate
Supplemental Benefit Rate Per Hour: \$18.87

Cement & Concrete Worker (1001 - 2000 hours)

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate Per Hour: 65% of Journeyman's rate
Supplemental Benefit Rate Per Hour: \$24.25

Cement & Concrete Worker (2001 - 4000 hours)

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate Per Hour: 80% of Journeyman's rate
Supplemental Benefit Rate Per Hour: \$25.07

(Cement Concrete Workers District Council)

DERRICKPERSON & RIGGER (STONE)
(Ratio of Apprentice to Journeyman: 1 to 1, 1 to 4)

Derrickperson & Rigger (stone) - First Year

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate Per Hour: 50% of Journeyman's rate
Supplemental Benefit Rate Per Hour: 50% of Journeyman's rate

Derrickperson & Rigger (stone) - Second Year: 1st Six Months

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate Per Hour: 70% of Journeyman's rate
Supplemental Benefit Rate Per Hour: 75% of Journeyman's rate

Derrickperson & Rigger (stone) - Second Year: 2nd Six Months

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate Per Hour: 80% of Journeyman's rate
Supplemental Benefit Rate Per Hour: 75% of Journeyman's rate

Derrickperson & Rigger (stone) - Third Year

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate Per Hour: 90% of Journeyman's rate
Supplemental Benefit Rate Per Hour: 75% of Journeyman's rate

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 APPRENTICESHIP PREVAILING WAGE SCHEDULE

(Local #197)

DOCKBUILDER/PILE DRIVER
(Ratio of Apprentice to Journeyman: 1 to 1, 1 to 6)

Dockbuilder/Pile Driver (First Year)

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate Per Hour: 40% of Journeyman's rate
Supplemental Benefit Rate Per Hour: \$31.26

Dockbuilder/Pile Driver (Second Year)

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate Per Hour: 50% of Journeyman's rate
Supplemental Benefit Rate Per Hour: \$31.26

Dockbuilder/Pile Driver (Third Year)

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate Per Hour: 65% of Journeyman's rate
Supplemental Benefit Rate Per Hour: \$31.26

Dockbuilder/Pile Driver (Fourth Year)

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate Per Hour: 80% of Journeyman's rate
Supplemental Benefit Rate Per Hour: \$31.26

(Carpenters District Council)

ELECTRICIAN
(Ratio of Apprentice to Journeyman: 1 to 1, 1 to 3)

Electrician (First Term: 0-6 Months)

Effective Period: 7/1/2014 - 5/12/2015
Wage Rate per Hour: \$12.50
Supplemental Benefit Rate per Hour: \$11.10
Overtime Supplemental Rate Per Hour: \$11.93

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 APPRENTICESHIP PREVAILING WAGE SCHEDULE

Effective Period: 5/13/2015 - 6/30/2015

Wage Rate per Hour: \$13.00

Supplemental Benefit Rate per Hour: \$11.61

Overtime Supplemental Rate Per Hour: \$12.47

Electrician (First Term: 7-12 Months)

Effective Period: 7/1/2014 - 5/12/2015

Wage Rate per Hour: \$13.50

Supplemental Benefit Rate per Hour: \$11.62

Overtime Supplemental Rate Per Hour: \$12.51

Effective Period: 5/13/2015 - 6/30/2015

Wage Rate per Hour: \$14.00

Supplemental Benefit Rate per Hour: \$12.12

Overtime Supplemental Rate Per Hour: \$13.04

Electrician (Second Term: 0-6 Months)

Effective Period: 7/1/2014 - 5/12/2015

Wage Rate per Hour: \$14.50

Supplemental Benefit Rate per Hour: \$12.13

Overtime Supplemental Rate Per Hour: \$13.08

Effective Period: 5/13/2015 - 6/30/2015

Wage Rate per Hour: \$15.00

Supplemental Benefit Rate per Hour: \$12.63

Overtime Supplemental Rate Per Hour: \$13.62

Electrician (Second Term: 7-12 Months)

Effective Period: 7/1/2014 - 5/12/2015

Wage Rate per Hour: \$15.50

Supplemental Benefit Rate per Hour: \$12.64

Overtime Supplemental Rate Per Hour: \$13.66

Effective Period: 5/13/2015 - 6/30/2015

Wage Rate per Hour: \$16.00

Supplemental Benefit Rate per Hour: \$13.14

Overtime Supplemental Rate Per Hour: \$14.19

Electrician (Third Term: 0-6 Months)

Effective Period: 7/1/2014 - 5/12/2015

Wage Rate per Hour: \$16.50

Supplemental Benefit Rate per Hour: \$13.15

Overtime Supplemental Rate Per Hour: \$14.23

Effective Period: 5/13/2015 - 6/30/2015

Wage Rate per Hour: \$17.00

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 APPRENTICESHIP PREVAILING WAGE SCHEDULE

Supplemental Benefit Rate per Hour: \$13.65
Overtime Supplemental Rate Per Hour: \$14.77

Electrician (Third Term: 7-12 Months)

Effective Period: 7/1/2014 - 5/12/2015
Wage Rate per Hour: \$17.50
Supplemental Benefit Rate per Hour: \$13.65
Overtime Supplemental Rate Per Hour: \$14.81

Effective Period: 5/13/2015 - 6/30/2015
Wage Rate per Hour: \$18.00
Supplemental Benefit Rate per Hour: \$14.16
Overtime Supplemental Rate Per Hour: \$15.34

Electrician (Fourth Term: 0-6 Months)

Effective Period: 7/1/2014 - 5/12/2015
Wage Rate per Hour: \$18.50
Supplemental Benefit Rate per Hour: \$14.16
Overtime Supplemental Rate Per Hour: \$15.38

Effective Period: 5/13/2015 - 6/30/2015
Wage Rate per Hour: \$19.00
Supplemental Benefit Rate per Hour: \$14.67
Overtime Supplemental Rate Per Hour: \$15.92

Electrician (Fourth Term: 7-12 Months)

Effective Period: 7/1/2014 - 5/12/2015
Wage Rate per Hour: \$20.50
Supplemental Benefit Rate per Hour: \$15.18
Overtime Supplemental Rate Per Hour: \$16.53

Effective Period: 5/13/2015 - 6/30/2015
Wage Rate per Hour: \$21.00
Supplemental Benefit Rate per Hour: \$15.68
Overtime Supplemental Rate Per Hour: \$17.07

Electrician (Fifth Term: 0-12 Months - Hired on or after 5/10/07)

Effective Period: 7/1/2014 - 5/12/2015
Wage Rate per Hour: \$22.50
Supplemental Benefit Rate per Hour: \$18.06
Overtime Supplemental Rate Per Hour: \$19.47

Effective Period: 5/13/2015 - 6/30/2015
Wage Rate per Hour: \$23.00
Supplemental Benefit Rate per Hour: \$18.56
Overtime Supplemental Rate Per Hour: \$20.00

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 APPRENTICESHIP PREVAILING WAGE SCHEDULE

Electrician (Fifth Term: 13-18 Months - Hired on or after 5/10/07)

Effective Period: 7/1/2014 - 5/12/2015
Wage Rate per Hour: \$27.00
Supplemental Benefit Rate per Hour: \$20.32
Overtime Supplemental Rate Per Hour: \$22.01

Effective Period: 5/13/2015 - 6/30/2015
Wage Rate per Hour: \$27.50
Supplemental Benefit Rate per Hour: \$20.82
Overtime Supplemental Rate Per Hour: \$22.54

Electrician (Fifth Term: 0-18 Months - Hired before 5/10/07)

Effective Period: 7/1/2014 - 5/12/2015
Wage Rate per Hour: \$26.30
Supplemental Benefit Rate per Hour: \$19.96
Overtime Supplemental Rate Per Hour: \$21.61

Effective Period: 5/13/2015 - 6/30/2015
Wage Rate per Hour: \$26.80
Supplemental Benefit Rate per Hour: \$20.46
Overtime Supplemental Rate Per Hour: \$22.14

Overtime Description

Overtime Wage paid at time and one half the regular rate
For "A" rated Apprentices (work in excess of 7 hours per day)
For "M" rated Apprentices (work in excess of 8 hours per day)

(Local #3)

ELEVATOR CONSTRUCTOR

(Ratio of Apprentice to Journeyman: 1 to 1, 1 to 2)

Elevator (Constructor) - First Year

Effective Period: 7/1/2014 - 3/16/2015
Wage Rate Per Hour: 50% of Journeyman's rate
Supplemental Rate Per Hour: \$25.46

Effective Period: 3/17/2015 - 6/30/2015
Wage Rate Per Hour: 50% of Journeyman's rate
Supplemental Rate Per Hour: \$26.94

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
\$220 APPRENTICESHIP PREVAILING WAGE SCHEDULE

Elevator (Constructor) - Second Year

Effective Period: 7/1/2014 - 3/16/2015
Wage Rate Per Hour: 55% of Journeyman's rate
Supplemental Rate Per Hour: \$25.86

Effective Period: 3/17/2015 - 6/30/2015
Wage Rate Per Hour: 55% of Journeyman's rate
Supplemental Rate Per Hour: \$27.35

Elevator (Constructor) - Third Year

Effective Period: 7/1/2014 - 3/16/2015
Wage Rate Per Hour: 65% of Journeyman's rate
Supplemental Rate Per Hour: \$26.66

Effective Period: 3/17/2015 - 6/30/2015
Wage Rate Per Hour: 65% of Journeyman's rate
Supplemental Rate Per Hour: \$28.17

Elevator (Constructor) - Fourth Year

Effective Period: 7/1/2014 - 3/16/2015
Wage Rate Per Hour: 75% of Journeyman's rate
Supplemental Rate Per Hour: \$27.46

Effective Period: 3/17/2015 - 6/30/2015
Wage Rate Per Hour: 75% of Journeyman's rate
Supplemental Rate Per Hour: \$29.00

(Local #1)

ELEVATOR REPAIR & MAINTENANCE
(Ratio of Apprentice to Journeyman: 1 to 1, 1 to 2)

Elevator Service/Modernization Mechanic (First Year)

Effective Period: 7/1/2014 - 3/16/2015
Wage Rate Per Hour: 50% of Journeyman's rate
Supplemental Benefit Per Hour: \$24.85

Effective Period: 3/17/2015 - 6/30/2015
Wage Rate Per Hour: 50% of Journeyman's rate
Supplemental Benefit Per Hour: \$26.87

Elevator Service/Modernization Mechanic (Second Year)

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 APPRENTICESHIP PREVAILING WAGE SCHEDULE

Effective Period: 7/1/2014 - 3/16/2015
Wage Rate Per Hour: 55% of Journeyperson's rate
Supplemental Benefit Per Hour: \$25.24

Effective Period: 3/17/2015 - 6/30/2015
Wage Rate Per Hour: 55% of Journeyperson's rate
Supplemental Benefit Per Hour: \$27.27

Elevator Service/Modernization Mechanic (Third Year)

Effective Period: 7/1/2014 - 3/16/2015
Wage Rate Per Hour: 65% of Journeyperson's rate
Supplemental Benefit Per Hour: \$26.02

Effective Period: 3/17/2015 - 6/30/2015
Wage Rate Per Hour: 65% of Journeyperson's rate
Supplemental Benefit Per Hour: \$28.08

Elevator Service/Modernization Mechanic (Fourth Year)

Effective Period: 7/1/2014 - 3/16/2015
Wage Rate Per Hour: 75% of Journeyperson's rate
Supplemental Benefit Per Hour: \$26.81

Effective Period: 3/17/2015 - 6/30/2015
Wage Rate Per Hour: 75% of Journeyperson's rate
Supplemental Benefit Per Hour: \$28.89

(Local #1)

ENGINEER

(Ratio of Apprentice to Journeyperson: 1 to 1, 1 to 5)

Engineer - First Year

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate per Hour: \$22.49
Supplemental Benefit Rate per Hour: \$20.68

Engineer - Second Year

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate per Hour: \$28.11
Supplemental Benefit Rate per Hour: \$20.68

Engineer - Third Year

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 APPRENTICESHIP PREVAILING WAGE SCHEDULE

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate per Hour: \$20.92
Supplemental Benefit Rate per Hour: \$20.68

Engineer - Fourth Year

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate per Hour: \$33.73
Supplemental Benefit Rate per Hour: \$20.68

(Local #15)

ENGINEER - OPERATING
(Ratio of Apprentice to Journeyman: 1 to 1, 1 to 5)

Operating Engineer - First Year

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate Per Hour 40% of Journeyman's Rate
Supplemental Benefit Per Hour: \$18.60

Operating Engineer - Second Year

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate Per Hour: 50% of Journeyman's Rate
Supplemental Benefit Per Hour: \$18.60

Operating Engineer - Third Year

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate Per Hour: 60% of Journeyman's Rate
Supplemental Benefit Per Hour: \$18.60

(Local #14)

FLOOR COVERER
(Ratio of Apprentice to Journeyman: 1 to 1, 1 to 4)

Floor Coverer (First Year)

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 APPRENTICESHIP PREVAILING WAGE SCHEDULE

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate Per Hour: 40% of Journeyman's rate
Supplemental Rate Per Hour: \$30.25

Floor Coverer (Second Year)

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate Per Hour: 50% of Journeyman's rate
Supplemental Rate Per Hour: \$30.25

Floor Coverer (Third Year)

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate Per Hour: 65% of Journeyman's rate
Supplemental Rate Per Hour: \$30.25

Floor Coverer (Fourth Year)

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate Per Hour: 80% of Journeyman's rate
Supplemental Rate Per Hour: \$30.25

(Carpenters District Council)

GLAZIER
(Ratio of Apprentice to Journeyman: 1 to 1, 1 to 3)

Glazier (First Year)

Effective Period: 7/1/2014 - 10/31/2014
Wage Rate Per Hour: 40% of Journeyman's rate
Supplemental Rate Per Hour: \$12.97

Effective Period: 11/1/2014 - 6/30/2015
Wage Rate Per Hour: 40% of Journeyman's rate
Supplemental Rate Per Hour: \$13.12

Glazier (Second Year)

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate Per Hour: 50% of Journeyman's rate
Supplemental Rate Per Hour: \$22.25

Glazier (Third Year)

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
\$220 APPRENTICESHIP PREVAILING WAGE SCHEDULE

Effective Period: 7/1/2014 - 10/31/2014
Wage Rate Per Hour: 60% of Journeyperson's rate
Supplemental Rate Per Hour: \$24.75

Effective Period: 11/1/2014 - 6/30/2015
Wage Rate Per Hour: 60% of Journeyperson's rate
Supplemental Rate Per Hour: \$25.10

Glazier (Fourth Year)

Effective Period: 7/1/2014 - 10/31/2014
Wage Rate Per Hour: 80% of Journeyperson's rate
Supplemental Rate Per Hour: \$29.87

Effective Period: 11/1/2014 - 6/30/2015
Wage Rate Per Hour: 80% of Journeyperson's rate
Supplemental Rate Per Hour: \$30.02

(Local #1281)

**HEAT & FROST INSULATOR
(Ratio of Apprentice to Journeyperson: 1 to 1, 1 to 4)**

Heat & Frost Insulator (First Year)

Effective Period: 7/1/2014 - 6/30/2015
Wage and Supplemental Rate Per Hour: 40% of Journeyperson's rate

Heat & Frost Insulator (Second Year)

Effective Period: 7/1/2014 - 6/30/2015
Wage and Supplemental Rate Per Hour: 60% of Journeyperson's rate

Heat & Frost Insulator (Third Year)

Effective Period: 7/1/2014 - 6/30/2015
Wage and Supplemental Rate Per Hour: 70% of Journeyperson's rate

Heat & Frost Insulator (Fourth Year)

Effective Period: 7/1/2014 - 6/30/2015
Wage and Supplemental Rate Per Hour: 80% of Journeyperson's rate

(Local #12)

**HOUSE WRECKER
(TOTAL DEMOLITION)
(Ratio of Apprentice to Journeyperson: 1 to 1, 1 to 3)**

House Wrecker - First Year

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate per Hour: \$20.52
Supplemental Benefit Rate per Hour: \$16.60

House Wrecker - Second Year

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate per Hour: \$21.67
Supplemental Benefit Rate per Hour: \$16.60

House Wrecker - Third Year

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate per Hour: \$23.27
Supplemental Benefit Rate per Hour: \$16.60

House Wrecker - Fourth Year

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate per Hour: \$25.83
Supplemental Benefit Rate per Hour: \$16.60

(Mason Tenders District Council)

**IRON WORKER - ORNAMENTAL
(Ratio of Apprentice to Journeyperson: 1 to 1, 1 to 4)**

Iron Worker (Ornamental) - 1st Ten Months

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate Per Hour: 50% of Journeyperson's rate
Supplemental Rate Per Hour: \$35.15

Iron Worker (Ornamental) - 11 -16 Months

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 APPRENTICESHIP PREVAILING WAGE SCHEDULE

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate Per Hour: 55% of Journeyperson's rate
Supplemental Rate Per Hour: \$36.21

Iron Worker (Ornamental) - 17 - 22 Months

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate Per Hour: 60% of Journeyperson's rate
Supplemental Rate Per Hour: \$37.27

Iron Worker (Ornamental) - 23 - 28 Months

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate Per Hour: 70% of Journeyperson's rate
Supplemental Rate Per Hour: \$39.40

Iron Worker (Ornamental) - 29 - 36 Months

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate Per Hour: 80% of Journeyperson's rate
Supplemental Rate Per Hour: \$41.52

(Local #580)

IRON WORKER - STRUCTURAL
(Ratio of Apprentice to Journeyperson: 1 to 1, 1 to 6)

Iron Worker (Structural) - 1st Six Months

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate per Hour: \$24.98
Supplemental Benefit Rate per Hour: \$45.53

Iron Worker (Structural) - 7- 18 Months

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate per Hour: \$25.58
Supplemental Benefit Rate per Hour: \$45.53

Iron Worker (Structural) - 19 - 36 months

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate per Hour: \$26.18
Supplemental Benefit Rate per Hour: \$45.53

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 APPRENTICESHIP PREVAILING WAGE SCHEDULE

(Local #40 and #361)

LABORER (FOUNDATION, CONCRETE, EXCAVATING, STREET PIPE LAYER & COMMON)

(Ratio Apprentice to Journeyman: 1 to 1, 1 to 3)

Laborer (Foundation, Concrete, Excavating, Street Pipe Layer & Common) - First 1000 hours

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate Per Hour: 50% of Journeyman's rate
Supplemental Rate Per Hour: \$34.88

Laborer (Foundation, Concrete, Excavating, Street Pipe Layer & Common) - Second 1000 hours

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate Per Hour: 60% of Journeyman's rate
Supplemental Rate Per Hour: \$34.88

Laborer (Foundation, Concrete, Excavating, Street Pipe Layer & Common) - Third 1000 hours

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate Per Hour: 75% of Journeyman's rate
Supplemental Rate Per Hour: \$34.88

Laborer (Foundation, Concrete, Excavating, Street Pipe Layer & Common) - Fourth 1000 hours

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate Per Hour: 90% of Journeyman's rate
Supplemental Rate Per Hour: \$34.88

(Local #731)

MARBLE MECHANICS

(Ratio of Apprentice to Journeyman: 1 to 1, 1 to 4)

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 APPRENTICESHIP PREVAILING WAGE SCHEDULE

Cutters & Setters - First 750 Hours

Effective Period: 7/1/2014 - 6/30/2015

Wage and Supplemental Rate Per Hour: 50% of Journeyman's rate

NO BENEFITS PAID DURING THE FIRST TWO MONTHS (PROBATIONARY PERIOD)

Cutters & Setters - Second 750 Hours

Effective Period: 7/1/2014 - 6/30/2015

Wage and Supplemental Rate Per Hour: 55% of Journeyman's rate

Cutters & Setters - Third 750 Hours

Effective Period: 7/1/2014 - 6/30/2015

Wage and Supplemental Rate Per Hour: 65% of Journeyman's rate

Cutters & Setters - Fourth 750 Hours

Effective Period: 7/1/2014 - 6/30/2015

Wage and Supplemental Rate Per Hour: 75% of Journeyman's rate

Cutters & Setters - Fifth 750 Hours

Effective Period: 7/1/2014 - 6/30/2015

Wage and Supplemental Rate Per Hour: 85% of Journeyman's rate

Cutters & Setters - Sixth 750 Hours

Effective Period: 7/1/2014 - 6/30/2015

Wage and Supplemental Rate Per Hour: 95% of Journeyman's rate

Polishers & Finishers - First 750 Hours

Effective Period: 7/1/2014 - 6/30/2015

Wage and Supplemental Rate Per Hour: 50% of Journeyman's rate

NO BENEFITS PAID DURING THE FIRST TWO MONTHS (PROBATIONARY PERIOD)

Polishers & Finishers - Second 750 Hours

Effective Period: 7/1/2014 - 6/30/2015

Wage and Supplemental Rate Per Hour: 60% of Journeyman's rate

Polishers & Finishers - Third 750 Hours

Effective Period: 7/1/2014 - 6/30/2015

Wage and Supplemental Rate Per Hour: 75% of Journeyman's rate

Polishers & Finishers - Fourth 750 Hours

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 APPRENTICESHIP PREVAILING WAGE SCHEDULE

Effective Period: 7/1/2014 - 6/30/2015

Wage and Supplemental Rate Per Hour: 90% of Journeyman's rate

(Local #7)

MASON TENDER

(Ratio of Apprentice to Journeyman: 1 to 1, 1 to 3)

Mason Tender - First Year

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: \$20.99

Supplemental Benefit Rate per Hour: \$17.86

Mason Tender - Second Year

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: \$22.14

Supplemental Benefit Rate per Hour: \$17.86

Mason Tender - Third Year

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: \$23.84

Supplemental Benefit Rate per Hour: \$17.86

Mason Tender - Fourth Year

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: \$26.50

Supplemental Benefit Rate per Hour: \$17.86

(Local #79)

METALLIC LATHER

(Ratio of Apprentice to Journeyman: 1 to 1, 1 to 3)

Metallic Lather (First Year -Called Prior to 6/29/11)

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 APPRENTICESHIP PREVAILING WAGE SCHEDULE

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate per Hour: \$28.11
Supplemental Benefit Rate per Hour: \$22.79

Metallic Lather (Second Year - Called Prior to 6/29/11)

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate per Hour: \$32.71
Supplemental Benefit Rate per Hour: \$24.44

Metallic Lather (Third Year - Called Prior to 6/29/11)

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate per Hour: \$37.77
Supplemental Benefit Rate per Hour: \$25.59

Metallic Lather (First Year -Called On Or After 6/29/11)

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate per Hour: \$17.71
Supplemental Benefit Rate per Hour: \$19.85

Metallic Lather (Second Year - Called On Or After 6/29/11)

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate per Hour: \$22.81
Supplemental Benefit Rate per Hour: \$19.85

Metallic Lather (Third Year - Called On Or After 6/29/11)

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate per Hour: \$27.91
Supplemental Benefit Rate per Hour: \$19.85

(Local #46)

MILLWRIGHT
(Ratio of Apprentice to Journeyperson: 1 to 1, 1 to 4)

Millwright (First Year)

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate per Hour: \$26.64

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
\$220 APPRENTICESHIP PREVAILING WAGE SCHEDULE

Supplemental Benefit Rate per Hour: \$32.84

Millwright (Second Year)

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: \$31.49

Supplemental Benefit Rate per Hour: \$36.18

Millwright (Third Year)

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: \$36.33

Supplemental Benefit Rate per Hour: \$40.66

Millwright (Fourth Year)

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: \$46.02

Supplemental Benefit Rate per Hour: \$46.24

(Local #740)

PAVER AND ROADBUILDER

(Ratio of Apprentice to Journeyman: 1 to 1, 1 to 3)

Paver and Roadbuilder - First Year (Minimum 1000 hours)

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: \$26.61

Supplemental Benefit Rate per Hour: \$16.50

Paver and Roadbuilder - Second Year (Minimum 1000 hours)

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: \$28.22

Supplemental Benefit Rate per Hour: \$16.50

(Local #1010)

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
\$220 APPRENTICESHIP PREVAILING WAGE SCHEDULE

PAINTER

(Ratio of Apprentice to Journeyman: 1 to 1, 1 to 3)

Painter - Brush & Roller - First Year

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: \$15.80

Supplemental Benefit Rate per Hour: \$11.88

Painter - Brush & Roller - Second Year

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: \$19.75

Supplemental Benefit Rate per Hour: \$15.73

Painter - Brush & Roller - Third Year

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: \$23.70

Supplemental Benefit Rate per Hour: \$18.64

Painter - Brush & Roller - Fourth Year

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: \$31.60

Supplemental Benefit Rate per Hour: \$24.02

(District Council of Painters)

PAINTER - STRUCTURAL STEEL

(Ratio of Apprentice to Journeyman: 1 to 1, 1 to 3)

Painters - Structural Steel (First Year)

Effective Period: 7/1/2014 - 6/30/2015

Wage and Supplemental Rate Per Hour: 40% of Journeyman's rate

Painters - Structural Steel (Second Year)

Effective Period: 7/1/2014 - 6/30/2015

Wage and Supplemental Rate Per Hour: 60% of Journeyman's rate

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 APPRENTICESHIP PREVAILING WAGE SCHEDULE

Painters - Structural Steel (Third Year)

Effective Period: 7/1/2014 - 6/30/2015

Wage and Supplemental Rate Per Hour: 80% of Journeyperson's rate

(Local #806)

PLASTERER

(Ratio of Apprentice to Journeyperson: 1 to 1, 1 to 3)

Plasterer - First Year: 1st Six Months

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate Per Hour: 40% of Journeyperson's rate

Supplemental Rate Per Hour: \$15.76

Plasterer - First Year: 2nd Six Months

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate Per Hour: 45% of Journeyperson's rate

Supplemental Rate Per Hour: \$16.24

Plasterer - Second Year: 1st Six Months

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate Per Hour: 55% of Journeyperson's rate

Supplemental Rate Per Hour: \$18.21

Plasterer - Second Year: 2nd Six Months

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate Per Hour: 60% of Journeyperson's rate

Supplemental Rate Per Hour: \$19.29

Plasterer - Third Year: 1st Six Months

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate Per Hour: 70% of Journeyperson's rate

Supplemental Rate Per Hour: \$21.46

Plasterer - Third Year: 2nd Six Months

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate Per Hour: 75% of Journeyperson's rate

Supplemental Rate Per Hour: \$22.54

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
\$220 APPRENTICESHIP PREVAILING WAGE SCHEDULE

(Local #530)

PLUMBER

(Ratio of Apprentice to Journeyperson: 1 to 1, 1 to 3)

Plumber - First Year: 1st Six Months

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: \$14.00

Supplemental Benefit Rate per Hour: \$0.71

Plumber - First Year: 2nd Six Months

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: \$14.00

Supplemental Benefit Rate per Hour: \$2.96

Plumber - Second Year

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: \$23.87

Supplemental Benefit Rate per Hour: \$11.46

Plumber - Third Year

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: \$25.97

Supplemental Benefit Rate per Hour: \$11.46

Plumber - Fourth Year

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: \$28.82

Supplemental Benefit Rate per Hour: \$11.46

Plumber - Fifth Year: 1st Six Months

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: \$30.22

Supplemental Benefit Rate per Hour: \$11.46

Plumber - Fifth Year: 2nd Six Months

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 APPRENTICESHIP PREVAILING WAGE SCHEDULE

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate per Hour: \$42.29
Supplemental Benefit Rate per Hour: \$11.46

(Plumbers Local #1)

**POINTER - WATERPROOFER, CAULKER MECHANIC (EXTERIOR BUILDING
RENOVATION)**

(Ratio of Apprentice to Journeyman: 1 to 1, 1 to 4)

Pointer - Waterproofer, Caulker Mechanic - First Year

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate per Hour: \$25.01
Supplemental Benefit Rate per Hour: \$4.75

Pointer - Waterproofer, Caulker Mechanic - Second Year

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate per Hour: \$27.25
Supplemental Benefit Rate per Hour: \$9.70

Pointer - Waterproofer, Caulker Mechanic - Third Year

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate per Hour: \$32.24
Supplemental Benefit Rate per Hour: \$12.45

Pointer - Waterproofer, Caulker Mechanic - Fourth Year

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate per Hour: \$38.66
Supplemental Benefit Rate per Hour: \$12.45

(Bricklayer District Council)

ROOFER

(Ratio of Apprentice to Journeyman: 1 to 1, 1 to 2)

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 APPRENTICESHIP PREVAILING WAGE SCHEDULE

Roofer - First Year

Effective Period: 7/1/2014 - 6/30/2015

Wage and Supplemental Rate Per Hour: 35% of Journeyperson's Rate

Roofer - Second Year

Effective Period: 7/1/2014 - 6/30/2015

Wage and Supplemental Rate Per Hour: 50% of Journeyperson's Rate

Roofer - Third Year

Effective Period: 7/1/2014 - 6/30/2015

Wage and Supplemental Rate Per Hour: 60% of Journeyperson's Rate

Roofer - Fourth Year

Effective Period: 7/1/2014 - 6/30/2015

Wage and Supplemental Rate Per Hour: 75% of Journeyperson's Rate

(Local #8)

SHEET METAL WORKER

(Ratio of Apprentice to Journeyperson: 1 to 1, 1 to 3)

Sheet Metal Worker (0-6 Months)

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate Per Hour: 25% of Journeyperson's rate

Supplemental Rate Per Hour: \$6.15

Sheet Metal Worker (7-18 Months)

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate Per Hour: 35% of Journeyperson's rate

Supplemental Rate Per Hour: \$16.21

Sheet Metal Worker (19-30 Months)

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate Per Hour: 45% of Journeyperson's rate

Supplemental Rate Per Hour: \$22.23

Sheet Metal Worker (31-36 Months)

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 APPRENTICESHIP PREVAILING WAGE SCHEDULE

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate Per Hour: 55% of Journeyman's rate
Supplemental Rate Per Hour: \$26.16

Sheet Metal Worker (37-42 Months)

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate Per Hour: 60% of Journeyman's rate
Supplemental Rate Per Hour: \$28.13

Sheet Metal Worker (43-48 Months)

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate Per Hour: 70% of Journeyman's rate
Supplemental Rate Per Hour: \$32.09

Sheet Metal Worker (49-54 Months)

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate Per Hour: 75% of Journeyman's rate
Supplemental Rate Per Hour: \$34.07

Sheet Metal Worker (55-60 Months)

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate Per Hour: 80% of Journeyman's rate
Supplemental Rate Per Hour: \$36.03

(Local #28)

SIGN ERECTOR

(Ratio of Apprentice to Journeyman: 1 to 1, 1 to 4)

Sign Erector - First Year: 1st Six Months

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate Per Hour: 35% of Journeyman's rate
Supplemental Rate Per Hour: \$5.96

Sign Erector - First Year: 2nd Six Months

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate Per Hour: 40% of Journeyman's rate
Supplemental Rate Per Hour: \$6.75

Sign Erector - Second Year: 1st Six Months

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 APPRENTICESHIP PREVAILING WAGE SCHEDULE

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate Per Hour: 45% of Journeyperson's rate
Supplemental Rate Per Hour: \$7.55

Sign Erector - Second Year: 2nd Six Months

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate Per Hour: 50% of Journeyperson's rate
Supplemental Rate Per Hour: \$8.34

Sign Erector - Third Year: 1st Six Months

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate Per Hour: 55% of Journeyperson's rate
Supplemental Rate Per Hour: \$9.13

Sign Erector - Third Year: 2nd Six Months

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate Per Hour: 60% of Journeyperson's rate
Supplemental Rate Per Hour: \$9.92

Sign Erector - Fourth Year: 1st Six Months

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate Per Hour: 65% of Journeyperson's rate
Supplemental Rate Per Hour: \$10.72

Sign Erector - Fourth Year: 2nd Six Months

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate Per Hour: 70% of Journeyperson's rate
Supplemental Rate Per Hour: \$11.51

Sign Erector - Fifth Year

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate Per Hour: 75% of Journeyperson's rate
Supplemental Rate Per Hour: \$12.30

Sign Erector - Sixth Year

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate Per Hour: 80% of Journeyperson's rate
Supplemental Rate Per Hour: \$12.30

(Local #137)

STEAMFITTER

(Ratio of Apprentice to Journeyman: 1 to 1, 1 to 3)

Steamfitter - First Year

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate and Supplemental Per Hour: 40% of Journeyman's rate

Steamfitter - Second Year

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate and Supplemental Rate Per Hour: 50% of Journeyman's rate.

Steamfitter - Third Year

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate and Supplemental Rate per Hour: 65% of Journeyman's rate.

Steamfitter - Fourth Year

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate and Supplemental Rate Per Hour: 80% of Journeyman's rate.

Steamfitter - Fifth Year

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate and Supplemental Rate Per Hour: 85% of Journeyman's rate.

(Local #638)

STONE MASON - SETTER

(Ratio Apprentice of Journeyman: 1 to 1, 1 to 2)

Stone Mason - Setters - First 750 Hours

Effective Period: 7/1/2014 - 6/30/2015

Wage and Supplemental Rate Per Hour: 50% of Journeyman's rate

Stone Mason - Setters - Second 750 Hours

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate Per Hour: 60% of Journeyman's rate

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 APPRENTICESHIP PREVAILING WAGE SCHEDULE

Supplemental Rate Per Hour: 50% of Journeyperson's rate

Stone Mason - Setters - Third 750 Hours

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate Per Hour: 70% of Journeyperson's rate

Supplemental Rate Per Hour: 50% of Journeyperson's rate

Stone Mason - Setters - Fourth 750 Hours

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate Per Hour: 80% of Journeyperson's rate

Supplemental Rate Per Hour: 50% of Journeyperson's rate

Stone Mason - Setters - Fifth 750 Hours

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate Per Hour: 90% of Journeyperson's rate

Supplemental Rate Per Hour: 50% of Journeyperson's rate

Stone Mason - Setters - Sixth 750 Hours

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate Per Hour: 100% of Journeyperson's rate

Supplemental Rate Per Hour: 50% of Journeyperson's rate

(Bricklayers District Council)

TAPER

(Ratio of Apprentice to Journeyperson: 1 to 1, 1 to 4)

Drywall Taper - First Year

Effective Period: 7/1/2014 - 6/30/2015

Wage and Supplemental Rate Per Hour: 40% of Journeyperson's rate

Drywall Taper - Second Year

Effective Period: 7/1/2014 - 6/30/2015

Wage and Supplemental Rate Per Hour: 60% of Journeyperson's rate

Drywall Taper - Third Year

Effective Period: 7/1/2014 - 6/30/2015

Wage and Supplemental Rate Per Hour: 80% of Journeyperson's rate

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 APPRENTICESHIP PREVAILING WAGE SCHEDULE

(Local #1974)

TILE LAYER - SETTER
(Ratio of Apprentice to Journeyman: 1 to 1, 1 to 4)

Tile Layer - Setter - First 750 Hours

Effective Period: 7/1/2014 - 6/30/2015
Wage and Supplemental Rate Per Hour: 50% of Journeyman's rate

Tile Layer - Setter - Second 750 Hours

Effective Period: 7/1/2014 - 6/30/2015
Wage and Supplemental Rate Per Hour: 55% of Journeyman's rate

Tile Layer - Setter - Third 750 Hours

Effective Period: 7/1/2014 - 6/30/2015
Wage and Supplemental Rate Per Hour: 65% of Journeyman's rate

Tile Layer - Setter - Fourth 750 Hours

Effective Period: 7/1/2014 - 6/30/2015
Wage and Supplemental Rate Per Hour: 75% of Journeyman's rate

Tile Layer - Setter - Fifth 750 Hours

Effective Period: 7/1/2014 - 6/30/2015
Wage and Supplemental Rate Per Hour: 85% of Journeyman's rate

Tile Layer - Setter - Sixth 750 Hours

Effective Period: 7/1/2014 - 6/30/2015
Wage and Supplemental Rate Per Hour: 95% of Journeyman's rate

(Local #7)

TIMBERPERSON
(Ratio of Apprentice to Journeyman: 1 to 1, 1 to 6)

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
\$220 APPRENTICESHIP PREVAILING WAGE SCHEDULE

Timberperson - First Year

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate Per Hour: 40% of Journeyperson's rate
Supplemental Rate Per Hour: \$30.89

Timberperson - Second Year

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate Per Hour: 50% of Journeyperson's rate
Supplemental Rate Per Hour: \$30.89

Timberperson - Third Year

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate Per Hour: 65% of Journeyperson's rate
Supplemental Rate Per Hour: \$30.89

Timberperson - Fourth Year

Effective Period: 7/1/2014 - 6/30/2015
Wage Rate Per Hour: 80% of Journeyperson's rate
Supplemental Rate Per Hour: \$30.89

(Local #1536)

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§6-109 PREVAILING WAGE SCHEDULE

NYC ADMINISTRATIVE CODE § 6-109 SCHEDULE OF "LIVING WAGES"

Contractors who provide the following services to the City of New York must post a copy of this Living Wage Schedule at their work site(s) as required by New York City Administrative Code § 6-109:

- Building Services,
- Day Care Services,
- Food Services,
- Head Start Services,
- Homecare Services,
- Services to Persons with Cerebral Palsy, and
- Temporary Services.

In accordance with NYC Administrative Code § 6-109, the Comptroller of the City of New York promulgated this schedule of living wages for the above services on contracts for non-emergency work in excess of the small purchase limit set by the Procurement Policy Board; contracting agencies must annex this schedule to such contracts.

This schedule is a compilation of separate determinations of the prevailing rate of wage and supplements made by the Comptroller for each trade classification listed herein pursuant to New York City Administrative Code section 6-109. The source of the wage and supplement rates, whether a collective bargaining agreement, survey data or other, is listed at the end of each classification.

A city service contractor or subcontractor that provides homecare services, day care services, head start services or services to persons with cerebral palsy must pay its covered employees that directly render such services in performance of the city service contract or subcontract no less than the living wage and must provide its employees health benefits (supplemental benefits) or must supplement their hourly wage rate by an amount no less than the health benefits supplement rate. This requirement applies for each hour that the employee works performing the city service contract or subcontract.

A city service contractor or subcontractor that provides building services, food services or temporary services must pay its employees that are engaged in performing the city service contract or subcontract no less than the living wage or the prevailing wage, whichever is greater. Where the living wage is greater than the prevailing wage, the city service contractor or subcontractor must either provide its employees health benefits or must supplement their hourly wage rate by an amount no less than the health benefits supplement rate. Where the prevailing wage is greater than the living wage, the city service contractor or subcontractor must provide its employees the prevailing wage and supplements. These requirements apply for each hour that the employee works performing the city service contract or subcontract.

The appropriate schedule of living wages must be posted at all work sites pursuant to NYC Administrative Code 6-109.

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§6-109 PREVAILING WAGE SCHEDULE

The schedule is applicable for work performed during the effective period, unless otherwise noted. You will be notified of any changes to this schedule by addenda published on our web site www.comptroller.nyc.gov. Schedules for future one-year periods will be published annually in the City Record on or about July 1st of each succeeding year and on our web site www.comptroller.nyc.gov.

The living wage rate and the health benefit supplement rate are known through June 30 of each year and those rates are listed in this schedule.

The living wage rates listed in this schedule may not include all hourly wage calculations for overtime, shift differential, Holiday, Saturday, Sunday or other premium time work. Similarly, this schedule does not set forth every living wage practice with which employers must comply.

Some of the rates in this schedule are based on collective bargaining agreements. These agreements are available for inspection by appointment. Requests for appointments may be made by calling (212) 669-4443, Monday through Friday between the hours of 9 a.m. and 5 p.m.

Answers to questions concerning prevailing wage practices may be obtained from the Classification Unit by calling (212) 669-7974. Please direct all other compliance issues to; Bureau of Labor Law, Attn: Wasyl Kinach, P.E., Office of the Comptroller, 1 Centre Street, Room 1122, New York, N.Y. 10007; Fax (212) 669-4002.

Contractors are solely responsible for maintaining original payroll records, which delineate, among other things, the hours each employee worked within a given classification. Contractors using rates and/or classifications not promulgated by the Comptroller do so at their own risk. Additionally, prior to bid, an agency's chief contracting officer must contact the Bureau of Labor Law to obtain a wage determination for a work classification not published in this schedule.

The information listed below is intended to assist you in meeting your living wage and prevailing wage obligation. Contractors are advised to review the Comptroller's Living Wage Schedule prior to submitting a bid for City work. Any wage rate error made by the contracting agency in the contract documents will not preclude a finding against the contractor for an underpayment of the applicable living wage or the applicable prevailing wage.

This schedule sets forth the living wage and benefit rates required to be annexed to and form part of the contract specifications for work covered by New York City Administrative Code § 6-109. Contractors performing such work are required to pay not less than the rates specified in this schedule for the applicable trade or occupation.

Benefits are paid for EACH HOUR WORKED unless otherwise noted.

Wasyl Kinach, P.E.
Director of Classifications
Bureau of Labor Law

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§6-109 PREVAILING WAGE SCHEDULE

TABLE OF CONTENTS

<u>CLASSIFICATION</u>	<u>PAGE</u>
BUILDING CLEANER AND MAINTAINER (OFFICE).....	4
BUILDING CLEANER AND MAINTAINER (RESIDENTIAL).....	4
CLEANER (PARKING GARAGE)	4
DAY CARE SERVICES.....	4
FOOD SERVICE EMPLOYEES.....	4
GARDENER.....	5
HEAD START SERVICES	5
HOMECARE SERVICES	6
SECURITY GUARD (ARMED).....	6
SECURITY GUARD (UNARMED)	6
SERVICES TO PERSONS WITH CEREBRAL PALSY.....	6
TEMPORARY OFFICE SERVICES	7
WINDOW CLEANER	8

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§6-109 PREVAILING WAGE SCHEDULE

BUILDING CLEANER AND MAINTAINER (OFFICE)

For the above building service classification, see the Labor Law Section 230 Schedule.

BUILDING CLEANER AND MAINTAINER (RESIDENTIAL)

For the above building service classification, see the Labor Law Section 230 Schedule.

CLEANER (PARKING GARAGE)

For the above building service classification, see the Labor Law Section 230 Schedule.

DAY CARE SERVICES

Day Care Services

'Day Care Services' means provision of day care services through the city's center-based day care program administered under contract with the city's Administration for Children's Services. No other day care programs shall be covered, including family-based day care programs administered by city-contracted day care centers.

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: \$10.00

Supplemental Benefit Rate per Hour: \$1.50

(NYC Administrative Code §6-109)

FOOD SERVICE EMPLOYEES

Cook

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: \$16.35

Supplemental Benefit Rate per Hour: \$1.63

Cafeteria Attendant

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§6-109 PREVAILING WAGE SCHEDULE

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: \$10.41

Supplemental Benefit Rate per Hour: \$1.63

Counter Attendant

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: \$11.00

Supplemental Benefit Rate per Hour: \$1.63

Kitchen Helper / Dishwasher

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: \$9.99

Supplemental Benefit Rate per Hour: \$1.63

Overtime

Time and one half the regular hourly rate after 40 hours in any work week.

(Based on data from NYS Department of Labor Occupational Employment Statistics and US Department of Labor Bureau of Labor Statistics)

GARDENER

For the above building service classification, see the Labor Law Section 230 Schedule.

HEAD START SERVICES

Head Start Services

'Head Start Services' means provision of head start services through the city's center-based head start program administered under contract with the city's Administration for Children's Services. No other head start programs shall be covered.

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: \$10.00

Supplemental Benefit Rate per Hour: \$1.50

(NYC Administrative Code §6-109)

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§6-109 PREVAILING WAGE SCHEDULE

HEMOCARE SERVICES

Home Care Services

'Homecare Services' means the provision of homecare services under the city's Medicaid Personal Care/Home Attendant or Housekeeping Programs, including but not limited to the In-Home Services for the Elderly Programs administered by the Department for the Aging.

For homecare services provided under the Personal Care Services program, the wage and supplemental benefit rate above shall apply only as long as the state and federal government maintain their combined aggregate proportionate share of funding and approved rates for homecare services in effect as of the date of the enactment of this section.

For contractors or subcontractors providing homecare services, the supplemental benefit rate may be waived by the terms of a bona fide collective bargaining agreement with respect to employees who have never worked a minimum of eighty (80) hours per month for two consecutive months for that covered employer, but such provision may not be waived for any employee once a minimum of eighty (80) hours for two consecutive months has been achieved.

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: \$10.00

Supplemental Benefit Rate per Hour: \$1.50

(NYC Administrative Code §6-109)

SECURITY GUARD (ARMED)

For the above building service classification, see the Labor Law Section 230 Schedule.

SECURITY GUARD (UNARMED)

For the above building service classification, see the Labor Law Section 230 Schedule.

SERVICES TO PERSONS WITH CEREBRAL PALSY

Services To Person With Cerebral Palsy

'Services to Persons with Cerebral Palsy' means provision of services which enable persons with cerebral palsy and related disabilities to lead independent and productive lives through an agency that provides health care, education, employment, housing and technology resources to such persons under contract with the city or the department of education.

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: \$10.00

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§6-109 PREVAILING WAGE SCHEDULE

Supplemental Benefit Rate per Hour: \$1.50

(NYC Administrative Code §6-109)

TEMPORARY OFFICE SERVICES

Administrative Assistant

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: \$33.29

Supplemental Benefit Rate per Hour: None

Cashier

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: \$11.50

Supplemental Benefit Rate per Hour: None

Clerk (various)

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: \$14.82

Supplemental Benefit Rate per Hour: None

Computer Assistant

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: \$19.94

Supplemental Benefit Rate per Hour: None

Data Entry Operator

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: \$16.44

Supplemental Benefit Rate per Hour: None

Receptionist

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: \$15.03

Supplemental Benefit Rate per Hour: None

Secretary (various)

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: \$19.31

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§6-109 PREVAILING WAGE SCHEDULE

Supplemental Benefit Rate per Hour: None

Word Processor

Effective Period: 7/1/2014 - 6/30/2015

Wage Rate per Hour: **\$18.49**

Supplemental Benefit Rate per Hour: None

Overtime

Time and one half the regular hourly rate after 40 hours in any work week.

(Based on data from NYS Department of Labor Occupational Employment Statistics and US Department of Labor Bureau of Labor Statistics or NYC Administrative Code §6-109)

WINDOW CLEANER

For the above building service classification, see the Labor Law Section 230 Schedule.



THE CITY OF NEW YORK
 OFFICE OF THE COMPTROLLER
 1 CENTRE STREET ROOM 1120
 NEW YORK, N.Y. 10007-2341

TELEPHONE: (212) 669-3622
 FAX NUMBER: (212) 669-8499

Leonard A. Mancusi
 SENIOR ASSISTANT COMPTROLLER

ALAN G. HEVESI
 COMPTROLLER

MEMORANDUM

November 6, 2000

To Agency Chief Contracting Officers

From: Leonard A. Mancusi *Leonard A. Mancusi*

Re: Security at Construction Sites

Prior to the enactment of Administrative Code §6-109, security guards on construction sites were not subject to prevailing wages. Security guards under the New York State labor law are covered under §230 which provides that prevailing wages are to be paid for security guards in existing buildings. §6-109 of the Administrative Code which was enacted in 1996 closed this loophole by including all security guards working pursuant to a city contract as a prevailing wage trade.

Although some construction contract boilerplate language has been amended to include §6-109, sub-contractors performing security services have advised us that they were not aware of this provision and, since traditionally, security guards were not a covered trade on construction sites, and they were not advised by a prime contractor that they would have to pay prevailing wages, they have not been doing so.

To avoid the possibility of issuing stop payments against prime contractors for the failure of their security service sub-contractors to pay

prevailing wages, we suggest that you write to all your existing security guard sub-contractors and their primes and in the future, upon approval of a security guard sub-contractor, advise the contractors of their obligation to pay prevailing wages under §6-109 of the Administrative Code.

As always, your cooperation is appreciated.

LAM:er
ACCO.SECURITY AT SITES



NEW YORK CITY DEPARTMENT OF
DESIGN + CONSTRUCTION

**INFRASTRUCTURE DIVISION
BUREAU OF DESIGN**

VOLUME 2 OF 3

Contractor

Dated _____, 20__

**APPROVED AS TO FORM
CERTIFIED AS TO LEGAL AUTHORITY**

Acting Corporation Counsel

Dated _____, 20__



**INFRASTRUCTURE DIVISION
BUREAU OF DESIGN**

VOLUME 2 OF 3

PROJECT ID: MED598B

TRUNK WATER MAINS IN WEST 30TH STREET BETWEEN 10TH AVENUE AND 9TH AVENUE, ETC., TO CONNECT SHAFT 26B TO THE DISTRIBUTION SYSTEM INCLUDING SEWER, WATER MAIN, STREET LIGHTING AND TRAFFIC WORK

Together With All Work Incidental Thereto
BOROUGH OF MANHATTAN
CITY OF NEW YORK

MFM Contracting Corp.
Contractor

Dated April 24th, 2015

APPROVED AS TO FORM
CERTIFIED AS TO LEGAL AUTHORITY

[Signature]
Acting Corporation Counsel [Signature] 6-30-2014

Dated June 30, 2014



**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 6**

FOR FURNISHING ALL LABOR AND MATERIALS NECESSARY AND REQUIRED FOR:

PROJECT ID: MED598B

**TRUNK WATER MAINS IN WEST 30TH STREET BETWEEN 10TH AVENUE
AND 9TH AVENUE, ETC., TO CONNECT SHAFT 26B TO THE
DISTRIBUTION SYSTEM**

**INCLUDING SEWER, WATER MAIN, STREET LIGHTING AND TRAFFIC
WORK**

Together With All Work Incidental Thereto
**BOROUGH OF MANHATTAN
CITY OF NEW YORK**

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

June 19, 2014



14-125



SPECIFICATIONS AND STANDARDS OF NEW YORK CITY

The following NYC Department of Transportation reference documents are available on-line at:

http://www.nyc.gov/html/ddc/html/pubs/pubs_infrastdts.shtml or for purchase between 9:00 A.M. and 3:00 P.M. at 55 Water St., Ground Floor, NYC, N.Y. 10041. Contact: Ms Vivian Valdez, Tel. (212) 839-9434

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

The following reference documents for Sewer Work are available on-line at:

http://www.nyc.gov/html/ddc/html/pubs/pubs_infrastdts.shtml or for pick up between 8:00 A.M. and 4:00 P.M. at 30-30 Thomson Avenue, 3rd Floor, Division of Infrastructure, Long Island City, N.Y. 11101.

Contact: Mr. William Patalano, Tel. (718) 391-2054

1. New York City DEP Standard Sewer Specifications, August 1, 2009
2. New York City DEP Instructions for Concrete Specifications, Jan. 92
3. New York City DEP General Specification 11-Concrete, November 1991
4. New York City DEP Sewer Design Standards, (September 2007) Revised January 2009

The following reference documents for Water Mains Work are available on-line at: http://www.nyc.gov/html/ddc/html/pubs/pubs_infrastdts.shtml or for pick up between 8:00 A.M. and 4:00 P.M. at 30-30 Thomson Avenue, 3rd Floor, Division of Infrastructure, Long Island City, N.Y. 11101.

Contact: Mr. Robert Kuhlmann, Tel. (718) 391-2145

1. New York City Department of Environmental Protection, Standard Water Main Specifications, dated August 1, 2009
2. New York City Department of Environmental Protection Water Main Standard Drawings
3. Specifications for Trunk Main Work, dated April 2014
4. Standards for Green Infrastructure, latest version, available only on-line at: http://www.nyc.gov/html/dep/pdf/green_infrastructure/bioswales-standard-designs.pdf

The water main work material specifications are available at the Department of Environmental Protection, 59-17 Junction Boulevard, 3rd Floor Low-Rise Building, Flushing, N.Y. 11373-5108.

Contact: Mr. Tarlock Sahansra, P.E., Tel. (718) 595-5302

E-mail: TSAHANSRA@DEP.NYC.GOV

Standard Specifications and Drawings for Fire Department Communications facilities of New York City are available at 87 Union Street, Engineering Office, Brooklyn, N.Y. 11231-1416.

Contact: Mr. Ed Durkin, Tel. (718) 624-3752

Tree Planting Standards of the City of New York Parks & Recreation are available at the following Department of Parks & Recreation website:

<http://www.nycgovparks.org/pagefiles/53/Tree-Planting-Standards.pdf>

SPECIFICATIONS AND STANDARDS OF PRIVATE UTILITIES

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

1. CET SPECIFICATIONS AND SKETCHES dated November 2010

(NO TEXT ON THIS PAGE)

SCHEDULE "A"**(GENERAL CONDITIONS TO CONSTRUCTION CONTRACT)**
(INCLUDING GENERAL CONDITIONS RELATED TO ARTICLE 22 - INSURANCE)**PART I. REQUIRED INFORMATION**

<p align="center"><u>INFORMATION FOR BIDDERS SECTION 26</u> <u>BID SECURITY</u></p> <p>The Contractor shall obtain a bid security in the amount indicated to the right.</p>	See Attachment 1 (page A-1 of the Bid Booklet)
<p align="center"><u>INFORMATION FOR BIDDERS SECTION 26</u> <u>PERFORMANCE AND PAYMENT BONDS</u></p> <p>The Contractor shall obtain performance and payment bonds in the amount indicated to the right.</p>	See Attachment 1 (page A-1 of the Bid Booklet)
<p align="center"><u>CONTRACT ARTICLE 14.</u> <u>DATE FOR SUBSTANTIAL COMPLETION</u></p> <p>The Contractor shall substantially complete the Work in the number of calendar days indicated to the right.</p>	See Page SA-4
<p align="center"><u>CONTRACT ARTICLE 15.</u> <u>LIQUIDATED DAMAGES</u></p> <p>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.</p>	For Each Consecutive Calendar Day Over Substantial Completion Time: <u>\$15,000.00</u>
<p align="center"><u>CONTRACT ARTICLE 17.</u> <u>SUB-CONTRACTOR</u></p> <p>The Contractor shall not make subcontracts totaling an amount more than the percentage of the total Contract price indicated to the right.</p>	Not to Exceed <u>40%</u> of the Contract Price
<p align="center"><u>CONTRACT ARTICLE 21.</u> <u>RETAINAGE</u></p> <p>The Commissioner shall deduct and retain until the substantial completion of the Work the percent value of the Work indicated to the right.</p>	<u>5%</u> of the Value of the Work
<p align="center"><u>CONTRACT ARTICLE 22.</u></p> <p align="center"><u>(Per Directions Indicated To The Right)</u></p>	See pages SA-5 through SA-9

<p align="center"><u>CONTRACT ARTICLE 24.</u> <u>DEPOSIT GUARANTEE</u></p> <p>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.</p>	<p align="center"><u>1%</u> of Contract Price</p>
<p align="center"><u>CONTRACT ARTICLE 24.</u> <u>PERIOD OF GUARANTEE</u></p> <p>Periods of maintenance and guarantee other than the period set forth in Article 24.1 are indicated to the right.</p>	<p align="center">Eighteen (18) Months, excluding Trees Twenty-Four (24) Months for Tree Planting</p>
<p align="center"><u>CONTRACT ARTICLE 74.</u> <u>STATEMENT OF WORK</u></p> <p>The Contractor shall furnish all labor and materials and perform all Work in strict accordance with the Contract Drawings, Specifications, and all Addenda thereto.</p>	<p align="center">See Contract Article 74</p>
<p align="center"><u>CONTRACT ARTICLE 75.</u> <u>COMPENSATION TO BE PAID TO CONTRACTOR</u></p> <p>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.</p>	<p align="center">See Contract Article 75</p>
<p align="center"><u>CONTRACT ARTICLE 78.</u> <u>PARTICIPATION BY MINORITY-OWNED AND WOMEN-OWNED BUSINESS ENTERPRISES IN CITY PROCUREMENT</u></p>	<p align="center">See M/WBE Utilization Plan in the Bid Booklet</p>

<p align="center"><u>STANDARD HIGHWAY SPECIFICATIONS</u> <u>SECTION 6.40</u> <u>LIQUIDATED DAMAGES FOR</u> <u>ENGINEER'S FIELD OFFICE</u></p> <p>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.</p>	<p>For Each Calendar Day of Deficiency: <u>\$250.00</u></p>
<p align="center"><u>STANDARD HIGHWAY SPECIFICATIONS</u> <u>SECTION 6.70</u> <u>LIQUIDATED DAMAGES FOR</u> <u>MAINTENANCE AND PROTECTION OF TRAFFIC</u></p>	<p>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></p> <p>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></p>
<p align="center"><u>STANDARD HIGHWAY SPECIFICATIONS</u> <u>SECTION 7.13</u> <u>LIQUIDATED DAMAGES FOR</u> <u>MAINTENANCE OF SITE</u></p> <p>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.</p>	<p>For Each Calendar Day, for Each Occurrence: <u>\$250.00</u></p>

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 1,095 consecutive calendar days ("ccds").

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

 YES √ NO

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

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

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

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

(GENERAL CONDITIONS RELATING TO ARTICLE 22 - INSURANCE)

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

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

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

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

<p align="center"><u>TYPES OF INSURANCE</u> (per Article 22 in its entirety, including listed paragraph)</p>	<p align="center"><u>MINIMUM LIMITS AND SPECIAL CONDITIONS</u></p>
<p>■ Commercial General Liability Art. 22.1.1</p>	<p>The minimum limits shall be \$3,000,000 per Occurrence and \$6,000,000 per Project Aggregate applicable to this Contract.</p> <p>Additional Insureds:</p> <p>(1) <u>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.</u></p> <p>(2) <u>All person(s) or organization(s), if any, that Article 22.1.1(b) of the Contract requires to be named as Additional Insured(s), with coverage at least as broad as ISO Form CG 20 26. The Additional Insured endorsement shall either specify the entity's name, if known, or the entity's title (e.g., Project Manager).</u></p> <p>(3) <u>The National Railroad Passenger Corporation (AMTRAK), its subsidiaries and affiliated companies. The Contractor shall furnish two (2) certificates of insurance to the AMTRAK, Attention: Michael Kolonauski, Project Development Officer, National Railroad Passenger Corporation (AMTRAK), 30th Street Station, 4th Floor South Tower, Mail Box 64, Philadelphia, PA 19104.</u></p> <p>(4) <u>Consolidated Edison Company of New York</u></p> <p>(5) <u>United States Postal Service (USPS), including its officials and employees.</u></p> <p>(6) <u>Port Authority of New York and New Jersey, including its officials and employees.</u></p>

<input checked="" type="checkbox"/> Workers' Compensation <input checked="" type="checkbox"/> Disability Benefits Insurance <input checked="" type="checkbox"/> Employers' Liability <input type="checkbox"/> Jones Act <input type="checkbox"/> U.S. Longshoremen's and Harbor Workers Compensation Act	Art. 22.1.2 Art. 22.1.2 Art. 22.1.2 Art. 22.1.3 Art. 22.1.3	<p>Workers' Compensation, Employers' Liability, and Disability Benefits Insurance: Statutory per New York State law without regard to jurisdiction.</p> <p>Note: The following forms are acceptable: (1) New York State Workers' Compensation Board Form No. C-105.2, (2) State Insurance Fund Form No. U-26.3, (3) New York State Workers' Compensation Board Form No. DB-120.1 and (4) Request for WC/DB Exemption Form No. CE-200. The City will not accept an ACORD form as proof of Workers' Compensation or Disability Insurance.</p> <p>Jones Act and U.S. Longshoremen's and Harbor Workers' Compensation Act: Statutory per U.S. Law.</p> <p><input checked="" type="checkbox"/> Additional Requirements:</p> <p>(1) <u>AMTRAK INSURANCE REQUIREMENTS: Workers' Compensation Insurance (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.</u></p> <p>(2) <u>Two (2) certificates of such insurance shall be furnished to the AMTRAK, Attention: Michael Kolonowski, Project Development Officer, National Railroad Passenger Corporation (AMTRAK), 30th Street Station, 4th Floor South Tower, Mail Box 64, Philadelphia, PA 19104.</u></p> <p>(3) <u>United States Postal Service (USPS), including its officials and employees.</u></p> <p>(4) <u>Port Authority of New York and New Jersey, including its officials and employees.</u></p>
<input type="checkbox"/> Builders' Risk	Art. 22.1.4	<p><u>100% of Total Value of Work</u></p> <p>Contractor the Named Insured; the City both an Additional Insured and one of the loss payees as its interests may appear.</p> <p>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.</p> <p>Note: Builders Risk Insurance may terminate upon Substantial Completion of the Work in its entirety.</p>
<input checked="" type="checkbox"/> Commercial Auto Liability	Art. 22.1.5	<p><u>\$2,000,000 per accident combined single limit</u></p> <p>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.</p> <p>Additional Insureds:</p> <p>(1) <u>City of New York, including its officials and employees.</u></p> <p>(2) <u>The National Railroad Passenger Corporation (AMTRAK), its subsidiaries and affiliated companies.</u></p> <p>(3) <u>United States Postal Service (USPS), including its officials and employees.</u></p> <p>(4) <u>Port Authority of New York and New Jersey, including its officials and employees.</u></p>

<input type="checkbox"/> Contractors Pollution Liability	Art. 22.1.6	\$ _____ per occurrence \$ _____ aggregate Additional Insureds: (1) <u>City of New York, including its officials and employees.</u> (2) (3)
<input type="checkbox"/> Marine Protection and Indemnity	Art. 22.1.7(a)	\$ _____ each occurrence \$ _____ aggregate Additional Insureds: (1) <u>City of New York, including its officials and employees.</u> (2) (3)
<input type="checkbox"/> Hull and Machinery Insurance	Art. 22.1.7(b)	\$ _____ per occurrence \$ _____ aggregate Additional Insureds: (1) <u>City of New York, including its officials and employees.</u> (2) (3)
<input type="checkbox"/> Marine Pollution Liability	Art. 22.1.7(c)	\$ _____ per occurrence \$ _____ aggregate Additional Insureds: (1) <u>City of New York, including its officials and employees.</u> (2) (3)

<p>[OTHER] Art. 22.1.8</p> <p>■ Railroad Protection Liability Policy</p> <p>(ISO-RIMA or equivalent form) approved by Permitior covering the work to be performed at the designated site and affording protection for damages arising out of bodily injury or death, physical damage to or destruction of property, including damage to the Insured's own property and conforming to the following:</p> <ul style="list-style-type: none"> • Policy Endorsement CG 28 31 - Pollution Exclusion Amendment is required to be endorsed onto the policy when environmental-related work and/or exposures exist. • Indicate the Name and address of the Contractor to perform the work, the Contract Number and the name of the railroad property where the work is being performed and the Agency Permit. • Evidence of Railroad Protective Liability Insurance, must be provided in the form of the <u>Original Policy. A detailed Insurance Binder (ACORD or Manuscript Form) will be accepted pending issuance of the Original Policy, which must be provided within thirty (30) days of the Binder Approval.</u> 	<p><u>\$2,000,000</u> per occurrence</p> <p><u>\$6,000,000</u> annual aggregate</p> <p>Named Insureds:</p> <p>(1) <u>The National Railroad Passenger Corporation (AMTRAK), its subsidiaries and affiliated companies, the City of New York and all other indemnified parties.</u></p> <p>(2)</p>
<p>[OTHER] Art. 22.1.8</p> <p>■ Professional Liability</p> <p>A. The Contractor's Professional Engineer shall maintain and submit evidence of Professional Liability Insurance in the minimum amount of <u>\$1,000,000</u> per claim. The policy or policies shall include an endorsement to cover the liability assumed by the Contractor under this Contract arising out of the negligent performance of professional services or caused by an error, omission or negligent act of the Contractor's Professional Engineer or anyone employed by the Contractor's Professional Engineer.</p> <p>B. Claims-made policies will be accepted for Professional Liability Insurance. All such policies shall have an extended reporting period option or automatic coverage of not less than two (2) years. If available as an option, the Contractor's Professional Engineer shall purchase extended reporting period coverage effective on cancellation or termination of such insurance unless a new policy is secured with a retroactive date, including at least the last policy year.</p>	
<p>[OTHER] Art. 22.1.8</p> <p>■ Engineer's Field Office</p> <p>Section 6.40, Standard Highway Specifications</p>	<p>Fire insurance, extended coverage and vandalism, malicious mischief and burglary, and theft insurance coverage in the amount of <u>\$40,000</u></p>
<p>[OTHER] Art. 22.1.8</p> <p>■ The Following Additional Insurance Must Be Provided:</p> <p><u>Umbrella/Excess Liability Insurance - The Contractor shall provide Umbrella/Excess Liability Insurance in the minimum amount of \$10,000,000 per Occurrence and \$10,000,000 in Aggregate. The policy terms and condition should be at least as broad as the underlying policies. The underlying policies should comply with the insurance provision as outlined by the contract. Defense cost should be in addition to the limit of liability. The City of New York, including its officials and employees, should be included as additional insured as respects to the noted project.</u></p>	

SCHEDULE "A"
(GENERAL CONDITIONS TO CONSTRUCTION CONTRACT)

PART IV. ADDRESS OF COMMISSIONER

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

DDC Director, Insurance Risk Manager

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

Long Island City, NY 11101

ATTACH TO CONTRACT DOCUMENTS

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

PROJECT ID: MED598B

TRUNK WATER MAINS IN WEST 30TH STREET BETWEEN 10TH AVENUE AND 9TH
AVENUE, ETC., TO CONNECT SHAFT 26B TO THE DISTRIBUTION SYSTEM

INCLUDING SEWER, WATER MAIN, STREET LIGHTING AND TRAFFIC WORK

Together With All Work Incidental Thereto
BOROUGH OF MANHATTAN
CITY OF NEW YORK

ADDENDUM NO. 1

DATED: February 24, 2014

THIS ADDENDUM IS HEREBY MADE A PART OF THE CONTRACT DOCUMENTS

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

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

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

1. AMENDMENTS TO STANDARD HIGHWAY SPECIFICATIONS, VOLUME I

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

[Added 12-09-2010]

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

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

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

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

[Added 01-09-2011]

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

"(B) STUMP REMOVAL

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

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

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

[Added 04-18-2011]

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

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

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

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

[Added 07-01-2011]

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

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

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

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

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

[Added 07-27-2011]

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

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

[Added 09-27-2012]

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

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

[Added 04-08-2013]

7. Refer to Page 200, **Subsection 4.11.2.(B), first paragraph, sixth line;**
Delete the word "porcelain,".
8. Refer to Page 201, **Subsection 4.11.3.(B) FILL AND BACKFILL, second and third paragraphs;**
Delete the second and third paragraphs under Subsection 4.11.3.(B), in their entirety;
Substitute the following revised two paragraphs:

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

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

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

“(F) RECYCLED PORCELAIN AGGREGATE (RPA)

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

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

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

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

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

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

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

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

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

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

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

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

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

[Added 05-24-2013]

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

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

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

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

[Added 08-05-2013]

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

[Added 09-04-2013]

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

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

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

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

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

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

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

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

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

19. Refer to Page 115, **TABLE 3.05-III - INGREDIENT MATERIALS**;
Change in the third row, second column, the type of Portland
Cement from "Type III" to read "Type II or Type III"
20. Refer to page 132, **Subsection 3.06.3.(D)**;
Change the words "Water shall be drawn from mains owned by The City of New York." to
read "Water shall be potable and drawn from municipal water mains."
21. Refer to page 133, **Subsection 3.07.3.(D)**;
Change the words "Water shall be drawn from mains owned by or supplying water to The
City of New York." to read "Water shall be potable and drawn from municipal water
mains."
22. Refer to page 134, **Subsection 3.08.4.(D)**;
Change the words "Water shall be drawn from mains owned by or supplying water to The
City of New York." to read "Water shall be potable and drawn from municipal water
mains."

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

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

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

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

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

"(A1) PIGMENTING

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

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

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

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

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

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

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

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

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

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

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

2. AMENDMENTS TO STANDARD HIGHWAY SPECIFICATIONS, VOLUME II

[Added 01-25-2012]

1. Refer to Pages 365 and 366, Subsection 6.40.2.(C)(c)(1) Personal Computer(s) - Workstation Configuration;

Delete the text under Subsections (a), (b), (c), (d), (h), (i), and (m), in their entirety;

Substitute the following revised text:

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

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

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

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

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

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

Photocopying Machine – Stand-alone, heavy duty, electric, dry-process color photocopying type with a minimum production rate of 70 pages per minute and an adequate supply of copy paper, toner, etc. The machine shall be capable of duplex copying paper sizes of 8-1/2 x 11 inches, 8-1/2 x 14 inches and 11 x 17 inches, and have separate trays for each paper size. It shall have a document feeder, collator, stapler, and the capability to reduce/enlarge copies between each paper size. The supply of each size copy paper, toner, etc. shall be replenished and the machines shall be maintained for the duration of the contract by the Contractor as required by the Engineer. Make and model can be Minolta, Canon, IBM, Epson, or an approved equivalent, and shall be networked to the office computers.	1	1	1	1	1	1
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5. Refer to Page 368, TABLE 6.40-I, ADDITIONAL REQUIREMENTS SPECIFIC REQUIREMENTS;
Insert the following two additional requirements:

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

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

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

[Added 07-16-2012]

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

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

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

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

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

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

[Added 08-09-2012]

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

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

Photocopying Machine – Stand-alone, heavy duty, electric, dry-process color photocopying type with color scan and send capability via e-mail, a minimum production rate of 70 pages per minute and an adequate supply of copy paper, toner, etc. The machine shall be capable of duplex copying paper sizes of 8-1/2 x 11 inches, 8-1/2 x 14 inches and 11 x 17 inches, and have separate trays for each paper size. It shall have a document feeder, collator, stapler, and the capability to reduce/enlarge copies between each paper size. The supply of each size copy paper, toner, etc. shall be replenished and the machines shall be maintained for the duration of the contract by the Contractor as required by the Engineer. Make and model can be Minolta, Canon, IBM, Epson, or an approved equivalent, and shall be networked to the office computers.	1	1	1	1	1	1
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[Added 11-26-2012]

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

[Added 02-08-2013]

12. (NO TEXT)

SECTION 7.88 (Revised)
Rodent and Waterbug Pest Control

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

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

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

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

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

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

(A) SUBMITTALS

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

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

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

(A) GENERAL

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

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

(B) SURVEY AND MONITORING WORK

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

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

(C) RODENT CONTROL WORK

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

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

Rodent control shall be achieved in two stages as follows:

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

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

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

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

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

(D) WATERBUG (AMERICAN COCKROACH) CONTROL

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

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

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

7.88.6. RECORDS AND REPORTS.

(A) GENERAL

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

(B) SURVEY AND MONITORING WORK

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

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

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

(C) RODENT AND WATERBUG CONTROL WORK

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

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

7.88.8. MEASUREMENT.

(A) RODENT INFESTATION SURVEY AND MONITORING

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

(B) RODENT BAIT STATIONS

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

(C) BAITING OF RODENT BAIT STATIONS

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

(D) WATERBUG BAIT APPLICATION

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

7.88.9. PRICES TO COVER.

(A) RODENT INFESTATION SURVEY AND MONITORING

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

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

(B) RODENT BAIT STATIONS

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

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

(C) BAITING OF RODENT BAIT STATIONS

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

(D) WATERBUG BAIT APPLICATION

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

Payment will be made under:

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

[Added 05-24-2013]

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

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

[Added 09-04-2013]

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

[Added 02-10-2014]

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

SECTION 6.44 PO
Lane Pavement Overlay

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

6.44PO.2. REFERENCES.

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

6.44PO.3. SUBMITTALS.

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

6.44PO.4. MATERIALS.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Payment will be made under:

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

SECTION 6.52 CG Crossing Guard

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

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

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

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

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

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

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

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

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

Payment will be made under:

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

[Added 02-24-2014]

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

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

ATTACH TO CONTRACT DOCUMENTS

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

PROJECT ID: MED598B

**TRUNK WATER MAINS IN WEST 30TH STREET BETWEEN 10TH AVENUE AND 9TH AVENUE, ETC.,
TO CONNECT SHAFT 26B TO THE DISTRIBUTION SYSTEM**

INCLUDING SEWER, WATER MAIN, STREET LIGHTING AND TRAFFIC WORK

Together With All Work Incidental Thereto

BOROUGH OF MANHATTAN

ADDENDUM NO. 2

DATED: June 5, 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 Specifications of the Department of Environmental Protection (dated August 1, 2009), Sewer Design Standards of the Department of Environmental Protection (dated (September 2007) Revised January 2009), Standard Water Main Specifications of the Department of Environmental Protection (dated August 1, 2009), Water Main Standard Drawings of the Department of Environmental Protection (latest revisions), and the Standard Highway Specifications (Volumes I and II) of the Department of Transportation (dated November 1, 2010) of The City of New York, 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 SPECIFICATIONS
- D. AMENDMENTS TO THE STANDARD WATER MAIN SPECIFICATIONS
- E. SPECIAL PROVISIONS

A. NOTICE TO BIDDERS

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

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

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

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

- (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 Water Main Specifications of the Department of Environmental Protection (dated August 1, 2009), the Water Main Standard Drawings of the Department of Environmental Protection (latest revisions), the Specifications For Trunk Main Work (dated April 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 <http://www.eia.gov/petroleum/gasdiesel/>. The USEIA published cost per gallon for the applicable fuel on the East Coast for the week in which the first day of each calendar quarter during the contract term occurs (i.e., January 1st, April 1st, July 1st and September 1st) will be used in the reimbursement formula for all **Extra Work** invoiced that was performed during that calendar quarter. Should the USEIA stop publishing this fuel price index, the fuel cost per gallon will be determined by reference to a substitute index to be agreed upon by the Contractor and the City.
- (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 is advised that where the existing roadway pavement is designated to be replaced from curb to curb, then no full depth saw cutting of pavement for sewer and water main trenches will be required, except at the limits of full width pavement restoration. No separate or additional payment will be made for any saw cutting.
- (12) All existing city-owned manhole castings shall be adjusted to a new roadway grade as shown, specified or ordered. No separate or additional payment will be made for this work of raising or lowering city-owned manhole castings the cost shall be deemed included in the prices bid for all items of the contract.
- (13) The Contractor shall bulkhead/cap/plug all new mains installed under this contract that are to be connected to future water main as directed by the Engineer. The Contractor shall provide shop drawings containing the exact stationing and the elevation of the centerline of the pipe to be bulkheaded/capped/plugged together with all dimensions and measurements and pipe geometry, to the Engineer for approval by DEP and DDC prior to construction.
- (14) The Contractor is notified that there is an "ALLOWANCE FOR MAXIMUM INCENTIVE FOR EARLY COMPLETION/LIQUIDATED DAMAGES" clause for this contract.
- (15) The Contractor is advised that in lieu of using safety orange construction fencing, all fencing (Timber and Chain Link) shall be wrapped with a high density polyethylene "Green Privacy Screen" material (also called a Dust Barrier) as directed by the Engineer. The material shall be fire resistant and have a melting point of not less than 250-degrees Fahrenheit. A sample of the material along with MSDS (Material Safety Data Sheet) shall be furnished to the Engineer for review and approval prior to use. This substitution shall be made at no additional cost to the City.
- (16) The Contractor is notified that a Construction Report and Post-Construction Report are required under this contract in order to ascertain the effects of performing the jacking work of the sewer, and the installation of CFA piles.
- (17) **"As-Built" Drawings For Water Mains And Appurtenances 24-Inches (600-mm.) And Larger:** Upon the completion of the work and as a condition precedent to obtaining the certificate for substantial completion for the project under **Article 44** of the Contract, the Contractor shall furnish **"As-Built"** drawings for water mains and appurtenances 24-inches and larger to the City. The Contractor shall prepare and submit the **"As-Built"** record drawings to the Engineer for approval.

Approved "**As-Built**" drawings shall be delivered to the Department of Design and Construction, 30-30 Thomson Avenue, Long Island City, New York, 11101-3045. The following guideline is provided for the preparation of "**As-Built**" record drawings:

(A) The Contractor shall prepare the "**As-Built**" drawings on AutoCAD and shall provide to the City two (2) sets of Mylar and AutoCAD files on a CD. The drawings on CD's and the plotted Mylar's shall conform to the standard size of 22" x 36" (559-mm. x 914-mm.) using a 1"=30' (1:360) horizontal and 1"=10' (1:120) vertical scale. The Mylar shall be 3-mil in thickness.

(B) The "**As-Built**" drawings shall include but not be limited to the following guidelines summarized below:

- (1) Drawings shall consist of the same legend and layout of title boxes shown on the contract drawings.
- (2) Each plotted Mylar drawing shall contain the signature and stamp of the Contractor's NYS Professional Engineer/Registered Architect.
- (3) The drawings shall include:
 - (a) street name and crossing street(s) or distance from;
 - (b) north arrow;
 - (c) property lines and widths;
 - (d) legal and existing street widths, street alignment and grades;
 - (e) "new" curb lines and widths;
 - (f) water main center line measured off the "new" curb line;
 - (g) horizontal stationing for all valves, hydrants, outlets, blow-offs, house service connections, etc., measured on a horizontal line as established by the Borough Office Bureau of Topographic;
 - (h) alignment and appurtenance location stationing, and deflection angles;
 - (i) cover and elevations (Datum used shall be that of the Borough where work is located);
 - (j) location of pipe joints;
 - (k) profile of all piping;
 - (l) complete details of all outlet piping roundabouts;
 - (m) complete details of all blow-off connections to the sewer;
 - (n) complete details of all air cocks;
 - (o) location of taps and access manholes;
 - (p) location of all cathodic protection stations;
 - (q) Venturi sensing lines plans and profiles;
 - (r) all appropriate notes.

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

- (18) The Contractor is notified that as part of this contract a "Cathodic Protection (CP) System Survey and Engineering Study of Soil and Stray Currents and Cathodic Protection System Design" has been prepared by the firm of CorTech, Inc.. The Contractor's attention is directed to the Cathodic Protection Design drawings consisting of nine (9) sheets that are included in the contract drawings; to the Cathodic Protection (CP) System Survey and Engineering Study of Soil and Stray Currents and Cathodic Protection System Design report that consists of twenty-two (22) pages that is attached to the end of this addendum; and to the Quantity and Cost Estimating report consisting of one (1) page that is attached to the end of this addendum.
- (19) The Contractor's attention is directed to the following United States Postal Service (USPS) structures within the areas of construction:
 - (a) Overhead structure on West 29th Street between 10th Avenue and 9th Avenue, with clearance of 18'-0"; and
 - (b) Tunnel structure on 9th Avenue between 29th Street and 31st Street.

Prior to the start of work, the Contractor shall perform a survey investigation to determine the exact locations, elevations and all pertinent details of the existing USPS structures specified above. Included in this investigation shall be the determination of the clearance between the proposed Direct Jacked 90" R.C.P. Class V Combined Sewer and the existing USPS Tunnel. Such investigation work together with impact of construction on the existing USPS structures shall be included in the Construction Report required under **Section 5.43 - Construction Report**. The Contractor shall be required to monitor for vibration and settlement the existing USPS structures. Such monitoring work shall be done in accordance with **Section 5.43A - Monitoring And Post-Construction Report**.

The Contractor shall notify the USPS to coordinate Contractor's construction operations with the USPS facilities. The Contractor shall also conduct Contractor's construction operations so as to prevent damage to these structures. The costs for any alteration to the Contractor's means and methods of construction caused by working in the proximity of these structures shall be deemed included in the prices bid for all contract items of work. No additional or separate payment will be made for any alterations to the Contractor's means and methods of construction.

The Contractor shall exercise extreme caution while performing work near these USPS structures so as to prevent any damage to these structures. Any damage caused to these structures due to the Contractor's construction operations shall be repaired or reconstructed to the satisfaction of the USPS and the Engineer at no expense to the City and at the sole expense of the Contractor.

B. AMENDMENTS TO THE STANDARD HIGHWAY SPECIFICATIONS

- (1) Refer to Standard Highway Specifications Volume I (November 1, 2010), Page 165:
Add the following new **Section 4.04 MM**:

SECTION 4.04 MM - Procedure For Estimating Concrete Strength By The Maturity Method

4.04MM.1. DESCRIPTION. The Maturity Method is a non-destructive procedure for estimating concrete strength and shall be used to determine when to open the concreted area to traffic. The requirements of this section shall apply to all concrete placed under Item No 6.97 A and in accordance with **Section 6.97 A - Extra-High-Early Strength Concrete Base**.

The Maturity Method will not be used by the Department for accepting the strength of a concrete. Strength testing by destructive means will still be used by the Department for strength acceptance.

Maturity will not be used to decrease curing times.

4.04MM.2. PROCEDURE FOR DEVELOPING A MATURITY CURVE. For each proposed mix design develop the maturity curve in accordance with ASTM C1074. Make 6" x 12" cylinders and base the curve on compressive strength.

- (A) Make all specimens from the same batch of concrete. Batch size shall be at least 3-cubic yards. Mix using the same materials, mix design and mixing technique that will be used for concrete on the project. Use the same mixing equipment when possible. Mix at the maximum w/c ratio of the design. Mix at or within 0.5% of the maximum air content of the design. Additional maturity curves similar to the curves which are part of the eleven (11) pages of attachments (Suggested Mix Design For Extra-High-Early Strength Concrete Base) to **Section 6.97 A - Extra-High-Early Strength Concrete Base**, but limited to 28-days, can be made from different batches using the same mix design at lower w/c ratios and air contents, and these additional maturity curves can be used for interpolating concrete strength estimations if it can be shown that the concrete delivered to the project was at a lower w/c or lower air content.
- (B) Determine the plastic properties of the batch by performing slump, air content, unit weight, and concrete temperature before making specimens. Determine slump in accordance with ASTM C143, air content in accordance with ASTM C231 or ASTM C173, unit weight in accordance with ASTM C139, temperature in accordance with ASTM C1064, shrinkage in accordance with ASTM C157, and freeze/thaw in accordance with NYSDOT Method 502-3P.
- (C) Make a minimum of seventeen (17) specimens in accordance with ASTM C192. Embed sensors in the center of two (2) of the specimens. Moist cure all specimens in a temperature controlled water bath or in a moist room meeting the requirements of ASTM C511. Test cylinders in accordance with ASTM C39. Do not test cylinders with sensors embedded in them. For high early strength concrete and for extra-high-early strength concrete, test when strengths are approximately equal to 30%, 60%, 75%, 85%, and 100% of the design strength. Additional specimens can be made and tested at other ages as well as unused specimens to help define the maturity curve.
- (D) At a minimum, personnel making cylinders and performing slump, air content, unit weight, and concrete temperature shall be ACI certified as Concrete Field Testing Technicians, Grade I, and personnel testing cylinders for compressive strength shall be ACI certified as Concrete Strength Testing Technicians.
- (E) Use digital data-loggers in conjunction with a commercial maturity instrument that automatically computes and displays maturity. Develop the curve using the temperature-time factor maturity function. Use a value of 32° F (0° C) for T_o (datum temperature) unless a more accurate value is determined in accordance with Annex A1 of ASTM C1074.

4.04MM.3. ACCEPTANCE OF A MATURITY CURVE BY THE DEPARTMENT. For each mix design submit the maturity curve, mix design, material sources, plastic test results, strength test results, data, calculations and method used for monitoring maturity in the laboratory to the Engineer. The Department will require thirty (30) days to evaluate the results for acceptance.

4.04MM.4. USING CONCRETE MATURITY IN THE FIELD. Estimating concrete strength by maturity is acceptable when the concrete is batched using the same materials (including admixtures), material proportions, mix design, and mixing technique as that of the batch used to develop the maturity curve. The curve can be used on the project to estimate concrete strength if the w/c ratio of the concrete used on the project is less than or equal to the w/c ratio used to develop the curve.

- (A) Use digital data-loggers in conjunction with a commercial maturity instrument that automatically computes and displays maturity to monitor field placed concrete. Use the time-temperature maturity function. Use the same value for T_o (datum temperature) that was used to develop the maturity curve.
- (B) Install at least one (1) sensor for every 3,600-square yards of concrete base (or fraction thereof) with the sensor representing the last 3,600-square yards of concrete pavement (or fraction thereof) installed in the last load of concrete mixed and placed that day. Install at least one (1) additional sensor each day in concrete that is placed within the last four (4) hours of work that day where maturity gain is expected to be the slowest. Maturity gain typically is expected to be the slowest in the thinnest section of pavement. If all sections of pavement have the same dimensions and no section is expected to gain maturity slower, place the additional sensor in any section of pavement constructed from the second to last load of concrete mixed and placed that day.
- (C) Install additional sensors when necessary for accurately determining the maturity of a concrete or as directed by the Engineer.
- (D) Provide one (1) sensor to the Engineer for random placement at the Department's discretion for every ten (10) sensors the Contractor is required to install. If the number of sensors installed by the Contractor exceeds the minimum required by these specifications, the number of sensors above the minimum will not be counted as required sensors.
- (E) When installing sensors, use a placement strategy that targets areas where the concrete is expected to gain maturity the slowest. Place sensors near the fringes, in thinner sections, or in shaded areas where the concrete will be cooler. Do not place sensors in the center of the pour where the concrete will be the hottest. Typical sensor placement should be one (1) foot from an edge or corner and six (6) inches below the surface, but try to maintain at least six (6) inches of cover in each direction. At a minimum, install sensors with at least three (3) inches of cover in each direction. Use traditional methods in lieu of maturity if the least dimension of a concrete is less than six (6) inches (i.e. if three (3) inches of cover cannot be maintained in each direction) because ambient conditions may affect the sensor causing maturity readings from that sensor to be inaccurate.
- (F) Provide the Engineer with one (1) set of the same maturity monitoring equipment reader that the Contractor will be using on the project so that DDC can independently monitor concrete maturity. Provide DDC personnel training on how to operate the equipment. The monitoring equipment will be returned at the completion of the project.
- (G) Maintain a separate log for each sensor which includes a unique ID; location; date and time of installation; date and time that the sensor began monitoring maturity; dates and times of all readings taken from the sensor; the corresponding temperature, maturity, and concrete age at each reading; and the date when readings were discontinued. Notify the Engineer immediately with problems or discrepancies with readings or if any sensors are found to be damaged or operating improperly, and document on the log the date and time this determination was made, what the problem is, and the steps taken to correct it. Have the log available for viewing by DDC

project personnel at all times and provide an updated copy or the log to DDC project personnel on a weekly basis if the sensor is still in use.

4.04MM.5. VERIFICATION OF THE MATURITY CURVE. Maturity curve verification consists of making test specimens, monitoring the maturity of the specimens, testing the specimens by destructive means to determine the actual strength, and comparing the actual strength determined by destructive testing with the strength estimated by maturity. If the actual strength is the same or greater than the strength estimated by maturity, the curve is verified. If the actual strength is less than the strength estimate by maturity, the curve is not verified. If a curve cannot be verified, it may be an indication of changes or alterations in the mix design, batching procedures, material proportions, or properties in the materials being used, or that the maturity curve being used was not developed correctly.

Perform maturity curve verification weekly to determine if the strength of the concrete being supplied to the project is equal to or greater than the strength estimated by maturity. If four (4) consecutive weekly maturity curve verifications determine that the maturity curve being used is verified, reduce the frequency to once every two (2) weeks.

If maturity curve verification testing does not verify a maturity curve, immediately notify the Engineer, immediately discontinue using maturity for estimating strength, perform an investigation as to why maturity was not able to be verified, and provide the Engineer with a written report detailing why the curve was not verified and what actions will be taken to ensure that maturity will not be compromised in the future. If the Engineer is satisfied with the report and that the problem has been resolved, maturity can be used again on the project with maturity curve verification being performed as directed by the Engineer, but in no case, less than once a week. If future maturity curve verifications determine that the curve is verified, the frequency of maturity curve verification can be decreased at the City's discretion.

Maturity curve verification consists of the following:

- (A) Sample concrete from a load or batch being used on the project. If the maturity curve is based on compressive strength, make five (5) 6" x 12" cylinders for test specimens. Sample in accordance with ASTM C172. Make and cure test specimens in accordance with ASTM C31. At a minimum, personnel sampling and making specimens in the field will be ACI certified as Concrete Field Testing Technicians, Grade I.
- (B) Place a sensor in the center of one of the test specimens and monitor maturity.
- (C) Test the specimens in pairs and average the results to determine strength. Test the first pair of specimens when maturity readings indicate that the specimens have achieved strength between 50% and 70% of the design strength, and test the remaining pair when maturity readings indicate that the specimens have achieved strength between 85% and 100% of the design strength. Test cylinders in accordance with ASTM C39. Do not test the specimen with the sensor embedded in it. At a minimum, personnel testing cylinders for compressive strength will be ACI certified as Concrete Strength Testing Technicians.
- (D) Compare the actual strength determined by destructive testing with the estimated strength determined by maturity to see if the curve is verified or not. If the actual strength is less than the estimated strength, the curve is not verified.

4.04MM.6. MATURITY CURVE LIFE. A maturity curve will be valid for two (2) years from the date the batch used to develop the maturity curve was made provided that the use of the Maturity Method is verified as per **Subsection 4.04MM.5** of this specification. The validity of a maturity curve can be renewed a maximum of two (2) times. Each renewal extends the validity of the curve for one (1) year.

The renewal of a maturity curve requires submission of a written request for renewal in advance of the maturity curve expiration date, submission of all verification data from **Subsection 4.04MM.5**, and

acceptance of the data by the Department. Send the renewal request and verification data to DDC's Quality Assurance Department.

4.04MM.7. BASIS OF PAYMENT. No additional payment will be made for compliance with the provisions of this section.

- (2) Refer to Standard Highway Specifications Volume II (November 1, 2010), Page 351:
Add the following new **Section 6.28 ME**:

SECTION 6.28 ME - Lighted Timber Fencing For Use In Lower Manhattan Project

6.28ME.1. INTENT. This section describes the work to be done in connection with Lighted Timber Fencing.

6.28ME.2. DESCRIPTION. The Contractor shall furnish, install, and maintain and remove, when directed, Lighted Timber Fencing at locations shown on the contract drawings, as specified herein and where directed by the Engineer.

6.28ME.3. MATERIALS.

Timber and lumber shall be dense, structural grade Douglas Fir or Southern Yellow Pine, conforming to the requirements of **Section 2.40** of the Standard Highway Specifications.

Reflectorizing materials shall conform to the requirements of ASTM B589 "Standard Specification of Refined Palladium."

Battery operated flashing units shall be as approved by the Engineer.

For additional details about materials see the sketch for timber fencing.

All other unspecified materials shall be as approved by the Engineer.

6.28ME.4. METHODS. All locations of mass excavation being performed under Section CET 410 - MASS EXCAVATION, of the "CET Specifications and Sketches" Issued: November 2010, shall be surrounded by lighted timber fencing as shown on the sketch titled "LIGHTED TIMBER FENCING WITH 'GREEN PRIVACY SCREEN'" attached to the end of this **Section 6.28 ME**. This requirement shall be in addition to providing all other traffic control devices as deemed necessary for the maintenance and protection of vehicular and pedestrian traffic.

Said work shall include the furnishing and incorporation, as required, of all timber, lumber, fastenings, anchors, reflectorizing materials, battery operated flashers and other warning devices; paint and painting; netting; and the furnishing of all labor, materials, plant, equipment, insurance, and necessary incidentals required and completing the work.

Lighted Timber Fencing shall be furnished, installed, and maintained as shown in the attached sketch and as directed by the Engineer.

At the completion of the work or when directed by the Engineer, fencing shall be removed and disposed of away from the work site.

Fencing at all times shall be maintained in a condition satisfactory to the Engineer. Maintenance shall consist of the replacement of all damaged or worn out components; repainting, as required or directed; replacement of reflectorizing materials, netting and flashers; and general rehabilitation to keep barricades in good condition during the life of the contract.

6.28ME.5. MEASUREMENT AND PAYMENT. The quantity to be measured for payment shall be the number of linear feet of lighted timber fencing installed in the work, complete, based on the

summation of the lengths of individual units, measured along the center line on the face of the top rail between the ends of each unit.

Payment will be made for lighted timber fencing only for the initial installation at any location. Whenever fences are moved to a new location, as required by the contract drawings or directed by the Engineer, payment will be made in the same manner as if it were an initial installation. Minor movement of the fencing from one side of the roadway to the other side, or rearrangement within a work area will not be considered as a movement to a new location and will not entitle the Contractor to additional payment.

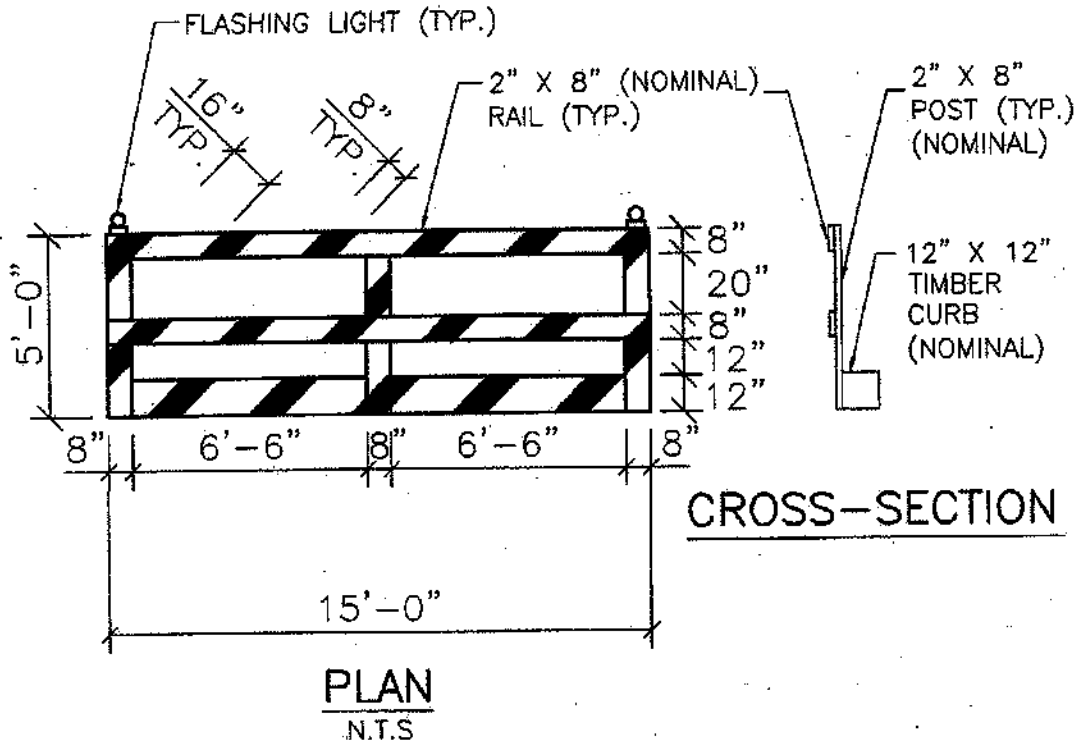
No payment will be made: for movements of fencing made for the Contractor's convenience; for movement of fencing at a given location at the end of a work period and subsequent replacement at the same location at the beginning of the next work period; for movement of fencing at a given location during a work period and subsequent replacement at the same location during the same work period; or for the interchanging of fencing between initial installations.

6.28ME.6. PRICES TO COVER. The contract prices bid per linear foot for lighted fencing shall cover the cost of furnishing all labor, materials, plant, equipment, insurance, and necessary incidentals required and completing the work in accordance with the contract drawings, the specifications and the directions of the Engineer.

Payment will be made under:

Item No.	Item Description	Pay Unit
6.28 ME	LIGHTED TIMBER FENCING FOR USE IN LOWER MANHATTAN PROJECT	L.F.

LIGHTED TIMBER FENCING WITH "GREEN PRIVACY SCREEN"



DETAILS:

- 1) LUMBER -DOUGLAS FIR OR SOUTHERN YELLOW PINE.
 -ALL SIZES SHOWN ARE "NOMINAL".
 -ALL CONNECTIONS FOR TIMER RAILS, POSTS & CURBS TO BE NAILED.
- 2) PAINT -TWO COATS APPROVED ORANGE & STAIN RESISTANT REFLECTORIZED WHITE.
 -STIPES TO BE 45° WITH 8" ORANGE & 16" WHITE.
- 3) LIGHT --BATTERY OPERATED OR SOLAR POWERED FLASHING DOT APPROVED TYPE.
 --MAXIMUM SPACING 15' CENTER TO CENTER.
- 4) SCREENING --TYPE SHALL BE A HIGH DENSITY POLYETHYLENE "GREEN PRIVACY
 SCREEN" MATERIAL, 5'-8" HEIGHT WITH REINFORCED EDGE, AS APPROVED BY THE
 ENGINEER. THE MATERIAL SHALL BE FIRE RESISTANT AND HAVE A MELTING POINT
 OF NOT LESS THAN 250 DEGREES FAHRENHEIT. A SAMPLE OF THE MATERIAL
 ALONG WITH MSDS (MATERIAL SAFETY DATA SHEET) SHALL BE FURNISHED TO THE
 RESIDENT ENGINEER FOR HIS REVIEW AND APPROVAL PRIOR TO USE.
 --SCREENING TO BE FASTENED TO FENCE EXTERIOR OVER THE ENTIRE 5'-0"
 HEIGHT.

- (3) **Refer** to Standard Highway Specifications Volume II (November 1, 2010), Page 352:
Add the following new **Section 6.29 TTM**:

SECTION 6.29 TTM - Temporary Tubular Markers

6.29TTM.1. INTENT. This section describes the work of furnishing, installing, maintaining, and removing Temporary Tubular Markers.

6.29TTM.2. DESCRIPTION. Under this section, the Contractor shall furnish, install, maintain, relocate, and remove, when directed, Temporary Tubular Markers as indicated on the contract drawings and as directed by the Engineer. Tubular markers shall be defined by the National Cooperative Highway Research Program (NCHRP) Report 350 as a Category I device.

6.29TTM.3. MATERIALS. Tubular Markers shall conform to the specifications set forth in the National Manual on Uniform Traffic Control Devices for Streets and Highways (National MUTCD) plus the New York State Supplemental (NYS Supplement) and shall be NCHRP 350 approved. Tubular markers shall be orange, with a minimum height of 36" (900-mm) and a minimum outside diameter of 2" (50-mm). Tubular Markers shall be circular or elliptical in cross section and shall have a maximum weight of 13-lb (6-kg), not including a mounting base.

Tubular Markers shall have two horizontal circumferential stripes of white reflective sheeting a minimum of 3" (75-mm) wide. The top edge of the upper band shall be a maximum of 2" (50-mm) from the top of the marker. The space stripes between shall not exceed 6" (150-mm).

Reflective sheeting shall conform to NYSDOT Standard Highway Specification Section 730-05 *Reflective Sheeting* ASTM D4956 Type I or Type III. The sheeting shall be bonded to the post with a precoated, pressure-sensitive adhesive or a tack-free, heat activated adhesive. Mechanical fasteners to bond reflective sheeting to the post will not be allowed.

For free-standing tubular Temporary Tubular Markers, the base and/or any nonflexible portion of the marker shall not be more than 2" (50-mm) in height.

For tubular Temporary Tubular Markers fastened to pavement, the bonding system used shall be a fast-setting chemical compound, mastic-type material, or mechanical fastener capable of fixing the tubular marker to either concrete or asphalt pavement. The bonding system shall not present a hazard to traffic if the tubular marker or base unit becomes unfixed from the pavement.

Acceptance of materials will be based on the manufacturer's name and type of tubular marker appearing on the most current New York State Department of Transportation's Approved List titled "Tubular Markers."

6.29TTM.4. METHODS. The Contractor shall install Temporary Tubular Markers in accordance with the contract documents or as directed by the Engineer. The Contractor shall attach the tubular markers to the pavement in a manner that prevents them from being moved or dislodged by traffic. Tubular markers shall be installed on pavement that has been cleaned to remove pavement markings, oil, dirt, or other debris or substances that may interfere with a proper bond. Attachment to the pavement shall be by mechanical fastener or by adhesive, in accordance with the manufacturer's recommendations. Bonding agents shall be of sufficient amount or size to ensure proper bonding of the base to the pavement.

All temporary tubular markers shall be maintained upright, at proper spacing, in proper alignment and orientation, kept clean, and replaced as required during the various stages of construction.

Temporary tubular markers removed or damaged by the Contractor's operations or by traffic shall be replaced immediately, so that positive separation is maintained between opposing lanes of traffic at all times. Damaged reflective sheeting on interim tubular markers shall be replaced before nightfall as necessary to maintain adequate visibility of the markers. In cases where only isolated individual markers are lost or damaged, and adequate visibility is maintained by the remaining markers,

replacement will not be required until more than one (1) consecutive markers have been damaged or lost.

At the completion of the work or when directed by the Engineer, the temporary tubular markers shall be removed and disposed of away from the work site.

6.29TTM.5. MEASUREMENT. The quantity to be measured for payment shall be the actual number of Temporary Tubular Markers placed in the work, to the satisfaction of the Engineer.

Payment will be made only for the initial installation at any location. Whenever Temporary Tubular Markers are moved to a new location, as required by the contract drawings or directed by the Engineer, payment will be made in the same manner as if it were an initial installation. However, only tubular markers that are in satisfactory conditions may be relocated to a new location. Minor movement of the Temporary Tubular Markers from one side of the roadway to the other side, or rearrangement within a work area will not be considered as a movement to a new location and will not entitle the Contractor to additional payment.

No payment will be made for movements of Temporary Tubular Markers made for the Contractor's convenience; for movement of Temporary Tubular Markers at a given location at the end of a work period and subsequent replacement at the same location at the beginning of the next work period; for movement of Temporary Tubular Markers at a given location during a work period and subsequent replacement at the same location during the same work period; or for the interchanging of Temporary Tubular Markers between initial installations.

6.29TTM.6. PRICE TO COVER. The contract price bid per each for Item No. 6.29 TTM - TEMPORARY TUBULAR MARKERS, shall cover the cost of furnishing all labor, materials, equipment, insurance, and necessary incidentals required to complete the work of furnishing, installing, maintaining, relocating, and removing tubular markers, all in accordance with the contract drawings, the specifications and the directions of the Engineer. No additional payment will be made for replacing damaged markers.

Payment will be made under:

Item No.	Item Description	Pay Unit
6.29 TTM	TEMPORARY TUBULAR MARKERS	EACH

- (4) Refer to Standard Highway Specifications Volume II (November 1, 2010), Page 360:
Add the following new **Section 6.34 A**:

SECTION 6.34 A - Temporary Chain Link Fence, 6'-0" High

6.34A.1. DESCRIPTION. Under this section, the Contractor shall furnish, erect, maintain, and remove, when directed, each type of Temporary Chain Link Fence as shown on the contract drawings and directed by the Engineer.

6.34A.2. MATERIALS AND METHODS. All materials and methods shall be as specified in **Section 6.34** of the Standard Highway Specifications, with the following modifications and additions:

Temporary Chain Link Fence to be furnished under Item No. 6.34 ACT - TEMPORARY CHAIN LINK FENCE, 6'-0" HIGH, shall consist of chain link fence fabric, top and bottom tension wires, gates, posts to be embedded in the pavement, and all necessary incidentals in accordance with the contract drawings and the directions of the Engineer.

Temporary Chain Link Fence to be furnished under Item No. 6.34 ACTP - TEMPORARY CHAIN LINK FENCE, 6'-0" HIGH, (WITH TOP AND BOTTOM RAILS AND POSTS MOUNTED ON STEEL PLATES), shall consist of chain link fence fabric, top and bottom rails for mounting a decorative mesh

(to be furnished under Item No. 9.06 HW), gates, and posts. Posts shall be mounted on two (2) feet square steel plates with a vertical pin not less than two (2) feet high welded to the center of the plate, all as approved by the Engineer. The Contractor shall also be required to secure the fence with sand bags to hold fence in place, and all necessary incidental in accordance with the contract drawings and the directions of the Engineer.

When directed by the Engineer, the Contractor shall remove and dispose of the temporary chain link fence to the satisfaction of the Engineer. The Contractor shall then fill any holes left in the pavement with compacted clean sand to grade.

6.34A.3. MEASUREMENT. The quantities of Temporary Chain Link Fence to be measured for payment shall be the number of linear feet of each type satisfactorily installed, complete, measured in place, from center to center of end posts.

Payment will be made for each type of Temporary Chain Link Fence only for the initial installation at any location. Whenever temporary chain link fence are moved to a new location, as required by the plans or directed by the Engineer, payment will be made in the same manner as if it were an initial installation. Minor movement of temporary chain link fence from one side of the roadway to the other side, or rearrangement within a work area will not be considered as a movement to a new location and will not entitle the Contractor to additional payment.

No payment will be made: for movements of each type of temporary chain link fence made for the Contractor's convenience; for movement of temporary chain link fence at a given location at the end of a work period and subsequent replacement at the same location at the beginning of the next work period; for movement of temporary chain link fence at a given location during a work period and subsequent replacement at the same location during the same work period; or for the interchanging of temporary chain link fence between initial installations.

6.34A.4. PRICES TO COVER. The contract prices bid per linear foot for each type of "TEMPORARY CHAIN LINK FENCE" shall be a unit price per linear foot and shall cover the cost of all labor, materials, plant, equipment, insurance, and necessary incidentals required to furnish, install, maintain, and remove temporary chain link fence; all in accordance with the contract drawings, the specifications and the directions of the Engineer. Temporary chain link fence shall also include, but not limited to, any gates as may be required.

Payment will be made under:

Item No.	Item Description	Pay Unit
6.34 ACT	TEMPORARY CHAIN LINK FENCE, 6'-0" HIGH	L.F.
6.34 ACTP	TEMPORARY CHAIN LINK FENCE, 6'-0" HIGH, (WITH TOP AND BOTTOM RAILS AND POSTS MOUNTED ON STEEL PLATES)	L.F.

- (5) Refer to Standard Highway Specifications Volume II (November 1, 2010), Page 370:
Add the following new **Section 6.40 DC**:

SECTION 6.40 DC - Engineer's Field Office With Conference Room

6.40DC.1. DESCRIPTION. The Contractor shall provide, furnish and maintain a fully equipped field office (Type D) and conference room for the exclusive use of and occupancy by the Department's engineering personnel and/or Supervising Consultant (herein after called "City personnel"). The field office shall be at a location approved by the Engineer and shall be a commercial building, store front, or with the approval of both Office of Construction Mitigation and Coordination (OCMC) and the Community Board it may be a mobile trailer(s). If a trailer is used it shall be subject to approval by the Engineer, and all necessary permits shall be obtained by the Contractor. The Contractor may have facilities in an adjoining area separated by a lockable door, provided such facilities are in a location approved by the Engineer.

The field office structure and occupancy thereof shall conform to the requirements of all laws, rules, regulations and orders applicable to it.

The field office and all equipment, except as otherwise specified, may be new materials or may be used materials in good condition and satisfactory to the Engineer.

6.40DC.2. MATERIALS AND METHODS. All materials and methods shall comply with the requirements of **Subsections 6.40.2., 6.40.3. and 6.40.4.** of the Standard Highway Specifications, for a Type D Field Office, expect for the following modifications:

Minimum Floor space (Square Feet) shall be 2,320-square feet of which 320-square feet shall be a 20' x 16' conference room. The conference room shall be equipped with two 3' x 6-1/2' tables and 30 chairs.

The "One (1) 600 DPI HP Laser Jet Printer (twelve (12) pages per minute or faster) with one (1) Extra Paper Tray (Legal Size)" specified in **Subsection 6.40.2.** shall be changed to "One (1) 600 DPI HP Color Laser Jet all-in-one Printer/Scanner/Copier/Fax (twelve (12) pages per minute or faster) with one (1) Extra Paper Tray (Legal Size) networked to all office computers."

6.40DC.3. MEASUREMENT. The quantity to be measured for payment under this item shall be the number of months that the Field Office is available for occupancy by the Field Engineers during the period of the contract. Payment will begin the first month that the office is fully equipped, serviced as specified, and made available for occupancy. Monthly payments will continue for the duration of the contract with the approval of the Assistant Commissioner of Construction. When directed in writing by the Assistant Commissioner of Construction, payment for each month's occupancy after the date of acceptance will be made as part of the final estimate. Monthly payments may be terminated on a specified date prior to acceptance of the contract by written notification by the Engineer that such office will no longer be required on the contract.

6.40DC.4. PRICE TO COVER. The unit price bid per month for Engineer's Field Office shall include the cost of furnishing all labor, materials, equipment, ground rental, fire and theft insurance, and utility charges necessary to complete the work of providing or constructing the field office; making all necessary electrical, water, sewer, and other connections required to make the above facilities operative; payment of all rental costs; furnishing and paying for heating fuel, as required; all electrical energy; private telephone services; staples, as specified; and all necessary incidentals to complete the work all in accordance with the specifications and the directions of the Engineer.

No payment will be made under Engineer's Field Office for each calendar day during which there are deficiencies in compliance with the requirements of any subsection of this specification. The first calendar day shall commence twenty-four (24) hours after notice to the Contractor of such a deficiency. This non-payment shall be deducted from the Contractor's next estimate as a charge to Contractor on the item. The amount of such calendar day non-payment will be determined by dividing the unit price bid per month by 30.

In addition, the Contractor may be subject to liquidated damages in accordance with Schedule "A".

Payment will be made under:

Item No.	Item Description	Pay Unit
6.40 DC	ENGINEER'S FIELD OFFICE WITH CONFERENCE ROOM	MONTH

(6) **Refer** to Standard Highway Specifications Volume II (November 1, 2010), Page 404: **Add** the following new **Section 6.59 PF:**

SECTION 6.59 PF - Temporary Concrete Barrier With Fence

6.59PF.1. INTENT. This section describes the work to be done in connection with temporary concrete barriers with chain link fence.

6.59PF.2. DESCRIPTION. The Contractor shall furnish, install, move maintain and remove temporary concrete barriers with chain link fence in accordance with the plans, the specifications and the directions of the Engineer.

6.59PF.3. MATERIALS. The temporary concrete barrier shall conform to the requirements of New York State Department of Transportation Standard Sheet No. 619-3R1, modified to accommodate a chain link fence with posts. Top and bottom rails will not be required for the fence.

Chain link fencing and incidentals shall be in accordance with Section 607 and Materials Section 710, of the current Standard Specifications, Construction and Materials, New York State Department of Transportation, Office of Engineer. The Engineer will inspect all chain link fence material for conformance with specifications.

The Contractor shall be required to provide a solid, secure chain link fence system consisting of posts, post embedment, fence fabric, and all other incidentals as may be required. Fence posts shall be embedded in the concrete barrier and the chain link fence shall extend from the barrier to a height of at least six (6) feet above grade.

Maximum spacing of fence posts shall be eight (8) feet from center to center. Minimum embedment of fence posts into the barrier shall be four (4) inches deep.

Fence fabrication shall be continuous for the length of the concrete barrier; however, at joints between concrete barriers, the gap between fence sections shall not be more than four (4) inches.

The barrier sections shall be precast portable concrete units. The Manufacturer shall certify that the temporary concrete barrier units conform to the details shown on the aforementioned NYSDOT's Standard Sheet, or approved drawing.

The Engineer will inspect the temporary concrete barrier sections, complete with fence, upon delivery to the project site for conformance to specifications. Any barrier sections having damage and/or defects in the concrete, fence and/or joint connections will be rejected by the Engineer when in the Engineer's judgment the performance of the barriers will be affected.

The temporary concrete barrier sections with fence shall form a smooth and continuous barrier when joined together. Any sections damaged or misaligned while in service shall be corrected or replaced to the satisfaction of the Engineer.

Striped reflectorization of the barriers is required. Striping pattern is to be alternating twelve (12) inch wide stripes of white and orange sloped downwards in the direction of traffic at 45-degrees.

Reflective sheeting material shall be used and it shall conform to photometric and color (Orange and White) requirements of Subsection 730-05.02, Reflective Sheeting (Class B), of the current Standard Specifications, Construction and Materials, New York State Department of Transportation, Office of Engineer.

6.59PF.4. METHODS. The Contractor shall furnish, erect, move, and remove temporary concrete barriers with chain link fence where and as indicated on the plans or as directed by the Engineer.

Where indicated on the plans or in the proposal, temporary concrete barriers shall be supplemented by approved steady burning lights.

Each run, or bay, of temporary concrete barrier unit with chain link fence shall be fastened together to form a continuous chain. After placement, each successive unit shall be moved longitudinally to

remove the slack in the joint between units. The units at each end of a run or bay shall be anchored as shown on the Standard Sheet. Where shown on the plans or directed by the Engineer, the ends of the barrier run shall be fitted with a tapered end section, flared back.

6.59PF.5. MEASUREMENT. The quantity to be measured for payment shall be the number of linear feet of temporary concrete barrier with chain link fence actually placed including transition sections, measured along the centerline of the top surface of each barrier.

6.59PF.6. PRICE TO COVER. The contract price bid per linear foot for Item No. 6.59 PF - TEMPORARY CONCRETE BARRIER WITH FENCE, shall cover the cost of all labor, materials, and equipment necessary to erect, maintain, and remove the required temporary concrete barrier with chain link fence, including any required connection devices, orange and white reflective stripes on the faces of the barriers, all in accordance with the plans, the specifications and the directions of the Engineer.

Any movement of temporary concrete barrier with chain link fence except movements of the concrete barrier necessary to maintain, realign, or replace damaged units will be considered as a movement to a new location and the Contractor will be entitled to payment for the movement.

Payment will be made under:

Item No.	Item Description	Pay Unit
6.59 PF	TEMPORARY CONCRETE BARRIER WITH FENCE	L.F.

- (7) **Refer** to Standard Highway Specifications Volume II (November 1, 2010), Page 470:
Add the following new **Section 6.97**:

SECTION 6.97 A - Extra-High-Early Strength Concrete Base

6.97A.1. DESCRIPTION. This section describes the construction of an extra-high-early strength concrete base for pavement.

In intersections where the street must be fully opened to traffic by the end of each work period, in accordance with the contract drawings, the specifications, the traffic stipulations, and the directions of the Engineer, the concrete base shall be laid with an extra-high-early strength concrete base.

The Contractor will be subject, under **Section 6.70** of the Standard Highway Specifications, to liquidated damages in the amount shown on Schedule "A" for each and every hour, or any part thereof, that the entire width of pavement designated to be reconstructed with extra-high-early strength concrete base is not available to traffic one (1) hour after the end of each work period.

6.97A.2. MATERIALS AND METHODS. All materials and methods for the concrete base shall comply with the requirements specified for Item 4.04 H, except for the following modifications and additions:

(A) Concrete shall be extra-high-early strength capable of obtaining a minimum compressive strength of 2,800-psi in six (6) hours, a minimum compressive strength of at least 3,200-psi at 3-days, and a sufficient size work crew and working time before its initial set to allow for proper placement of the concrete. Modification of concrete shall be with either an increased cement factor (10-bag mix of Portland cement), a reduced water content, superplasticizer, and accelerator or an approved Type IP hydraulic cement complying with the requirements of ASTM C595 modified with additives meeting the requirements of ASTM C688.

(B) A suggested mix design and test results are attached at the end of this section. Should the Contractor propose to use this mix design the Contractor shall be required to verify that the Contractor's mix agrees with the first 28-days of the attached test results. Otherwise, if the

Contractor chooses to use another mix design, the Contractor shall be required to document the Contractor's proposed mix design for 28-days in the same manner as shown on suggested mix design and test results which are part of the eleven (11) pages of attachments (Suggested Mix Design For Extra-High-Early Strength Concrete Base) to the end of this **Section 6.97 A**.

- (C) The laboratory used to verify that the Contractor's mix agrees with the mix design proved herein, or document another proposed mix design, shall be subject to approval by DDC's Quality Assurance and Construction Safety (QACS) Bureau and shall be in accordance with their "MIX DESIGN, LABORATORY AND PLANT APPROVAL PROTOCOL". Copies of this protocol may be obtained at the preconstruction meeting or from the Engineer. The minimum requirement for approval is that the laboratory must have the current AMRL/AASHTO R-18 accreditation in the category of service proposed, it must be currently licensed by the NYC Department of Buildings (DOB), and it must have documented experience estimating concrete strength by the use of Maturity Meters. In addition, all testing requirement to verify that the Contractor's mix agrees with the mix design proved herein, or document another proposed mix design, shall be witnessed by a representative of DDC's QACS Bureau.
- (D) Prior to all work under this contract, the Contractor shall file with the Engineer Age-Strength data sheets of the job mix formulas for each type of concrete the Contractor proposes to use, for various ambient temperatures anticipated during the work period. These data sheets shall be used in determining the curing periods of the concrete used. Data sheets are to be presented in both tabular and graphical forms for various ambient temperatures with a maximum setting period of six (6) hours.
- (E) All materials and equipment to be used by the Contractor shall be as approved by the Engineer.
- (F) The earth subgrade, immediately before the concrete base is laid, shall be thoroughly compacted by an approved method, to the satisfaction of the Engineer. It shall be smooth, finished to the bottom elevation of the adjacent concrete base pavement, and be dampened with water sufficient only to be absorbed by the subgrade. The subgrade shall not be in a muddy or frozen condition and unsuitable material shall be removed and replaced with acceptable material, thoroughly compacted.
- (G) All constituents of concrete shall be delivered to the project site each work period as required. The Contractor shall supply concrete at a rate consistent with placement operations as determined by the Engineer. Concrete must be batched in sufficient quantity to prevent cold joints from being formed during placement. The Engineer may discontinue the use of any type of concrete mixing or transporting units when unsatisfactory results are obtained.
- (H) All concrete shall be discharged from the discharge openings directly into the forms or into approved conveyance equipment while fresh and before there is evidence of initial set. Concrete shall be deposited before the initial set has taken place, in as nearly a continuous operation as practical, and with approved tools which will prevent segregation. Concrete shall not be deposited in standing water and shall be thoroughly compacted by use of external vibration (poker nose of screed). No retampering of the concrete will be permitted. Retampering is defined as the addition of water after the mix has attained its desired initial slump.
- (I) Concrete cylinders shall be taken at each location of work, as directed by the Engineer, to be tested the same day by the City.
- (J) No traffic is to be permitted on newly placed concrete base until it has obtained the minimum 2,800-psi compressive strength specified.

6.97A.3. MEASUREMENT. The quantity to be measured for payment under this item shall be the volume, in cubic yards, of extra-high-early strength concrete laid where directed by the Engineer, measured in place, and adjusted for strength deficiencies in accordance with **Section 5.04** of the Standard Highway Specifications.

In determining the volume of concrete to be paid for, the spaces occupied by bases of columns, manhole heads, gate boxes, road boxes, and similar structures will be deducted when their superficial areas measure more than one (1) square foot and will not be deducted when they measure one (1) square foot or less.

6.97A.4. PRICE TO COVER. The contract price per cubic yard of extra-high-early strength concrete shall cover the cost of all labor, materials, equipment, insurance, and incidentals necessary to furnish, lay and cure the concrete, complete in place, in full compliance with the requirements of the specifications, to furnish such samples and cores for testing and to provide such testing equipment, laboratory space and facilities as may be required, to maintain the concrete base in good condition as specified in **Section 5.05** of the Standard Highway Specifications, and completing the work in accordance with the contract drawings, the specifications and the directions of the Engineer.

Payment will be made under:

Item No.	Item Description	Pay Unit
6.97 A	EXTRA-HIGH-EARLY STRENGTH CONCRETE	C.Y.

SUGGESTED MIX DESIGN
FOR
EXTRA-HIGH-EARLY STRENGTH
CONCRETE BASE



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Client: Dept of Design & Construction
 30-30 Thompson Ave.
 Long Island City, N.Y. 11101

Report #: 09DDC-95100 **Page 1 of 2**
Date: 01/26/09
Mix #: 37
Cementitious: 940 Type II

Concrete Class: HE SuperPave

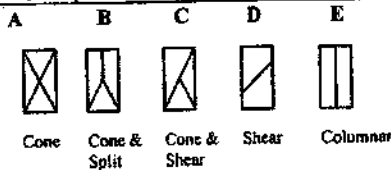
CONCRETE FIELD DATA (ASTM C192)

Cement lbs/ yd ³	Sand lbs/ yd ³	Stone lbs/ yd ³	Water lbs/ yd ³	Air Cont., %	Initial Slump in	Final Slump in	Concrete Temp, °F	Unit Wt. lbs/ yd ³	Ambient Temp °F	Water Temp °F
940	1035	1750	253.3	5.8	0	10.50	85	148.0	60	183

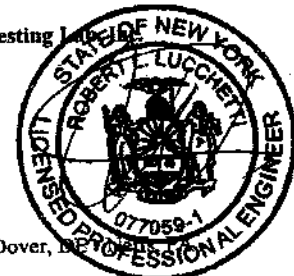
Supplier: CASA Ready Mix
 Sand: Roanoke-Washed / Specific Gravity: 2.63 – ASTM C33.
 Stone: Tilon Clinton Point / Specific Gravity: 2.81 – ASTM C33 #57
 Type I/II Cement: LaFarge – ASTM C150.
 Air: MBVR E90 65.8 oz/cu yd
 Plast. BASF 1390 112.8 oz/cu yd
 Accelerator: MBNC 534 846

COMPRESSIVE STRENGTH OF CONCRETE TEST CYLINDERS (ASTM C39) (4" D x 8" H)

cid #	Date Cast	Date Tested	Age, Days	Cross-Sect. Area, (sq. in.)	Total Load (Lbs.)	Fracture Type	Strength (PSI)	°C Hrs Mat.	Cyl Temp °F	Complies
1	01/26/09	01/26/09	2h	12.57	765	B	61	65	89	
2	01/26/09	01/26/09	3h	12.57	4020	B	320	100	90	
3	01/26/09	01/26/09	3.5h	12.57	6725	B	535	114	104	
4	01/26/09	01/26/09	4h	12.57	12760	B	1015	138	109	
5	01/26/09	01/26/09	4h	12.57	15410	B	1226	140	109	
6	01/26/09	01/26/09	4 ½h	12.57	18640	D	1483	159	111	
7	01/26/09	01/26/09	5	12.57	24300	D	1933	182	114	
8	01/26/09	01/26/09	5 ½h	12.57	32495	D	2585	205	114	
9	01/26/09	01/26/09	6h	12.57	40475	D	3220	228	114	Y
10	01/26/09	01/26/09	6h	12.57	36520	D	2910	228	114	Y
11	01/26/09	01/26/09	7h	12.57	45400	D	3612	275	116	Y
12	01/26/09	01/27/09	7h	12.57	91780	D	7302	881	77	Y
13	01/26/09	01/27/09	7h	12.57	94510	D	7519	881	77	Y
14	01/26/09	01/28/09	2	12.57	107670	D	8565	1303	62	Y



Submitted By: Materials Testing Lab



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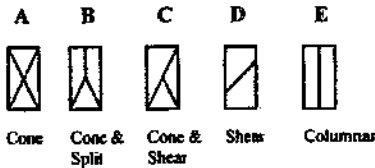


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Client: Dept of Design & Construction **Report #:** 09DDC-95100 **Page 2 of 2**
 30-30 Thompson Ave. **Date:** 01/26/09
 Long Island City, N.Y. 11101 **Mix #:** 37
Concrete Class: HE SuperPave **Cementitious:** 940 Type II

COMPRESSIVE STRENGTH OF CONCRETE TEST CYLINDERS (ASTM C39) (4" D x 8" H)

Field #	Date Cast	Date Tested	Age, Days	Cross-Sect. Area, (sq. in.)	Total Load (Lbs.)	Fracture Type	Strength (PSI)	°C Hrs Mat.	Cyl Temp °F	Complies
15	01/26/09	01/28/09	2	12.57	102555	D	8160	1303	62	Y
16	01/26/09	01/29/09	3	12.57	108270	D	8610	1779	68	Y
17	01/26/09	01/29/09	3	12.57	101095	D	8040	1779	68	Y
18	01/26/09	01/30/09	4	12.57	115610	D	9200	2247	68	Y
19	01/26/09	01/30/09	4	12.57	112340	D	8940	2247	68	Y
20	01/26/09	02/02/09	7	12.57	110965	D	8830	3738	71	Y
21	01/26/09	02/02/09	7	12.57	114050	D	9070	3738	71	Y
22	01/26/09	02/02/09	7	12.57	108760	D	8650	3738	71	Y
23	01/26/09	02/09/09	14	12.57	124850	D	9930	7232	69	Y
24	01/26/09	02/09/09	14	12.57	121170	D	9640	7232	69	Y
25	01/26/09	02/09/09	14	12.57	121010	D	9630	7232	69	Y
26	01/26/09	02/23/09	28	12.57	132110	D	10510	14381	68	Y
27	01/26/09	02/23/09	28	12.57	130760	D	10400	14381	68	Y
28	01/26/09	02/23/09	28	12.57	127590	D	10150	14381	68	Y
29	01/26/09	03/23/09	56	12.57	144830	D	11520	-	-	Y
30	01/26/09	04/21/09	84	12.57	150210	D	11950	-	-	Y
31	01/26/09	04/21/09	84	12.57	147520	D	11740	-	-	Y



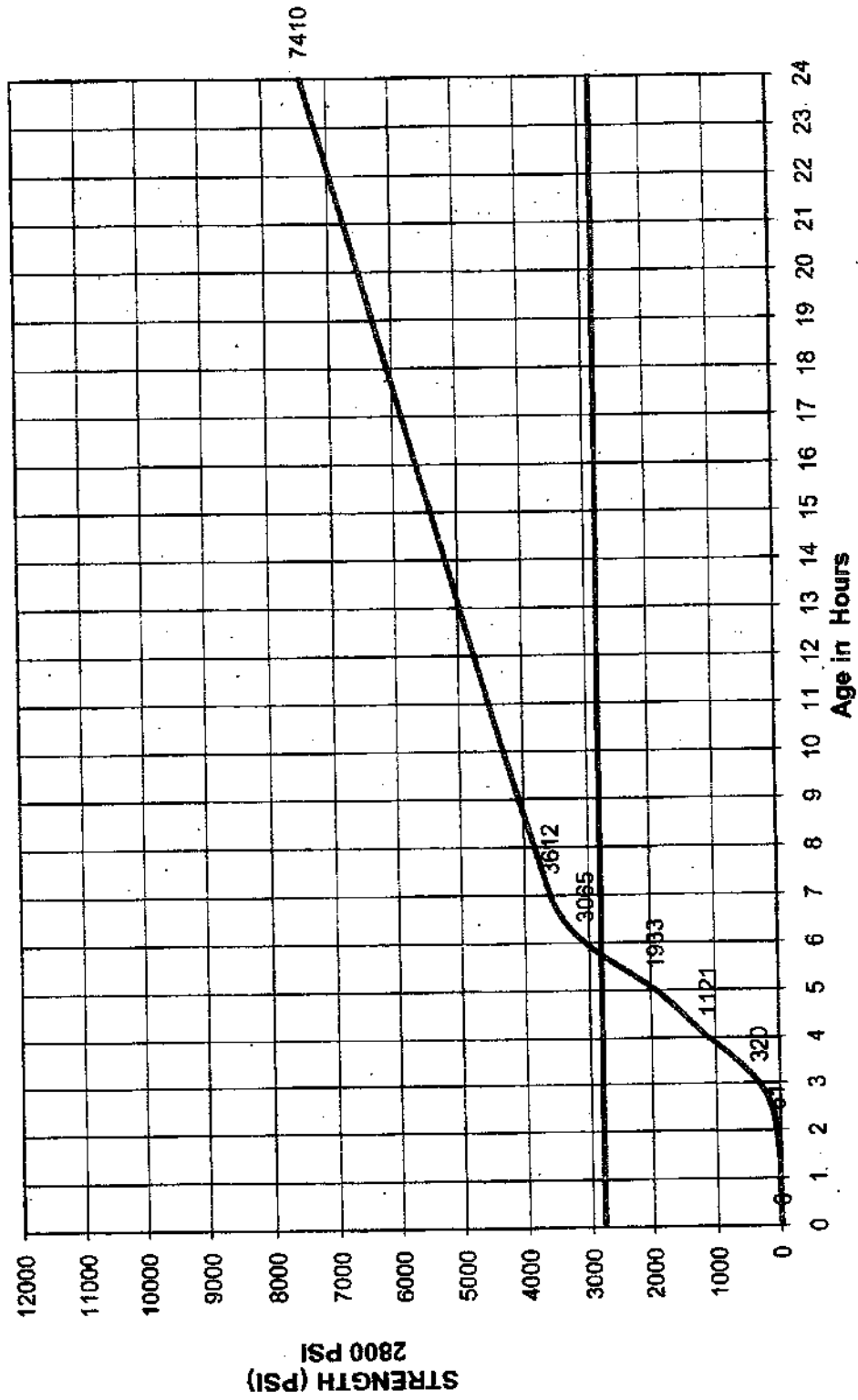
Submitted By: Materials Testing Lab



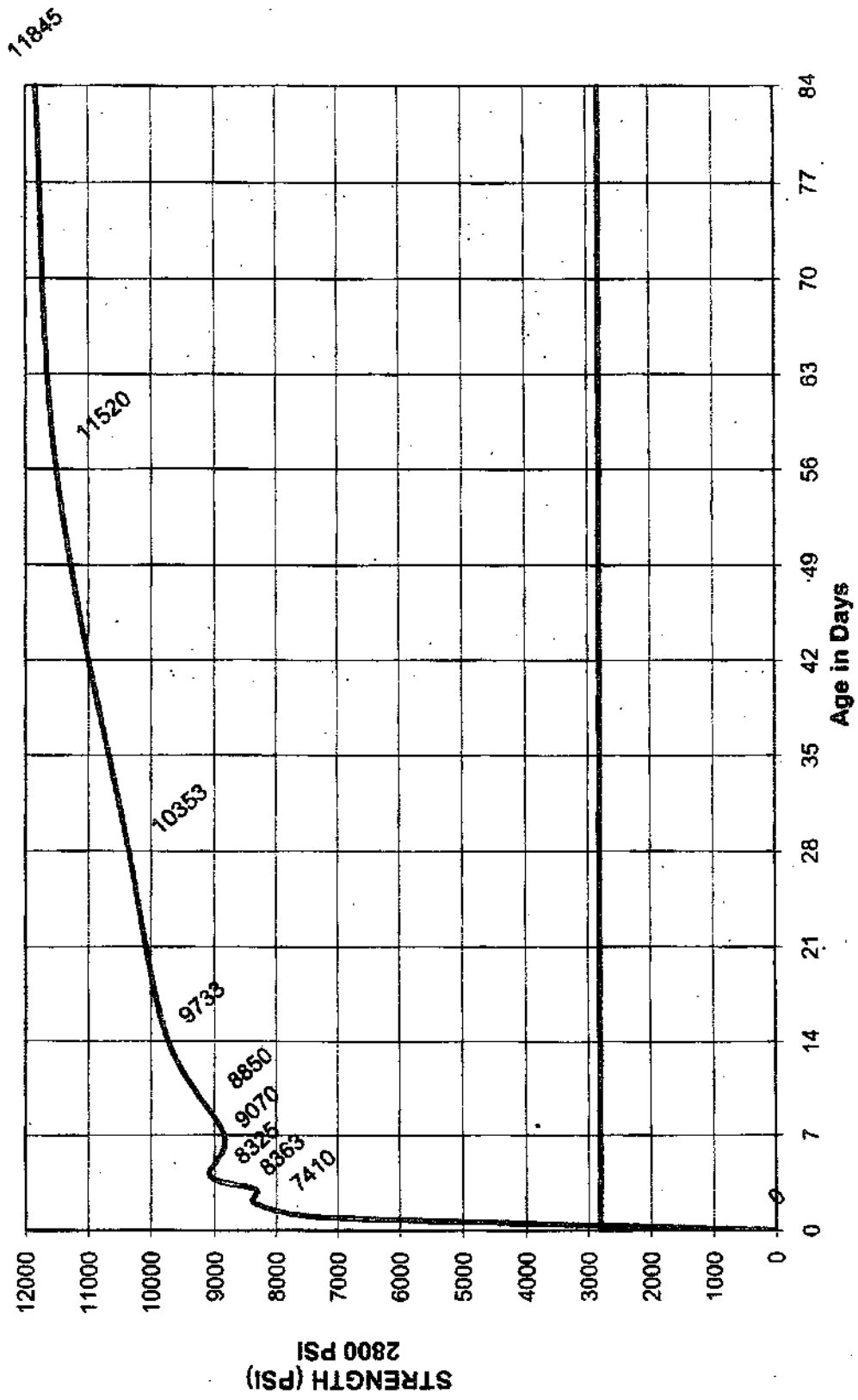
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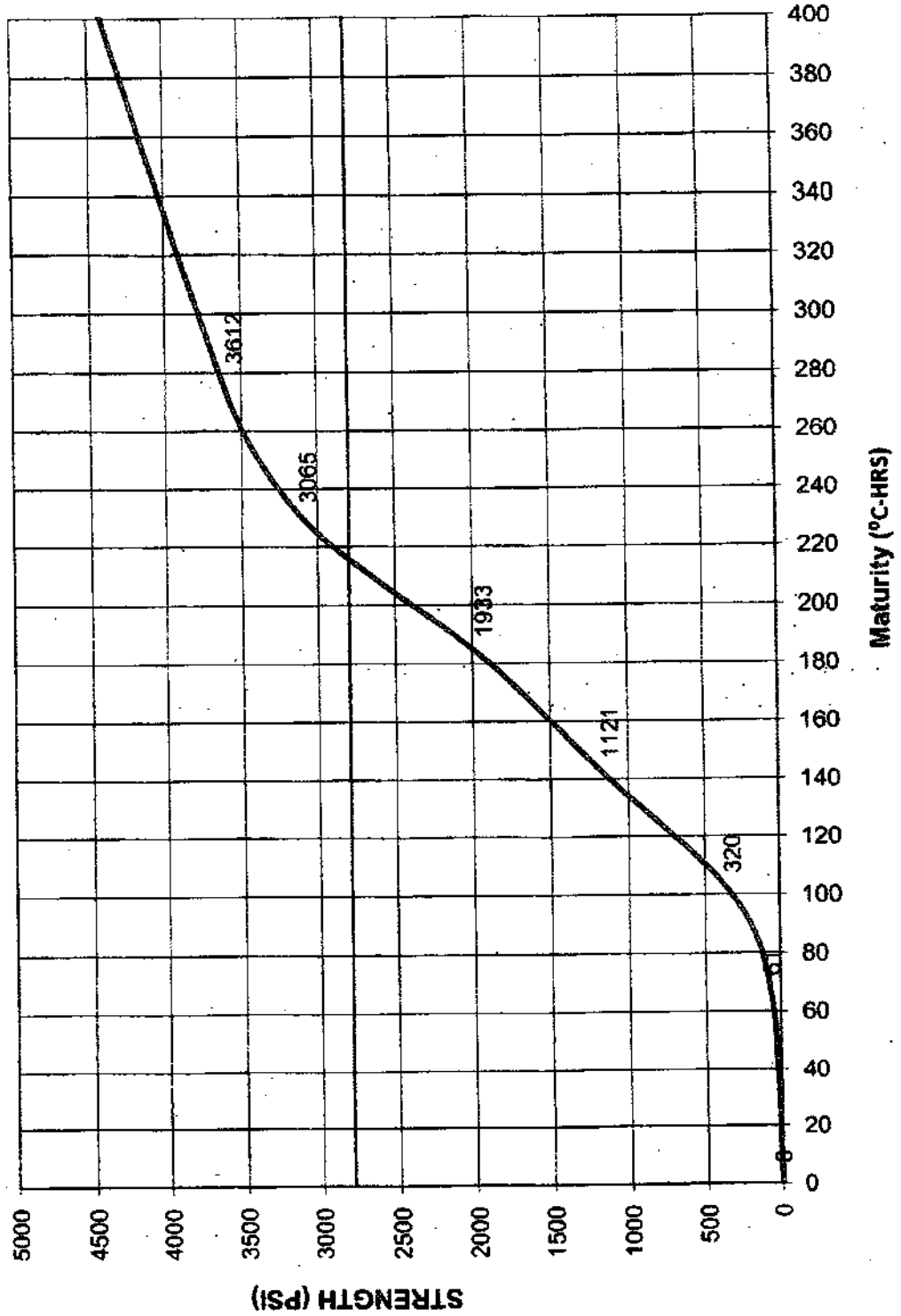
DDC MIX DESIGNS
Strength Gain over Time
SUPER HE SUPERPAVE
Cementitious 940 Type II
MIX # 37



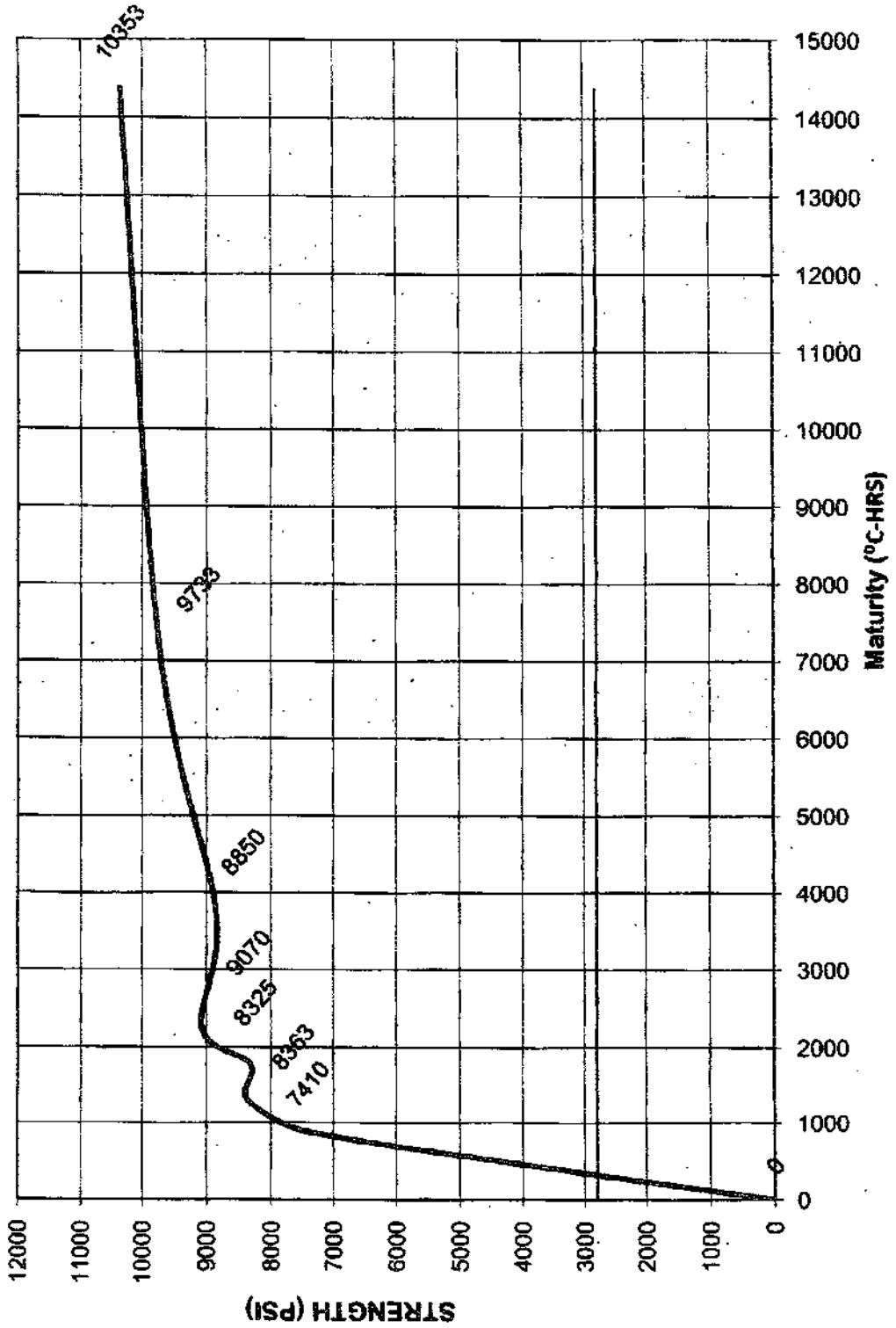
DDC MIX DESIGNS
Strength Gain over Time
SUPER HE SUPERPAVE
Cementitious 940 Type II
MIX # 37



DDC MIX DESIGNS
Strength Maturity Relationship
SUPER HE SUPERPAVE
Cementitious 940 Type II
MIX # 37



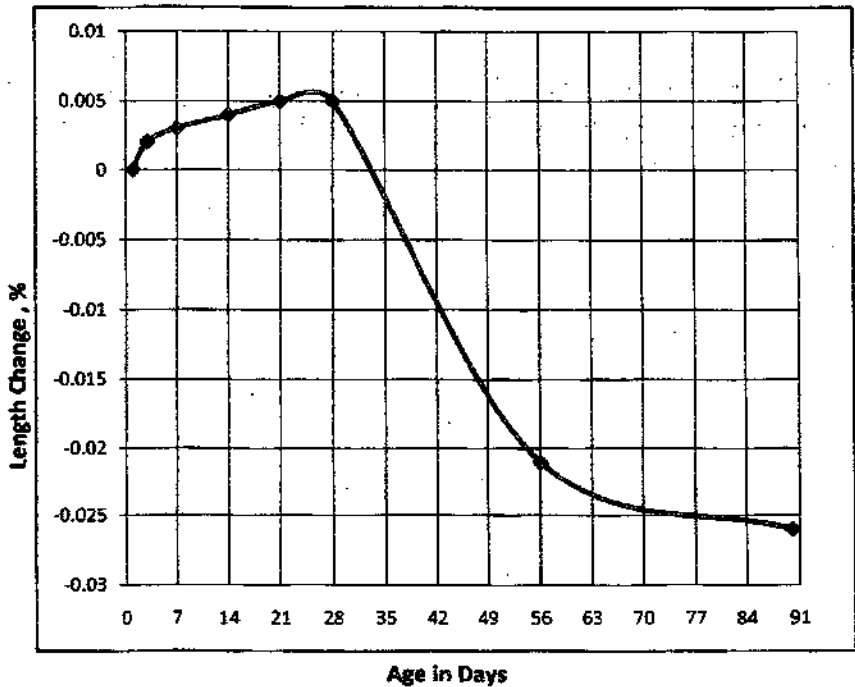
DDC MIX DESIGNS
Strength Maturity Relationship
SUPER HE SUPERPAVE
Cementitious 940 Type II
MIX # 37





Client : NYC DDC
Green Concrete Design Mixes
Procedure: ASTM C 157-06
4" x 4" x 10" Concrete Prism
MIX # 37 - Super HE Superpave - Cementitious 940 Type II

Days	Length Change, %
1	0
3	0.002
7	0.003
14	0.004
21	0.005
28	0.005
56	-0.021
90	-0.026



Remarks: For the 28 day result, the sample was immersed in lime saturated water.
For the 56 & 90 day results, the sample was air-dried.





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Client: NYC Dept. of Design & Construction Report #: 09DDC-767 Page 18 of 19
 30-30 Thomson Avenue Date: 05/06/09
 Long Island City, NY 11101 Lab#: 9273
 Project: DDC Green Concrete Design Mixes
 Test: Standard Test Method for Resistance of Concrete Cores to Freezing & Thawing.
 Method: NYSDOT Method 502-3P
 Sampled By: MTL

Test Procedure

The concrete samples were tested in accordance with NYSDOT Method 502-3P. The samples were completely surrounded in 3% NaCl solution at all times while being subjected to 25 freezing and thawing cycles.

Required - Material shall not exhibit a weight loss greater than 3 %.

Test Results

Mix #	Cementitious lb/cy	% Fly Ash	Weight Loss %	Complies
37	940	-	0.0	Yes

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Reported To: Simon Sasberman
Submitted By: Materials Testing Lab, Inc.
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Client: NYC Dept. of Design & Construction **Report Date:** 11/07/08 **Page 1 of 2**
 30-30 Thomson Avenue **Material:** Natural Sand
 Long Island City, NY 11101 **Supplier:** CASA

Project: DDC Green Concrete Design Mixes
Test: Gradation, #200 Wash, Specific Gravity and Absorption of Fine Aggregate
Method: ASTM C117, ASTM C136, ASTM C128
Sampled By: MTL **On** 11/06/08 **Delivered By:** Materials Testing Lab

Gradation, #200 Wash

Sieve Size	% Passing #1	ASTM C33 Specification
3/8"	100.0	100
#4	99.6	95-100
#8	94.0	80-100
#16	83.1	50-85
#30	58.0	25-60
#50	19.0	10-30
#100	4.4	2-10

Specific Gravity and Absorption of Fine Aggregate

Specific Gravity (OD):	2.629
Specific Gravity (SSD):	2.653
Apparent Specific Gravity:	2.694
Absorption, %:	0.92

Location: Ronoke Sand - Washed

Complies: Y

Remarks:
Lab # 9064

Reported To: --

Submitted By: Materials Testing Lab



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Client: NYC Dept. of Design & Construction **Report Date:** 11/07/08 **Page 2 of 2**
 30-30 Thomson Avenue **Material:** Crushed Stone
 Long Island City, NY 11101 **Supplier:** CASA

Project: DDC Green Concrete Design Mixes
Test: Gradation, #200 Wash, Specific Gravity and Absorption of Coarse Aggregate
Method: ASTM C117, ASTM C136, ASTM C127
Sampled By: MTL **On** 11/06/08 **Delivered By:** Materials Testing Lab

Gradation, #200 Wash

Sieve Size	% Passing #1	ASTM C33 Size #57 Specification
1 1/2"	100.0	100
1"	100.0	95-100
3/4"	91.6	-
1/2"	43.8	25-60
3/8"	20.0	-
#4	5.8	0-10
#8	3.7	0-5
#200	2.2	0-3

Specific Gravity and Absorption of Coarse Aggregate

Specific Gravity (OD):	2.807
Specific Gravity (SSD):	2.825
Apparent Specific Gravity:	2.857
Absorption,%:	0.62

Location: Ticon Clinton Point

Complies: Y

Remarks:
 Lab # 9064

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Reported To:

Submitted By:



- (8) **Refer** to Standard Highway Specifications Volume II (November 1, 2010), Page 539:
Add the following new **Section 9.06 HW**:

SECTION 9.06 HW - Allowance For Decorative Mesh Fabric

9.06HW.1. DESCRIPTION. Under this section, the Contractor will be paid to furnish and install panels of breathable mesh fabric upon which art work is printed in a maximum of four (4) colors, as directed by the Engineer. Each panel shall also contain metal grommets installed at a one (1) foot maximum spacing around the perimeter of the fabric for mounting on the Temporary Chain Link Fence (Item No. 6.34 ACTP), unless an alternate method of mounting the fabric is proposed by the Contractor and approved by the Engineer. All art work to be printed on the fabric will be provided to the Contractor by the City.

At the completion of the work the panels shall remain the property of the City and shall be delivered to the Engineer, unless otherwise directed.

The lump sum payment made under this item shall be equal to the sum total of all invoices submitted by the Contractor, as approved by the Engineer, for furnishing and installing decorative mesh fabric materials, to the satisfaction of the Engineer, plus an allowance of 10% overhead and 10% profit.

The total estimated cost of this item is the "fixed sum" amount shown for this item in the Bid Schedule and shall not be varied in the bid. No guarantee is given that the actual lump sum cost for this item will in fact be the "fixed sum" amount. The "fixed sum" amount is included in the bid solely to insure that sufficient monies will be available to pay the Contractor for this work, which may be more or less than the fixed amount. This "fixed sum" amount shall be included with the other amounts bid by the Contractor for all the other items under this contract.

The unit price shall cover the cost of all labor, materials, equipment, insurance, and incidentals necessary to complete the work under this section in accordance with the drawings, the specifications and the directions of the Engineer.

Payment will be made under:

Item No.	Item Description	Pay Unit
9.06 HW	ALLOWANCE FOR DECORATIVE MESH FABRIC	F.S.

- (9) **Refer** to Standard Highway Specifications Volume II (November 1, 2010), Page 549:
Add the following new **Section HW-900**:

**SECTION HW-900 - Allowance For Maximum Incentive For
 Early Completion/Liquidated Damages**

HW-900.1. GENERAL.

Since Project ID. MED598B is critical and TIME IS OF THE ESSENCE, the City is making available to the Contractor certain incentive payments. The incentive payment amount will be tied to a scheduled substantial completion deadline for this Capital Project. To earn an incentive payment amount, the Contractor shall have to meet the Contractual scheduled substantial completion deadline for this Capital Project. Please be advised that the Contractual scheduled substantial completion deadline for this Capital Project may be extended by the Commissioner in accordance with **Article 13 "Extension Of Time For Performance"** of the Standard Construction Contract.

Any dispute, negotiation and/or any other cause resulting in a delay, whether caused by the City, the Utilities, or any other party, which results in the Contractor's failure to meet the scheduled substantial completion deadline for this Capital Project for the incentive as set forth in **Subsection HW-900.2.**,

will result in no payment of the entire incentive and the Contractor agrees that it shall not bring a claim against the City for the incentive payment. (See below for more details.)

The Contractor is a sophisticated business entity involved in the construction industry with access to legal representation and understands that by entering into this Contract with the City that the Contractor hereby waives any and all claims it may have against the City or any of its officers, employees or agencies for the Contractor failing to meet the scheduled substantial completion deadline for this Capital Project and, thus not receiving any incentive payment available for this Capital Project. This includes any portion of the incentive payment, which the Contractor forfeits by failing to meet the scheduled substantial completion deadline for this Capital Project. As a sophisticated business entity involved in the construction industry, the Contractor understands that it is possible that it may not receive any incentive under this Contract and that it cannot bring any claim or lawsuit in any jurisdiction against the City if it does not meet the scheduled substantial completion deadline for this Capital Project for any reason and does not earn the incentive payment. The City's goal is that the Contractor will meet the scheduled substantial completion deadline for this Capital Project and to pay the Contractor the incentive payment.

Furthermore, if the City does not pay any incentive for this Capital Project because the Contractor did not meet the scheduled substantial completion deadline for this Capital Project and the Contractor's failure to meet such scheduled substantial completion deadline for this Capital Project may be due to a delay by the City or any City agency, any Utilities or any other cause whatsoever, shall not give rise to a claim by the Contractor against the City for a compensable delay under **Article 11** of the Standard Construction Contract, or any other claim against the City. The early completion incentive is separate and distinct from **Article 11** of the Standard Construction Contract and the Contractor agrees and understands that the incentive payment cannot be claimed under **Article 11** of the Standard Construction Contract.

Moreover, the Contractor hereby waives any and all rights (and hereby understands what it is waiving as described herein) the Contractor may have or thinks it has in law (contract law or torts law) or in this Contract to bring any kind of claim against the City, if the City, based on this Contract, does not pay the incentive amount for this Capital Project for any reason.

HW-900.2. INCENTIVE/LIQUIDATED DAMAGES

Timely completion of all work, excluding tree planting and punch list work, is essential to this project. In order to insure such timely completion, the City is providing an incentive payment for meeting scheduled substantial completion deadline for this Capital Project, or, in the event that the Contractor fails to meet the scheduled substantial completion deadline for this Capital Project, liquidated damage assessments for this Capital Project, as set forth below.

The Contractor shall be assessed liquidated damages, per **Article 15** of the Standard Construction Contract and as shown in Schedule "A", in the event the Contractor fails to substantially complete all work, excluding tree planting and punch list work, within the time fixed for such completion in Schedule "A".

(1) General Provisions:

- (a) Two (2) types of incentive payment amounts are available to the Contractor under this **Subsection HW-900.2**. The amounts are set forth below in **Paragraph (4)** of this **Subsection HW-900.2**.
- (b) An incentive payment will be authorized to the Contractor only if all work for this Capital Project, including but not limited to, all change order work for this Capital Project, receives a determination of substantial completion, as defined in **Paragraph (6)** of this **Subsection HW-900.2**, below, prior to or at the scheduled substantial completion date, as defined in **Paragraph (2)** of this **Subsection HW-900.2**, below.

- (c) No incentive will be authorized for the early completion of this Capital Project in the event that substantial completion of the work of this Capital Project occurs after the scheduled substantial completion date for this Capital Project, regardless of delays, including delays attributable to the City. Examples of delays that may cause the Contractor to miss the completion date for this Capital Project and not earn the available incentive payment amounts include, without limitation, delays resulting from subsurface conditions at the site materially differing from any shown on the contract drawings or indicated in the specifications, delays resulting from such subsurface conditions as could not reasonably have been anticipated by the Contractor and were not anticipated by the City, and delays due to private utilities, which conditions will materially affect the cost of the work to be done under the contract. Notwithstanding the above, the Commissioner may grant an extension of time in accordance with **Article 13** of the Standard Construction Contract for any or all of such delays.
- (d) Liquidated damages will be assessed by the City against the Contractor if substantial completion of work for this Capital Project does not occur by the scheduled substantial completion date for this Capital Project, plus authorized time extensions pursuant to **Article 13** of the Standard Construction Contract.
- (e) The determination of incentive payment or liquidated damage assessment will be made solely by the Commissioner, and the Commissioner's decision with respect thereto shall be accepted as final, binding, and conclusive.
- (2) **Scheduled Substantial Completion Date:** The scheduled commencement date and the scheduled substantial completion date for this Capital Project, excluding tree planting and punch list work, is to be set forth in the written Notice to Commence Work to be issued by the Commissioner in accordance with **Article 8** of the Standard Construction Contract. The number of consecutive calendar days for determining the scheduled substantial completion date for this Capital Project is set forth in Schedule "A".
- (3) (A) **Incentive Payments:**
- (i) Potential Incentive Payment No. 1: If the work for this Capital Project, including but not limited to, all change order work for this Capital Project, receive a determination of substantial completion for this Capital Project, as defined in **Paragraph (6)** of this **Subsection HW-900.2.**, below, prior to or at the scheduled substantial completion date set for this Capital Project, as defined in **Paragraph (2)** of this **Subsection HW-900.2.**, plus authorized time extensions under **Article 13** of the Standard Construction Contract, then the City will authorize Incentive Payment No. 1 to the Contractor in accordance with **Paragraph (4)** of this **Subsection HW-900.2.**, below, less any and all deductions authorized by this contract or by law; and,
- (ii) Potential Incentive Payment No. 2: If the work for this Capital Project, including but not limited to, all change order work for this Capital Project, receives a determination of substantial completion for this Capital Project, as defined in **Paragraph (6)** of this **Subsection HW-900.2.**, below, prior to the scheduled substantial completion date set for this Capital Project, as defined in **Paragraph (2)** of this **Subsection HW-900.2.**, above, plus authorized time extensions under **Article 13** of the Standard Construction Contract, then the City will authorize Incentive Payment No. 2 to the Contractor in accordance with **Paragraph (4)** of this **Subsection HW-900.2.**, below, less any and all deductions authorized by this contract or by law.
- (B) **Liquidated Damages:** Should substantial completion of the work for this Capital Project, as defined in **Paragraph (6)** of this **Subsection HW-900.2.**, below, occur after the scheduled substantial completion date set for this Capital Project, as defined in **Paragraph (2)** of this **Subsection HW-900.2.**, above, plus authorized time extensions pursuant to **Article 13** of the Standard Construction Contract, or, if the Contractor, in the sole determination of the Commissioner, should abandon the work, the City will assess liquidated damages against the Contractor in an amount determined as follows: the liquidated damage amount for this Capital

Project, as stated in **Paragraph (4)** of this **Subsection HW-900.2.**, below, multiplied by the number of calendar days in which substantial completion of the work for this Capital Project, occurs after the scheduled substantial completion date set for this Capital Project, plus authorized extensions; which said sum, in view of the difficulty of accurately ascertaining the loss which the City will suffer by reason of delay in the completion of the work hereunder, is hereby fixed and agreed as the liquidated damages that the City will suffer by reason of such delay, and not as a penalty. This article shall also apply to the Contractor if it is defaulted pursuant to **Chapter X** of this Standard Construction Contract. Neither the failure to assess liquidated damages nor the granting of any time extension shall operate as a waiver or release of any claim the City may have against the Contractor for either actual or liquidated damages.

- (C) Calculation: For the purposes of calculating the number of calendar days for incentive payment, such calculation shall include the day on which the substantial completion for this Capital Project occurs.

For the purposes of calculating the number of calendar days for liquidated damage assessment, such calculation shall not include the day of scheduled substantial completion for this Capital Project.

(4) Incentive/Liquidated Damage Amounts:

Incentive For This Capital Project:

- Potential Incentive Payment No. 1: For substantial completion of this Capital Project as scheduled, the incentive payment is equal to \$550,000.
- Potential Incentive Payment No. 2: For early completion of this Capital Project the additional incentive payment is equal to \$15,000 per day for a maximum of thirty (30) days (\$450,000 maximum additional incentive).

Liquidated Damages:

- \$15,000 per day for this Capital Project.

(5) Maximum Incentive/Liquidated Damage Amounts Payable For This Capital Project:

Maximum Incentive Payment For This Capital Project: The maximum incentive amounts payable to the Contractor shall equal the incentive amounts indicated in **Paragraph (4)** of this **Subsection HW-900.2.**, above as follows:

$$\$550,000 + (\$15,000/\text{day} \times 30\text{-days or } \$450,000) = \$1,000,000.$$

Liquidated Damage For This Capital Project: There shall be no limit to the amount of liquidated damages assessed.

- (6) Substantial Completion: Construction for this Capital Project shall be substantially complete when, in the sole determination of the Commissioner, all Sewer and Water Main work, together with any appurtenances and all change order work, have been completely installed, tested, made operational, and accepted by both the Engineer and the Department of Environmental Protection (DEP), and all curbs, sidewalks, street lighting work, traffic signal work, permanent pavement restoration, fire department and private utility work have been completed, exclusive of tree planting and punch list work.

HW-900.3. BASIS OF PAYMENT.

Payment for any incentives earned by the Contractor under this Capital Project shall be made in accordance with the applicable **Subsection HW-900.2.(3)(A)** above.

The total estimated cost of this item is the "fixed sum" amount shown for this item in the Bid Schedule. No guarantee is given that the actual lump sum cost for this item will in fact be the "fixed sum"

amount. The "fixed sum" amount is included in the total bid solely to insure that sufficient monies will be available to pay any incentives earned by the Contractor.

The "fixed sum" is for bidding purposes only and shall not be varied in the bid. The Contractor will be paid for the actual amount of any incentives earned, less any and all deductions authorized by this contract or by law, regardless of the fixed sum.

Payment will be made under:

Item No.	Item Description	Pay Unit
HW-900	ALLOWANCE FOR MAXIMUM INCENTIVE FOR EARLY COMPLETION	F.S.

(10) Refer to Standard Highway Specifications Volume II (November 1, 2010), Page 568:
Add the following new **Section HW-900H**:

SECTION HW-900H - Allowance For City Work Acceleration

Under this section, the Contractor will be paid for City work deemed necessary by DDC's Assistant Commissioner of Construction to accelerate the City work items in the project during critical periods but the use of this item will expire on the original contract substantial completion date. Such accelerated City work includes:

- (A) 100% of the premium portions of overtime pay for working during non-scheduled work hours which shall be defined as those hours of work outside the permissible hours stated in the original contract OCMC Traffic Stipulations; or
- (B) The premium portion of overtime pay for overtime actually worked beyond the 40-hour work week but within the permissible hours of work stated in the original contract OCMC Traffic Stipulations; or
- (C) All other incidental expenditures caused by modifications of project site regulations or administrative requirements ordered by the Commissioner that result in additional costs to perform contract work as specified.

Such accelerated City work shall be paid for under this item in accordance with the requirements of **Articles 25 and 26** of the Standard Construction Contract.

Payment made under this Fixed Sum item shall cover the cost of all labor, materials, plant, equipment, insurance, and incidentals necessary to accelerate the City work as ordered by DDC's Assistant Commissioner of Construction.

No guarantee is given that this allowance item will in fact be required in this contract. The estimated "fixed sum" amount shown in the Bid Schedule is included in the total bid solely to insure a method of payment for any accelerated work performed by the Contractor, as directed by DDC's Assistant Commissioner of Construction.

Payment will be made under:

Item No.	Item Description	Pay Unit
HW-900H	ALLOWANCE FOR CITY WORK ACCELERATION	F.S.

C. AMENDMENTS TO THE STANDARD SEWER SPECIFICATIONS

(1) **Refer to Subsection 1.06.3 - Hours Of Work, Page I-4:**

Add the following to **Subsection 1.06.3:**

- (A) **HOLIDAY CONSTRUCTION EMBARGO** - A special Holiday Construction Embargo shall be in effect on the Friday of the week preceding Thanksgiving Day week from 6:00 AM to 11:59 PM and again from the Monday of Thanksgiving Day week from 6:00 AM through January 2, at 11:59 PM. Roadway and sidewalk construction activities will be restricted during the embargo period on the streets listed below*.

Any permits issued prior to the date of this notice, for work during this embargo period on the streets listed below which do not already have the permit stipulation "410" are hereby suspended for the period noted above. All permittees must comply with this embargo unless a special waiver is granted by OCMC. Waiver requests must be filed at least thirteen (13) days before Thanksgiving Day, in the Permit Office by filing a "Request for Roadway/Sidewalk Permits During Embargo Periods" and submitting supporting documentation. Waiver requests should only be submitted for critical reasons for a specific project. If a waiver is granted, the applicant will be notified so they can apply for the approved permits. Waivers **are not** required for ongoing Building Construction Activity Permits which already include the "410" permit stipulation. Waiver request forms may be obtained at any Permit Office or on the Department of Transportation's website at:

<http://www.nyc.gov/html/dot/downloads/pdf/holidayembapp.pdf>

Prior to this embargo period all necessary measures must be taken so that all roadways and sidewalks are in proper condition to allow for the expeditious and safe movement of vehicular, bicycle and pedestrian traffic. Tool carts, cable reels, containers, and material stored on roadways must be removed during the embargo period.

The opening of utility access covers is prohibited on any of the streets noted below between the hours of 6:00 AM and midnight unless the utility or contractor files for an Emergency Authorization Number as required by section 2-07 of the Department of Transportation's Highway Rules. The planned opening of utility access covers may occur during the hours of 12:01 AM and 5:59 AM where no authorization number is required.

Temporary restoration of the streets and sidewalks and removal thereof, if required for the Holiday Embargo period, will be paid for under the appropriate scheduled items.

No extension of time due to the shutdown period will be granted to the Contractor for completion of the work.

* **Please note that this embargo only applies to NYCDOT construction permits. List of street and maps of the affected locations are available by borough on the Department of Transportation's website at: <http://www.nyc.gov/html/dot/html/motorist/trafalrt.shtml>**

(2) **Refer to Subsection 1.06.27 - Salvageable Materials, Page I-14:**

Delete the paragraph starting with the words, "No salvageable material...", and ending with the words, "...from the site.", in its entirety:

Substitute the following:

Except as specified below, no salvageable material shall be returned to the New York City Department of Environmental Protection regardless of condition. It shall become the property of the Contractor for removal and disposal, by the Contractor, away from the site.

The Contractor shall salvage and deliver to a designated NYCDEP yard all Metropolitan Valves (6" thru 20") removed during construction of the contract.

- (3) **Refer** to **Subsection 1.06.29 - Contractor To Provide For Traffic**, Page I-15:
Add the following to **Subsection 1.06.29**:

See amended Standard Water Main Specifications (August 1, 2009) **Subsection 1.06.29 - Contractor To Provide For Traffic** of this addendum.

- (4) **Refer** to **Section 1.08 - Miscellaneous Provisions**, Page I-19:
Delete **Subsection 1.08.2 - Vendors** in its entirety:
Substitute the following new **Subsection 1.08.2**:

1.08.2 VENDORS

Prior to starting work, the Contractor shall submit in writing to the Engineer the names of all vendors and manufacturers the Contractor intends to use. Unless otherwise specified in the contract documents or a written exception is granted by NYCDDC, the Contractor shall submit only one (1) vendor or manufacturer for each product that is to be incorporated in the contract. The use of multiple vendors or manufacturers to supply the same product will be prohibited, unless otherwise specified in the contract documents or a written exception is granted by NYCDDC. If the vendor or manufacturer is not approved, the Contractor will be notified to either submit another vendor or manufacturer, or have their proposed vendor or manufacturer submit a request for approval from NYCDDC. The Contractor will be prohibited from using the vendor or manufacturer until approval of the vendor or manufacturer has been acquired from NYCDDC.

- (5) **Refer** to **Section 1.08 - Miscellaneous Provisions**, Page I-20:
Add the following new **Subsection 1.08.7**:

1.08.7 SUBMITTAL OF SCHEDULE LOG

The Contractor's attention is directed to **Article 9 - Progress Schedule** of the Contract. The Contractor shall submit along with the proposed progress schedule the following: A schedule log in Excel Format (tied to the proposed progress schedule) indicating a description of and the schedule submission dates for all required submittals, shop drawings, approval requests, design mixes, reports, samples, etc., as required by the specifications and the terms of the contract.

- (6) **Refer** to **Section 2.05 - Precast Reinforced Concrete Pipe, Subsection 2.05.4 - Materials, Workmanship And Finish**, Page II-10:
Delete from **Subsection 2.05.4**, paragraph (A) CONCRETE in its entirety:
Substitute the following:

(A) CONCRETE - The Concrete shall comply with the requirements of **General Specification 11 - Concrete, as modified in Section 2.15**, and be a homogeneous mixture of such proportions and quality that the pipe will conform to the design and test requirements of these specifications.

- (7) **Refer** to **Section 2.15 - Concrete, Subsection 2.15.3 - Modifications**, Page II-23:
Delete from **Subsection 2.15.3, Reference Number D 3.2.1** together with its paragraphs in their entirety:
Substitute the following:

D 3.2.1 **DELETE** 3.2.1 to 3.2.9 of GS11 and **SUBSTITUTE** the following:

All concrete mix designs shall be subject to approval by DDC's Quality Assurance and Construction Safety (QACS) Bureau and in accordance with their "MIX DESIGN,

LABORATORY AND PLANT APPROVAL PROTOCOL". Copies of this protocol may be obtained at the preconstruction meeting or from the Engineer. Before the Contractor begins to manufacture concrete, the Contractor shall secure DDC's QACS approval of the mix design the Contractor proposes to use.

The Contractor shall submit for this purpose a statement, in writing, of the sources of all ingredient materials, the type and brand of the cement and the number of pounds of each of the materials in a saturated surface-dry condition making up one (1) cubic yard of concrete. The range of water-cement ratios within which the concrete will be manufactured and the method of mixing to be employed shall also be stated. The mix design submittal shall include gradation of aggregates, specific gravities of ingredients, unit weight, mix proportion for each batch (a minimum of four (4) batches except in case of precast plants where one specific mix may be proposed), compressive strength test results for each mix at 7-days, 28-days (high-early strength mixes may require 6-hours, 24-hours, 3-days and shrinkage test as per the requirements), and graphical representation of strength vs. W/C projected in hours/days.

The Contractor may submit for approval concrete mixes that (within one (1) year of the contract) have been previously approved and used on other jobs with any Bureau of the Department of Environmental Protection or the Department of Design and Construction. Such submittals shall contain evidence that the concrete mix was approved within one (1) year of this contract and shall show that the concrete will be produced at the same mix plant, that the cement and admixtures are the same type (though not necessarily the same brand), that the water/cement ratio is the same and that adjustments have been made in the mix for air content, specific gravity and gradation of the aggregates.

If the Contractor elects to submit a concrete mix that was not previously approved, the Contractor shall submit the new concrete mix in accordance with Chapters 2 and 3 of General Specification 11 as modified herein.

- (8) Refer to Section 2.15 - Concrete, Subsection 2.15.3 - Modifications, Page II-26:
Add to Subsection 2.15.3, before Reference Number D 8.2 the following:

D 7.3.3 ADD the following to Subsection 7.3.3 of GS11:

Each Portland cement concrete batching plant shall be subject to approval by DDC's Quality Assurance and Construction Safety (QACS) Bureau and in accordance with their "MIX DESIGN, LABORATORY AND PLANT APPROVAL PROTOCOL". Copies of this protocol may be obtained at the preconstruction meeting or from the Engineer. The minimum requirement for approval is that the proposed Portland cement concrete batching plant must be on the New York State Department of Transportation (NYSDOT) approved list for the current construction season.

The minimum requirement for approval of a precast concrete plant is that the proposed plant must be on the NYSDOT approved list. A waiver for this requirement may be granted by the DDC's Quality Assurance and Construction Safety (QACS) Director for special products that no NYSDOT approved plant is capable of producing.

Each Portland cement concrete batching plant shall also be subject to auditing and approval of the DDC's Director of Quality Assurance and Construction Safety (QACS). The Director of QACS may at any time discontinue the use of any previously approved equipment if nonconformance with the specifications results during the progress of the work. When the Director of QACS discontinues the use of the plant, production will not be acceptable for Department work until corrective measures satisfactory to the Director are carried out.

(9) **Refer to Section 2.15 - Concrete, Subsection 2.15.3 - Modifications, Page II-26:**

Delete from **Subsection 2.15.3, Reference Number D 16.3** together with its paragraphs in their entirety:

Substitute the following:

D 16.3 Testing Service - **ADD** the following:

The Contractor shall retain the services of an independent testing laboratory to provide for the services outlined in 16.3.1.4 to 16.3.1.11 of GS11, with the exception of those tests specified herein to be performed by the Engineer and the City Retained Laboratory.

All laboratories shall be subject to approval by DDC's Quality Assurance and Construction Safety (QACS) Bureau and in accordance with their "MIX DESIGN, LABORATORY AND PLANT APPROVAL PROTOCOL". Copies of this protocol may be obtained at the pre-construction meeting or from the Engineer. The minimum requirement for approval is that the laboratory must have the current AMRL/AASHTO R-18 accreditation in the category of service proposed and must be currently licensed by the NYC Department of Buildings (DOB).

(10) **Refer to Section 2.15 - Concrete, Subsection 2.15.3 - Modifications, Page II-26:**

Delete from **Subsection 2.15.3, Reference Number D 16.8** together with its paragraphs in their entirety:

Substitute the following:

D 16.8 Responsibilities and Duties of Contractor - **ADD** the following:

The Contractor may, if the Contractor so desires, take cylinders corresponding to those taken by the Engineer for the City Retained Laboratory. However, determination of payment will be based solely on the cylinders taken by the Engineer for the City Retained Laboratory.

CONCRETE TEST CYLINDERS

The Contractor will be responsible for safe delivery of concrete cylinders to the Department of Design and Construction Laboratory, within two (2) days after molding, where they will be properly stored and cured until the date of test, and tested by others, upon removal from the curing room. The Department of Design and Construction testing laboratory will provide the services for the curing and breaking of the test cylinders.

The Contractor shall provide empty cylinder molds and facilities for the proper care of these cylinders while on the site, and shall safeguard them against injury and protect them from the elements.

The Engineer will be responsible for the preparation, documentation and labeling of the cylinders and for notifying the Contractor, at least twenty-four (24) hours in advance, when a shipment of cylinders is ready for delivery, so that cylinders can be tested for the standard twenty-eight (28) day and seven (7) day tests. Cylinders are to be delivered by the Contractor to a designated area near 30-30 Thomson Avenue, Long Island City, New York, or where otherwise directed within the City of New York.

The Contractor shall make arrangements to protect all cylinders from damage during loading, transport to, and unloading at a Department of Design and Construction designated testing laboratory, and shall obtain a receipt for delivered cylinders, which shall be submitted to the Engineer.

(11) **Refer** to **Subsection 4.05.6 - Design Criteria, Paragraph (G) - Decking, Subparagraph (1), Page IV-15:**

Delete Subparagraph (1) in its entirety:

Substitute the following:

(1) Unless otherwise specified in the contract documents or approved in writing by the Engineer the minimum live load on decking shall be thirty-five (35) percent more than AASHTO HS20-44 or Contractor's equipment or heaviest truck loading (i.e. concrete truck) whichever is greater plus an impact factor of thirty-three (33) percent.

(12) **Refer** to **Section 4.06 - Backfilling, Subsection 4.06.3 - Method Of Depositing All Backfill, Page IV-18:**

(A) **Add** the following paragraph to beginning of **Subsection 4.06.3:**

At the preconstruction meeting, the Contractor shall submit for approval a full description of the Contractor's proposed methods to be used for all backfilling operations including, but not limited to, equipment, backfill material, depth of compaction layers, and trench locations where each is to be employed. In the field, the Contractor shall be required to demonstrate that the Contractor's methods of backfilling and compaction shall obtain a minimum of ninety-five (95) percent of Standard Proctor Maximum Dry Density.

(B) **Delete** from **Subsection 4.06.3**, the fourth paragraph in its entirety:

Substitute the following:

Unless otherwise approved in writing by the Engineer, backfilling of the remainder of the trenches and excavations from a point not less than two (2) feet above the top of the sewer conduit (i.e. sewer pipes on cradles or encasements, reinforced concrete sewers, basin and house connections, culverts, etc.) to the underside of the pavement shall be progressively deposited in uniform and successive horizontal layers not exceeding twelve (12) inches in depth for the entire width of the trench or excavation and each successive layer shall be solidly compacted by mechanical tamping or other approved means so as to achieve the required density. In deep trenches defined as those requiring sheeting, the Contractor may submit to the Engineer, for approval, an alternate backfill method (i.e. jetting, deeper deposited layers not exceeding twenty-four (24) inches, etc.) for depositing and compacting the backfill from two (2) feet above the top of the sewer conduit to a plane five (5) feet below final surface elevation. However, approval of any alternate backfill method shall not relieve the Contractor from obtaining a minimum of ninety-five (95) percent of Standard Proctor Maximum Dry Density. Should the Engineer determine that the specified density is not being obtained, the area must be re-excavated and backfilled at the Contractor's own cost until the required compaction density is achieved.

(C) **Delete** from **Subsection 4.06.3**, the seventh paragraph in its entirety:

Substitute the following:

Backfill shall proceed simultaneously with the withdrawal of sheeting but at no time shall the withdrawal of sheeting exceed a height of six (6) inches above the deposited backfill. Withdrawal of sheeting below levels previously backfilled and compacted is prohibited.

(13) **Refer** to **Section 5.01 - Reinforced Concrete Sewers, Subsection 5.01.4 - Precast Reinforced Concrete Sewer, Paragraph (C) - Details, second paragraph, first line, Page V-4:**

Change the words "C789 or C850 (as required)", to "C1433":

(14) **Refer** to **Section 5.05B - Direct Jacked Precast Concrete Pipe Sewers, Page V-34:**

Delete this section in its entirety:

Substitute the following new **Section 5.05B:**

**SECTION 5.05B
DIRECT JACKED PRECAST CONCRETE PIPE SEWERS**

5.05B.1 INTENT

This section describes construction of precast polymer concrete pipe sewers and/or precast reinforced concrete pipe sewers by direct jacking.

5.05B.2 DESCRIPTION**(A) GENERAL**

- (1) The precast polymer concrete pipe sewers and/or precast reinforced concrete pipe sewers shall be constructed to the sizes, kinds, classes and wall thicknesses specified and in accordance with the details shown on the contract drawings. The construction of the sewers herein shall be by means of the direct jacking of a precast polymer concrete pipe and/or precast reinforced concrete pipe with the use of microtunneling techniques.

Microtunneling shall be defined as the trenchless installation of the pipe by jacking the pipe behind a remotely controlled tunnel boring machine. The Microtunnel Boring Machine (MTBM) shall be capable of adequately and safely counter-balancing prevailing hydrostatic conditions and shall be a slurry shield tunnel boring machine or an earth pressure-balanced shield tunnel boring machine or an approved equal.

- (2) The Contractor will be permitted to submit for written approval by the Engineer an alternate method of direct jacking of a precast polymer concrete pipe and/or precast reinforced concrete pipe other than by microtunneling techniques specified in **Subsection 5.05B.2 (A) (1)**. Such alternate method shall comply with all applicable specifications of this **Section 5.05B**, the determination as to which specifications are applicable shall be the sole authority of the Engineer. If the alternate pipe jacking tunneling method is not capable of tunneling through rock and boulders of all sizes, and requires the manual excavation, removal and disposal of rock and boulders at the tunnel face, then no separate or additional payment will be made for this manual rock and boulder excavation, removal and disposal. If the alternate pipe jacking tunneling method is not capable of performing in saturated ground, and requires the installation of a dewatering system so as to work in "the dry", then no separate or additional payment will be made for this dewatering system installation, operation and removal. The cost for all labor, materials, plant, equipment and insurance required and necessary to excavate, remove and dispose of all rock and boulders within the tunnel section, and to install, operate and remove the dewatering system shall be deemed included in the prices bid per linear foot for the respective "DIRECT JACKED PRECAST CONCRETE PIPE SEWER" items.
- (3) It shall be the Contractor's responsibility to choose the shaft excavation and support methods, and the type of tunnel boring machine and its equipment and accessories to be used to complete the tunnel bore.

The Contractor shall replace any equipment deemed necessary in order to complete the tunnel bore. This includes the rock or soil cutter head and any other required equipment. No additional or separate payment will be made for any equipment replacement that is required to complete the tunnel bore, with the exception of that allowed under **Section 5.26B - Allowance For Boulder Removal**.

(B) GEOTECHNICAL CONDITIONS

Geotechnical data provided by the City is for information purposes only. The Contractor shall perform the Contractor's own geotechnical investigations to ensure that the type of tunnel boring machine (together with equipment and accessories) the Contractor chooses to use is capable of completing the tunnel bore and remove all materials (i.e. soil, boulders, rock, etc.) encountered.

The Contractor shall thoroughly investigate the geotechnical conditions of the strata through which the tunnel boring is to be accomplished. After performing this thorough investigation the Contractor shall prepare a construction report in accordance with **Section 5.43 - Construction Report** for the approval of the Engineer. (See **Subsection 5.05B.3 - Submittals, paragraph (1)**).

5.05B.3 SUBMITTALS

The Contractor shall submit the following:

- (1) Before commencing any operations associated with the construction of direct jacked precast concrete pipe sewers the Contractor shall submit the construction report specified above. In addition to the requirements specified in **Section 5.43**, the construction report shall contain all investigative geotechnical information and determinations as to tunnel boring feasibility, and all means and methods of construction that will be required to complete the tunnel bore. The Construction Report shall also state the Contractor's assumptions regarding the subsurface conditions to be encountered during shaft and microtunnel construction.
- (2) Details of tunneling machine the Contractor chooses to use together with required equipment and accessories. Include the following:
 - (a) Machine specifications (including but not limited to equipment, accessories, means and methods of spoil removal) together with a letter from the microtunneling machine manufacturer demonstrating that the selected machine together with equipment, accessories and means and methods of spoil removal is capable of progressing through the anticipated subsurface conditions, and capable of removing spoils effectively.
 - (b) For Slurry Shield System: Details of MTBM slurry system and soil separation methods including proposed slurry formulations and calculations of the system capacity to handle flows at all proposed distances and changes of elevations to and from the MTBM.
 - (c) For Earth Pressure-Balance System: Details of MTBM conveyance system and material transport methods including calculations of the system capacity to handle removal or flows at all proposed distances and changes of elevations to and from the MTBM.
 - (d) Jacking system details (jacks and jacking frames), method of operation, thrust capacity and precast concrete pipe details. Describe method of control to prevent the maximum allowable jacking force from being exceeded.
 - (e) Description of lubrication mix equipment and procedure for lubricating the pipe during jacking operations, including estimated volume for the anticipated soils.
 - (f) Active Direction Control details and means of controlling line and grade.
- (3) Before commencing any operations associated with the construction of direct jacked precast concrete pipe sewers the Contractor shall submit a detailed description of the proposed method of installation including locations and dimensions of launching/receiving shafts (including intermediate launching shafts), insertion procedures and all shop drawings required for review and approval by the Engineer. These submittals shall include procedural details to allow the Engineer to evaluate the procedure to be used. All pertinent dimensions, material properties, and design calculations must be shown.
- (4) Theoretical jacking force calculations and pipe material calculations shall be prepared and submitted. It shall be the sole responsibility of the Contractor to determine the maximum anticipated construction loads, including maximum jacking forces, Factor of Safety, and to ensure that the anticipated loads are implemented in the manufacturer's design of the pipe. These calculations shall be submitted to the Engineer for review and approval, and shall bear the signature and seal of a Licensed Professional Engineer, currently registered in the State of New York.

- (5) Prepare and submit a proposed contingency plan for potential situations that may occur during tunneling operations. This submittal shall at a minimum address the following scenarios:
- (a) The MTBM hits an obstruction.
 - (b) Cuttings do not settle/separate with the equipment on site.
 - (c) The target laser is distorted by heat and/or humidity or has been knocked out of alignment. Describe which operational parameters will be observed/measured/recorded so that it can be determined if the above are occurring or have just occurred.
 - (d) The jacking pressures start to increase rapidly and there is reasonable concern for completing jacking operations to the receiving shaft.
 - (e) The MTBM "freezes" during jacking operations.
- (6) Unless otherwise provided for in the contract documents, a proposed plan showing locations of required geotechnical instrumentation and any other Contractor proposed instrumentation. Include product information indicating the instrumentation sizes, material types, specifications, installation procedures, locations and other pertinent data. The instrumentation installation specialist performing the installation of the geotechnical instrumentation shall have adequate experience; proof of this experience shall be included with this plan.
- (7) Shaft Excavation and Support submittal, bearing the signature and seal of a Licensed Professional Engineer, currently registered in the State of New York, shall include:
- (a) Detailed narrative outlining the construction sequence.
 - (b) Engineering calculations, assumptions, and methodologies for the design of the shaft excavation support system. The Contractor shall design excavation support systems and working slabs to withstand earth and hydrostatic pressures, bottom heave, equipment loads, applicable traffic and construction loads, and other surcharge loads to allow the safe construction of the tunnel and associated structures without excessive movement or settlement of the ground, and to prevent damage to adjacent structures, streets, and utilities. Use lateral earth pressures consistent with ground conditions, soil properties (type, composition, compaction, moisture content, etc.), water table, etc., described in the contract documents and in accordance with NYC, AISC and ACI code provisions, as applicable. Each component of the shaft excavation and support system shall be designed to safely support the maximum combination of loads and other conditions that may occur during construction. These submittals shall consider all beginning, intermediate and final construction stages of shaft installation. The Contractor shall also submit the Contractor's groundwater control system.
 - (c) Break-out and Break-in plans indicating type of support installed to transfer loads and maintain excavation support, groundwater control, and stability of the excavation when a MTBM exits or enters a shaft. Contractor shall utilize shaft launch and exit seals to prevent inflow of groundwater, slurry, lubrication and soil. Seals shall be sized to accommodate microtunneling boring machine and jacking pipe, and shall not impair the performance of the shaft excavation support system. Groundwater inflows at each seal shall be less than five (5) gallons per minute, and total soil inflows at each seal shall be less than two (2) cubic feet for the entire duration of the jacking operation. Seal design/installation shall incorporate localized ground improvement as necessary to meet these criteria.
 - (d) Microtunneling machine thrust block design and details for the launching shaft. The thrust block shall be perpendicular to the proposed pipe alignment. The thrust block shall be designed to support the maximum jacking pressure developed by the main jacking system.

Note that review of the Contractor's Shaft Excavation and Support submittal by the Engineer does not relieve the Contractor and its design consultants of their responsibility to provide and maintain an adequate support system achieving the specified requirements.

- (8) Shop drawings submittals showing all details of precast concrete pipe including steel reinforcement, joint dimensions for all pipe and fittings, etc. For Precast Polymer Concrete Pipe - submittal of design calculations demonstrating ASTM D6783 class and allowable axial jacking forces. For Precast Reinforced Concrete Pipe - submittal of design calculation demonstrating ASTM C76 class and allowable axial jacking forces. Submittals of Test Reports and Certificates Of Compliance for all precast concrete pipe.
- (9) Shop drawings shall be submitted in accordance with all applicable provisions of **Subsection 4.05.5 - Shop Drawings**, as required. Design criteria shall be submitted in accordance with all applicable requirements of **Subsection 4.05.6 - Design Criteria**, as required.
- (10) The Contractor shall allow a minimum of four (4) weeks for review.
- (11) All the above shall be submitted as a complete package. All designs shall bearing the signature and seal of a Licensed Professional Engineer, currently registered in the State of New York
- (12) No work associated with the construction of direct jacked precast concrete pipe sewers shall commence until the Contractor receives all required approved shop drawing from the Department of Design and Construction, Division of Infrastructure.
- (13) Upon the completion of microtunneling/pipe-jacking activities the Contractor will be required to submit a report that will include copies of all Daily Logs along with a description of any unusual events or problems encountered during microtunneling/pipe-jacking operation. In addition, all numerical data shall be entered into Excel Format. A copy of the Excel file shall be submitted along with this report.

5.05B.4 MATERIALS

(A) PRECAST CONCRETE PIPE

- (1) Precast Polymer Concrete Pipe: Precast polymer concrete pipe shall comply with the requirements of **Section 2.26**. The minimum class of pipe shall be Class V. Size of pipe shall be as shown or specified.
- (2) Precast Reinforced Concrete Pipe: Precast reinforced concrete pipe shall comply with the requirements of **Section 2.05** and as amended herein. The minimum class and thickness of pipe shall be Class IV, Wall C. Size of pipe shall be as shown or specified. Precast reinforced concrete pipe shall be protectively coated in accordance with **Subsection 5.05B.11**.
- (3) The jacked precast concrete pipe shall be designed to withstand jacking thrust as well as external loads (including but not limited to skin friction, friction due to weight of pipe, face pressure due to strata type, and face pressure required to counteract slurry pressure). Jacking loads shall be distributed over the minimum cross-sectional area of the pipe. A factor of safety of 2.5 shall be used for jacking thrusts. Designs shall consider bending and shear attributable to the eccentricity of the load on the jacking face. Hydrostatic tests will be required for precast concrete pipe.
- (4) The outer walls of precast concrete pipe shall be straight and the joints flush or slightly recessed in relation with the pipe outer diameter.
- (5) Manufacture Of Precast Concrete Pipe:
 - (a) Precast Polymer Concrete Pipe: Precast polymer concrete pipe shall be manufactured and supplied in accordance with **Section 2.26**.

- (b) Precast Reinforced Concrete Pipe: Precast reinforced concrete pipe shall at a minimum be manufactured and supplied as follows:
- (1) Cement shall be Type II, in accordance with ASTM C150.
 - (2) Steel reinforcement shall consist of a minimum of two (2) cages of welded wire fabric conforming to ASTM A185.
 - (3) Pipe shall be supplied in ten (10) foot lengths, except where shorter lengths are required for proper stationing.
 - (4) Concrete shall have a minimum compressive strength of 6,000-psi at 28-days, as determined from standard test cylinders, in accordance with ASTM C31.
 - (5) The concrete pipe shall be cast vertically between inner and outer rigid steel forms. Mechanical vibrators shall be used to compact the concrete and ensure smooth concrete surfaces.
 - (6) After casting, the pipe in its forms shall be placed in a suitable enclosure and following a delay period of 1 to 4-hours, cured by the introduction of steam.
- (c) All Precast Concrete Pipe: Each pipe shall have three (3) factory installed threaded injection ports and check valves with stainless steel threaded plugs flush with the inside and outside faces of the pipe to facilitate the Contractors lubricating operation and to grout the pipe in place upon completion of each bore. The injection ports (connections) shall be spaced one hundred twenty (120) degrees on center. Injection port fittings shall comply with ASTM A53, standard weight Schedule 40, black.
- (6) Quality Assurance And Testing Of Precast Concrete Pipe:
- (a) The pipe manufacturer shall have at their facility a fully equipped laboratory and staff to perform all testing on jacking pipe.
 - (b) Precast Polymer Concrete Pipe: Precast polymer concrete pipe shall be tested in accordance with **Section 2.26**.
 - (c) Precast Reinforced Concrete Pipe: Precast reinforced concrete pipe shall be tested in accordance with ASTM C76. The manufacturer shall be required to perform the following additional tests and dimensional checks:
 - (1) Dimensional Inspection:
 - (i) The wall thickness in the joint and barrel shall not vary by more than (+/-) 3-percent of the nominal wall thickness.
 - (ii) The outside diameter of pipe shall not vary from theoretical by more than +1/32, -1/16-inch per foot of inside diameter.
 - (iii) Pipe squareness shall be checked by two means:
 - (1) For length of opposite sides (taping pipe 180-degrees apart), a tolerance of 1/4-inch is required for pipe 48-inches in diameter and less, and 3/8-inch for pipe 54-inches in diameter and greater.
 - (2) For end squareness (taping diagonals 180-degrees apart), a tolerance of 1/4-inch is required for pipe 48-inches in diameter and less, and 3/8-inch for pipe 54-inches in diameter and greater.
 - (iv) The normality of the joint face shall have a maximum deviation of (+/-) 1-degree from perpendicular.
 - (2) Pipe (Concrete) Strength Confirmation: The compressive strength of each pipe shall be determined by testing concrete cylinders from the same concrete as each jacking pipe. A minimum of four (4) test cylinders shall be taken for each pipe and tested at intervals up to 28-days.
 - (3) Airholes and Gate Seams: The surfaces of each jacking pipe shall be examined for airholes and gate offsets. The maximum allowable airhole shall be 3/4-inch diameter

and the maximum gate offset shall be 1/8-inch. Airholes exceeding this criterion shall be filled with neat cement and gate offsets greater than 1/8-inch shall be ground smooth.

- (7) Installation Of Precast Concrete Pipe: The following shall be required:
- (a) Just prior to lowering the precast concrete pipe into the trench, the joint surfaces shall be wiped clean and lubricated with a manufacturer recommended lubricant.
 - (b) A pressure-distributing compression ring shall be placed between the mating vertical joint surfaces to evenly distribute the jacking load. Precast concrete pipe shall be installed in accordance with the manufacturer's recommendations and standard practices.
 - (c) Upon completing the joint, the position of the gasket shall be checked with a feeler gage supplied by the manufacturer. If the gasket(s) is found not to be in the proper position, the joint shall be remade and the gasket(s) replaced. Joint openings shall not exceed the manufacturer's recommendations.

(B) JOINTS

- (1) Precast Polymer Concrete Pipe - Joints shall comply with the requirements of **Section 2.26**.
- (2) Precast Reinforced Concrete Pipe:
 - (a) Joints for pipe **48-inches in diameter and less** shall consist of a steel bell and concrete spigot. A solid rubber gasket shall be compressed between the bell and spigot and an additional 1-inch square rubber gasket shall be placed at the bell face. Surfaces of the bell ring that are exposed after manufacture shall be protected with a corrosion resistant coating.
 - (b) Joints for pipe **54-inches in diameter and greater** shall consist of a steel bell and steel spigot with a solid rubber gasket contained in the groove of the steel spigot.
- (3) The pipe joints shall be capable of (without the loss of seal or damage to the joints):
 - (a) Transferring jacking loads.
 - (b) Experiencing skin friction.
 - (c) Allowing angular rotation flexibility to permit routine steering of the bore head to maintain line and grade.
 - (d) Tolerating the installation pressures and the long term operating conditions and environment.
- (4) Pipe joints shall be protected by the installation of pressure-distributing compression rings (spacers) made of low modulus material (e.g. chipboard, knot-free soft wood, fiberboard, plywood). The pressure-distributing compression rings shall be placed between pipe ends to reduce load concentrations on the pipes caused by unplane/unsquare ends, nonstraight sections or angles between the axis' of adjacent pipes (due to steering). Pressure-Distributing Compression Rings should be as uniform as possible in compression resistance (modulus) so as not to be the cause of load concentrations.
- (5) Precast concrete pipe joints shall be submitted to the Engineer for approval.

(C) GROUT

Grout utilized to fill the voids between the outside of the jacked precast concrete pipe and the soil/rock shall be Pressure Grout as described below:

Pressure Grout:

- (a) Pressure grout shall consist of neat Portland cement or it shall be mixed in a proportion by volume of one (1) part Portland cement and one (1) part sand or it shall be mixed by volume of one (1) part Portland cement to one and one-half (1-1/2) parts lime flour and one-fiftieth (1/50) part Interplast IV.
- (b) All parts shall be mixed with clean fresh water to the desired consistency. In no case shall more than eight (8) gallons of water be mixed per bag of cement.

5.05B.5 METHODS

(A) GENERAL

The Contractor shall install launching and receiving shafts at the locations and in accordance with the requirements shown, specified, ordered or approved. Excavation support system for each shaft shall be as shown, specified, ordered or approved. Shafts shall be properly constructed and braced to withstand both external loads (soil, water, etc.), and internal jacking loads. The Contractor shall furnish, install and remove to the extent required; thrust blocks or whatever provisions may be required in driving the precast concrete pipe forward. A jacking frame with integrated pipe guides or steel rails or beams embedded in concrete shall be used in the launching shaft for placement and alignment of each piece of precast concrete pipe during installation procedures. Special care shall be taken when setting the pipe guide rails to ensure correctness of the alignment, grade and stability. Jacking operations shall not commence until the concrete thrust block has attained the required strength.

The precast concrete pipe shall be jacked into position by the use of jacks of sufficient capacity to push the pipe and microtunneling machine through the existing strata (soil and/or rock). Intermediate launching shafts shall be provided as required. Upon completion of each jacked section (launching shaft to receiving shaft) the Contractor shall immediately pressure grout from the interior of the precast concrete pipe in conformance with **Subsection 5.05B.10**.

The excavated shafts shall be dewatered wherever required due to groundwater conditions. The Contractor shall lower and maintain the groundwater level below the invert of the precast concrete pipe at all times during construction by dewatering means to prevent inflow of water or water and soil into the shafts.

(B) CONTROL OF LINE AND GRADE

- (1) Lines and grades shall conform to the requirements of **Subsection 1.06.8** and as amended herein. The Contractor shall establish the baselines and benchmarks in accordance with this contract.
- (2) The Contractor shall submit to the Engineer copies of field notes used to establish all lines and grades. However, the Contractor remains fully responsible for the accuracy of the Contractor's work. All survey work shall be performed under the direction of a New York State Licensed Surveyor and all submissions shall be sealed and signed by the Licensed Surveyor.
- (3) If there is any movement during construction, it shall be the Contractor's responsibility to detect and correct it as required. When the excavation is off-line or grade, the Contractor shall return to the design line and/or grade over the remaining portion of the drive at a rate of no more than one (1) inch per twenty-five (25) feet.
- (4) The microtunnel excavation and run of jacked pipe shall be controlled in such a manner that the deviation from grade is not more than one (1) inch nor from line more than three (3) inches. The Contractor shall make note of all possible encumbrances and structures in the line of work that may restrict clearances.
- (5) Record the exact position of the microtunnel boring machine a minimum of once per shift to ensure the alignment is within the specified tolerances. Make the survey at the microtunnel boring machine to allow immediate correction of misalignment before allowable tolerances are

exceeded. The tunnel guidance system may be used; however, select times to measure and record this information after the air temperatures have stabilized throughout the pipe to ensure accurate readings.

(C) EQUIPMENT

- (1) The microtunnel boring machine shall be capable of controlling the volume of excavated material removed from the excavation face at all times. In addition, the microtunnel boring machine shall:
 - (a) Be capable of maintaining the excavation face under wet, dry and adverse soil conditions and prevent loss of ground through the machine. The MTBM shall provide satisfactory support of the excavation face at all times.
 - (b) Be articulated to allow steering.
 - (c) Incorporate a suitable seal between the microtunnel boring machine and the leading pipe.
 - (d) Provide protection to the electric and hydraulic motors and operating controls against water damage.
 - (e) Use bi-directional drive on the cutter-head wheel, and/or adjustable fins or other means, to control roll.
 - (f) Be capable of exerting a controllable pressure against the face, during both excavation and shutdown periods, to support the excavation face, prevent groundwater inflows, prevent running and flowing soils, and prevent loss of ground.
 - (g) Be capable of controlling the volume of excavated material removed at the excavation face and coordinating the machine advance rate to avoid over excavation.
 - (i) For Slurry Shield System: Include an automated spoil transportation slurry system that balances the groundwater and face pressures by the use of a slurry pressure balance system. System shall be capable of adjustment required to maintain stability of the excavation face for the subsurface conditions to be encountered and shall monitor and continuously balance the groundwater and face pressure to prevent loss of slurry or uncontrolled groundwater inflow.
 - (ii) For Earth Pressure-Balance System: Include an automated spoil transportation system that balances the groundwater and face pressures by the use of an earth pressure-balance system that controls the rate of passage of excavated material through the balanced screw auger or valves on the screw conveyer. System shall be capable of adjustment required to maintain stability of the excavation face for the subsurface conditions to be encountered and shall monitor and continuously balance the groundwater and face pressure to prevent uncontrolled groundwater inflow.
 - (h) Be fully steerable both horizontally and vertically.
 - (i) Be capable of injecting lubricant between precast concrete pipe and strata to reduce friction between precast concrete pipe and strata.
- (2) Guidance of the microtunnel boring machine shall be through a remote console by means of active direction control, in or adjacent to the launching shaft. At a minimum, the thrust force, rate of advance, distance along heading, deviation from line and deviation from grade shall be monitored and displayed on the remote console.

(D) SAFETY

The Contractor shall carry out the Contractor's operations in strict accordance with OSHA, NYC and the Manufacturer's safety requirements.

The Contractor shall provide adequate ventilation in the shafts at all times. Air quality in the shafts shall be tested immediately prior to each change in shift. Air quality in the jacked pipe shall be tested prior to personnel entry and periodically thereafter as required by law.

The Contractor shall provide adequate lighting in the tunnel shafts and around equipment being utilized. Power and lighting circuits shall be separated and thoroughly insulated.

(E) GEOTECHNICAL INSTRUMENTATION

The Contractor shall install and monitor geotechnical instrumentation at the locations and in accordance with the requirements shown, specified, ordered or approved.

5.05B.6 QUALIFICATIONS

The microtunneling/pipe-jacking Contractor or subcontractor performing the work required under this contract must be experienced in work of this nature and must have successfully completed a minimum of two (2) tunneling projects in the last five (5) years using pressurized face microtunneling/pipe-jacking equipment with a closed face tunnel shield and positive controlled face pressure. One of the successfully completed projects shall have been in similar ground conditions (strata type and hydrostatic head), as to those anticipated on this contract. The Contractor shall submit a description of such projects, which shall include at a minimum, a listing of the locations, dates of projects, owners, pipe types and sizes, type of equipment utilized, ground conditions, drive lengths, maximum line and grade deviations and other information relevant to the issue of the successful completion of such projects.

The microtunneling/pipe-jacking project superintendent shall have adequate experience in managing microtunneling/pipe-jacking projects similar to this contract.

The microtunneling/pipe-jacking machine operator(s) shall have adequate experience in using the same type of equipment required for this project, namely, pressurized face microtunneling/pipe-jacking equipment with a closed face tunnel shield and positive, controllable tunnel face pressure.

Prior to the start of work the Contractor will be required to submit the name and resume of the microtunneling/pipe-jacking subcontractor for approval.

5.05B.7 REPORTING REQUIREMENTS

The Contractor shall maintain a Daily Log of all microtunneling/pipe-jacking activities. A copy of this log shall be submitted to the Engineer on a daily basis. The log, at a minimum, shall record the following in relationship to the advancement rate: (Advancement rate utilized for recording shall be in one (1) foot intervals, unless otherwise directed by the Engineer.)

- (1) Date and Time compared to the advancement rate.
- (2) Total Jacking Pressures compared to the advancement rate, including all peak pressures.
- (3) Cutter Head Torque compared to the advancement rate.
- (4) Position of the Tunnel Boring Machine with respect to the design line and grade.
- (5) Amounts, times and locations of lubrication.
- (6) Unusual events or problems encountered.
- (7) Upon completion of a bore (launching shaft to receiving shaft) the locations, pressures and amounts of grout placed to fill all voids between the outside of the jacked precast concrete pipe and the soil/rock.

5.05B.8 CLEANING

Upon completion of a bore (launching shaft to receiving shaft) and the grouting of all voids between the outside of the jacked precast concrete pipe and the soil/rock, the Contractor will be required to remove and properly dispose of all sediments and deposits from within the jacked precast concrete pipe.

The Contractor shall furnish all water and pumping equipment necessary for the cleaning operation.

5.05B.9 INSPECTION AND TESTING

Immediately after the completion of the cleaning operation, the Engineer will conduct (unless waived in writing by the Engineer) a visual inspection of the jacked precast concrete pipe for any defect or leakage so those repairs, if necessary, can be made.

The Contractor shall provide the Engineer, without charge, all facilities and assistance necessary to perform this visual inspection of the jacked precast concrete pipe, and for obtaining any information the Engineer requires in order to access the progress and manner of the work performed.

The entire installation procedure shall be rigorously inspected as herein specified, but inspection shall not relieve the Contractor of responsibility to furnish material and perform work in accordance with the specifications. If at any time it is found that the pipe insertion procedure is not in accordance with these specifications, the pipe so installed will be subject to rejection.

After the Engineer's visual inspection or waiver of visual inspection, the Contractor shall test for leakage the jacked precast concrete pipe in accordance with **Section 4.11 - Leakage And Leakage Tests For Sewer Lines**.

Leakage or infiltration in excess of the specified amount shall be located and stopped and all visible leaks shall be stopped to the satisfaction of the Engineer, all at the Contractor's own expense.

5.05B.10 GROUTING

Upon completion of a jacked section (launching shaft to receiving shaft) the Contractor shall immediately pressure grout from the interior of the jacked precast concrete pipe. Pressure grout shall be placed under pressure to fill all annular voids between the outside of the jacked precast concrete pipe and the soil/rock.

Systems of standard pipe, fittings, hose and threaded injection ports and check valves with stainless steel threaded plugs (factory installed) embedded in the precast concrete pipe walls shall be provided by the Contractor. Care shall be taken to insure that parts of the system are maintained free from dirt. Cement grout shall be forced under pressure into the threaded injection ports. Grouting shall start at the lowest injection port and shall proceed until grout begins to flow from upper injection port. Connections shall then be made to those injection ports and the operation continued to completion. During the grouting process, each stainless steel plug shall be removed and the grout-mixing machine shall be connected to the injection port by means of a hose and nipple cut to the same thread as the injection port.

The jacked precast concrete pipe shall be supplied with embedded factory installed threaded injection ports and check valves with stainless steel threaded plugs flush with the inside and outside faces of the pipe so as to prevent infiltration of displaced earth during the jacking and grouting processes. Stainless steel threaded plugs when installed shall be flush with the inside face of the pipe. Factory installed threaded injection ports and check valves with stainless steel threaded plugs shall be of a diameter approved by the Engineer and compatible with the requirements of the Contractor's grouting operation. Three (3) injection ports spaced one hundred twenty (120) degrees on center shall be installed on each section of pipe.

Apparatus for mixing and placing grout shall be capable of mixing effectively and stirring the grout and then forcing it into the injection ports in a continuous uninterrupted flow. When grouting is completed the stainless steel threaded plugs in each section shall be installed into the injection ports so as to provide a watertight seal.

The Contractor shall take all necessary precautions to prevent grout from escaping and setting on inner surface of precast concrete pipe. The Contractor shall remove such grout and restore the surface to its original condition.

The Contractor shall provide the Engineer all facilities necessary for the inspection of pressure grouting operation to ensure complete filling of the annular void. These facilities shall include removing of stainless steel plugs as required for inspection behind the jacked precast concrete pipe. Any voids found shall be grouted at once as directed by the Engineer.

The Contractor shall keep and furnish to the Engineer an accurate log of grouting operations, pressures, rates of pumping, amount of cement for each change in water/cement ratio and such other data as are required by the Engineer. The log shall be supplied by the Contractor to the Engineer or the Engineer's representative after each shift.

5.05B.11 PROTECTIVE COATING FOR PRECAST REINFORCED CONCRETE PIPE

All jacked precast reinforced concrete pipe shall be coated inside with two (2) coats of Koppers Bitumastic No. 300-M protective coating and with one (1) coat of a white Acrylic topcoat (Kop-Coat 600 Acrylic or Carbocrylic White S800) or approved equals.

Coating on the jacked precast reinforced concrete pipe shall be applied prior to its placement. Prior to coating the jacked precast reinforced concrete pipe the Contractor shall be required to receive written approval from the Engineer that the surface to be coated is judged suitable to receive the protective coating as recommended by the coating manufacturer and/or the Engineer.

The Contractor is notified that if for any reason the coating manufacturer and/or Engineer conclude that the surfaces are not ready for coating, then immediately prior to applying the coating the surfaces shall be cleaned and/or treated as directed. Surfaces shall be brushed and thoroughly cleaned. Surfaces must then be permitted to dry thoroughly. All work shall be performed to the complete satisfaction of the Engineer.

Prior to applying the protective coating all requirements and conditions of **DIVISION III - INSPECTION OF MATERIAL, SAMPLING AND METHODS OF TEST**, shall be complied with.

Base and hardener shall be mixed in accordance with the manufacturers recommendations and after final mixing shall be applied in the presence of the Engineer within the time period stipulated by the manufacturer of the coating material. The Engineer shall certify to the adequacy of the coating work (i.e., mixing application). The coating shall be evenly applied in required number of coats by an airless spraying procedure approved by the Engineer.

Each protective coat shall be at least ten (10) mills minimum dry film thickness. The total thickness for all pipes of the finished protective coating shall be twenty (20) mills minimum dry film thickness.

The second protective coat shall not be applied until the first protective coat is allowed to dry tack free. If a protective coat is permitted to cure more than seventy-two (72) hours, it must first be treated and/or conditioned as recommended by the coating material manufacturer before application of an additional coat will be permitted.

The Engineer prior to final acceptance of the work shall certify all coating and thickness of coatings.

After the second coat has been approved by the Engineer, a white top coat, three (3) mills minimum dry film thickness, shall be applied as recommended by the coating manufacturer and/or Engineer.

5.05B.12 MEASUREMENT

The quantity of direct jacked precast concrete pipe sewers to be measured for payment shall be the number of linear feet of each size, kind, type, class and wall thickness of direct jacked precast concrete pipe sewer incorporated in the work, complete, as shown, specified or required, measured horizontally

along the center lines of sewers. Measurement shall be from inside face of manhole to inside face of manhole, or as determined by the Engineer.

5.05B.13 PRICE TO COVER

The contract price for "DIRECT JACKED PRECAST CONCRETE PIPE SEWERS" shall be the unit price bid per linear foot for each size, kind, type, class and wall thickness of direct jacked precast concrete pipe sewer and shall cover the cost of all labor, materials, plant, equipment, samples, tests and insurance required and necessary to construct the direct jacked precast concrete pipe sewers of the sizes and to the lines and grades shown, including the earth excavation of all materials of whatever nature encountered (See **Section 4.03 - Earth Excavation**); additional subsurface investigations; geotechnical instrumentation; all sheeting and bracing; pumping; fluming; bridging; connections; maintaining flow in sewers; backfilling; launching and receiving shafts (including intermediate launching shafts), complete (including temporary excavation supports, groundwater control, thrust block, jacking frame, launch and exit seals, etc.); installation of precast concrete pipe sewers by direct jacking; grouting required to fill voids between the outside of the jacked precast concrete pipe sewer and the soil/rock; cleaning of jacked precast concrete pipe sewer; application of protective coating and top coating to interior surfaces of precast concrete pipe; inspection and testing; preparation, submittal and approval of all required shop drawings and designs; obtaining of all necessary permits; and furnishing and installing all other items necessary to complete this work and do all work incidental thereto, all in accordance with the contract drawings, specifications and standards and as directed by the Engineer.

In addition, included in the price hereunder shall be the cost of all labor and materials necessary to remove all specified and ordered existing sewers, manholes, structures and appurtenances that may be in the launching and receiving shafts and in the line of the work and to do all the work incidental thereto, all in accordance with **Subsections 1.06.12 and 1.06.27** of the specifications and as directed by the Engineer.

Payment for Direct Jacked Precast Concrete Pipe Sewers will be made under the Item Number as calculated below:

The Item Numbers for Direct Jacked Precast Concrete Pipe Sewers have ten characters. (The decimal point is considered a character, the third character.)

- (1) The first five characters shall define Direct Jacked Precast Concrete Pipe Sewers:
50.62
- (2) The sixth character shall define the Type of Sewer Effluent:
S - Sanitary Sewer
M - Storm Sewer
C - Combined Sewer
- (3) The seventh and eighth characters shall define the Diameter of the Precast Concrete Pipe Sewer to be Direct Jacked. (The seventh and eighth characters representing the unit of inches for the Diameter of the Precast Concrete Pipe Sewer to be Direct Jacked.) See examples below:
24 - 24"
78 - 78"
- (4) The ninth character shall define the Kind of Precast Concrete Pipe Sewer to be Direct Jacked:
R - Reinforced Concrete Pipe (R.C.P.)
P - Polymer Concrete Pipe (P.C.P.)
- (5) The tenth character shall define the Class of Precast Concrete Pipe Sewer to be Direct Jacked:
4 - Class IV
5 - Class V
- (6) The Item Numbers together with Description and Pay Unit as provided in the Bid Schedule are provided below:

Item No.	Description	Pay Unit
50.62S24R4	DIRECT JACKED 24" R.C.P. CLASS IV SANITARY SEWER	L.F.
50.62S30R4	DIRECT JACKED 30" R.C.P. CLASS IV SANITARY SEWER	L.F.
50.62S36R4	DIRECT JACKED 36" R.C.P. CLASS IV SANITARY SEWER	L.F.
50.62S42R4	DIRECT JACKED 42" R.C.P. CLASS IV SANITARY SEWER	L.F.
50.62S48R4	DIRECT JACKED 48" R.C.P. CLASS IV SANITARY SEWER	L.F.
50.62S24R5	DIRECT JACKED 24" R.C.P. CLASS V SANITARY SEWER	L.F.
50.62S30R5	DIRECT JACKED 30" R.C.P. CLASS V SANITARY SEWER	L.F.
50.62S36R5	DIRECT JACKED 36" R.C.P. CLASS V SANITARY SEWER	L.F.
50.62S42R5	DIRECT JACKED 42" R.C.P. CLASS V SANITARY SEWER	L.F.
50.62S48R5	DIRECT JACKED 48" R.C.P. CLASS V SANITARY SEWER	L.F.
50.62S24P5	DIRECT JACKED 24" P.C.P. CLASS V SANITARY SEWER	L.F.
50.62S30P5	DIRECT JACKED 30" P.C.P. CLASS V SANITARY SEWER	L.F.
50.62S36P5	DIRECT JACKED 36" P.C.P. CLASS V SANITARY SEWER	L.F.
50.62S42P5	DIRECT JACKED 42" P.C.P. CLASS V SANITARY SEWER	L.F.
50.62S48P5	DIRECT JACKED 48" P.C.P. CLASS V SANITARY SEWER	L.F.
50.62M24R4	DIRECT JACKED 24" R.C.P. CLASS IV STORM SEWER	L.F.
50.62M30R4	DIRECT JACKED 30" R.C.P. CLASS IV STORM SEWER	L.F.
50.62M36R4	DIRECT JACKED 36" R.C.P. CLASS IV STORM SEWER	L.F.
50.62M42R4	DIRECT JACKED 42" R.C.P. CLASS IV STORM SEWER	L.F.
50.62M48R4	DIRECT JACKED 48" R.C.P. CLASS IV STORM SEWER	L.F.
50.62M54R4	DIRECT JACKED 54" R.C.P. CLASS IV STORM SEWER	L.F.
50.62M60R4	DIRECT JACKED 60" R.C.P. CLASS IV STORM SEWER	L.F.
50.62M66R4	DIRECT JACKED 66" R.C.P. CLASS IV STORM SEWER	L.F.
50.62M72R4	DIRECT JACKED 72" R.C.P. CLASS IV STORM SEWER	L.F.
50.62M78R4	DIRECT JACKED 78" R.C.P. CLASS IV STORM SEWER	L.F.
50.62M84R4	DIRECT JACKED 84" R.C.P. CLASS IV STORM SEWER	L.F.
50.62M90R4	DIRECT JACKED 90" R.C.P. CLASS IV STORM SEWER	L.F.
50.62M96R4	DIRECT JACKED 96" R.C.P. CLASS IV STORM SEWER	L.F.
50.62M24R5	DIRECT JACKED 24" R.C.P. CLASS V STORM SEWER	L.F.
50.62M30R5	DIRECT JACKED 30" R.C.P. CLASS V STORM SEWER	L.F.
50.62M36R5	DIRECT JACKED 36" R.C.P. CLASS V STORM SEWER	L.F.
50.62M42R5	DIRECT JACKED 42" R.C.P. CLASS V STORM SEWER	L.F.
50.62M48R5	DIRECT JACKED 48" R.C.P. CLASS V STORM SEWER	L.F.
50.62M54R5	DIRECT JACKED 54" R.C.P. CLASS V STORM SEWER	L.F.
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50.62M78R5	DIRECT JACKED 78" R.C.P. CLASS V STORM SEWER	L.F.
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50.62M90R5	DIRECT JACKED 90" R.C.P. CLASS V STORM SEWER	L.F.
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50.62M24P5	DIRECT JACKED 24" P.C.P. CLASS V STORM SEWER	L.F.
50.62M30P5	DIRECT JACKED 30" P.C.P. CLASS V STORM SEWER	L.F.
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50.62M42P5	DIRECT JACKED 42" P.C.P. CLASS V STORM SEWER	L.F.
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50.62M54P5	DIRECT JACKED 54" P.C.P. CLASS V STORM SEWER	L.F.
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50.62M66P5	DIRECT JACKED 66" P.C.P. CLASS V STORM SEWER	L.F.
50.62M72P5	DIRECT JACKED 72" P.C.P. CLASS V STORM SEWER	L.F.
50.62M78P5	DIRECT JACKED 78" P.C.P. CLASS V STORM SEWER	L.F.
50.62M84P5	DIRECT JACKED 84" P.C.P. CLASS V STORM SEWER	L.F.
50.62M90P5	DIRECT JACKED 90" P.C.P. CLASS V STORM SEWER	L.F.
50.62M96P5	DIRECT JACKED 96" P.C.P. CLASS V STORM SEWER	L.F.
50.62C24R4	DIRECT JACKED 24" R.C.P. CLASS IV COMBINED SEWER	L.F.

50.62C30R4	DIRECT JACKED 30" R.C.P. CLASS IV COMBINED SEWER	L.F.
50.62C36R4	DIRECT JACKED 36" R.C.P. CLASS IV COMBINED SEWER	L.F.
50.62C42R4	DIRECT JACKED 42" R.C.P. CLASS IV COMBINED SEWER	L.F.
50.62C48R4	DIRECT JACKED 48" R.C.P. CLASS IV COMBINED SEWER	L.F.
50.62C54R4	DIRECT JACKED 54" R.C.P. CLASS IV COMBINED SEWER	L.F.
50.62C60R4	DIRECT JACKED 60" R.C.P. CLASS IV COMBINED SEWER	L.F.
50.62C66R4	DIRECT JACKED 66" R.C.P. CLASS IV COMBINED SEWER	L.F.
50.62C72R4	DIRECT JACKED 72" R.C.P. CLASS IV COMBINED SEWER	L.F.
50.62C78R4	DIRECT JACKED 78" R.C.P. CLASS IV COMBINED SEWER	L.F.
50.62C84R4	DIRECT JACKED 84" R.C.P. CLASS IV COMBINED SEWER	L.F.
50.62C90R4	DIRECT JACKED 90" R.C.P. CLASS IV COMBINED SEWER	L.F.
50.62C96R4	DIRECT JACKED 96" R.C.P. CLASS IV COMBINED SEWER	L.F.
50.62C24R5	DIRECT JACKED 24" R.C.P. CLASS V COMBINED SEWER	L.F.
50.62C30R5	DIRECT JACKED 30" R.C.P. CLASS V COMBINED SEWER	L.F.
50.62C36R5	DIRECT JACKED 36" R.C.P. CLASS V COMBINED SEWER	L.F.
50.62C42R5	DIRECT JACKED 42" R.C.P. CLASS V COMBINED SEWER	L.F.
50.62C48R5	DIRECT JACKED 48" R.C.P. CLASS V COMBINED SEWER	L.F.
50.62C54R5	DIRECT JACKED 54" R.C.P. CLASS V COMBINED SEWER	L.F.
50.62C60R5	DIRECT JACKED 60" R.C.P. CLASS V COMBINED SEWER	L.F.
50.62C66R5	DIRECT JACKED 66" R.C.P. CLASS V COMBINED SEWER	L.F.
50.62C72R5	DIRECT JACKED 72" R.C.P. CLASS V COMBINED SEWER	L.F.
50.62C78R5	DIRECT JACKED 78" R.C.P. CLASS V COMBINED SEWER	L.F.
50.62C84R5	DIRECT JACKED 84" R.C.P. CLASS V COMBINED SEWER	L.F.
50.62C90R5	DIRECT JACKED 90" R.C.P. CLASS V COMBINED SEWER	L.F.
50.62C96R5	DIRECT JACKED 96" R.C.P. CLASS V COMBINED SEWER	L.F.
50.62C24P5	DIRECT JACKED 24" P.C.P. CLASS V COMBINED SEWER	L.F.
50.62C30P5	DIRECT JACKED 30" P.C.P. CLASS V COMBINED SEWER	L.F.
50.62C36P5	DIRECT JACKED 36" P.C.P. CLASS V COMBINED SEWER	L.F.
50.62C42P5	DIRECT JACKED 42" P.C.P. CLASS V COMBINED SEWER	L.F.
50.62C48P5	DIRECT JACKED 48" P.C.P. CLASS V COMBINED SEWER	L.F.
50.62C54P5	DIRECT JACKED 54" P.C.P. CLASS V COMBINED SEWER	L.F.
50.62C60P5	DIRECT JACKED 60" P.C.P. CLASS V COMBINED SEWER	L.F.
50.62C66P5	DIRECT JACKED 66" P.C.P. CLASS V COMBINED SEWER	L.F.
50.62C72P5	DIRECT JACKED 72" P.C.P. CLASS V COMBINED SEWER	L.F.
50.62C78P5	DIRECT JACKED 78" P.C.P. CLASS V COMBINED SEWER	L.F.
50.62C84P5	DIRECT JACKED 84" P.C.P. CLASS V COMBINED SEWER	L.F.
50.62C90P5	DIRECT JACKED 90" P.C.P. CLASS V COMBINED SEWER	L.F.
50.62C96P5	DIRECT JACKED 96" P.C.P. CLASS V COMBINED SEWER	L.F.

- (15) Refer to Section 5.05C - Reconstruction Of Existing Sewers Using D.E.P. Approved Cured-In-Place-Pipe (CIPP) Lining Method, Subsection 5.05C.6 - Separate Payment, third paragraph, second line, Page V-49
Change the word, "nine", to "eleven":

- (16) Refer to Section 5.11 - Outfall Structures, Subsection 5.11.2 - Materials, Page V-95:
Delete from Subsection 5.11.1, paragraph (A) in its entirety:
Substitute the following:

(A) Concrete used for outfall structure (including headwalls, reinforced concrete sewer outfalls, cradles and encasements, chambers, manholes and catch basins) shall comply with the requirements of **General Specification 11 - Concrete, as modified in Section 2.15**; and, shall contain entrained air of six percent (6%), and a corrosion inhibitor. The corrosion inhibitor shall consist of a calcium nitrite solution, containing 30 ±2% calcium nitrite solids by weight and having a specific gravity of 1.27 ±0.02. The corrosion inhibitor when used in the manufacturing process shall not produce a significant amount of chloride ions in the final product (less than 1,000-ppm). The ph shall be greater than 8. The admixture shall not contain chemicals that produce a condition injurious to the quality and

durability of the concrete or reinforcing steel. Calcium nitrite, which acts as an accelerator, may be used in conjunction with compatible retarding admixtures to control setting time and workability of the concrete, consult the manufacturer of the product. The corrosion inhibitor must be added to the mix immediately after air entraining and retarding admixtures have been introduced into the batch. Acceptance of calcium nitrite based corrosion inhibitor shall be based upon it being listed in the most current New York State Department of Transportation's "Approved List Of Calcium Nitrite Based Corrosion Inhibitors".

(17) Refer to Section 5.18A - Sewer Cleaning, Subsection 5.18A.3 - Disposal, Page V-124:

Delete from **Subsection 5.18A.3**, the first paragraph in its entirety:

Substitute the following:

All material removed from the sewers and sewer portions through the manholes under this contract shall become the property of the Contractor and shall be properly disposed of away from the site, at the Contractor's expense.

(18) Refer to Section 5.23 - Decking, Subsection 5.23.1 - Description, Page V-161:

Delete from **Subsection 5.23.1**, the third paragraph in its entirety:

Substitute the following:

Steel plates that are resting on pavement, that are not part of a decking system, and are used to temporarily span trenches and excavations for vehicular traffic and for pedestrian crossings and walkways shall not be included for payment under this decking section. The cost of all labor, materials, equipment, insurance and incidentals necessary to furnish, place, anchor and ramp these temporary steel plates, when and where directed, in order to comply with the requirements of the NYCDOT Office of Construction Mitigation and Coordination (OCMC) traffic stipulations, the directions of the Engineer, and the Contractor's construction operations shall be deemed included in the prices bid for all contract items of work.

(19) Refer to Section 5.23 - Decking, Subsection 5.23.4 - Design Criteria, Page V-162:

Add the following to **Subsection 5.23.4**:

(C) The Contractor may substitute skid resistant steel plates (Non-Skid Textured Plates) for timber mats, subject to approval in accordance with **Subsection 4.05.5**. These steel plates shall be placed flush with the existing roadway and shall be installed in compliance with the requirements of **Subsection 4.05.6(G)**.

(20) Refer to Section 5.32 - Final Restoration Of Pavements, Page V-183:

Add the following to **Subsection 5.32.4 - Specific Pavement Restoration Provisions**:

See amended Standard Water Main Specifications (August 1, 2009) **Subsection 5.32.4 - Specific Pavement Restoration Provisions** of this addendum.

(21) Refer to Section 5.36 - Additional Earth Excavation Including Test Pits, Subsection 5.36.4 - Price To Cover, Paragraph (3), fifth line, Page V-195:

Change 16", to 16'.

(22) Refer to Section 5.43 - Construction Report, Subsection 5.43.1 - Intent, Page V-201:

(A) **Add** the following to the end of **Subsection 5.43.3(D)**:

"Movements which shall be considered include, but are not limited to, vibration-related settlements, differential settlements, settlements from dewatering, and building movement and/or rotation due to excavation or construction-related work."

(B) Change in Subsection 5.43.3(F) the words, "of construction.", to the following:

"of construction, as well as means and methods the Contractor, at the Contractor's own expense, will employ should any limits be exceeded."

(C) Add the following new paragraphs after **paragraph (G) of Subsection 5.43.3:**

"(H)A geotechnical data summary including assumed values for the physical and strength characteristics of the soils shown on the Record(s) of Borings, developed from, but not limited to available soil and/or rock descriptions, blow counts, and available geotechnical laboratory testing. Such physical and strength characteristics include, but are not limited to, a soil's unit weight, friction angle, cohesion, consolidation properties, and permeability/drainage properties.

(I) Engineering computations to substantiate any values stated, recommended, or defined in (C), (D) and (E), using the appropriate data from (G) and (H)."

(23)Refer to Section 5.43A - Monitoring And Post-Construction Report, Subsection 5.43A.3 - Submissions, paragraph (A) - Monitoring Settlement, Page V-203:

Delete from fifth paragraph of **paragraph (A)**, the first sentence in their entirety:

Substitute the following:

"Should the limit of horizontal and/or vertical movement, as set forth in the Preconstruction Report, of any building and/or structure be exceeded, the Contractor shall immediately and concurrently notify the Engineer and, at the Contractor's own expense, follow the steps included in the Preconstruction Report outlined in **Subsection 5.43.3(F)** to rectify the situation and prevent any further settlement of such building and/or structure."

D. AMENDMENTS TO THE STANDARD WATER MAIN SPECIFICATIONS

- (1) **Refer to Subsection 1.06.3 - Hours Of Work, Page I-4:**
Add the following to **Subsection 1.06.3:**

- (A) **HOLIDAY CONSTRUCTION EMBARGO** - A special Holiday Construction Embargo shall be in effect on the Friday of the week preceding Thanksgiving Day week from 6:00 AM to 11:59 PM and again from the Monday of Thanksgiving Day week from 6:00 AM through January 2, at 11:59 PM. Roadway and sidewalk construction activities will be restricted during the embargo period on the streets listed below*.

Any permits issued prior to the date of this notice, for work during this embargo period on the streets listed below which do not already have the permit stipulation "410" are hereby suspended for the period noted above. All permittees must comply with this embargo unless a special waiver is granted by OCMC. Waiver requests must be filed at least thirteen (13) days before Thanksgiving Day, in the Permit Office by filing a "Request for Roadway/Sidewalk Permits During Embargo Periods" and submitting supporting documentation. Waiver requests should only be submitted for critical reasons for a specific project. If a waiver is granted, the applicant will be notified so they can apply for the approved permits. Waivers **are not** required for ongoing Building Construction Activity Permits which already include the "410" permit stipulation. Waiver request forms may be obtained at any Permit Office or on the Department of Transportation's website at:

<http://www.nyc.gov/html/dot/downloads/pdf/holidayembapp.pdf>

Prior to this embargo period all necessary measures must be taken so that all roadways and sidewalks are in proper condition to allow for the expeditious and safe movement of vehicular, bicycle and pedestrian traffic. Tool carts, cable reels, containers, and material stored on roadways must be removed during the embargo period.

The opening of utility access covers is prohibited on any of the streets noted below between the hours of 6:00 AM and midnight unless the utility or contractor files for an Emergency Authorization Number as required by section 2-07 of the Department of Transportation's Highway Rules. The planned opening of utility access covers may occur during the hours of 12:01 AM and 5:59 AM where no authorization number is required.

Temporary restoration of the streets and sidewalks and removal thereof, if required for the Holiday Embargo period, will be paid for under the appropriate scheduled items.

No extension of time due to the shutdown period will be granted to the Contractor for completion of the work.

* Please note that this embargo only applies to NYCDOT construction permits. List of street and maps of the affected locations are available by borough on the Department of Transportation's website at: <http://www.nyc.gov/html/dot/html/motorist/trafairs.shtml>

- (2) **Refer to Subsection 1.06.14 - Notice To Utility Companies, Etc., To Remove Structures Occupying Place Of Sewers, Water Mains Or Appurtenances, Page I-10:**
Add the following to **Subsection 1.06.14:**

- (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. Michael A. Mobyed at (212) 963-3510.

- (2) EMPIRE CITY SUBWAY/VERIZON

There are EMPIRE CITY SUBWAY/VERIZON facilities in the area of construction. The Contractor shall notify EMPIRE CITY SUBWAY/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.

(3) 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. Ed Vomero at (718) 888-4232 and Mr. John Piazza at (718) 888-4261.

(4) RCN TELECOMMUNICATION SERVICES

There are RCN TELECOMMUNICATION SERVICES facilities in the area of construction. The Contractor shall notify RCN TELECOMMUNICATION SERVICES at least seventy-two (72) hours prior to the start of construction by contacting Mr. Peter Tocco at (212) 842-7789.

(3) **Refer to Subsection 1.06.20 - Contractor To Notify City Departments, Page I-12:**
Add the following to **Subsection 1.06.20:**

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

The Contractor shall notify Mr. James Garin, P.E., Assistant Commissioner, 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. Ed 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 Mr. Bill Steyer, Director of Manhattan Forestry, at (212) 860-1845.

(5) N.Y.C. TRANSIT AUTHORITY

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.

Arrangements shall be made through:

Ms. Sarah Wyss
Director Of Short Range, Bus Service Planning (SRB)
New York City Transit
2 Broadway, 17th Floor
New York, N.Y. 10004

Telephone No. (646) 252-5517
sarah.wyss@nyct.com

- (4) **Refer** to **Subsection 1.06.27 - Salvageable Materials**, Page I-14:
Delete the paragraph starting with the words, "No salvageable material...", and ending with the words, "...from the site.", in its entirety:
Substitute the following:

Except as specified below, no salvageable material shall be returned to the New York City Department of Environmental Protection regardless of condition. It shall become the property of the Contractor for removal and disposal, by the Contractor, away from the site.

The Contractor shall salvage and deliver to a designated NYCDEP yard all Metropolitan Valves (6" thru 20") removed during construction of the contract.

- (5) **Refer** to **Subsection 1.06.29 - Contractor To Provide For Traffic**, Page I-15:
Add the following to **Subsection 1.06.29**:

(1) Traffic Stipulations:

The Contractor shall refer to the Traffic Stipulations (eight (8) pages) that are attached to the end of this addendum, and as directed by the Engineer.

- (6) **Refer** to **Section 1.08 - Miscellaneous Provisions**, Page I-19:
Delete Subsection 1.08.2 - Vendors in its entirety:
Substitute the following new **Subsection 1.08.2**:

1.08.2 VENDORS

Prior to starting work, the Contractor shall submit in writing to the Engineer the names of all vendors and manufacturers the Contractor intends to use. Unless otherwise specified in the contract documents or a written exception is granted by NYCDDC, the Contractor shall submit only one (1) vendor or manufacturer for each product that is to be incorporated in the contract. The use of multiple vendors or manufacturers to supply the same product will be prohibited, unless otherwise specified in the contract documents or a written exception is granted by NYCDDC. If the vendor or manufacturer is not approved, the Contractor will be notified to either submit another vendor or manufacturer, or have their proposed vendor or manufacturer submit a request for approval from NYCDDC. The Contractor will be prohibited from using the vendor or manufacturer until approval of the vendor or manufacturer has been acquired from NYCDDC.

- (7) **Refer** to **Section 1.08 - Miscellaneous Provisions**, Page I-20:
Add the following new **Subsection 1.08.7**:

1.08.7 SUBMITTAL OF SCHEDULE LOG

The Contractor's attention is directed to **Article 9 - Progress Schedule** of the Contract. The Contractor shall submit along with the proposed progress schedule the following: A schedule log in Excel Format (tied to the proposed progress schedule) indicating a description of and the schedule submission dates for all required submittals, shop drawings, approval requests, design mixes, reports, samples, etc., as required by the specifications and the terms of the contract.

- (8) **Refer** to **Section 2.15 - Concrete, Subsection 2.15.3 - Modifications**, Page II-11:

Delete from **Subsection 2.15.3, Reference Number D 3.2.1** together with its paragraphs in their entirety:

Substitute the following:

D 3.2.1 **DELETE** 3.2.1 to 3.2.9 of GS11 and **SUBSTITUTE** the following:

All concrete mix designs shall be subject to approval by DDC's Quality Assurance and Construction Safety (QACS) Bureau and in accordance with their "MIX DESIGN, LABORATORY AND PLANT APPROVAL PROTOCOL". Copies of this protocol may be obtained at the preconstruction meeting or from the Engineer. Before the Contractor begins to manufacture concrete, the Contractor shall secure DDC's QACS approval of the mix design the Contractor proposes to use.

The Contractor shall submit for this purpose a statement, in writing, of the sources of all ingredient materials, the type and brand of the cement and the number of pounds of each of the materials in a saturated surface-dry condition making up one (1) cubic yard of concrete. The range of water-cement ratios within which the concrete will be manufactured and the method of mixing to be employed shall also be stated. The mix design submittal shall include gradation of aggregates, specific gravities of ingredients, unit weight, mix proportion for each batch (a minimum of four (4) batches except in case of precast plants where one specific mix may be proposed), compressive strength test results for each mix at 7-days, 28-days (high-early strength mixes may require 6-hours, 24-hours, 3-days and shrinkage test as per the requirements), and graphical representation of strength vs. W/C projected in hours/days.

The Contractor may submit for approval concrete mixes that (within one (1) year of the contract) have been previously approved and used on other jobs with any Bureau of the Department of Environmental Protection or the Department of Design and Construction. Such submittals shall contain evidence that the concrete mix was approved within one (1) year of this contract and shall show that the concrete will be produced at the same mix plant, that the cement and admixtures are the same type (though not necessarily the same brand), that the water/cement ratio is the same and that adjustments have been made in the mix for air content, specific gravity and gradation of the aggregates.

If the Contractor elects to submit a concrete mix that was not previously approved, the Contractor shall submit the new concrete mix in accordance with Chapters 2 and 3 of General Specification 11 as modified herein.

(9) **Refer to Section 2.15 - Concrete, Subsection 2.15.3 - Modifications, Page II-13:**

Add to Subsection 2.15.3, before Reference Number D 8.2 the following:

D 7.3.3 **ADD** the following to Subsection 7.3.3 of GS11:

Each Portland cement concrete batching plant shall be subject to approval by DDC's Quality Assurance and Construction Safety (QACS) Bureau and in accordance with their "MIX DESIGN, LABORATORY AND PLANT APPROVAL PROTOCOL". Copies of this protocol may be obtained at the preconstruction meeting or from the Engineer. The minimum requirement for approval is that the proposed Portland cement concrete batching plant must be on the New York State Department of Transportation (NYSDOT) approved list for the current construction season.

The minimum requirement for approval of a precast concrete plant is that the proposed plant must be on the NYSDOT approved list. A waiver for this requirement may be granted by the DDC's Quality Assurance and Construction Safety (QACS) Director for special products that no NYSDOT approved plant is capable of producing.

Each Portland cement concrete batching plant shall also be subject to auditing and approval of the DDC's Director of Quality Assurance and Construction Safety (QACS). The Director of QACS may at any time discontinue the use of any previously approved equipment if nonconformance with the specifications results during the progress of the work. When the Director of QACS discontinues the use of the plant, production will not be acceptable for Department work until corrective measures satisfactory to the Director are carried out.

(10) **Refer to Section 2.15 - Concrete, Subsection 2.15.3 - Modifications, Page II-14:**

Delete from **Subsection 2.15.3, Reference Number D 16.3** together with its paragraphs in their entirety:

Substitute the following:

D 16.3 Testing Service - **ADD** the following:

The Contractor shall retain the services of an independent testing laboratory to provide for the services outlined in 16.3.1.4 to 16.3.1.11 of GS11, with the exception of those tests specified herein to be performed by the Engineer and the City Retained Laboratory.

All laboratories shall be subject to approval by DDC's Quality Assurance and Construction Safety (QACS) Bureau and in accordance with their "MIX DESIGN, LABORATORY AND PLANT APPROVAL PROTOCOL". Copies of this protocol may be obtained at the pre-construction meeting or from the Engineer. The minimum requirement for approval is that the laboratory must have the current AMRL/AASHTO R-18 accreditation in the category of service proposed and must be currently licensed by the NYC Department of Buildings (DOB).

(11) **Refer to Section 2.15 - Concrete, Subsection 2.15.3 - Modifications, Page II-14:**

Delete from **Subsection 2.15.3, Reference Number D 16.8** together with its paragraphs in their entirety:

Substitute the following:

D 16.8 Responsibilities and Duties of Contractor - **ADD** the following:

The Contractor may, if the Contractor so desires, take cylinders corresponding to those taken by the Engineer for the City Retained Laboratory. However, determination of payment will be based solely on the cylinders taken by the Engineer for the City Retained Laboratory.

CONCRETE TEST CYLINDERS

The Contractor will be responsible for safe delivery of concrete cylinders to the Department of Design and Construction Laboratory, within two (2) days after molding, where they will be properly stored and cured until the date of test, and tested by others, upon removal from the curing room. The Department of Design and Construction testing laboratory will provide the services for the curing and breaking of the test cylinders.

The Contractor shall provide empty cylinder molds and facilities for the proper care of these cylinders while on the site, and shall safeguard them against injury and protect them from the elements.

The Engineer will be responsible for the preparation, documentation and labeling of the cylinders and for notifying the Contractor, at least twenty-four (24) hours in advance, when a shipment of cylinders is ready for delivery, so that cylinders can be tested for the standard twenty-eight (28) day and seven (7) day tests. Cylinders are to be delivered by

the Contractor to a designated area near 30-30 Thomson Avenue, Long Island City, New York, or where otherwise directed within the City of New York.

The Contractor shall make arrangements to protect all cylinders from damage during loading, transport to, and unloading at a Department of Design and Construction designated testing laboratory, and shall obtain a receipt for delivered cylinders, which shall be submitted to the Engineer.

(12) Refer to Subsection 4.05.6 - Design Criteria, Paragraph (G) - Decking, Subparagraph (1), Page IV-14:

Delete Subparagraph (1) in its entirety:

Substitute the following:

(1) Unless otherwise specified in the contract documents or approved in writing by the Engineer the minimum live load on decking shall be thirty-five (35) percent more than AASHTO HS20-44 or Contractor's equipment or heaviest truck loading (i.e. concrete truck) whichever is greater plus an impact factor of thirty-three (33) percent.

(13) Refer to Section 4.06 - Backfilling, Subsection 4.06.3 - Method Of Depositing All Backfill, Page IV-18:

(A) Add the following paragraph to beginning of **Subsection 4.06.3**:

At the preconstruction meeting, the Contractor shall submit for approval a full description of the Contractor's proposed methods to be used for all backfilling operations including, but not limited to, equipment, backfill material, depth of compaction layers, and trench locations where each is to be employed. In the field, the Contractor shall be required to demonstrate that the Contractor's methods of backfilling and compaction shall obtain a minimum of ninety-five (95) percent of Standard Proctor Maximum Dry Density.

(B) Delete from **Subsection 4.06.3**, the fourth paragraph in its entirety:

Substitute the following:

Unless otherwise approved in writing by the Engineer, backfilling of the remainder of the trenches and excavations from a point not less than twelve (12) inches above the top of the barrel of the water main pipe to the underside of the pavement shall be progressively deposited in uniform and successive horizontal layers not exceeding twelve (12) inches in depth for the entire width of the trench or excavation and each successive layer shall be solidly compacted by mechanical tamping or other approved means so as to achieve the required density. In deep trenches defined as those requiring sheeting, the Contractor may submit to the Engineer, for approval, an alternate backfill method (i.e. jetting, deeper deposited layers not exceeding twenty-four (24) inches, etc.) for depositing and compacting the backfill from twelve (12) inches above the top of the barrel of the water main pipe to a plane five (5) feet below final surface elevation. However, approval of any alternate backfill method shall not relieve the Contractor from obtaining a minimum of ninety-five (95) percent of Standard Proctor Maximum Dry Density. Should the Engineer determine that the specified density is not being obtained, the area must be re-excavated and backfilled at the Contractor's own cost until the required compaction density is achieved.

(C) Delete from **Subsection 4.06.3**, the seventh paragraph in its entirety:

Substitute the following:

Backfill shall proceed simultaneously with the withdrawal of sheeting but at no time shall the withdrawal of sheeting exceed a height of six (6) inches above the deposited backfill. Withdrawal of sheeting below levels previously backfilled and compacted is prohibited.

(14) **Refer to Section 5.02 - Laying Ductile Iron Pipe And Fittings, Subsection 5.02.3(F) - Bedding And Foundation Of Pipes, Page V-8:**

Delete from **Subsection 5.02.3(F)**, Paragraph (5) - Pier And Plate, in its entirety:

Substitute the following new Paragraph (5):

- (5) **Shallow Cover:** Where mains 24-inches and smaller are laid with covers of 2'-0" or less, the Contractor shall provide protection in accordance with **Standard Drawing No. 42063-Y** or as directed by the Engineer.

Where mains 24-inches and smaller are laid with covers between 2'-6" and 2'-0", the Contractor shall provide steel plates only over the main with dimensions as shown on **Standard Drawing No. 46464-Z** or as directed by the Engineer.

Where mains 30-inches and larger are laid with covers of 2'-6" or less, the Contractor shall provide protection in accordance with **Standard Drawing No. 46464-Z** or as directed by the Engineer.

Covers over the new mains shall not be less than 1'-6".

(15) **Refer to Section 5.02 - Laying Ductile Iron Pipe And Fittings, Subsection 5.02.3 - Construction Methods, Paragraph (M) - Laying Temporary Connections, Page V-12:**

Delete Paragraph (M), in its entirety:

Substitute the following:

(M) **LAYING TEMPORARY CONNECTIONS AND INSTALLING TEMPORARY CAP ASSEMBLIES AND/OR BULKHEADS**

- (1) When new water mains are laid and it becomes necessary to provide a temporary connection between the existing main and new mains laid under this contract (regardless of whether the new and existing water mains are in the same trench or are offset in two different trenches), the Contractor shall, if ordered, provide all labor, equipment and facilities for laying, maintaining and removing when directed, temporary connections and appurtenances. If City forces do laying of temporary connections, the Contractor shall make all required equipment and facilities available to them. No payment will be made for providing temporary house services which may be required when making a temporary connection between the existing and new main.
- (2) (a) Temporary cap assemblies on distribution water mains (20" and less in diameter) shall consist of a 2-foot long spigot/spigot ductile iron pipe with a mechanical joint cap restrained to the pipe with a "wedge-type" retainer gland and a minimum 2-inch tap on the pipe section.
- (b) Temporary cap assemblies on distribution water mains (20" and less in diameter) shall be restrained and braced in a manner sufficient to support system working pressures, and thrust forces.
- (c) The 2-inch tap required as part of the temporary cap assembly is to be utilized to allow air to escape while filling the main in addition to allow for proper flushing of the main.
- (d) Restraint and bracing as well as temporary cap assemblies/bulkheads for water mains greater than 20" in diameter shall be submitted for approval by the Engineer prior to being utilized.

(16) **Refer to Section 5.02 - Laying Ductile Iron Pipe And Fittings, Subsection 5.02.5 - Price To Cover, Paragraph (10), Page V-16:**

Delete Paragraph (10), in its entirety:

Substitute the following:

- (10)(a) No separate or additional payment will be made to the Contractor for furnishing, delivering, installing, restraining, bracing and removing temporary cap assemblies/bulkheads for water mains as ordered by the Engineer. The costs thereof shall be deemed included in the unit prices bid for all items of the contract.
- (b) Payment for temporary valves (i.e. construction valves) and its associated fittings ordered by the Engineer during the course of the work to be installed will be paid for at the same rates as for valves and fittings permanently installed.
- (c) If ordered by the Engineer, removal of valves (i.e. construction valves) and its associated fittings, including their transfer and disposal shall be deemed included in the prices bid for all items of the contract. No separate or additional payment will be made for this work.
- (d) **Payment For Temporary Connections:** When new mains are laid and it becomes necessary to provide a temporary connection between the existing and new mains the following method of payment shall apply: The Contractor shall be paid once for furnishing and delivering pipes and fittings used in temporary connections. The Contractor shall also be paid for laying the temporary pipe connection and fitting using the appropriate pipe laying item for each time that the Contractor is directed to use them throughout the project as directed by the Engineer.

(17) **Refer to Subsection 5.04.4 - Furnishing, Delivering And Installing Steel Tee**, Paragraph (5), Item Numbers list, Page V-23:

Delete Item No. "60.23ST20T48", together with Description "FURNISHING, DELIVERING AND INSTALLING 48-INCH X 20-INCH STEEL TEE", and Pay Unit "EACH":

(18) **Refer to Section 5.05 - Furnishing And Delivering Gate Valves**, Page V-35:

(A) **Delete** from **Subsection 5.05.1 - Description**, the first paragraph in its entirety:
Substitute the following:

This specification describes furnishing and delivering of double disc 3-inch to 20-inch gate valves, resilient seated 3-inch to 20-inch gate valves and resilient seated 3-inch to 12-inch tapping valves.

Unless otherwise specified in the contract documents or ordered in writing by the Engineer, only resilient seated gate valves and tapping valves shall be furnished and delivered by the Contractor on the contract.

(B) **Delete** from **Subsection 5.05.2 - Materials**, second paragraph, first line, the words, "6-inch hydrant":
Substitute the following words, "3-inch to 20-inch":

(19) **Refer to Section 5.06 - Setting Gate Valves**, Page V-38:

(A) **Delete** from **Subsection 5.06.1 - Description**, the first paragraph in its entirety:
Substitute the following:

This specification describes the installation of double disc 3-inch to 20-inch gate valves, resilient seated 3-inch to 20-inch gate valves and resilient seated 3-inch to 12-inch tapping valves. It also describes the installing of manhole frames (skirts and heads) and covers.

Unless otherwise specified in the contract documents or ordered in writing by the Engineer, only resilient seated gate valves and tapping valves shall be installed by the Contractor on the contract.

(B) **Delete** from **Subsection 5.06.2 - Materials**, second paragraph, first line, the words, "6-inch hydrant":

Substitute the following words, "3-inch to 20-inch":

(20) Refer to Section 5.23 - Decking, Subsection 5.23.1 - Description, Page V-73:

Delete from Subsection 5.23.1, the third paragraph in its entirety:

Substitute the following:

Steel plates that are resting on pavement, that are not part of a decking system, and are used to temporarily span trenches and excavations for vehicular traffic and for pedestrian crossings and walkways shall not be included for payment under this decking section. The cost of all labor, materials, equipment, insurance and incidentals necessary to furnish, place, anchor and ramp these temporary steel plates, when and where directed, in order to comply with the requirements of the NYCDOT Office of Construction Mitigation and Coordination (OCMC) traffic stipulations, the directions of the Engineer, and the Contractor's construction operations shall be deemed included in the prices bid for all contract items of work.

(21) Refer to Section 5.23 - Decking, Subsection 5.23.4 - Design Criteria, Page V-74:

Add the following to Subsection 5.23.4:

(C) The Contractor may substitute skid resistant steel plates (Non-Skid Textured Plates) for timber mats, subject to approval in accordance with Subsection 4.05.5. These steel plates shall be placed flush with the existing roadway and shall be installed in compliance with the requirements of Subsection 4.05.6(G).

(22) Refer to Subsection 5.32.4 - Specific Pavement Restoration Provisions, Page V-101:

Add the following to Subsection 5.32.4:

(E) Specific Pavement Restoration Provisions:

- (1) In 9th Avenue from a point approximately one hundred (100) feet north of the north building line of W. 31st Street to a point approximately one hundred fifteen (115) feet south of the south building line of W. 29th Street; W. 30th Street from a point approximately sixty (60) feet east of the east building line of 10th Avenue to the west building line of 9th Avenue; W. 30th Street from east building line of 9th Avenue to a point approximately sixty (60) feet east of the east building line of 9th Avenue; W. 29th Street from a point approximately sixty-five (65) feet west of the west building line of 10th Avenue to the west building line of 9th Avenue; W. 29th Street from east building line of 9th Avenue to a point approximately seventy (70) feet east of the east building line of 9th Avenue; and, 10th Avenue from a point approximately sixty (60) feet south of the south building line of W. 28th Street to the south building line of W. 30th Street, the permanent pavement restoration shall be as follows:
 - (a) The entire width of roadway shall be removed from curb to curb and the permanent restoration over the entire width of roadway shall consist of a top course of three (3) inches of asphaltic concrete wearing course on a base course of nine (9) inches of high-early strength concrete as directed by the Engineer. New curbs and sidewalks shall be constructed where and as directed by the Engineer
- (2) In W. 31st Street from east building line of 10th Avenue to west building line of 9th Avenue; W. 31st Street from east building line of 9th Avenue to a point approximately sixty-five (65) feet east of the east building line of 9th Avenue; W. 28th Street from approximately fifty (50) feet east of the east building line of 10th Avenue to the east building line of 10th Avenue; and W. 28th Street from the west building line of 10th Avenue to approximately forty (40) feet west of the west building line of 10th Avenue, the permanent pavement restoration shall be as follows:

- (a) The permanent restoration over the **trench width and cutbacks only** shall consist of a top course of one and one-half (1-1/2) inches of binder mixture on a base course of a minimum of four and one-half (4-1/2) inches of binder mixture, or a top course of a minimum of three (3) inches of binder mixture on a base course of a minimum of six (6) inches of high-early strength concrete, to match the existing pavement as directed by the Engineer.
- (b) Finally an overlay of two (2) inches of asphaltic concrete wearing course shall be installed over the entire width of the roadway from **curb to curb** or **edge to edge** of existing roadway.
- (3) In areas specified in paragraphs (1) and (2) above, where Extra-High-Early Strength Concrete is ordered in writing by the Engineer, at the Engineer's sole discretion, as a substitute for high-early strength concrete base the Contractor shall install such as the permanent concrete base as directed by the Engineer.
- (4) The following requirements shall 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 5.30 - Pavement Excavation** of both the Standard Sewer Specifications and the Standard Water Main Specification.
- (c) At locations requiring the installation of a concrete base course, a reflective cracking membrane shall be installed over joints prior to restoration. 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 tack coating, eradication of temporary roadway markings, stripping or milling of pavements and pavement keys and adjustment of city-owned castings 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 permanent placement of 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>Item No.</u>	<u>Item</u>	<u>Payment Description</u>
4.02 AF-R	Asphaltic Concrete Wearing	(For 2" asphaltic concrete wearing course

4.02 CA	Course, 3" Thick Binder Mixture	for entire width of roadway restoration.) (For binder mixture base course over trenches and cutbacks; 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.)
4.04 HD	Concrete Base For Pavement, 9" Thick (High-Early Strength)	(For concrete base course for entire width of roadway restoration.)
4.05 AX	High Early Strength Reinforced Concrete Pavement (Bus Stops)	(For reinforced concrete pavement at bus stops.)
6.97 A	Extra-High-Early Strength Concrete	(For concrete base course over trenches and cutbacks where ordered; and for entire width of roadway restoration where ordered.)

(23) Refer to Section 5.36 - Additional Earth Excavation Including Test Pits, Subsection 5.36.4 - Price To Cover, Paragraph (3), fifth line, Page V-114:
Change 16", to 16'.

E. SPECIAL PROVISIONS

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

- (A) **LINES AND GRADES:** The Contractor shall furnish lines and grades in accordance with **Subsection 1.06.27** of the Standard Highway Specifications, except that survey controls established for this project may no longer exist and the Contractor shall be required to re-establish the survey control information using official Borough Survey Control Monuments and Bench Marks, where they exist. The Contractor shall check with Topographic Section of the Borough President's Office as to the reliability and accuracy of the data to be used for lines and grades.
- (B) **SPECIFIC TRAFFIC STIPULATIONS:** Under this contract, the Contractor shall perform the work in strict accordance with the requirements of **Subsection 1.06.44** and **Section 6.70** of the Standard Highway Specifications, specific traffic stipulations as called for on the contract drawings, OCMC Traffic Stipulations attached to the end of this Addendum, and the directions of the Engineer. In case of a conflict, the Engineer's decision shall be final.

In additions, as the first order of work, the Contractor must complete the work of furnishing and installing complete dome CCTV camera systems on City-owned utility poles, under Item No. T-93000, prior to the start of any other work which may restrict the flow of traffic, unless otherwise permitted by the Engineer.

- (C) **HOLIDAY EMBARGO:** A special construction embargo may be in effect on the Friday of the week preceding Thanksgiving Day week from 6:00 AM to 11:59 PM and again from the Monday of Thanksgiving Day week from 6:00 AM through January 2, at 11:59 PM. Street and sidewalk construction will be restricted from 6:00 AM to midnight during the upcoming holiday season on the roadways listed below*. Any permits issued prior to the date of this notice for work in the areas listed for the Holiday Embargo which do not already have the Embargo Waiver traffic stipulation "410" are hereby voided for the period of Friday of the week preceding Thanksgiving Day week at 6:00 AM through January 2, at 11:59 PM. The permits will be in effect again on January 3. All permittees must comply with this embargo unless a special waiver is granted by OCMC. Waiver requests must be filed at least thirteen days before Thanksgiving Day, with the Permit Office by filing a "Request for Roadway/Sidewalk Permits During Embargo Periods" with supporting documentation. Work may only occur from 12:01 AM to 6:00 AM with the issuance of the necessary permits, no Embargo Waiver request is needed for work during these times. Waiver requests should only be submitted for critical reasons for a specific project. If a waiver is granted, you will be notified to apply for the approved permits. Necessary measures must be taken to ensure that all streets and sidewalks are in proper condition to allow for the expeditious and safe movement of vehicular and pedestrian traffic. OCMC will also impose similar restrictions on public utilities and private contractors for those roadways that are listed below by borough. Tool carts, cable reels, containers, and material stored on roadways must be removed during the embargo period. Utility cover openings are prohibited on roadways noted below between the hours of 6:00 AM and midnight unless the utility or Contractor can prove an emergency exists.

Temporary restoration of the streets and sidewalks and removal thereof, if required for the Holiday Embargo period, will be paid for under the appropriate scheduled items.

No extension of time due to the shutdown period will be granted to the Contractor for completion of the work.

Please note that this embargo only applies to NYCDOT construction permits.

* For the list of Holiday Construction Embargo locations and maps for each Borough, see the following web site: <http://www.nyc.gov/html/dot/html/motorist/trafart.shtm>

- (D) **9/11 EMBARGO:** In order to facilitate the movement of vehicles and pedestrians on the 9/11 Memorial Day, the City reserves the right to shut down the project and the restrictions specified under **Article C - HOLIDAY EMBARGO**, above, shall apply to all work performed under this contract starting from 12:01 AM of the Saturday before September 11 through 11:59 PM September 11.

The Contractor will be granted an extension of time, for the completion of the work, equal to the duration of the ordered shut-down.

- (E) **SPECIAL EVENT CONSTRUCTION EMBARGO:** The Contractor is notified that a "SPECIAL EVENT CONSTRUCTION EMBARGO" will be in effect for all the locations included in this project. The Contractor is prohibited from working during any special events, festivals, street fairs, parades, etc., including relocation of storage areas, as directed by the **NYCDOT, Bureau of Permit Management and Construction Control - Office of Special Events**, and must make safe the area as directed and/or ordered by the Engineer and must comply with the event categories and stipulations as listed below:

Event Categories And Stipulations:

- (1) Street Fairs/Festivals:
 - (a) All excavations must be plated with skid resistant plates.
 - (b) Plates must be recessed and flush with pavement.
 - (c) All pavement defects must be corrected within or adjacent to work zone.
 - (d) The Contractor is responsible for any defects within the immediate vicinity if DOT Street and Arterial Maintenance cannot make repairs due to project interference. (As determined by DOT).
 - (e) All equipment, trailers and material storage must be removed.
- (2) Running/Walking/Biking:
 - (a) All excavations must be backfilled and paved or plates must be recessed and paved over flush with pavement.
 - (b) All pavement defects must be corrected within or adjacent to work zone.
 - (c) The Contractor is responsible for any defects within the immediate vicinity if DOT Street and Arterial Maintenance cannot make repairs due to project interference. (As determined by DOT).
 - (d) All equipment, trailers and material storage must be removed.
- (3) Parades:
 - (a) All excavations must be backfilled and paved or plates need to be recessed and paved over flush with pavement.
 - (b) Formation & dispersal areas plates must be recessed and flush with pavement. (Plates must be skid resistant)
 - (c) All pavement defects must be corrected within or adjacent to work zone.
 - (d) The Contractor is responsible for any defects within the immediate vicinity if DOT Street and Arterial Maintenance cannot make repairs due to project interference. (As determined by DOT).
 - (e) All equipment, trailers and material storage must be removed.
- (4) Mayoral:
 - (a) All excavations must be backfilled and paved or plates need to be recessed and paved over flush with pavement.
 - (b) All pavement defects must be corrected within or adjacent to work zone.
 - (c) The Contractor is responsible for any defects within the immediate vicinity if DOT Street and Arterial Maintenance cannot make repairs due to project interference. (As determined by DOT).
 - (d) All equipment, trailers and material storage must be removed.

All work for temporary restoration of the streets and sidewalks and removal thereof, if and as required for the "SPECIAL EVENT CONSTRUCTION EMBARGO" period, will be paid to the Contractor under the appropriate scheduled items. There will be no additional payment for the removal and storage of equipment, trailers and material etc., as ordered.

The Contractor shall acquire a copy of the latest **Special Events Schedule/Calendar** that is available at the **NYCDOT - Office of Special Events**.

- (F) **DISPOSAL OF EXCESS EXCAVATED MATERIAL:** All excess excavated material, with the exception of contaminated material, shall become the property of the Contractor and shall be properly disposed of away from the site, at the Contractor's expense. Contaminated material shall be disposed of separately in accordance with contract requirements.
- (G) **CONTRACT ITEMS THAT INCLUDE BACKFILL AS A PART OF THEIR WORK:** The following shall pertain to all contract items that have backfill as a part of their work: Backfilling shall comply with **Subsection 4.11.3** of the Standard Highway Specifications and no additional payment will be made for any Highway or Street Lighting work item requiring Contractor to furnish additional fill material to meet these requirements when backfilling.
- (H) **SCHEDULING PRESENTATION:** The Contractor shall submit construction schedule in the form of a bar chart using "Microsoft Project 2003" or latest version, or in an approved equivalent program which shall be directly and fully translatable into Microsoft Project 2003 format, within seven days of the initial Pre-Construction Meeting. Each bar in the chart shall show dates the Contractor contract drawings to start and complete each construction activity after the initial Pre-Construction Meeting. Bar chart shall show the order and interdependence of all activities necessary to complete the work and the sequence in which activity is to be accomplished as planned by the Contractor and in accordance with all subcontractors or suppliers whose work shall be shown on the bar chart. The Contractor shall submit the bar chart for the Engineer's review and revise it, if required, until approved by the Engineer.

The Contractor shall submit weekly progress status update reports or as otherwise directed by the Engineer. The Contractor shall submit updated bar chart every month. The revised bar chart shall be made in the same form and detail as the original submittal and shall be accompanied by an explanation of the reasons for the revisions all of which shall be subject to approval by the Engineer.

- (I) **ACCELERATED PROJECT SCHEDULE AND COMBINATION OF STAGES:** Contractor shall plan and/or stage the Contractor's work schedule using all hours/days available. Contractor is advised that all applicable unit prices shall include, for the purpose of this contract, all overtime costs, premium time costs, shift differentials required to complete construction within the specified "Time(s) of Completion" stipulated in this contract.

Contractor shall be permitted to accelerate this project, to combine stages and/or work sequences. Any such changes shall be shown in the construction schedule, to be furnished in accordance with the General Provisions of the Standard Highway Specifications and the above "SCHEDULING PRESENTATION" Article, and shall be submitted for approval of the Engineer.

- (J) **NOISE CONTROL:** The Contractor is directed to Title 24, Chapter 2 of the Administration Code of the City of New York, known as the "New York City Noise Code" by the Department of Environmental Protection. The provisions of this code and its most recent additions and revisions shall apply to this contract. In the event of a conflict between the requirements of the New York City Noise Code and the requirements of Noise Control contained in these special notes, the more stringent of the two shall apply.

The Contractor shall plan and carry out work on this Project to ensure that the noise from construction equipment and activities does not exceed the limits specified herein. The noise abatement operations and conditions specified shall be carried out by the Contractor to limit noise in project and adjacent areas. The Contractor shall conduct a continuous educational effort for the workers on the site to ensure that they are aware of their roles in minimizing noise propagating from the site.

In order to monitor noise abatement operations the Contractor shall employ services of "Noise Control Specialist" for the duration of construction activity. The Contractor shall submit qualifications and experience of the prospective specialist/firm to the Engineer for prior approval. The specialist/firm must satisfy the eligibility requirements of qualifications and work experience as required by the NYCDEP.

The monitoring protocol shall be as follows:

- (a) There shall be one (1) outdoor and one (1) indoor monitoring station for each work area or 1,000-foot of street length whichever is less.
- (b) Monitoring of noise level shall be done prior to start of construction and during construction for each station at the same work hours specified in the contract.
- (c) Locations of monitoring stations shall be recommended by the noise control specialist for approval of the Engineer.
- (d) Engineer shall provide indoor station locations to the Contractor after ascertaining availability of the said station from the Community Board.

Should the Contractor fail to carry out the noise abatement operations and conditions specified herein, the Engineer shall have the authority to suspend all work until such time as the Engineer deems that the Contractor has complied with the requirements.

The following additional requirements for noise control shall apply to this contract:

- (1) Noise Level Requirements For Construction Equipment:
 - (a) The Contractor shall ensure that all Contractor and Subcontractor equipment, of the types listed in Table A to be used on-site for a total duration greater than 5-days, shall be tested for compliance with the stated noise emission limits during the first day of use on the construction site or at an alternative site acceptable to the Engineer.
 - (b) All equipment as described in (a) above shall be retested at 6-month intervals while in use on site.
 - (c) All compliance tests shall be performed by the Contractor.
 - (d) For each piece of equipment tested, the Contractor shall provide a noise report to the Engineer as shown in Figure A.
 - (e) Equipment of the types listed in Table A, as described above, shall not be used on-site without valid certificates of noise compliance.
 - (f) The Contractor shall provide to the Engineer two (2) noise meters meeting the requirements of Paragraph (2)(d) herein. Two (2) acoustic calibrators of the type recommended by the meter manufacturer shall also be provided.

TABLE A

CONSTRUCTION EQUIPMENT NOISE EMISSION LIMITS:
MEASURED AT 50-FEET FROM CONSTRUCTION EQUIPMENT

<u>Equipment Category</u>	<u>Noise Level, dBA(SLOW)</u>
Auger	83
Backhoe	80

ADDENDUM NO. 2**PROJECT ID.: MED598B**

Bar Bender	80
Cherry Picker	80
Chain Saw	86
Compactor	80
Compressor	70
Concrete Mixer	86
Concrete Pump	82
Concrete or Diamond Saw	90
Crane	86
Crawler Miller	90
Dozer	86
Front End Loader	80
Generator	82
Gradall	86
Grader	86
Jackhammer	88
Man Lift	80
Mounted Impact Hammer	95
Paver	86
Pneumatic Tools	86
Roller	80
Scraper	86
Shotcrete Liner (tire-mounted)	79
Striper (walk-behind)	80
Tractor	84
Traffic Line Remover	80
Truck (including truck-mounted equipment)	84
Vibrator	80
Vibratory Pile Driver	95
All Other Equipment with Engines Larger than 3750W	86
Impact Pile Driver	105-dBC(FAST)

FIGURE A

CERTIFICATE OF EQUIPMENT NOISE COMPLIANCE

Contractor Name: _____
Contract Name & Number: _____

Equipment Type: _____
Manufacturer & Model Number: _____
Identification Number: _____
Rated Power & Capacity: _____
Operating Condition During Test: _____

Measured Sound Levels at 6 to 15-meters:

Measured Values and Distance:

Engine-Powered or Concrete-Breaking Equipment:
Right Side: _____ dBA(SLOW), at _____ meters
Left Side: _____ dBA(SLOW), at _____ meters

Impact Pile Driving Equipment:
Right Side: _____ dBC(FAST), at _____ meters
Left Side: _____ dBC(FAST), at _____ meters

Equivalent Values at 50-Foot Distance:

Engine-Powered or Concrete-Breaking Equipment:
Right Side: _____ dBA(SLOW).
Left Side: _____ dBA(SLOW).

Impact Pile Driving Equipment:
Right Side: _____ dBC(FAST).
Left Side: _____ dBC(FAST).

Maximum Values Allowed for this Equipment: _____ dBA(SLOW) at 15-meters
_____ dBC(FAST) at 15-meters

If equipment sound level exceeds maximum value allowed, indicate action taken to achieve compliance:

Name, Work Address & Phone No. _____
of NYSDOT Inspector _____

Authorized Signature: _____ Date: _____

CONTRACTOR'S ACCEPTANCE: _____ Date: _____

(2) Noise Level Test Procedures Of Construction Equipment:

- (a) All engine-powered equipment shall be operated by the Contractor or Contractor's representative at high idle (maximum governed rpm) under full load conditions during the tests.
- (b) Portable and mounted impact hammers, such as hoe rams and jackhammers to be used to concrete breaking, shall be tested during the first day of actual operation at the construction site under maximum load conditions as rated by the equipment manufacturer.
- (c) Pile driving equipment shall be tested at the construction site under maximum load conditions as rated by the manufacturer.
- (d) All noise certification measurements shall be performed with an instrument that is in compliance with the criteria for a Type 1 (Precision) or Type 2 (General Purpose) Sound Level Meter as defined in the current revision of ANSI Standard S1.4. An acoustic calibrator of the type recommended by the sound level meter manufacturer shall be used prior to all measurements.
- (e) If possible, measurements shall be made at 50-feet (± 1.5 -feet) from the right and left sides of the equipment casing, at a height of 5-feet above ground level, with the equipment operating as indicated in items (a), (b) or (c) above for a minimum period of 1-minute. Measurements made at less than 50-feet, because of space limitations at the test site, shall be reduced by the values given in Table B to estimate the 50-foot sound level.

TABLE B

ADJUSTMENTS FOR CLOSE-IN EQUIPMENT NOISE MEASUREMENTS

<u>Distance (Feet)</u>	<u>Measurement Values to be Subtracted from Measured Sound Level to Estimate Sound Level at 50-Feet (dBA)</u>
20 to under 21	8
21 to under 23	7
23 to under 26	6
26 to under 29	5
29 to under 33	4
33 to under 37	3
37 to under 41	2
41 to under 47	1
47 to under 50	0

(3) Compliance With Equipment Noise Level Requirements:

- (a) The Engineer shall retain a copy of the noise report from the Contractor with each piece of equipment used on the project of the types listed in Table A. The report shall be on the form shown in Figure A with certification by the noise control specialist hired by the Contractor that equipment noise emissions do not exceed those prescribed.
- (b) If the noise levels obtained during the tests exceed those specified in Table A the Contractor shall promptly modify or alter such equipment and retest, or substitute other equipment to meet the noise level requirements.
- (c) Upon compliance, (including the certification date and equipment identification number) the Engineer will keep the noise reports readily available on file in the Construction field office for inspection upon request.

- (d) The Certification of Noise Compliance will remain valid for a period of 6-months only. Delays caused by certification refusal or by time lost in improving the rejected equipment or finding alternate acceptable equipment shall not be a basis for any monetary or time delay claims or for avoidance of late completion penalties.
 - (e) All equipment shall be subject to spot noise level testing by the Engineer at the Engineer's discretion as necessary to determine that the equipment in use meets the requirements specified in Table A. For this purpose, the Contractor shall furnish noise-measurement instrumentation that complies with the standards specified in **Paragraph (2)(d)**. If such tests are requested by the Engineer, the Contractor shall locate and operate the equipment as directed by the Engineer so as to facilitate the measurements. The Engineer shall provide the Contractor with a copy of the results of the measurements. If such tests demonstrate that any equipment does not comply with the requirements specified in Table A, its Certificate of Noise Compliance shall be revoke and equipment shall be taken out of use until compliance is achieved. A new Certificate of Noise Compliance will then be issued.
- (4) Construction Noise Level Exposure Limits:
- (a) In no case shall the public be exposed to construction noise levels exceeding 100-dBA (SLOW) or to impulsive noise levels exceeding 125-dBC (FAST).
 - (b) Construction activities shall be conducted in such a manner that the equivalent noise level (Leq) over any one-hour period does not exceed 85-dBA at any noise-sensitive locations (e.g. residence and hotels).
- (5) Construction Noise Level Exposure Test Procedures:
- (a) All noise exposure measurements will be performed with an integrating sound level meter. An acoustic calibrator will be used prior to all measurements.
 - (b) The measurement microphone of the sound level meter shall be fitted with an appropriate windscreen, and will be located 1.5-meters above the ground and at least 5-feet away from the nearest sound-reflective surface for the tests.
 - (c) Noise exposure measurements will be taken at noise-sensitive locations closest to the construction activities at least once each week and as dictated by construction activities. Measurement periods at each location shall be a minimum of one (1) hour.
 - (d) Construction noise exposure measurements will coincide with periods of maximum noise-generating construction activity, and will be performed during the construction phase or activity that the greatest potential to create annoyance or to exceed the noise exposure limits.
- (6) Compliance With Construction Noise Level Exposure Limits:
- (a) Construction noise exposure data will be collected by the Contractor on a weekly basis. The noise report will include:
 - (1) a sketch indicating the locations of the measurements and of all nearby construction equipment operating during the measurement period,
 - (2) the measured maximum A-weighted noise level at each location, in terms of dBA (SLOW),
 - (3) the measured maximum C-weighted noise level, in terms of dBC (FAST), and,
 - (4) the measured one-hour Leq (in dBA).
 - (b) In the event that the measured noise levels exceed the limits specified in **Paragraph (4)** above, the Engineer will immediately notify the Contractor and the Contractor shall implement corrective actions as directed by the Engineer.

- (c) All construction activities will be subject to spot noise level testing by the Engineer at the Engineer's discretion as necessary to determine that the noise levels meet the exposure limits specified in **Paragraph (4)** above. If such tests demonstrate that the noise levels exceed the specified limits, the Contractor shall implement corrective actions as directed by the Engineer.
- (7) General Requirements For Construction Equipment Noise Control:
- (a) The Contractor shall minimize the use of impact devices, such as jackhammers, pavement breakers, and hoe rams. Where possible, concrete crushers or pavement saws shall be used rather than hoe rams for tasks such as grillage removal and pavement demolition.
 - (b) All pneumatic impact tools and equipment used at the construction site shall have intake and exhaust mufflers recommended by the manufacturers thereof, to meet relevant noise ordinance limitations.
 - (c) All impact devices (i.e. jackhammers and pavement breakers) shall be equipped with acoustically attenuating shields or shrouds recommended by the manufacturers thereof, to meet relevant noise ordinance limitations.
 - (d) Hoppers, conveyors transfer points, storage bins, and chutes shall be lined or covered with sound-deadening material.
 - (e) The Contractor shall minimize the use of air or gasoline-driven hand tools.
 - (f) All other equipment, including internal combustion engines, shall have mufflers and shield paneling recommended by the manufacturers thereof.
- (8) General Operational Requirements For Construction Noise Control:
- (a) The Contractor shall operate equipment so as to minimize banging, clattering, buzzing, and other annoying types of noises, especially near noise-sensitive locations.
 - (b) The Contractor, to the extent feasible, shall configure the construction site in a manner that keeps noisier equipment and activities as far as possible from noise-sensitive locations and nearby buildings.
 - (c) The Contractor shall minimize noise from the use of backup alarms near residential buildings by using self-adjusting, ambient noise-sensitive backup alarms that meet OSHA regulations.
 - (d) In no case shall the above restrictions limit the Contractor's responsibility for compliance with all applicable Federal, state and local safety ordinances and regulations and other sections of these construction specifications.
- (9) Acoustic Shed Requirements:
- (a) All noise-generating mechanical equipment that is operated by the Contractor at any time other than weekdays between the hours of 7:00 AM and 6:00 PM shall be enclosed within an acoustic shed. Such equipment includes, but is not limited to, generators for traffic sign boards and lighting.
 - (b) Acoustic sheds shall consist of three-sided, closed-top enclosures, oriented such that the open end of the shed faces away from residential or hotel buildings.
 - (c) The shed shall be constructed of 0.5-inch plywood sheathing, or other acceptable material weighing at least 1.5-pounds per square foot, on timber framing with no gaps at joints or corners. Gaps between the bottom edge of the shed panels and the ground shall not exceed 1-inch in width and shall be closed off with solid strips of rubber, neoprene or other suitably dense material.

- (d) The inside of the shed shall be lined with glass fiber or mineral wool type sound-absorbing material at least 2-inches thick, protected by wire mesh or perforated sheets that have at least 30-percent open area.

(10) Cost Of Work:

- (a) The cost of all labor, materials, equipment, insurance necessary for noise abatement measures as described in this section, any necessary modifications of construction methods or equipment and any delays to construction due to work suspension due to non-compliance with noise control requirements or due to necessary modifications to construction methods for compliance with the noise control requirements is deemed included in the prices bid for the items of work for which the equipment is used.

- (K) UNDER-SIDEWALK VAULTS. The Contractor is hereby advised that under-sidewalk vaults may be present in both sidewalk and roadway areas within the project limits. Where Contractor claims any locations cannot be completed because of vaults, the Contractor should indicate by which method the Contractor has determined vault interference and provide that information to the Engineer.

Prior to any sidewalk excavation, the Contractor shall be responsible to verify the existence of under-sidewalk vaults. The Contractor shall perform visual sidewalk reconnaissance; search for and examine record drawings; gain access to cellars and obtain measurements within vaults; and perform sub-surface radar examination or use other non-destructive methods to locate possible vault structures. Where these above methods of verification are not available to the Contractor, the Contractor shall then be required to locate the vault envelopes and their roof depth below finished sidewalk grade by drilling holes (at no direct payment), or by Test Pits, under Item No. 9.00 C, as directed by the Engineer.

The Contractor shall be liable for any damage to the under-sidewalk building vaults and/or its contents and/or occupants due to the Contractor's failure to verify the pre-existing vault condition.

Vault records may be available from the following (or other) sources:

- (A) DEPARTMENT OF TRANSPORTATION, BUREAU OF HIGHWAY OPERATIONS, PERMIT SECTION, 55 WATER STREET, CONCOURSE LEVEL, NEW YORK, NEW YORK 10041
- (B) NEW YORK CITY DEPARTMENT OF BUILDINGS
- (C) NEW YORK CITY BUREAU OF FRANCHISES

Where vault roofs are determined to interfere with construction of standard pedestrian ramps, the Engineer's may approve for construction of, or installation of, non-standard pedestrian ramps, which may include relocation of ramps and/or partial roadway ramps.

An overall field sketch of each corner suspected of having a vault, along with at least one photograph (3" x 3" minimum) of each location, and the results of the Contractor's investigation shall be furnished by the Contractor to the Engineer for review at least ten (10) working days prior to start of work at that respective corner. Said photographs shall be in addition to those required under the contract. Each field sketch shall show measurements of affected areas of vaults, the building line as a reference guide which can be employed to indicate the vault envelope in the sidewalk, the boundaries of the underground structures, curb reveals, and location of proposed pedestrian ramps. No additional payment is to be made for this overall sketch.

Any vault structures punctured by the Contractor's operations shall be repaired by the Contractor to match the existing structure. Said hole in vault structures shall be temporarily repaired with an approved epoxy mortar, or securely steel plated if permanent repairs are not completed prior to the end of that same working day. No holes in vault roofs shall be left unattended at any time.

The Contractor shall also be responsible to replace damaged water proofing directly over vault roofs at the Contractor's own expense.

- (L) NO EXTENSION OF TIME FOR WINTER SHUT-DOWN: Where the Contractor's approved work schedule for installing sidewalk, curb, roadway base and/or pavement falls within the winter period of December 1st through April 1st, the Contractor will NOT be granted an extension of time for completion of this contract due to the winter shut-down period.
- (M) No Text
- (N) CONTRACTOR TO NOTIFY: No Text
- (O) START OF CONTRACT WORK: The Contractor is notified that it is the intent of this Agency to commence work promptly after registration of the contract and to order the Contractor to commence work within two (2) months after registration.
- (P) VEHICLES. The Contractor shall be required to furnish one (1) vehicle to be used by New York City Department of Design and Construction (DDC) personnel as assigned by the Deputy Commissioner of the Department, during the life of the Contract. No direct payment will be made for the vehicle(s), or associated costs. All costs shall be deemed to be included in all scheduled items.

The Contracted vehicle(s) shall be a new small SUV hybrid vehicle as approved by DDC's Director of Fleet Administration; and shall be equipped with a standard equipment package, and meet the following minimum specification:

- (1) Engine: Manufacturer's Standard 4 cylinder.
- (2) Transmission: Automatic.
- (3) Drive: Manufacturer's Standard 4 wheel drive.
- (4) Steering: Power.
- (5) Air Conditioning.
- (6) Body: 4 Doors.
- (7) Color: Manufacturer's Standard White.
- (8) Mirror: Left and Right.
- (9) Radio: AM/FM.
- (10) Electric Rear Defogger.
- (11) Brakes: Anti-Lock.
- (12) Air Bag: Dual
- (13) Anti-theft device (optional).
- (14) Power Windows and Locks.
- (15) Two sets of keys.
- (16) GPS navigation.
- (17) Hands-free telecommunication technology.
- (18) Fire Extinguisher.
- (19) First Aid Kit.
- (20) Any additional equipment will not be accepted by DDC.

The Contractor shall provide fuel, oil, proper maintenance, tires and replacement parts, to keep the vehicle(s) in a safe operating condition, and shall undertake all repairs, including repairs arising from vandalism, accidents, or other damages. A Gas Company Card shall be furnished with each vehicle for fueling purposes. In the event that any vehicle requires maintenance or repairs which cannot be completed the same day, a comparable replacement vehicle shall be provided while the vehicle is out of service. If the vehicle is lost or stolen, the Contractor shall replace the vehicle within five (5) business days with a comparable vehicle.

The vehicle(s) shall be provided for the entire duration of this Contract, and shall be returned to the Contractor within thirty (30) days after final acceptance of work or twelve (12) months after substantial completion, whichever comes first. Contractor owned/leased vehicle(s) provided pursuant to this contract shall remain the property of the Contractor/Leaser throughout the contract period, and shall be registered in the City's name. If leased vehicles are provided, the Contractor shall obtain from the leasing company the necessary documents allowing the vehicle(s) to be registered as an official City

of New York vehicle(s). The Contractor shall provide insurance for vehicle(s) as set forth in Schedule "A".

Within five (5) business days of receipt of notice to provide specified vehicle(s), the Contractor shall make the vehicle(s) available for inspection by Fleet Administration. Upon determination by Fleet Administration that the vehicle(s) satisfy requirements, the Contractor shall make arrangements through DDC's Fleet Administration for delivery to the DDC. The Contractor shall submit to Fleet Administration a signed MV-82 Part 10 authorizing registration in the City's name together with, in the case of a previously unregistered vehicle, the manufacturer's certification of origin or, in the case of a currently registered vehicle, a copy of the title.

All required transmittals to Fleet Administration shall be made as follows:

Agency Fleet Administrator
NYC Department of Design and Construction
30 - 30 Thomson Avenue, 4th Floor
Long Island City, New York 11101
Telephone No.: (718) 391-1852

When vehicles are no longer required under this contract, as described above, they shall be de-registered by the City and promptly returned to the Contractor.

- (Q) PRICES TO INCLUDE: No direct payment will be made for costs incurred in complying with the foregoing Special Provisions, unless otherwise provided. Said costs will be deemed to have been included in the prices bid for all the scheduled contract items.



THE CITY OF NEW YORK Department of Sanitation

S. ELIZABETH SEARLE
Assistant Commissioner
for Legal Affairs

Bureau of Legal Affairs
44 Beaver Street
New York, NY 10004
Telephone (212) 637-9110
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Department of Sanitation Rules and Regulations Governing Non-Putrescible Solid Waste Transfer Stations

INTERPRETIVE MEMORANDUM # 2 February 14, 1995

*Subject: Temporary Storage and Processing of Construction and Demolition Debris
by New York City Agency Contractors*

Contractors performing construction work for New York City agencies may be required to excavate dirt, concrete, rock, gravel and similar materials ("construction materials") from a contract site or to remove from a contract site construction materials resulting from construction, demolition, alteration, repair or renovation of structures, streets or buildings. On street construction projects, construction materials required to be excavated or removed may also include asphalt. The purpose of this Interpretive Memorandum is to (a) define the circumstances under which the Department of Sanitation (the "Department") will not deem its Rules and Regulations Governing Non-Putrescible Solid Waste Transfer Stations (the "Rules") to apply to the temporary storage, processing and/or stockpiling (collectively, "stockpiling") of such construction materials and (b) the procedure for ensuring such exemption. It is the responsibility of the contracting agency to oversee its contractors' compliance with the Rules and with this Interpretive Memorandum.

1. When No Transfer Station Permit is Required

Where a City contractor has:

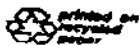
- (a) set aside an area of a contract site for stockpiling construction materials excavated from and/or intended for that site; or
- (b) received written approval from the contracting agency for an off-site stockpiling location,

the Department will not deem such stockpiling location a transfer station and will not require the contractor to obtain a transfer station permit so long as:

- (c) no construction materials or debris from off the contract site are received at the designated location for subsequent transfer to another location (other than the contract site); and
- (d) the temporary stockpiling location is clearly described as such in the contract or clearly approved by the construction agency and designated as such in writing to the Department by the agency; and
- (e) the construction agency represents in writing to the Department that such agency will monitor the temporary stockpiling location and ensure its clean-up and restoration pursuant to the procedures set out in this memorandum.



Help Reduce
New York's Waste.



Example: Street Construction Projects

As part of a contract for street construction, the contractor may be working at one end of a street and using an area at the other end of the street for the temporary stockpiling of construction materials. Both ends of the street are part of the construction contract site. In addition, the contractor may have leased an off-site location for temporary stockpiling of materials, which, following processing, will be reincorporated into the contract site, with some portion of the remainder designated for delivery to a Department disposal facility. Neither location will be regulated by the Department as a transfer station so long as the procedures set out in this memorandum are followed.

2. Procedure for Exception.

Upon a City construction agency's approval of any location to be designated as a temporary processing, storage or stockpiling area, that agency must determine that (a) its contract with the contractor provides for clean-up and restoration of such area by, for example, the contractor's posting of a restoration bond and/or by contractual set-off and (b) the agency has adequate procedures for monitoring the designated area to ensure that it does not violate the provisions set forth in this memorandum and that such location is cleaned up and restored at the completion of the contract work.

The City construction agency must submit an official letter to the Department acknowledging compliance with both (a) and (b) immediately above and representing that the agency will ensure the contractor's compliance. The letter to be submitted must be in substantially the following form, addressed to the Director, Bureau of Waste Disposal, Department of Sanitation, 125 Worth Street, Room 726, New York, NY 10013:

"The New York City Department of _____ (the "Agency")
has awarded a construction contract to _____ (Contractor)
_____ (the "Contractor") for work to be performed at _____ (Contract
Site) _____.

a. This Agency has approved the following locations to be used by the Contractor for the temporary storage, processing and/or stockpiling of construction materials (the "Stockpiling Locations") excavated from the construction site or intended for the construction site:

b. The terms of the contract require the Contractor to clean up and restore the Stockpiling Locations, whether on or off the contract site, at or before the completion of the contract work.

c. This Agency assumes responsibility for the monitoring of Stockpiling Locations to ensure that only materials received from and/or intended for the construction site are stockpiled at such locations and we will enforce clean-up and restoration of such Locations at the end of their use for temporary stockpiling or at the termination of the contract, whichever occurs earlier, through restoration

bonding requirements and/or contractual set-off provisions such that the costs of clean-up and restoration will not become a charge to the Department or the City. "

3. When a Transfer Station Permit is Required

A transfer station permit will be required under any circumstances other than those outlined above. Except in the specifically defined circumstances set forth in this memorandum, any operator of a location or facility which receives, processes, stores or stockpiles construction and demolition debris or fill material for purposes of transfer to another location, including to a New York City Department of Sanitation facility, and whether or not under contract to the Department for the delivery of such materials, will be fully subject to the Department's transfer station rules and liable for enforcement for violations.

END OF ADDENDUM NO. 2

This Addendum consists of eighty-three (83) pages plus thirty-one (31) pages of attachments.

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OCMC TRAFFIC STIPULATIONS

October 15, 2013

OCMC FILE NO: MEC-13-285
CONTRACT NO: MED-598B
PROJECT: TRUNK WATER MAINS IN WEST 30TH STREET BETWEEN 10TH AVENUE AND 9TH AVENUE, SHAFT 26B - PHASE B

LOCATION(S): 10TH AVENUE BETWEEN WEST 28TH STREET AND WEST 30TH STREET
9TH AVENUE BETWEEN WEST 28TH STREET AND WEST 33RD STREET
WEST 29TH STREET BETWEEN 11TH AVENUE AND 8TH AVENUE
WEST 30TH STREET BETWEEN 10TH AVENUE AND 8TH AVENUE
WEST 31ST STREET BETWEEN 10TH AVENUE AND 8TH AVENUE

PERMISSION IS HEREBY GRANTED TO THE NEW YORK CITY 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. EMBARGOES - A CONSTRUCTION EMBARGO WILL APPLY TO THOSE LOCATIONS BELOW WHICH FALL WITHIN THE HOLIDAY EMBARGO OR ANY OTHER SPECIAL EVENT EMBARGOES AS PUBLISHED BY THE BUREAU OF PERMIT MANAGEMENT AND CONSTRUCTION CONTROL.
2. BIKE LANES - IF WORK IS IN OR AFFECTING A BIKE LANE, THE CONTRACTOR MUST POST ADVANCE WARNING SIGNS 350 FEET AND 200 FEET PRIOR TO THE WORK ZONE STATING "CONSTRUCTION IN BIKE LANE AHEAD PROCEED WITH CAUTION".
3. BIKE SHARE STATIONS: 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. BUS STOPS - THE CONTRACTOR 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. STREET LIGHTS / TRAFFIC SIGNALS: 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 TMC@DOT.NYC.GOV AND AWAIT DIRECTION PRIOR TO CONTINUING WORK.
7. METERS - THE CONTRACTOR MAY NOT REMOVE OR RELOCATE PARKING METERS WITHOUT FIRST OBTAINING APPROVAL FROM NYCDOT PARKING METER DIVISION AT 718-894-8651.
8. TEST PITS - 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.

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- 10. **ACCESS TO ABUTTING PROPERTIES** – THE CONTRACTOR SHALL COORDINATE ALL ACTIVITIES WITH ABUTTING PROPERTY OWNERS TO ENSURE ACCESS IS PROVIDED TO/FROM ENTRANCES/DRIVEWAYS AT ALL TIMES.
- 11. **AUTHORIZED PARKING** – PRIOR TO PERFORMING WORK WHICH IMPACTS AUTHORIZED PARKING, THE CONTRACTOR 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.
- 12. **NOTIFICATION** – THE CONTRACTOR 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.
- 13. **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](http://www.nyc.gov/html/dot/downloads/pdf/dot_cpis_directions.pdf)

14. ENHANCED MITIGATIONS

- o **NYPD TRAFFIC AGENTS** ARE REQUIRED FOR THIS PROJECT: **5 POSTS PLUS RELIEF MONDAY TO FRIDAY ON POST FROM 7:00AM TO 10:00PM, AND SATURDAY AND SUNDAY ON POST FROM 8:00AM TO 10:00PM. AGENT POSTS SHALL BE AS FOLLOWS: 1 POST AT 9TH AVENUE AT WEST 31ST STREET, 2 POSTS AT 9TH AVENUE AT WEST 30TH STREET, 1 POST AT 9TH AVENUE AND WEST 29TH STREET, AND 1 POST AT 10TH AVENUE AT WEST 29TH STREET.**
- o **ENHANCED MITIGATIONS FOR PEDESTRIAN FLOW**, INCLUDING METAL FENCING, SHALL BE PROVIDED TO ENSURE PEDESTRIANS STAY WITHIN THEIR DESIGNATED PATH/ROUTE. FLAGGERS SHALL BE PROVIDED TO ASSIST WITH PEDESTRIANS AT THE DESIGNATED CROSSWALK AREAS. THESE FLAGGERS SHALL BE ASSIGNED TO THIS FUNCTION ONLY.
- o **VARIABLE MESSAGE SIGNS (VMS)** SHALL BE PROVIDED FOR THIS PROJECT. **A TOTAL OF FOUR (4) VMS SHALL BE PLACED FOR THIS CONTRACT.** THE LOCATIONS AND MESSAGES SHALL BE RECOMMENDED BY NYCDOT AND THEIR CONTRACTOR A MINIMUM OF TWO (2) WEEKS PRIOR TO WORK COMMENCING, FOR OCMC REVIEW AND APPROVAL.
- o **"NO STANDING ANYTIME-TEMPORARY CONSTRUCTION"** SIGNS AND TEMPORARY PAVEMENT MARKINGS SHALL BE 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.
- o **COMMUNITY OUTREACH** SHALL BE PROVIDED FOR THE DURATION OF THE PROJECT.

B. MAINTENANCE AND PROTECTION OF TRAFFIC

1. INTERSECTION OF 10TH AVENUE AND WEST 28TH STREET

- a. Work hours shall be as follows: 7:00AM to 10:00PM, Monday to Friday
8:00AM to 10:00PM, Saturday and Sunday
- b. The Permittee shall maintain a minimum of three (3) 11-foot lanes for traffic on 10th Avenue, and one (1) 11-foot lane for traffic on West 28th Street.
- c. The Permittee may fully close a maximum of one (1) pedestrian crosswalk at a time, provided all other pedestrian crosswalks are maintained.

2. 10TH AVENUE BETWEEN WEST 28TH STREET AND WEST 29TH STREET

- a. All work shall be coordinated with the ongoing new building project on the west side of 10th Avenue.
- b. **Prior to commencing work which impacts on or requires the removal/relocation of existing Taxi Stands, the Permittee shall contact NYC DOT Traffic Operations at 212-839-7197 for review and coordination.**
- c. Work hours shall be as follows: 7:00AM to 10:00PM, Monday to Friday
8:00AM to 10:00PM, Saturday and Sunday
- d. The Permittee shall maintain a minimum of three (3) 11-foot lanes for traffic, while maintaining a minimum 5-foot clear sidewalk for pedestrian access at all times.

2 of 8

B. MAINTENANCE AND PROTECTION OF TRAFFIC (CONTINUED)

3. INTERSECTION OF 10TH AVENUE AND WEST 29TH STREET

- a. Prior to commencing work, the Permittee shall meet with the nearby Post Office Operations staff to coordinate all activities as it relates to maintaining the day-to-day Post Office operations.
- b. Work hours shall be as follows: 7:00AM to 10:00PM, Monday to Friday
8:00AM to 10:00PM, Saturday and Sunday
- c. The Permittee shall maintain a minimum of three (3) 11-foot lanes for traffic on 10th Avenue and a minimum of one (1) 12-foot lane for traffic on West 29th Street.
- d. The Permittee may fully close a maximum of one (1) pedestrian crosswalk at a time, provided all other pedestrian crosswalks are maintained.

4. 10TH AVENUE BETWEEN WEST 29TH STREET AND WEST 30TH STREET

- a. Prior to commencing work, the Permittee shall meet with the nearby Post Office Operations staff to coordinate all activities as it relates to maintaining the day-to-day Post Office operations.
- b. Work hours shall be as follows: 7:00AM to 10:00PM, Monday to Friday
8:00AM to 10:00PM Saturday and Sunday
- c. The Permittee shall maintain a minimum of 3-11 foot lanes for traffic at all times (consisting of 2-11 foot thru lanes and 1-11 foot lane combined for right turns onto West 30th Street and to the Lincoln Tunnel).
- d. The Permittee shall maintain a minimum five (5) foot clear sidewalk for pedestrian access at all times.

5. 9TH AVENUE BETWEEN WEST 28TH STREET AND WEST 29TH STREET

- a. Work hours shall be as follows: 7:00AM to 10:00PM, Monday to Friday
8:00AM to 10:00PM Saturday and Sunday
- b. The Permittee shall maintain a minimum of three (3) 11-foot lanes for traffic AND the existing left turn lane at West 28th Street at all times, while also maintaining a minimum 5-foot clear sidewalk for pedestrian access.
- c. The Permittee shall EITHER maintain the existing bike lane OR provide and maintain a minimum 5-foot protected bike lane at all times.

6. INTERSECTION OF 9TH AVENUE AND WEST 29TH STREET

- a. Prior to commencing work, the Permittee shall meet with the nearby Post Office Operations staff to coordinate all activities as it relates to maintaining the day-to-day Post Office operations.
- b. Work hours shall be as follows: 7:00AM to 10:00PM, Monday to Friday
8:00AM to 10:00PM Saturday and Sunday
- c. The Permittee shall maintain a minimum of three (3) 11-foot lanes for traffic on 9th Avenue, and a minimum of one (1) 11-foot lane for traffic on West 29th Street.
- d. The Permittee may fully close a maximum of one (1) pedestrian crosswalk at a time, provided all other pedestrian crosswalks are maintained.

7. 9TH AVENUE BETWEEN WEST 29TH STREET AND WEST 30TH STREET

- a. Prior to commencing work, the Permittee shall meet with the nearby Post Office Operations staff to coordinate all activities as it relates to maintaining the day-to-day Post Office operations.
- b. Work hours shall be as follows: 7:00AM to 10:00PM, Monday to Friday
8:00AM to 10:00PM Saturday and Sunday
- c. The Permittee shall maintain a minimum of three (3) 11-foot lanes for traffic at all times, while also maintaining a minimum 5-foot clear sidewalk for pedestrian access.
- d. The Permittee shall EITHER maintain the existing bike lane OR provide and maintain a minimum 5-foot protected bike lane at all times.
- e. The Permittee shall contact New York City Transit Surface Operations in writing, and copy OCMC, a minimum of five (5) weeks in advance of any work impacting on or requiring the removal/relocation of the existing bus stop located on the west side of 9th Avenue.

B. MAINTENANCE AND PROTECTION OF TRAFFIC (CONTINUED)

8. INTERSECTION OF 9TH AVENUE AND WEST 30TH STREET

- a. Work hours shall be as follows: 7:00AM to 10:00PM, Monday to Friday
8:00AM to 10:00PM, Saturday and Sunday
- b. The Permittee shall maintain a minimum of three (3) lanes for traffic on 9th Avenue, and maintain a minimum of two (2) 11-foot lanes for traffic on West 30th Street approaching the intersection (west side) and a minimum of one (1) 11-foot lane for traffic on West 30th Street leaving the intersection (east side) at all times.
- c. The Permittee may fully close a maximum of one (1) pedestrian crosswalk at a time, provided all other pedestrian crosswalks are maintained.

9. 9TH AVENUE BETWEEN WEST 30TH STREET AND LINCOLN TUNNEL

- a. Work hours shall be as follows: 7:00AM to 10:00PM, Monday to Friday
8:00AM to 10:00PM, Saturday and Sunday
- b. The Permittee shall maintain a minimum of three (3) 11-foot lanes for traffic at all times.
- c. The Permittee may fully close a maximum of one (1) pedestrian crosswalk at a time, provided all other pedestrian crosswalks are maintained.
- d. The Permittee shall maintain access to the Lincoln Tunnel at all times.

10. INTERSECTION OF 9TH AVENUE AND LINCOLN TUNNEL

- a. Work hours shall be as follows: 7:00AM to 10:00PM, Monday to Friday
8:00AM to 10:00PM, Saturday and Sunday
- b. The Permittee shall maintain a minimum of three (3) 11-foot lanes for traffic on 9th Avenue, and a minimum of one (1) 11-foot lane for traffic on the Lincoln Tunnel entrance roadway.
- c. For any work requiring a full closure of the entrance to the Lincoln Tunnel, the Permittee must contact Lincoln Tunnel Operations in writing (and copy OCMC) for their review and approval of the closure and alternate routes. It shall be the Permittee's responsibility to furnish all necessary signs for this operation.

11. 9TH AVENUE BETWEEN LINCOLN TUNNEL AND WEST 31ST STREET

- a. **Access to/from the nearby parking facility on the west side of 9th Avenue shall be maintained at all times.**
- b. Work hours shall be as follows: 7:00AM to 10:00PM, Monday to Friday
8:00AM to 10:00PM, Saturday and Sunday
- c. The Permittee shall maintain a minimum of three (3) 11-foot lanes for traffic at all times, while also maintaining a minimum 5-foot clear sidewalk for pedestrian access.
- d. The Permittee shall EITHER maintain the existing bike lane OR provide and maintain a minimum 5-foot protected bike lane at all times.

12. INTERSECTION OF 9TH AVENUE AND WEST 31ST STREET

- a. **All work shall be coordinated with the ongoing new building project at the northwest corner of the intersection.**
- b. Work hours shall be as follows: 7:00AM to 10:00PM, Monday to Friday
8:00AM to 10:00PM, Saturday and Sunday
- c. The Permittee shall maintain a minimum of three (3) 11-foot lanes for traffic on 9th Avenue, and a minimum of one (1) 11-foot lane for traffic on West 31st Street at all times.
- d. The Permittee may fully close a maximum of one (1) pedestrian crosswalk at a time, provided all other pedestrian crosswalks are maintained.

B. MAINTENANCE AND PROTECTION OF TRAFFIC (CONTINUED)

13. 9TH AVENUE BETWEEN WEST 31ST STREET AND WEST 33RD STREET

- a. All work shall be coordinated with the ongoing new building project on the west side of 9th Avenue.
- b. Work hours shall be as follows: 7:00AM to 10:00PM, Monday to Friday
8:00AM to 10:00PM, Saturday and Sunday
- c. The Permittee shall maintain a minimum of three (3) 11-foot lanes for traffic at all times.
- d. The Permittee may fully close one (1) pedestrian crosswalk, provided all other pedestrian crosswalks are maintained.

14. WEST 29TH STREET BETWEEN 10TH AVENUE AND HIGH LINE / 11TH AVENUE

- a. All work shall be coordinated with ongoing building operations in the area.
- b. Work hours shall be as follows: 7:00AM to 10:00PM, Monday to Friday
8:00AM to 10:00PM, Saturday and Sunday
- c. The Permittee shall maintain a minimum of one (1) 11-foot lane for traffic with a shared bike lane at all times, while also maintaining a minimum 5-foot clear sidewalk for pedestrian access.

15. WEST 29TH STREET BETWEEN 10TH AVENUE AND 9TH AVENUE

- a. Prior to commencing work, the Permittee shall meet with the nearby Post Office Operations staff to coordinate all activities as it relates to maintaining the day-to-day Post Office operations.
- b. Work hours shall be as follows: 7:00AM to 10:00PM, Monday to Friday
8:00AM to 10:00PM, Saturday and Sunday
- c. The Permittee shall maintain a minimum of one (1) 13-foot lane for traffic with a shared bike lane at all times, while also maintaining a minimum 5-foot clear sidewalk for pedestrian access.

16. WEST 29TH STREET BETWEEN 9TH AVENUE AND 8TH AVENUE

- a. Work hours shall be as follows: 7:00AM to 10:00PM, Monday to Friday
8:00AM to 10:00PM, Saturday and Sunday
- b. The Permittee shall maintain a minimum of one (1) 11-foot lane for traffic at all times, while also maintaining a minimum 5-foot clear sidewalk for pedestrian access.
- c. The Permittee shall EITHER maintain the existing bike lane OR provide and maintain a minimum 5-foot protected bike lane at all times.

17. WEST 30TH STREET BETWEEN 10TH AVENUE AND LINCOLN TUNNEL APPROACH (DYER AVENUE)

- a. Prior to commencing work, the Permittee shall meet with the nearby Post Office Operations staff to coordinate all activities as it relates to maintaining the day-to-day Post Office operations.
- b. Work hours shall be as follows: 7:00AM to 10:00PM, Monday to Friday
8:00AM to 10:00PM, Saturday and Sunday
- c. The Permittee shall maintain a minimum of one (1) 11-foot lane for traffic with a shared bike lane, while also maintaining a minimum 5-foot clear sidewalk for pedestrian access at all times.

18. WEST 30TH STREET BETWEEN LINCOLN TUNNEL APPROACH (DYER AVENUE) AND 9TH AVENUE

- a. Prior to commencing work, the Permittee shall meet with the nearby Post Office Operations staff to coordinate all activities as it relates to maintaining the day-to-day Post Office operations.
- b. Work hours shall be as follows: 7:00AM to 10:00PM, Monday to Friday
8:00AM to 10:00PM, Saturday and Sunday
- c. The Permittee shall maintain a minimum of two (2) 11-foot lanes for traffic with a shared bike lane, while also maintaining a minimum 5-foot clear sidewalk for pedestrian access at all times.

19. WEST 30TH STREET BETWEEN 9TH AVENUE AND 8TH AVENUE

- a. Work hours shall be as follows: 7:00AM to 10:00PM, Monday to Friday
8:00AM to 10:00PM, Saturday and Sunday
- b. The Permittee shall maintain a minimum of one (1) 11-foot lane for traffic at all times, while also maintaining a minimum 5-foot clear sidewalk for pedestrian access.

B. MAINTENANCE AND PROTECTION OF TRAFFIC (CONTINUED)

20. WEST 31ST STREET BETWEEN 10TH AVENUE AND LINCOLN TUNNEL APPROACH (DYER AVENUE)

- a. All work shall be coordinated with nearby loading dock operations and façade work on north side of West 31st Street.
- b. Work hours shall be as follows: 7:00AM to 10:00PM, Monday to Friday
8:00AM to 10:00PM Saturday and Sunday
- c. During working hours, the Permittee shall maintain a minimum of one (1) 13-foot lane for traffic at all times, while also maintaining a minimum 5-foot clear sidewalk for pedestrian access.
- d. After working hours, the Permittee shall restore the roadway to its full width.

21. INTERSECTION OF WEST 31ST STREET AND LINCOLN TUNNEL APPROACH (DYER AVENUE)

- a. All work shall be coordinated with Lincoln Tunnel operations.
- b. Work hours shall be as follows: 9:00 AM to 3:00 PM, Monday to Friday
8:00 AM to 6:00 PM, Saturday and Sunday
- c. During working hours, the permittee shall maintain a minimum of two (2) 11-foot lanes for traffic (one (1) 11-foot lane for traffic in each direction) on the Lincoln Tunnel Approach/Dyer Avenue, and one (1) 13-foot lane for traffic on West 31st Street.
- d. The Permittee shall maintain a minimum 5-foot clear sidewalk for pedestrian access at all times. The Permittee may fully close a maximum of one (1) pedestrian crosswalk at a time, provided all other pedestrian crosswalks are maintained.
- e. After working hours, the Permittee shall restore the intersection to its full width.

22. WEST 31ST STREET BETWEEN LINCOLN TUNNEL APPROACH (DYER AVENUE) AND 9TH AVENUE

- a. Work hours shall be as follows: 7:00 AM to 3:00 PM, Monday to Friday
8:00 AM to 6:00 PM, Saturday and Sunday
- b. During working hours, the Permittee shall maintain a minimum of one (1) 13-foot lane for traffic. Access to all abutting driveways, garages, loading docks, parking lots, etc. shall be maintained at all times.
- c. The Permittee shall maintain a minimum 5-foot clear sidewalk for pedestrian access at all times.
- d. After working hours, the Permittee shall restore the roadway to its full width.

23. WEST 31ST STREET BETWEEN 9TH AVENUE AND 8TH AVENUE

- a. Work hours shall be as follows: 7:00AM to 10:00PM, Monday to Friday
8:00AM to 10:00PM, Saturday and Sunday
- b. The Permittee shall fully close the south sidewalk and provide and maintain a minimum 5-foot protected walkway in the roadway for pedestrian access at all times. The temporary pedestrian walkway must meet NYC DOT specifications and must be ramped at the entry points to the sidewalk for ADA accessibility.
- c. The Permittee shall maintain a minimum of two (2) 11-foot lanes for traffic at all times.
- d. The Permittee shall maintain access to all abutting businesses/loading docks 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.

C. GENERAL NOTES (CONTINUED)

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 DEPARTURE 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 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.
10. 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.

OCMC FILE NO: MEC-13-285

CONTRACT NO: MED-598B

PROJECT: TRUNK WATER MAINS IN WEST 30TH STREET BETWEEN 10TH AVENUE AND 9TH AVENUE,
SHAFT 26B - PHASE B

OCTOBER 15, 2013

Page 8 of 8

C. GENERAL NOTES (CONTINUED)

11. 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.
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.



JOSEPH P. NOTO
EXECUTIVE DIRECTOR
OCMC-STREETS



DUANE C. BARRA
PROJECT MANAGER
OCMC-STREETS



**NYC DEP MED-598B
CP System Survey and Engineering
Study of Soils and Stray Currents
Cathodic Protection System Design**

Prepared For:

**NYC Department of Design and Construction
30-30 Thomson Ave
Long Island City, NY 11101**

Prepared By:

**CorrTech, Inc.
25 South Street
Hopkinton, MA 01748
CorrTech Job No 7362**

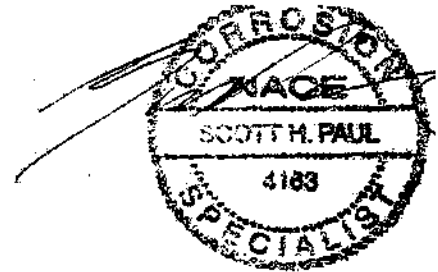
October 2013

STATEMENT OF LIMITATION

The conclusions presented in this document are based on the services described and not on tasks or procedures beyond the scope of the described procedures or the time and budgetary constraints imposed by the contract limitations.

CorrTech, Inc. has performed this assessment in a professional manner using that degree of skill and care exercised for similar projects under similar conditions by reputable and competent consultants, and in accordance with the procedures established within CorrTech's quality assurance, quality control protocol.

CorrTech, Inc. shall not be responsible for conditions or consequences arising from relevant facts that were concealed, withheld or not fully disclosed at the time the evaluation were performed.



Report Reviewed by:
Scott Paul, P.E.
NACE Corrosion Specialist No. 4163
October 2013

A handwritten signature in black ink, appearing to be "Scott Paul".

Report Written by:
James Davis
Civil Engineer
October 2013

Table of Contents

INTRODUCTION	1
CONCLUSION.....	1
RECOMMENDATIONS.....	2
DISCUSSION.....	2

APPENDIX I

Soil Resistivity and Stray Current Test Results

APPENDIX II

Cathodic Protection Design Worksheets, 7 Segments

INTRODUCTION

CorrTech, Inc. entered into agreement with the NYC Department of Design and Construction on September 3, 2013 to provide cathodic protection design, construction support and field testing, final system testing and as-built documentation. The MED 589B project is located in the Borough of Manhattan, New York and encompasses West 29th Street, West 30th Street, West 31st Street, 10th Avenue and 9th Avenue. There will be 2,388 linear feet of 48-in diameter piping installed and 987 linear feet of 36-in diameter piping installed. Work was completed under CorrTech Job No. 7362.

Testing was performed on October 2, 2013 to obtain soil resistivity data and October 16, 2013 to perform stray current monitoring in the approximate areas where the new steel water main will be installed. Testing was completed on West 30th Street, 10th Ave, West 29th St and 9th Ave. This data is used to design the sacrificial cathodic protection system. In addition to the field testing, a cursory review of area utilities was completed.

CorrTech provided corrosion engineering expertise in accordance with specification SECTION 5.04A FURNISHING, INSTALLING AND TESTING CORROSION CONTROL AND/OR CATHODIC PROTECTION SYSTEM. Furnishing, Installing and Testing Corrosion Control and/or Cathodic Protection System was done in accordance with New York City Department of Environmental Protection (NYCDEP) Specifications for Trunk Main Work. (This publication includes Special Provisions for Trunk Main Work; and, Specification for Furnishing, Delivering and Laying Steel Pipe and Appurtenances.)

CONCLUSION

Based on the field testing protocol and test results obtained during the system evaluation and energization, the following conclusions are presented:

1. The average soil resistivity measured along the construction route was found to be 39,000 Ω -cm. Readings obtained ranged from a low of 20,000 Ω -cm to a high of 70,000 Ω -cm. The soil resistivity study indicates that the area soils are classified as mildly corrosive to metallic structures. Steel piping installed in this area requires corrosion control measures including a bonded external dielectric coating system and sacrificial anode cathodic protection to provide corrosion control for 50-plus years.
2. Stray current effects measured along the construction route are considered insignificant. The magnitude of variations observed clearly does not indicate the existence of dynamic stray DC voltage effects.
3. Effective cathodic protection for segment 7, 16ft of 48-in steel pipe, located at 9th Avenue stretching from 30th to 31st may not be effective due to the electrical connection to the original 1959 pipe installed. Adequate electrical isolation should be considered to ensure that protection can be provided.

RECOMMENDATIONS

While the area soils are considered mildly corrosive, the minimum life expectancy of 50-plus years must be considered. The evaluation suggests that newly installed steel pipe should be installed with an external coating system, electrical isolation and sacrificial anode type cathodic protection system including the following:

1. Install insulating flanges at all butterfly valve chambers and at any/all ductile iron or cast iron main connections. Flange isolation assemblies are required where the new steel pipe connects to existing piping as well.
2. The new steel piping should have a high quality dielectric coating such as the Polyken YGIII coating system for all steel pipe surfaces in contact with the soil environment. The dielectric coating system should be applied to all piping associated with the Air Cock Hydrants and Blow off assemblies.
3. Install sacrificial magnesium anodes, permanent reference electrodes, pipe test wires, steel counter electrodes and flush-to-grade test stations at the locations indicated on the Design Drawings. Position all test stations inside nearby curbs to prevent the enclosures from being subject to vehicular traffic and make locating easier for future testing.
4. Install FRP shields around the pipe at any/all points of contact with reinforced concrete piles or similar structures. Electrical isolation between the new steel piping and other structures is of critical importance.
5. Final testing is to be witnessed by DDC/DEP personnel. Testing must verify that the installed cathodic protection system meets the criteria set forth by NACE International Recommended Practices SP0169 and 0285 at all locations.

DISCUSSION

The coated Steel Water Main Piping associated with Project MED-598B consists of 48-in, and 36-in welded steel water main. Testing was completed on West 30th Street, 10th Ave, West 29th St and 9th Ave.

The purpose of the pre-constructing testing and subsequent evaluation was to quantify the levels of stray traction DC currents and evaluate the area soil resistivity along the proposed construction route. No significant stray current effects were located. Testing was performed at existing hydrant valves located on the corner of 9th Avenue and West 29th Street and on West 30th Street between 9th and 10th Avenues.

A reference cell-to-reference cell potential profile was obtained along 9th Avenue indicates that potential variations are considered insignificant as well. The potential measurements obtained indicated variations of 0.010 volts or less. The proposed area of construction for the new steel

water mains being installed as part of MED 598B will not be subjected to adverse effects from stray traction DC currents.

Soil resistivity measurements were obtained at six (6) locations using a Collins Rod and Whetstone Soil Bridge. Depths obtained ranged from 3-feet to 4-feet. The data obtained is shown in Appendix A of this report. Soil resistivity ranged from a low of 20K Ω -cm to a high of 70K Ω -cm. The mean soil resistivity is 39K Ω -cm. This appears to be a reasonable representation of the average soil resistivity in this area.

The measurement of soil resistivity has been used for years as an indicator of the corrosivity of soil. Soil resistivity is the reciprocal of conductivity, the lower the resistivity, the easier current will flow through the soil. Of the measurable soil characteristics, resistivity is generally accepted as the primary indicator of soil corrosivity. Resistivity is a property of the bulk volume of soil and electrolytes.

Although no universal standard has been accepted by such organizations as the American Society for Testing and Materials or the National Association of Corrosion Engineers, it is generally agreed that the classification shown below, or other similar classifications, reflect soil corrosivity.

<u>Resistivity (Ohm-Cm)</u>	<u>Classification</u>
< 1,000	Extremely Corrosive
1,000 to 3,000	Highly Corrosive
3,000 to 5,000	Corrosive
5,000 to 10,000	Moderately Corrosive
10,000 to 25,000	Mildly Corrosive
> 25,000	Progressively Less Corrosive

The above table provides qualitative insight to the expected corrosion exposure of a metallic structure in a soil of known resistivity. Accordingly, deterioration can generally be expected to be rapid and relatively severe in soils below 1,000 ohm-cm. This does not mean, however, that severe corrosion will not occur in soils of higher resistivity. In fact, depending on chemical conditions, severe corrosion can occur in soils above 25,000 ohm-cm. The table only indicates that the latter occurrence is generally not observed.

Our review of the plans for the new steel water main(s) indicates that there are multiple ties to existing structures. The installation of insulating flanges is required for any/all tie-ins to the existing water supply network, as well as any butterfly valve connections and at any/all ductile iron or cast iron distribution tie-in points. The installation of electrical isolation flange assemblies produces a more concise, manageable cathodic protection system(s). The cathodic protection design provided by CorrTech, Inc. assumes that the piping will be electrically isolated and provided with a high quality dielectric coating system, such as the Polyken YGIII coating system, installed on all steel piping in contact with the soil environment. The piping associated with Air Cock Hydrants and Blow offs should be coated with this coating system, and electrically isolated from the steel trunk water main.

There will be a total of seven (7) distinct segments associated with the MED 598B installation relative to cathodic protection. Please refer to Appendix B for the associated Ground Bed Design Worksheets for each of the 7 pipe segments.

The following NYC DEP cathodic protection design criteria was applied to facilitate the final Design Calculations:

- Percent of bare pipe 2.00%.
- Required current density 1.25 mA/Ft².
- Pipe coating quality 25,000 ohm-cm
- 50-year design life for the cathodic protection anodes
- Anode consumption rate of 17-pounds per ampere-year
- 50% anode consumption utilization factor

The magnesium anodes will be divided into groups and the groups will be distributed along the piping Segments. Installing the anodes in individual groups will provide for a better current distribution in each Segment and provide multiple ground beds in the event of damage to one groundbed.

The cathodic protection design has been prepared in accordance with NACE SP0169. NACE Standard Practice SP0169 (formerly RP0169), "Control of External Corrosion on Underground or Submerged Metallic Piping Systems," This standard practice presents procedures and practices for achieving effective control of external corrosion on buried or submerged metallic piping systems.

These recommendations are also applicable to many other buried or submerged metallic structures. It is intended for use by corrosion control personnel concerned with the corrosion of buried or submerged piping systems, including oil, gas, water, and similar structures. This standard describes the use of electrically insulating coatings, electrical isolation, and cathodic protection (CP) as external corrosion control methods. It contains specific provisions for the application of CP to existing bare, existing coated and new piping systems. Also included are procedures for control of interference currents on pipelines.

Sacrificial anode cathodic protection provides protection with no external power source or rectifier. Sacrificial anodes are designed to corrode, thereby protecting the steel structure of interest. Energy for the sacrificial anode system is provided by the difference in energy level between the anode and the structure being protected. Typically, magnesium anodes are utilized to protect steel structures. Referring to the galvanic series chart under the section on galvanic corrosion, it is indicated that the magnesium anode would corrode preferentially when connected to steel as part of a cathodic protection system because it sits at a higher energy level.

A sacrificial anode installation is also a DC circuit with positive current supplied by the anodes and a return negative current supplied from the structure. The driving voltage of the sacrificial anode circuits is approximately 1.0 volt, the difference between magnesium and steel.

Ohm's Law ($E=IR$) is valid for DC circuits, where E is the driving voltage, or rectifier output, of the circuit, I is the current magnitude that results and R is the resistance of the circuit. Proper system design seeks to minimize the resistance of the circuit through anode ground bed design. Sacrificial anode systems do not provide as much energy output as the impressed current design. Therefore, they would not function properly in many applications where cathodic protection would be required. Sacrificial systems require both that the structure is coated with a tightly adhered coating system, and is electrically isolated from all other metallic structures and system components. It is important to understand that pipe coating alone is not sufficient to provide complete corrosion control. Coatings must be supplemented with cathodic protection. In contrast, cathodic protection can be provided to uncoated structures under certain conditions. This is defined in Sections 4 and 5 of NACE RP0169.

Sacrificial anode design utilizes a number of electrical parameters as input to the CorrTech design calculation worksheet. The calculation worksheets for the 7 segments are included in this report as appendix B.

The following NYC DEP cathodic protection design criteria was applied to facilitate the final Design Calculations:

- Percent of bare pipe 2.00%.
- Required current density 1.25 mA/Ft².
- Pipe coating quality 25,000 ohm-cm
- 50-year design life for the cathodic protection anodes
- Anode consumption rate of 17-pounds per ampere-year
- 50% anode consumption utilization factor

These design criteria are inputs to the design along with the soil resistivity data, pipe geometry and anode dimensions and weight. The anode to remote earth resistance calculation is based on Dwight's equation for a single Horizontal Anode

$$R = \left(\frac{0.00521\rho}{L} \right) \left(\ln \left(\frac{4L^2 + 4L\sqrt{S^2 + L^2}}{dS} \right) + \frac{S}{L} - \frac{\sqrt{S^2 + L^2}}{L} - 1 \right)$$

Where

- R = resistance in ohms
- L = anode length in feet
- S = twice the depth of anode in feet
- d = anode diameter in feet
- ρ = resistivity in ohm-cm
- \ln is the natural logarithm function

80 + 22

This provides the resistance for one (1) anode set in the measured average soil resistivity. The resistance to ground of the pipe is also calculated in the worksheet. Both the theoretical current requirement based on 1.25 mA/Ft² applied to the 2.00% of bare steel pipe and the circuit resistance of the pipe and anodes are calculated in the worksheet. The number of anodes to be installed is a variable input in the worksheet that determines total anode circuit resistance based on parallel resistance theory. The check in the design calculation worksheet indicates that the comparison of theoretical current requirement compared to the circuit resistance, as determined by the number of anodes to be installed input, is between 0 and 25% and are in agreement.

The final total anode current output value is used to calculate the life of the anode system based on the magnesium anode consumption rate and 50% utilization. For each of the seven (7) segments, the anode life is in excess of 100-years.

The following table summarizes the calculations of the installed anodes, pipe segments numbers, the number of ground beds required per segment and the number of reference electrodes/rebar electrodes.

Segment No.	Location	Pipe Diameters	Pipe Length	Gnd beds	Anodes	Ref. Cells	Rebar
1	W 29TH ST, 9TH AVE TO 10TH AVE	48" STEEL	1230	2	155	2	2
2	10TH AVE, W 29TH ST TO W 30TH ST	36" STEEL	290	2	28	2	2
3	9TH AVE, W 29TH ST TO W 31TH ST	36" STEEL	577	2	55	2	2
4	W 30TH ST, 9TH AVE TO 10TH AVE	48" AND 36" STEEL	751 of 48" and 53 of 36"	2	100	2	2
5	9TH AVE, W 29TH ST TO W 30TH ST	48" AND 36" STEEL	299 of 48" and 67 of 36"	2	35	2	2
6	9TH AVE, W 30TH ST TO W 31TH ST	48" STEEL	92	1	12	2	2
7	9TH AVE, W 30TH ST TO W 31TH ST	48" STEEL	16	1	3	2	2
		TOTAL 48-INCH DIA	2388				
		TOTAL 36-INCH DIA	987				
		TOTAL		12	388	12	12

90422

Appendix I

Soil Resistivity and Stray Current Test Results

Client: NY DDC

Job Number: 7362

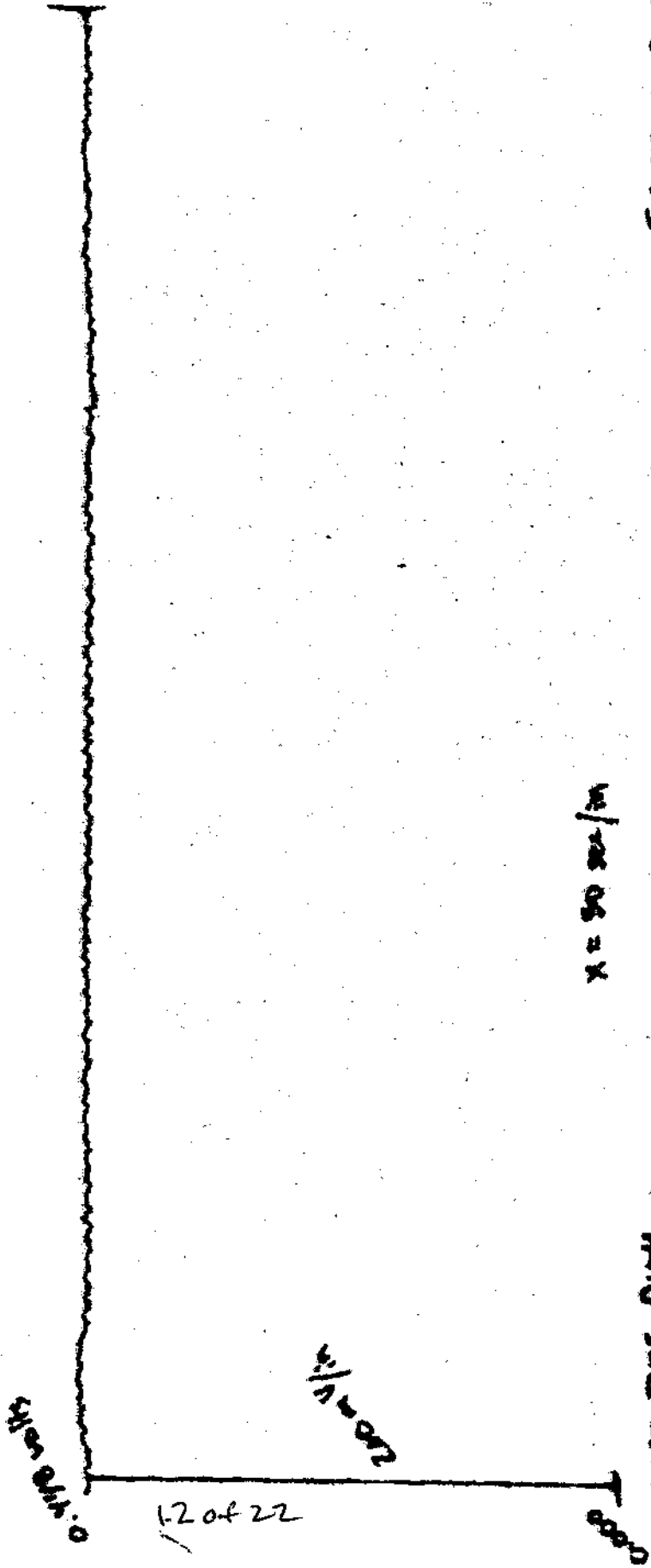
Project: MED 598B

Date: 10/18/2013

Location	Resistivity (ohm-cm)	Description
1	25,000	Corner of W 30th Street and 10th Ave, open pit
2	30,000	Corner of W 30th Street and 9th Ave, in valve box
3	30,000	Corner of W 29th Street and 9th Ave, in valve box
4	70,000	Corner of W 29th Street and 10th Ave, in valve box
5	60,000	Corner of W 31th Street and 9th Ave, in valve box
6	20,000	On W30th Street Between 9th and 10th Ave, Garden patch
<u>AVG.</u>	<u>39,000</u>	

STAIN CURRENTS FOR MED 590 B

LOCATION: HYDRANT SUBSTATION 9M & 10th AVE ON W30th STREET



STAIR CASES FOR MED 5906

LOCATION: HYDRANT AT CORNER OF 9th AVE AND 29th STREET

13 of 22 39.

10:32 AM

10:32 AM

10:32 AM

10:32 AM

STRAY CURRENTS FOR AEG 3103
LOCATION: CBL TO CELL (NO. 6 AREA) ALONG 9th AVE

140f22

7/1/57

2/1/57

TEST TIME 11:40 AM

R = 50 ohm/m

END TIME 11:50 AM

Appendix II

Cathodic Protection Design Worksheets, 7 Segments

15 of 22

CorrTech Inc., Groundbed Design Worksheet
 NYC DDC Water Trunk Main Cathodic Protection

Client: NYC DDC Project: MED 598B
 Date: 10/18/13
 Description: W 29TH ST, 9TH AVE TO 10TH AVE, 1,230-ft of 48-in
 Segment: 1

Structure Calculations		ENTER	SURFACE AREA
Length of pipe	ft	1,230	15,449 ft ²
Diameter	ft	4	
Length of Pipe	ft	0	0 ft ²
Diameter	ft	0	
			<hr/> 15,449 ft ²

Circuit Calculations			
Soil Resistivity (ohm-cm)	39,000		
Coating Quality (% bare)	2.00%		
Pipe Surface requiring protection	308.98	FT ²	
Pipe electrically isolated (yes/no)	yes		
Coating quality OHM-FT ²	25000		
Pipe to Earth Resistance	1.62	OHM	
Theoretical Current Required (ma/ft ²)	1.25		
Theoretical Current Requirements	0.3862	AMPS	0.1853856

Anode Parameters

Anode Type	Magnesium anode, prepackaged	Individual anode resistance
Anode Weight (lbs)	17	20.11 square of S2+L2 factor
Anode Diameter (feet)	0.31	97.34 resistivity x .0052 factor
Anode Length (feet)	2.08	1.47 log value
2 time anode depth (feet)	20	226.97 Horizontal anode resistance
		289.32 Vertical anode resistance

Circuit Resistance Current Requirements

Anode Resistance to Earth	plug in Resistance value	226.97	OHMS	
Driving Potential (v)		1.2	VOLTS	
Individual anode output		0.005	AMPS	
Number of anodes to be installed		155		Check Between 0% and 25%
Total circuit resistance		3.08	OHMS	-0.79% Yes
Current output of system		0.3893	AMPS	
Consumption Rate (lb/A-yr)		17.00		

Anode life based on anodes to be installed 199.08 YEARS considers 50% anode efficiency

Design conforms to the following standards:
 National Association of Corrosion Engineers (NACE)
 Standard Recommended Practice SP 0169 latest revision



160722

CorrTech Inc., Groundbed Design Worksheet
 NYC DDC Water Trunk Main Cathodic Protection

Client: NYC DDC Project: MED 598B
 Date: 10/18/13
 Description: 10TH AVE, W 29TH ST TO W 30TH ST, 290-ft of 36-in pipe
 Segment: 2

Structure Calculations		ENTER	SURFACE AREA
Length of pipe	ft	0	0 ft ²
Diameter	ft	4	
Length of Pipe	ft	290	2,732 ft ²
Diameter	ft	3	<u>2,732 ft²</u>

Circuit Calculations			
Soil Resistivity (ohm-cm)		39,000	
Coating Quality (% bare)		2.00%	
Pipe Surface requiring protection		54.64	FT ²
Pipe electrically isolated (yes/no)		yes	
Coating quality OHM-FT ²		25000	
Pipe to Earth Resistance		9.15	OHM
Theoretical Current Required (ma/ft ²)		1.25	
Theoretical Current Requirements		0.0683	AMPS 0.0327816

Anode Parameters		Individual anode resistance
Anode Type	Magnesium anode, prepackaged	20.11 square of S2+L2 factor
Anode Weight (lbs)	17	97.34 resistivity x .0052 factor
Anode Diameter (feet)	0.31	1.47 log value
Anode Length (feet)	2.08	226.97 Horizontal anode resistance
2 time anode depth (feet)	20	289.32 Vertical anode resistance

Circuit Resistance Current Requirements			
Anode Resistance to Earth	plug in Resistance value	226.97	OHMS
Driving Potential (v)		1.2	VOLTS
Individual anode output		0.005	AMPS
Number of anodes to be installed		28	
Total circuit resistance		17.26	OHMS
Current output of system		0.0695	AMPS
Consumption Rate (lb/A-yr)		17.00	
Anode life based on anodes to be installed		201.34	YEARS
			considers 50% anode efficiency

Design conforms to the following standards:
 National Association of Corrosion Engineers (NACE)
 Standard Recommended Practice SP 0169 latest revision



CorrTech Inc., Groundbed Design Worksheet
 NYC DDC Water Trunk Main Cathodic Protection

Client: NYC DDC Project: MED 598B
 Date: 10/18/17
 Description: 9TH AVE, W 29TH ST TO W 31TH ST, 577-ft of 36-in
 Segment: 3

Structure Calculations

		ENTER	SURFACE AREA
Length of pipe	ft	0	0 ft ²
Diameter	ft	4	
Length of Pipe	ft	577	5,435 ft ²
Diameter	ft	3	
			<hr/> 5,435 ft ²

Circuit Calculations

Soil Resistivity (ohm-cm)	39,000		
Coating Quality (% bare)	2.00%		
Pipe Surface requiring protection	108.71	FT ²	
Pipe electrically isolated (yes/no)	yes		
Coating quality OHM-FT ²	25000		
Pipe to Earth Resistance	4.60	OHM	
Theoretical Current Required (ma/ft ²)	1.25		
Theoretical Current Requirements	0.1359	AMPS	0.0652241

Anode Parameters

Anode Type	Magnesium anode, prepackaged		Individual anode resistance
Anode Weight (lbs)	17		20.11 square of S ² +L ² factor
Anode Diameter (feet)	0.31		97.34 resistivity x .0052 factor
Anode Length (feet)	2.08		1.47 log value
2 time anode depth (feet)	20		226.97 Horizontal anode resistance
			289.32 Vertical anode resistance

Circuit Resistance Current Requirements

Anode Resistance to Earth	plug in Resistance value	226.97	OHMS	
Driving Potential (v)		1.2	VOLTS	
Individual anode output		0.005	AMPS	
Number of anodes to be installed		55		Check
Total circuit resistance		8.73	OHMS	Between 0% and 25%
Current output of system		0.1375	AMPS	Yes
Consumption Rate (lb/A-yr)		17.00		

Anode life based on anodes to be installed

199.98 YEARS considers 50% anode efficiency

Design conforms to the following standards:
 National Association of Corrosion Engineers (NACE)
 Standard Recommended Practice SP 0169 latest revision



18 of 22

CorrTech Inc., Groundbed Design Worksheet
 NYC DDC Water Trunk Main Cathodic Protection

Client: NYC DDC Project: MED 598B
 Date: 10/18/13
 Description: W 30TH ST, 9TH AVE TO 10TH AVE, 751-ft of 48-in and 53-ft of 36-in
 Segment: 4

Structure Calculations		ENTER	SURFACE AREA
Length of pipe	ft	751	9,433 ft ²
Diameter	ft	4	
Length of Ppipe	ft	53	499 ft ²
Diameter	ft	3	
			<hr/>
			9,932 ft ²

Circuit Calculations			
Soil Resistivity (ohm-cm)	39.000		
Coating Quality (% bare)	2.00%		
Pipe Surface requiring protection	198.64	FT2	
Pipe electrically isolated (yes/no)	yes		
Coating quality OHM-FT2	25000		
Pipe to Earth Resistance	2.52	OHM	
Theoretical Current Required (ma/ft ²)	1.25		
Theoretical Current Requirements	0.2483	AMPS	0.1191818

Anode Parameters		Individual anode resistance	
Anode Type	Magnesium anode, prepackaged	20.11	square of S ² +L ² factor
Anode Weight (lbs)	17	97.34	resistivity x .0052 factor
Anode Diameter (feet)	0.31	1.47	log value
Anode Length (feet)	2.08	226.97	Horizontal anode resistance
2 time anode depth (feet)	20	289.32	Vertical anode resistance

Circuit Resistance Current Requirements			
Anode Resistance to Earth	plug in Resistance value	226.97	OHMS
Driving Potential (v)		1.2	VOLTS
Individual anode output		0.005	AMPS
Number of anodes to be installed		100	
Total circuit resistance		4.79	OHMS
Current output of system		0.2507	AMPS
Consumption Rate (lb/A-yr)		17.00	
Anode life based on anodes to be installed		199.45	YEARS
			considers 50% anode efficiency

Design conforms to the following standards:
 National Association of Corrosion Engineers (NACE)
 Standard Recommended Practice SP 0169 latest revision



190f22

CorrTech Inc., Groundbed Design Worksheet
 NYC DDC Water Trunk Main Cathodic Protection

Client: NYC DDC Project: MED 598B
 Date: 10/18/13
 Description: 9TH AVE, W 29TH ST TO W 30TH ST, 229-ft of 48-in and 67-ft of 36-in
 Segment: 5

Structure Calculations

		ENTER	SURFACE AREA
Length of pipe	ft	229	2,876 ft ²
Diameter	ft	4	
Length of Ppipe	ft	67	631 ft ²
Diameter	ft	3	
			<hr/> 3,507 ft ²

Circuit Calculations

Soil Resistivity (ohm-cm)	39,000		
Coating Quality (% bare)	2.00%		
Pipe Surface requiring protection	70.15	FT ²	
Pipe electrically isolated (yes/no)	yes		
Coating quality OHM-FT ²	25000		
Pipe to Earth Resistance	7.13	OHM	
Theoretical Current Required (ma/ft ²)	1.25		
Theoretical Current Requirements	0.0877	AMPS	0.0420886

Anode Parameters

Anode Type	Magnesium anode, prepackaged
Anode Weight (lbs)	17
Anode Diameter (feet)	0.31
Anode Length (feet)	2.08
2 time anode depth (feet)	20

Individual anode resistance
 20.11 square of S2+L2 factor
 97.34 resistivity x .0052 factor
 1.47 log value
226.97 Horizontal anode resistance
289.32 Vertical anode resistance

Circuit Resistance Current Requirements

Anode Resistance to Earth	plug in Resistance value	226.97	OHMS
Driving Potential (v)		1.2	VOLTS
Individual anode output		0.005	AMPS
Number of anodes to be installed		35	
Total circuit resistance		13.61	OHMS
Current output of system		0.0882	AMPS
Consumption Rate (lb/A-yr)		17.00	

Check Between 0% and 25%
 -0.53% Yes

Anode life based on anodes to be installed 198.52 YEARS

considers 50% anode efficiency

Design conforms to the following standards:

National Association of Corrosion Engineers (NACE)
 Standard Recommended Practice SP 0169 latest revision



200+22

CorrTech Inc., Groundbed Design Worksheet
 NYC DDC Water Trunk Main Cathodic Protection

Client: NYC DDC Project: MED 598B
 Date: 10/18/13
 Description: 9TH AVE, W 30TH ST TO W 31TH ST, 92-ft of 48-in
 Segment: 6

Structure Calculations		ENTER	SURFACE AREA
Length of pipe	ft	92	1,156 ft ²
Diameter	ft	4	
Length of Pipe	ft	0	0 ft ²
Diameter	ft	0	
			<hr/> 1,156 ft ²

Circuit Calculations				
Soil Resistivity (ohm-cm)		39.000		
Coating Quality (% bare)		2.00%		
Pipe Surface requiring protection		23.11	FT ²	
Pipe electrically isolated (yes/no)		yes		
Coating quality OHM-FT ²		25000		
Pipe to Earth Resistance		21.64	OHM	
Theoretical Current Required (ma/ft ²)		1.25		
Theoretical Current Requirements		0.0289	AMPS	0.0138662

Anode Parameters			Individual anode resistance
Anode Type		Magnesium anode, prepackaged	20.11 square of S ₂ +L ₂ factor
Anode Weight (lbs)		17	97.34 resistivity x .0052 factor
Anode Diameter (feet)		0.31	1.47 log value
Anode Length (feet)		2.08	226.97 Horizontal anode resistance
2 time anode depth (feet)		28	289.32 Vertical anode resistance

Circuit Resistance Current Requirements				
Anode Resistance to Earth	plug in Resistance value	226.97	OHMS	
Driving Potential (v)		1.2	VOLTS	
Individual anode output		0.005	AMPS	Check
Number of anodes to be installed		12		Between 0% and 25%
Total circuit resistance		40.55	OHMS	-2.44%
Current output of system		0.0296	AMPS	Yes
Consumption Rate (lb/A-yr)		17.00		
Anode life based on anodes to be installed		202.75	YEARS	considers 50% anode efficiency

Design conforms to the following standards:
 National Association of Corrosion Engineers (NACE)
 Standard Recommended Practice SP 0169 latest revision



21 of 22

CorrTech Inc., Groundbed Design Worksheet
 NYC DDC Water Trunk Main Cathodic Protection

Client: NYC DDC Project: MED 598B
 Date: 10/18/13
 Description: 9TH AVE, W 30TH ST TO W 31TH ST, 16-ft of 48-in
 Segment: 7

Structure Calculations		ENTER	SURFACE AREA
Length of pipe	ft	16	201 ft ²
Diameter	ft	4	
Length of Pipe	ft	0	0 ft ²
Diameter	ft	0	
			<hr/> 201 ft ²

Circuit Calculations				
Soil Resistivity (ohm-cm)		39,000		
Coating Quality (% bare)		2.00%		
Pipe Surface requiring protection		4.02	FT ²	
Pipe electrically isolated (yes/no)		yes		
Coating quality OHM-FT ²		25000		
Pipe to Earth Resistance		124.40	OHM	
Theoretical Current Required (ma/ft ²)		1.25		
Theoretical Current Requirements		0.0050	AMPS	0.0024115

Anode Parameters			Individual anode resistance
Anode Type		Magnesium anode, prepackaged	20.11 square of S2+L2 factor
Anode Weight (lbs)		17	97.34 resistivity x .0052 factor
Anode Diameter (feet)		0.31	1.47 log value
Anode Length (feet)		2.08	226.97 Horizontal anode resistance
2 time anode depth (feet)		20	289.32 Vertical anode resistance

Circuit Resistance Current Requirements					
Anode Resistance to Earth	plug in Resistance value	226.97	OHMS		
Driving Potential (v)		1.2	VOLTS		
Individual anode output		0.005	AMPS	Check	Between 0% and 25%
Number of anodes to be installed		3		-19.39%	Yes
Total circuit resistance		200.06	OHMS		
Current output of system		0.0060	AMPS		
Consumption Rate (lb/A-yr)		17.00			
Anode life based on anodes to be installed		250.07	YEARS		considers 50% anode efficiency

Design conforms to the following standards:
 National Association of Corrosion Engineers (NACE)
 Standard Recommended Practice SP 0169 latest revision



CorrTech Inc.

Client
Project
Contract
Prepared

NY DDC
WATER MAIN BETWEEN 9TH AND 10TH AVE.
MED598B
2/11/14

Quantity and Cost Estimating

Description	Quantity	Measure	Unit Price Materials	Sub Total	Unit Price Installation	Sub Total	Total
17-pound high potential magnesium anodes	388	each	\$112.00	\$43,456.00	\$120.00	\$46,560.00	\$90,016.00
Stuart Steel Type S Splice Kit	194	each	\$23.00	\$4,462.00	\$50.00	\$9,700.00	\$14,162.00
AWG 8 HMWPE header cable	3104	feet	\$0.52	\$1,614.08	\$2.00	\$6,208.00	\$7,822.08
AWG 10 THWN, Red, White	600	feet	\$0.38	\$228.00	\$1.00	\$600.00	\$828.00
AWG 10 THWN, Red, Blue, Green,	300	feet	\$0.38	\$114.00	\$1.00	\$300.00	\$414.00
Thermite welds, CA-15	60	each	\$2.80	\$168.00	\$50.00	\$3,000.00	\$3,168.00
Copper-copper sulfate reference cells w/50-ft HMWPE 12 yellow	23	each	\$422.00	\$9,706.00	\$50.00	\$1,150.00	\$10,856.00
Counter electrodes w/50-ft AWG 12 THWN Purple	23	each	\$40.49	\$931.27	\$50.00	\$1,150.00	\$2,081.27
Burndy KS-17 Copper Split bolts (for anode splicing and test stations)	250	each	\$3.50	\$875.00	\$25.00	\$6,250.00	\$7,125.00
3M Supper 88- Black Electrical Tape (used with splice kit)	5	each	\$5.00	\$25.00	\$0.00	\$0.00	\$25.00
3M 130 C Rubber Tape (used with splice kit)	5	each	\$5.00	\$25.00	\$0.00	\$0.00	\$25.00
Cans 3M scotchkote electrical coating FD (used with splice kit)	3	each	\$50.00	\$150.00	\$0.00	\$0.00	\$150.00
Royston Handi-Caps (cover thermite weld)	96	each	\$3.38	\$324.48	\$0.00	\$0.00	\$324.48
Test station housing (supplied by NYC DEP)	28	each	\$250.00	\$7,000.00	\$150.00	\$4,200.00	\$11,200.00
Acrylic Tags for Labeling Test Stations	28	each	\$10.00	\$280.00	\$10.00	\$280.00	\$560.00
TOTAL cathodic protection materials and installation				\$69,358.83		\$79,398.00	\$148,756.83



ATTACH TO CONTRACT DOCUMENTS

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

PROJECT ID: MED598B

**TRUNK WATER MAINS IN WEST 30TH STREET BETWEEN 10TH AVENUE AND 9TH AVENUE, ETC.,
TO CONNECT SHAFT 26B TO THE DISTRIBUTION SYSTEM**

INCLUDING SEWER, WATER MAIN, STREET LIGHTING AND TRAFFIC WORK

**Together With All Work Incidental Thereto
BOROUGH OF MANHATTAN**

ADDENDUM NO. 3

DATED: May 2, 2014

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

GAS COST SHARING (EP-7) STANDARD SPECIFICATIONS

**EP-7 GAS COST SHARING
STANDARD SPECIFICATIONS**

TABLE OF CONTENT

I - NOTICE TO ALL BIDDERS; GAS COST SHARING WORK

II - GENERAL PROVISIONS; GAS COST SHARING WORK

1. General
2. Gas Interferences And Accommodations
 - 2a. Water Main Accommodations
 - 2b. Sewer Accommodations
3. Quantity Overruns, EP-7 Funded Bid Items
4. Changes And Extra Work
5. Excavation
6. Backfilling And Street Restoration
7. Non-Responsive Bids
8. Minimum Clearances
9. Work By Facility Operator
10. Materials Furnished By Facility Operator
11. Liability And Insurance
12. Width And Depth Of Excavation
13. Depth And Crossing Angles Of Gas Facilities
14. Maintenance Of Traffic For Gas Work
15. Relocated Gas And Temporary Systems Installation
16. Role Of Company Inspector
17. Coordination With Gas Company

III - TECHNICAL SECTION

- SECTION 6.01 - Trench Crossings; Support And Protection Of Gas Facilities And Services.
- SECTION 6.02 - Extra Excavation For The Installation Of Catch Basin Sewer Drain Pipes With Gas Interferences.
- SECTION 6.02.1 - Extra Excavation For The Installation Of Catch Basin Sewer Drain Pipes With Upstream Inverts Greater Than Six (6) Feet.
- SECTION 6.03 - Removal Of Abandoned Gas Facilities. All Sizes.
- SECTION 6.03.1 - Removal Of Abandoned Gas Facilities With Possible Coal Tar Wrap. All Sizes.
- SECTION 6.04 - Adjust Hardware To Grade Using Spacer Rings/Adaptors. (Street Repaving.)
- SECTION 6.05 - Adjust Hardware To Grade By Resetting. (Road Reconstruction.)
- SECTION 6.06 - Special Care Excavation And Backfilling.
- SECTION 6.07 - Test Pits For Gas Facilities.

IV - STANDARD SKETCHES; GAS COST SHARING WORK

- NO. 1 - Support Requirements For Gas Mains And Services Crossing Excavation Greater Than 4'-0" Wide At Any Angle
- NO. 1A - Support Requirements For Gas Mains Over 16" Diameter Up To And Including 48" Diameter Crossing Excavation At Any Angle
- NO. 2 - Typical Methods Of Measurement For Gas Crossings
- NO. 3 - Utility Crossings During Catch Basin Chute Connection Pipe Installation
- NO. 4 - Utility Crossings During Catch Basin Chute Connection Pipe Installation (Extra Depth)
- NO. 5 - Gas Main Encroachment On And/Or Parallel To Excavation Of Unsheeted Trench

V - PRELIMINARY GAS WORK TO BE PERFORMED BY FACILITY OPERATOR

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 "UTL-GCS-2WS - GAS INTERFERENCES AND ACCOMMODATIONS" (F.S. Fixed Sum). The value of such accommodation shall be computed by multiplying the appropriate unit prices bid to the quantity of work performed, as determined by the Engineer, and applying the total amount thus to be paid

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

2a. Water Main Accommodations:

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

2b. Sewer Accommodations:

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

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

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

4. Changes And Extra Work:

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

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

5. Excavation:

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

6. Backfilling And Street Restoration:

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

7. Non-Responsive Bids:

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

8. Minimum Clearances:

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

9. Work By Facility Operator:

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

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

10. Materials Furnished By Facility Operator:

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

11. Liability And Insurance:

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

12. Width And Depth Of Excavation:

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

13. Depth And Crossing Angles Of Gas Facilities:

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

14. Maintenance Of Traffic For Gas Work:

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

15. Relocated Gas And Temporary Systems Installation:

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

16. Role Of Company Inspector:

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

17. Coordination With Gas Company:

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

III - TECHNICAL SECTION

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

1. Description:

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

2. Method Of Construction:

- A. Protection: In general, the gas facilities shall be protected as required by New York State Industrial Code 753. In particular, the Contractor shall use hand excavation methods (pick and shovel or hand held power tools) directly below the pavement base to expose the gas facilities (marked out by facility operators) and to ascertain the clearances and cover of the facilities with respect to the proposed excavation. Upon exposing the affected facilities sufficiently, at the discretion of the Resident Engineer, to ascertain the foregoing, Contractor shall be permitted to proceed with a combination of hand and machine excavation, as appropriate, outside a zone of protection whose limit shall be defined as a perimeter located twelve (12) inches from the outside face of each gas facility crossings (See "Gas Cost Sharing Work Standard Sketch No. 2"). If the facilities are in direct interference with City work, meaning that "Minimum Clearances" described in "General Provisions; Gas Cost Sharing Work Paragraph No. 8" cannot be maintained, and excavation has to be temporarily or permanently abandoned then this particular location shall become a test pit and dealt with as specified in Section 6.07, and "General Provisions; Gas Cost Sharing Work Paragraphs Nos. 2 and 8".
- B. Support: Gas mains or services crossing excavations equal or less than four (4) feet wide are generally self supporting, unless field conditions as determined by the Resident Engineer require otherwise. The support requirements for gas mains and services crossing excavations greater than four (4) feet wide shall be as shown on the attached "Gas Cost Sharing Work Standard Sketch No. 1" and Contractor shall use sheeting methods that permit the maintenance of gas facilities in their existing locations and configurations. Alternate methods equivalent to those shown on the sketch or accommodations by the facility operator proposed by the Contractor in order to facilitate the execution of the specified work shall be allowable, provided that prior approval is obtained by the Contractor from the Engineer and the facility operator. The support and protection of gas facilities crossings shown on plans, drawings, listings or otherwise identified in this contract shall not be circumvented with the issuance of so called "order outs".

3. Method Of Measurement:

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

4. Payment Restrictions:

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

5. Method Of Payment:

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

6. Price To Cover:

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

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

1. Description:

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

2. Method Of Measurement:

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

3. Method Of Construction:

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

4. Payment Restrictions:

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

- A. Upstream invert chute is more than six (6) feet deep because of gas facilities.
- B. Chute cannot be installed above existing gas facilities because of interferences with other private facilities that are not otherwise covered under this contract, regardless of upstream invert depth.

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

5. Price To Cover:

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

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

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

1. Description:

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

2. Method Of Measurement:

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

3. Method Of Construction:

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

4. Payment Restriction:

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

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

5. Price To Cover:

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

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

1. Description:

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

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

2. Determination Of Operating Status Of Gas Facilities:

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

3. Restrictions:

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

4. Method Of Measurement:

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

5. Price To Cover:

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

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

1. Description:

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

2. Determination Of Operating Status Of Gas Facilities:

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

3. Requirements:

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

4. Method Of Measurement:

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

5. Price To Cover:

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

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

1. Description:

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

2. Determination Of Operating Status Of Gas Facilities:

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

3. Requirements:

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

4. Method Of Measurement:

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

5. Price To Cover:

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

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

1. Description:

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

2. Materials:

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

3. Method Of Measurement:

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

4. Price To Cover:

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

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

1. Description:

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

2. Materials:

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

3. Methods Of Construction:

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

4. Method Of Measurement:

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

5. Price To Cover:

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

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

SECTION 6.06 - Special Care Excavation And Backfilling.

1. Description:

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

2. Applicability Of Section:

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

3. Payment Restriction:

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

4. Method Of Construction:

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

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

5. Method Of Payment:

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

6. Method Of Measurement:

- A. For Paralleling Facilities: Volume calculated as: Depth as measured from existing street surface to the bottom of unsheeted trench excavation allowable by OSHA regulations, multiplied by, the width measured as one (1) foot from the face of excavation toward the center of excavation, multiplied by the length of parallel facility, divided by twenty-seven (27) cubic feet per cubic yard (See "Gas Cost Sharing Work Standard Sketch No. 5"). The gas facility is no longer considered to be in interference once sheeting has been installed, therefore no further compensation for paralleling facilities as described above will be made.
- B. For Encroaching Facilities: Volume calculated as: Depth of trench excavation multiplied by, the width of partially exposed pipe plus one (1) foot, multiplied by the length of facility encroachment, divided by twenty-seven (27) cubic feet per cubic yard (See "Gas Cost Sharing Work Standard Sketch No. 5").
- C. Fully Exposed Gas Facilities: (Not shown on "Gas Cost Sharing Work Standard Sketch No. 5") along and inside trench and/or crossing trench at an angle greater than forty-five (45) degrees and/or a cover depth greater than five (5) feet from the existing street surface. The volume shall be measured as the depth of trench excavation multiplied by the distance measured along the sheeting line between two (2) points of intersections of the gas facilities and the sides of trench excavation, multiplied by the width of trench excavation.
- D. For Additional Excavation And Restoration Due To So Called "Loss Trench", When The Integrity Of Pavement And Soil Above And Around Existing Live Gas Facilities Cannot Be Maintained Due To Its Lack Of Cohesiveness: Volume shall be calculated as: Depth of unsheeted trench excavation multiplied by width measured as distance of facility from closest edge of unsheeted excavation plus, width of facility proper plus, one (1) foot or a maximum width of three (3) feet multiplied by length of facility fully exposed divided by, twenty-seven (27) cubic feet per cubic yard (not shown on "Gas Cost Sharing Work Standard Sketch No. 5").
- E. For Facilities Crossing Excavation For Catch Basins, Or Chutes Installations (When NYCDEP Funded) Or Fire Hydrant Branch Connections, Or Unsheeted Water Main Trench, Or House Sewer And/Or Water Services: Volume calculated as: Depth as defined above multiplied by, the width taken as the outside diameter of pipe or the width of structure plus one (1) foot on either side (two (2) feet), multiplied by, the length of exposed facility crossing the trench, divided by twenty-seven (27) cubic feet per cubic yard (not shown on "Gas Cost Sharing Work Standard Sketch No. 5").

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

7. Price To Cover:

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

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

SECTION 6.07 - Test Pits For Gas Facilities.

1. Description:

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

2. Methods Of Construction:

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

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

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

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

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

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

3. Measurements:

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

4. Price To Cover:

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

GAS COST SHARING STANDARD SPECIFICATIONS
SCHEDULE GCS-A

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

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

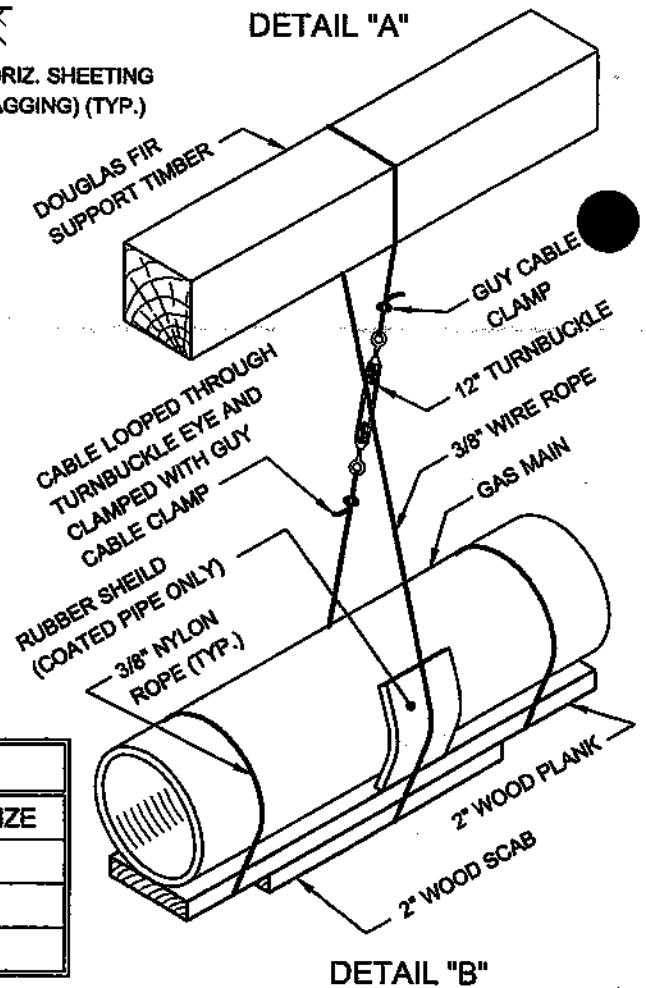
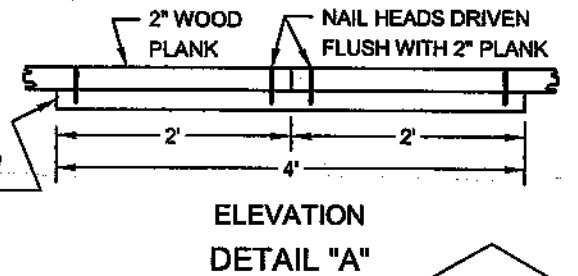
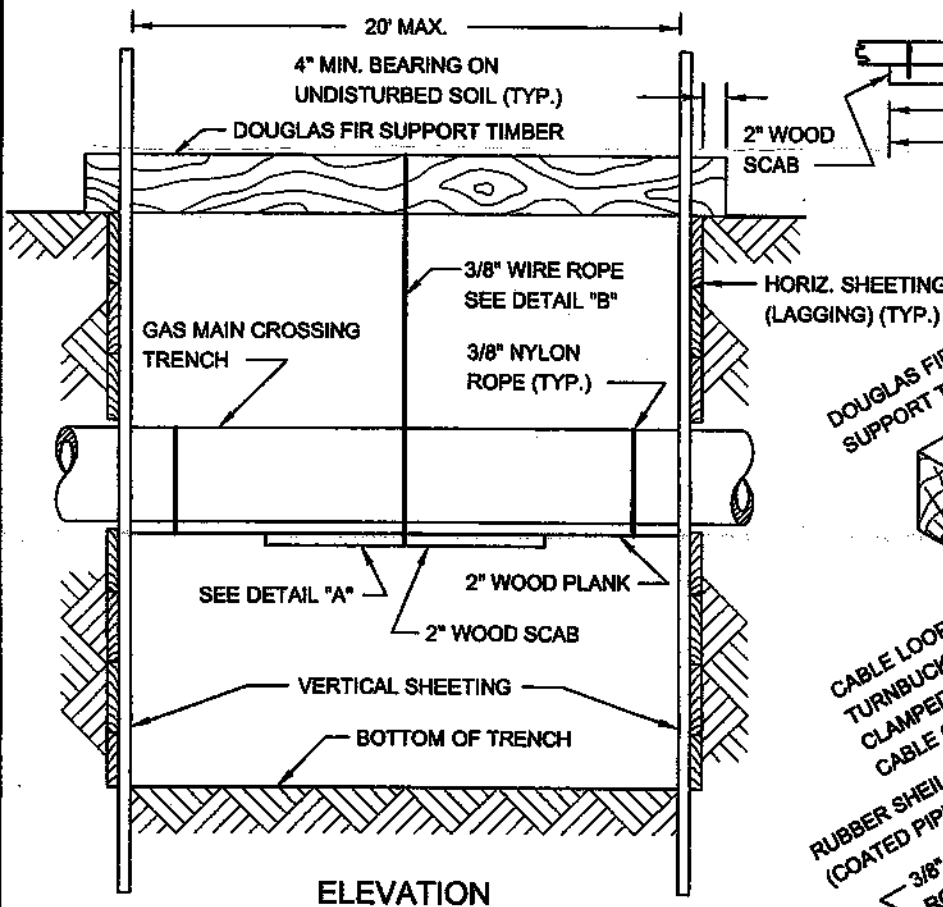
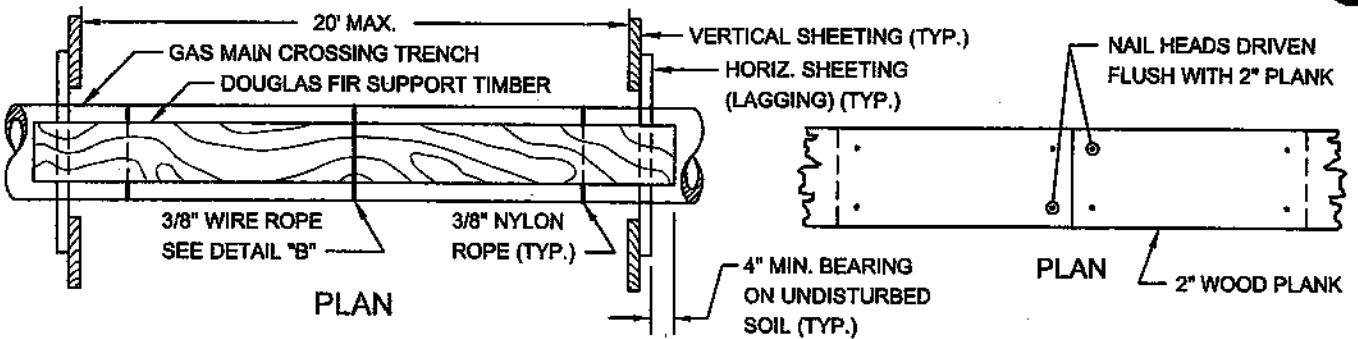
IV - STANDARD SKETCHES; GAS COST SHARING WORK

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

- Sketch No. 1 - Support Requirements For Gas Mains And Services Crossing Excavation Greater Than 4' - 0" Wide At Any Angle
- Sketch No. 1A - Support Requirements For Gas Mains Over 16" Diameter Up To And Including 48" Diameter Crossing Excavation At Any Angle
- Sketch No. 2 - Typical Methods Of Measurement For Gas Crossings
- Sketch No. 3 - Utility Crossings During Catch Basin Chute Connection Pipe Installation
- Sketch No. 4 - Utility Crossings During Catch Basin Chute Connection Pipe Installation (Extra Depth)
- Sketch No. 5 - Gas Main Encroachment On And/Or Parallel To Excavation Of Unsheeted Trench

GAS COST SHARING WORK (SKETCH NO. 1)

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

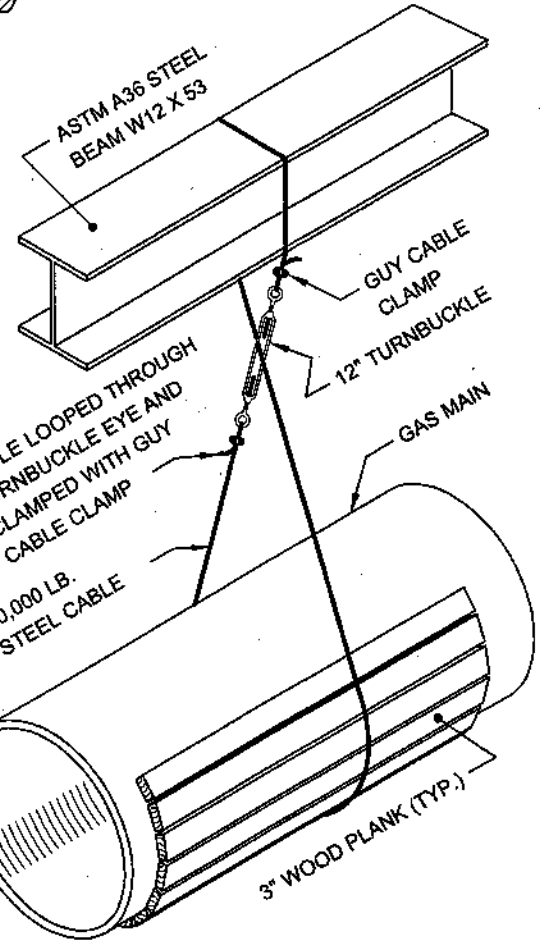
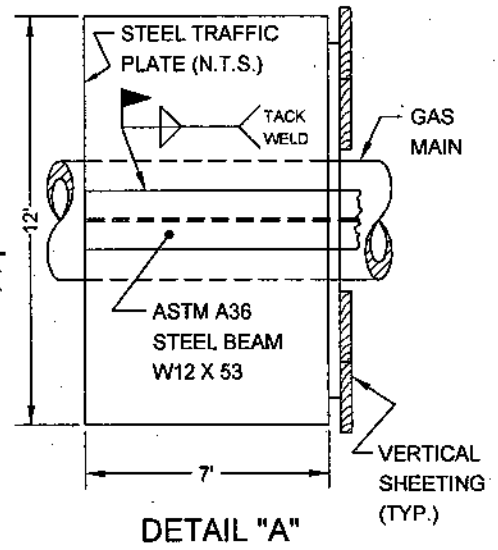
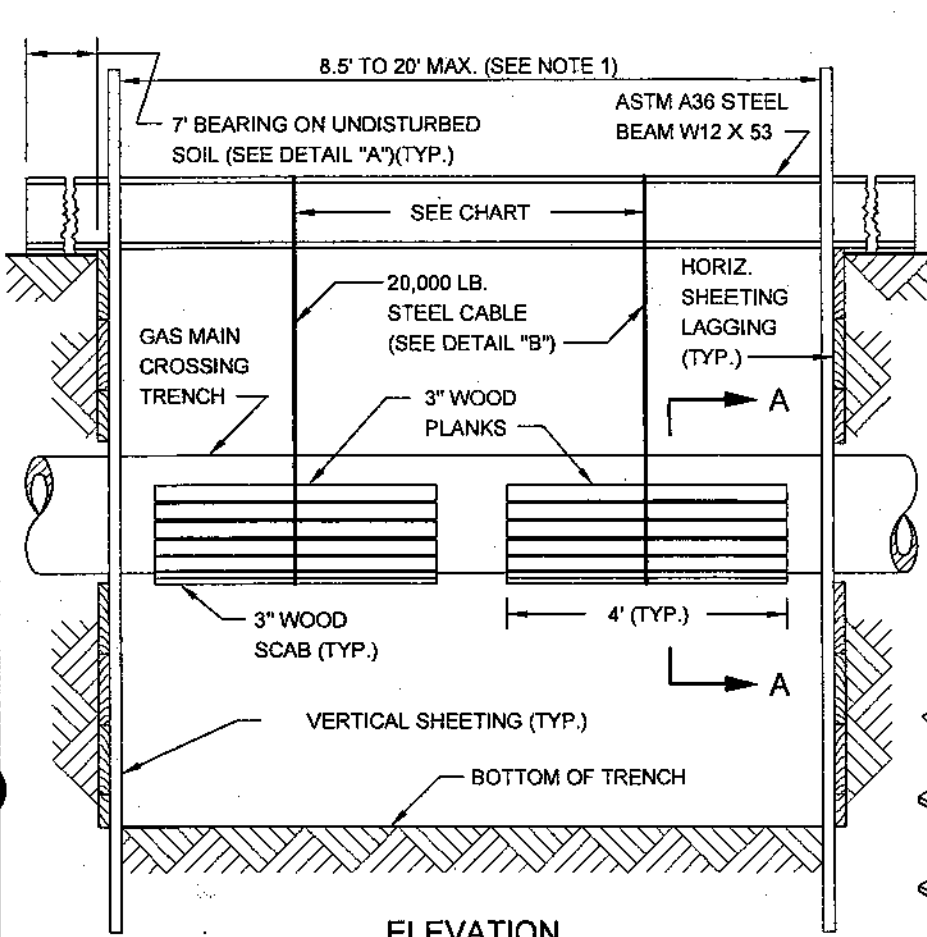


CABLE SUPPORT		TIMBER SUPPORT	
MAIN TYPE	SPACING	MAIN SIZE	TIMBER SIZE
CAST IRON	4' O.C. MAX.	UP TO 6"	6" X 8"
STEEL	10' O.C. MAX.	8" TO 10"	8" X 8"
PLASTIC	10' O.C. MAX.	12" TO 16"	10" X 10"

REVISED OCT. 2004 - L. ADRIEN
REVISED JUNE 1988 - J. WONG W. PATALANOP, ROY

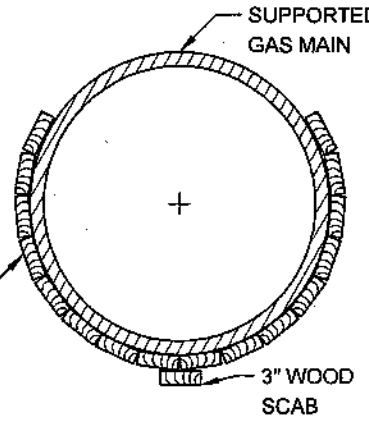
GAS COST SHARING WORK (SKETCH NO. 1A)

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



ELEVATION

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



SECTION A-A

DETAIL "B"

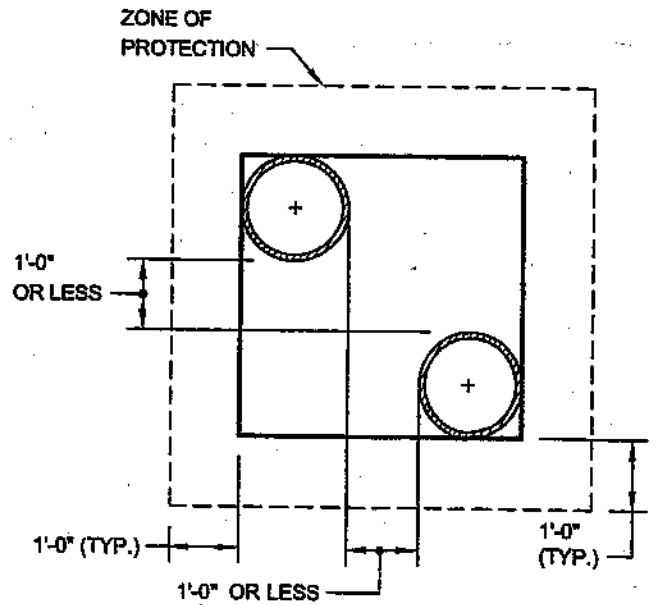
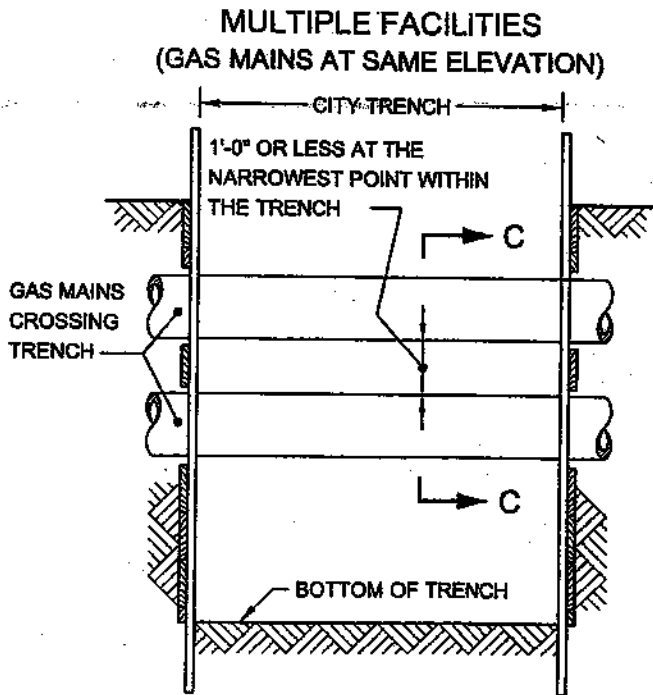
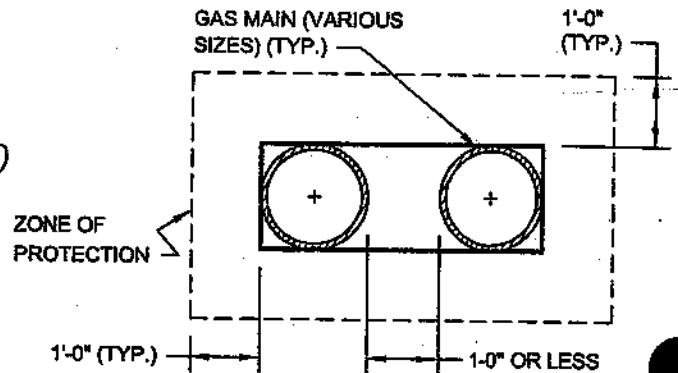
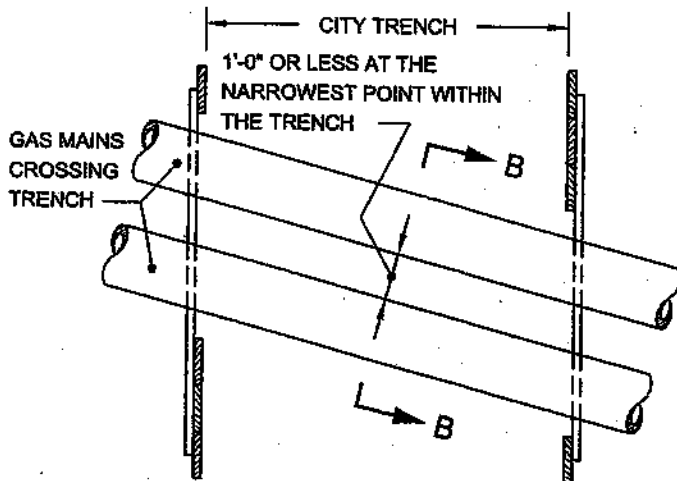
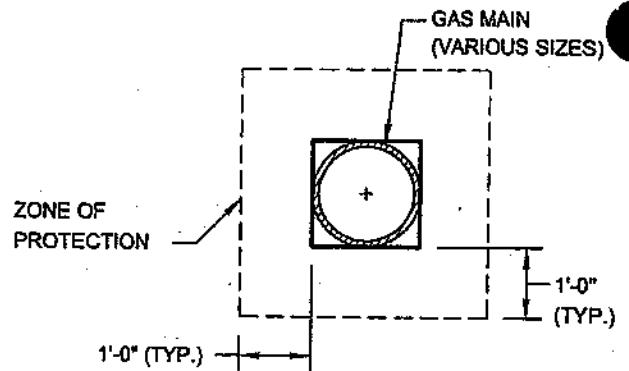
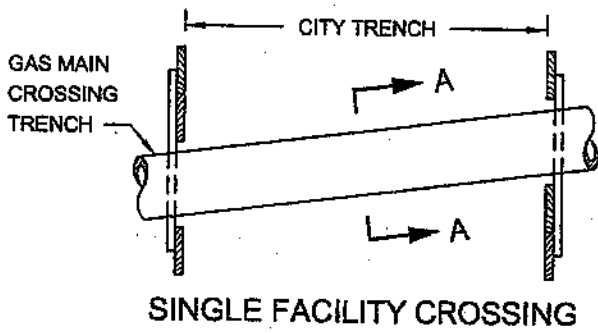
NOTES:

- (1) NO SUPPORT IS REQUIRED FOR GAS MAINS OVER 16" DIA. UP TO AND INCLUDING 48" DIA. CROSSING TRENCHES LESS THAN 8.5' WIDE.
- (2) UNDERMINE A MAXIMUM OF 8.5 L.F. OF CAST IRON GAS MAIN AT A TIME.
- (3) SET STEEL CABLE OVER 3" WOOD PROTECTIVE PLANKS AND PLACE AN ADDITIONAL 3" SCAB ON THE BOTTOM OF THE GAS MAIN.
- (4) ADJUST STEEL CABLE UNTIL DEAD WEIGHT OF THE UNDERMINED GAS MAIN HAS BEEN TAKEN UP BY THE OVERHEAD STEEL BEAM SUPPORT.
- (5) ALL SUPPORTS AND STEEL CABLES CAN BE REMOVED ONLY AFTER THE REQUIRED BACKFILL (AROUND AND BELOW GAS MAIN) HAS BEEN COMPACTED IN ACCORDANCE WITH NEW YORK CITY STANDARDS AND AT THE DIRECTIONS OF THE ENGINEER.

REVISIONS: J. ADRIEN
 3-J. WONG/TW. PATALANOFF: MOY

GAS COST SHARING WORK (SKETCH NO. 2)

TYPICAL METHODS OF MEASUREMENT FOR GAS CROSSINGS

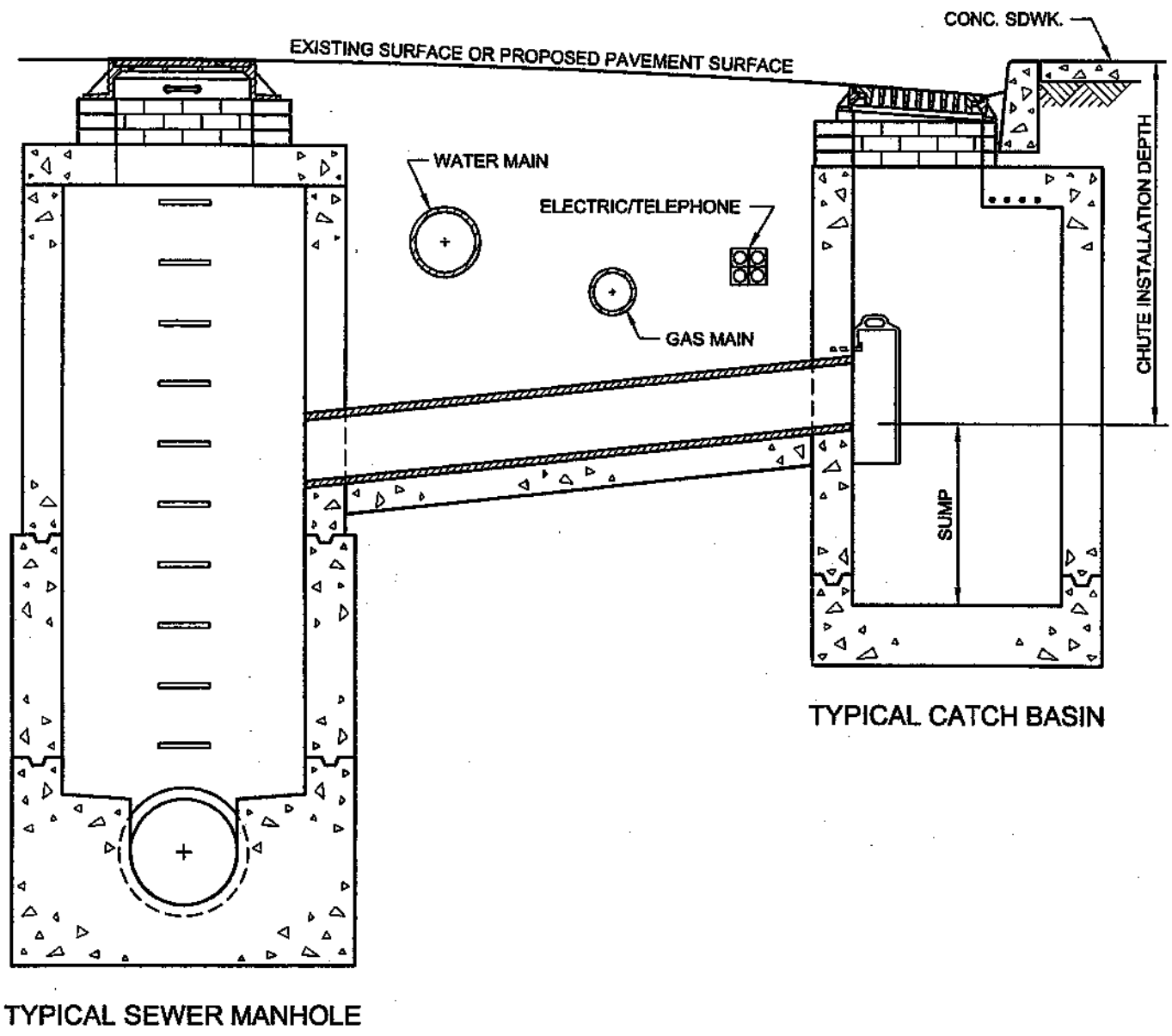


NOTE:

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

REVISED SEPT. 2004 - L. ADRIEN
 REVISED SEPT. 2004 - J. WONG/M. PATALANOP, MOY

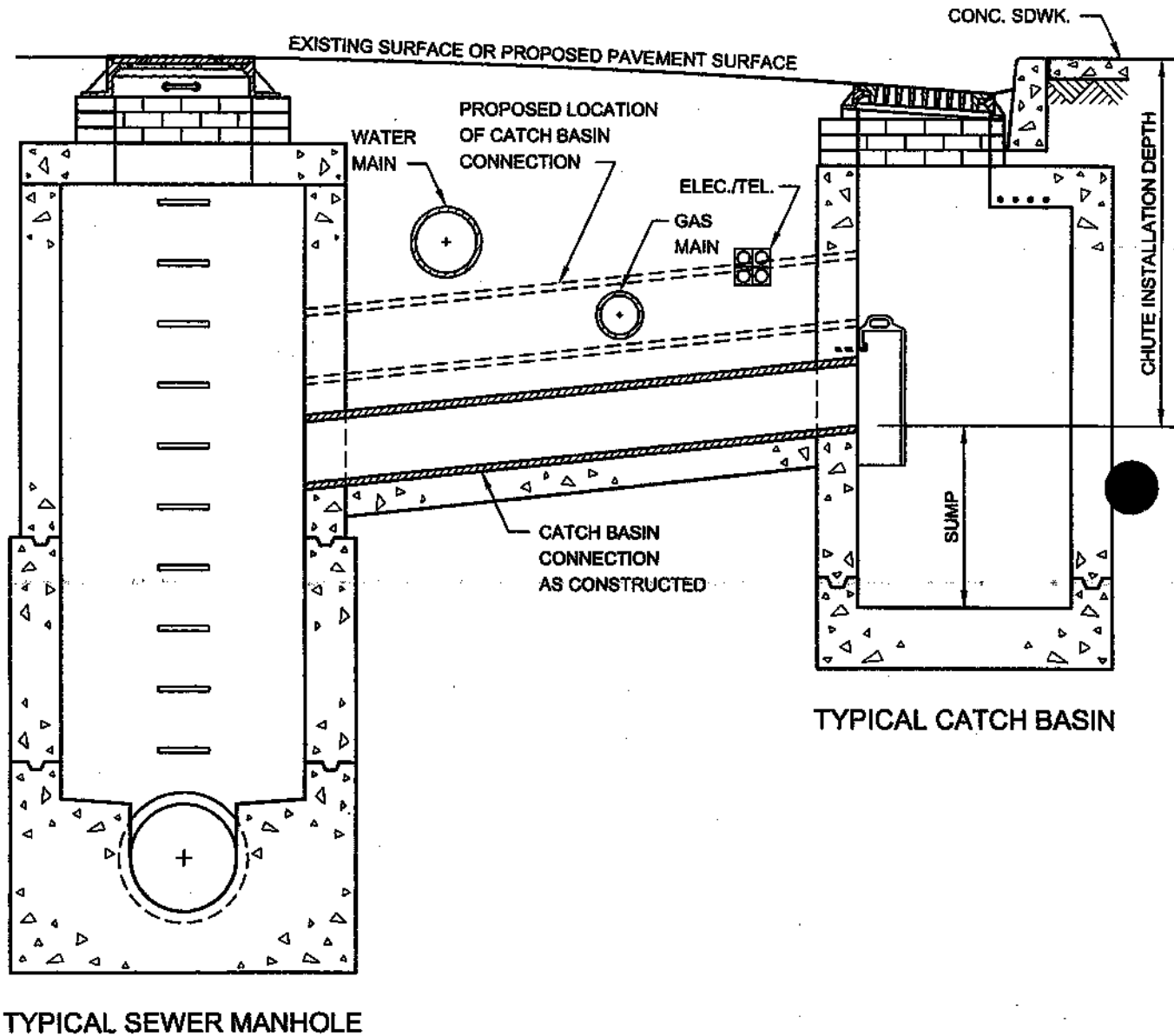
GAS COST SHARING WORK (SKETCH NO. 3)
UTILITY CROSSINGS DURING CATCH BASIN CHUTE
CONNECTION PIPE INSTALLATION



REVISED OCT. 2004 - L. ADRIEN
REVISED OCT. 1988 - J. WONGAW, PATALANOP, MOY

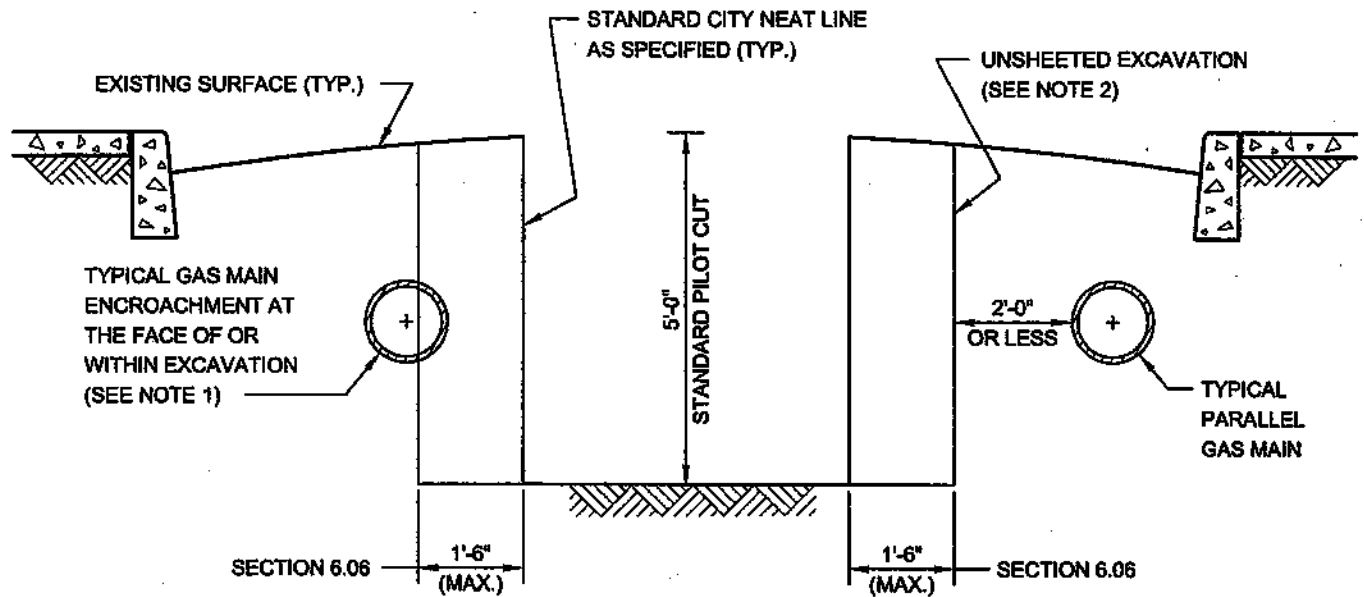
GAS COST SHARING WORK (SKETCH NO. 4)

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



REVISED OCT. 2004 - L. AOSHEN
 REVISED OCT. 1998 - J. WOTKOW, PATALANOF, MOY

GAS COST SHARING WORK (SKETCH NO. 5)
GAS MAIN ENCROACHMENT ON AND/OR PARALLEL
TO EXCAVATION OF UNSHEETED TRENCH



NOTES:

- (1) GAS MAIN LOCATED AS SHOWN MAY HAVE TO BE REMOVED BY THE FACILITY OPERATOR PRIOR TO THE START OF CITY EXCAVATION, OTHERWISE, THE CONTRACTOR WILL BE PAID UNDER SECTION 6.06 FOR THE SAID WORK. IF GAS MAIN IS ABANDONED THEN SECTION 6.03 SHALL APPLY.
- (2) EIGHTEEN (18) INCHES FROM STANDARD NEAT LINE IS THE MAXIMUM ALLOWABLE WIDTH OF AREA THAT MAY BE DISTURBED OR EXCAVATED DURING INSTALLATION OF CERTAIN TYPES OF SHEETING SYSTEMS THAT MEET THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS OF THE DEPARTMENT OF DESIGN AND CONSTRUCTION OF THE CITY OF NEW YORK.

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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 RELOCATION WORK, THE CONTRACTOR IS ADVISED TO CONTACT THE GAS COMPANY REPRESENTATIVE:

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

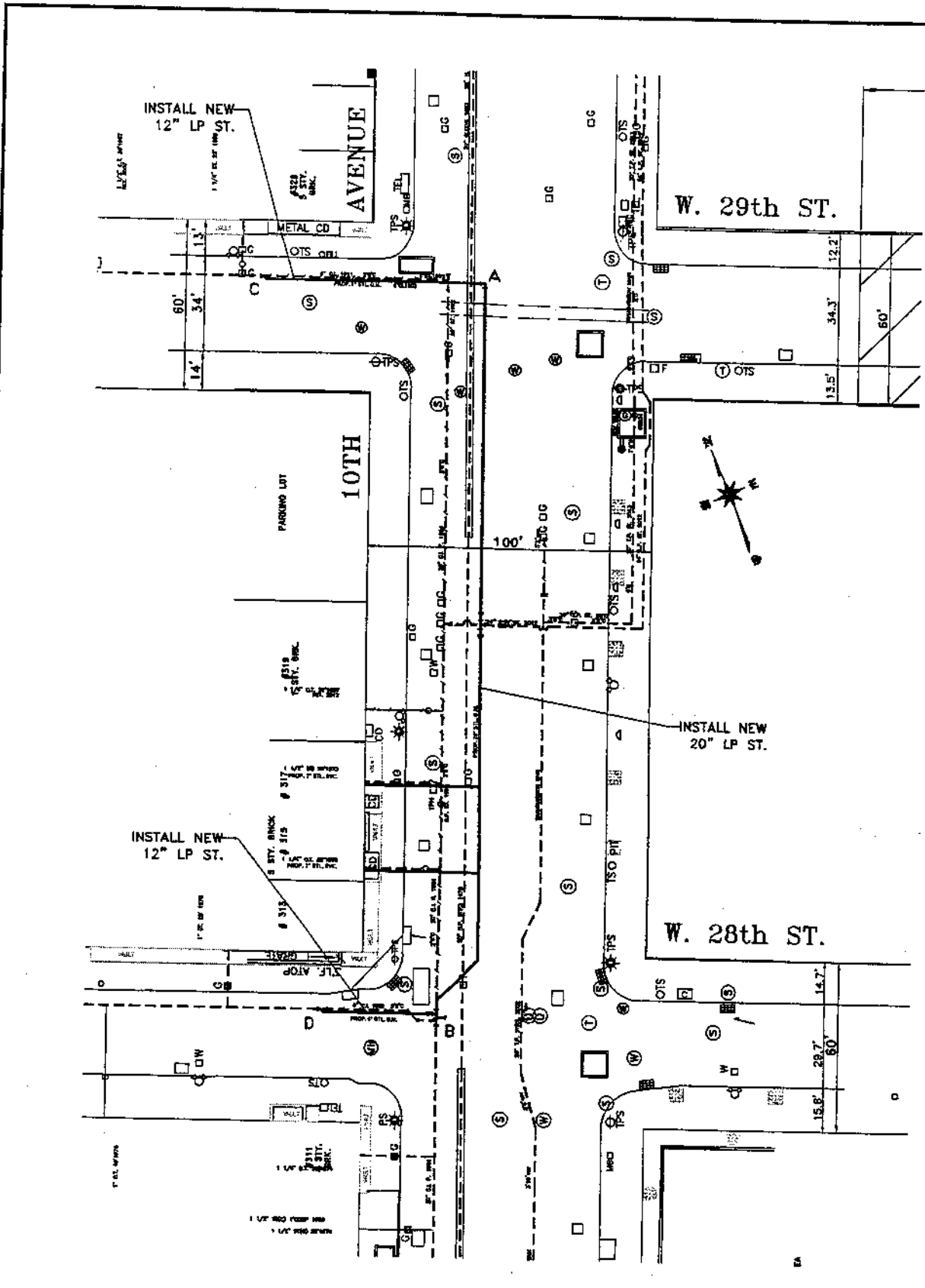
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GAS FACILITY COST ALLOCATION AGREEMENT
PROJECT NO. MED598B

CAPITAL GAS MAIN INSTALLATION

SHEET #	LOC.	ON STREET	FROM	TO	ITEM	SIZE	TYPE	LENGTH	REIMB LENGTH	REMARKS
1	A-B	10TH AVENUE	W. 28TH ST.	W. 29TH ST.	80n	20"	STL	270	270	RETIRE ±270' 20"
1	A-C	W.29TH ST.	10TH AVE.	11TH AVE.	80l	12"	STL	85	85	RETIRE ±85' 8"
1	B-D	W. 28TH ST.	10TH AVE.	11TH AVE.	80l	12"	STL	45	45	RETIRE ±45' 6"
2	E-F	W. 31ST ST.	10TH AVE.	9TH AVE.	80n	20"	STL	142	142	RETIRE ±142' 20"
3	G-H	9TH AVE.	W. 29TH ST.	INTERSECTION	80n	20"	STL	138	138	RETIRE ±130' 20"
3	H-I	9TH AVE.	W. 29TH ST.	W. 28TH ST.	80n	20"	STL	115	115	RETIRE ±110' 20"
3	H-J	W. 29TH ST.	9TH AVE.	8TH AVE.	80n	20"	STL	75	75	RETIRE ±70' 20"
4	K-L	9TH AVE.	W. 30TH ST.	INTERSECTION	80n	20"	STL	77	77	RETIRE ±77' 20"
4	L-M	9TH AVE.	W. 30TH ST.	INTERSECTION	80n	20"	STL	6	6	RETIRE ±6' 20"
4	L-N	9TH AVE.	W. 30TH ST.	INTERSECTION	80n	20"	STL	88	88	RETIRE ±70' 20"
5	O-P	W. 31ST ST.	9TH AVE.	W. 29TH ST.	80n	20"	STL	115	115	RETIRE ±110' 20"
5	R-P	9TH AVE.	W. 31ST ST.	10TH AVE.	80n	20"	STL	115	115	RETIRE ±110' 20"
5	P-Q	9TH AVE.	W. 31ST ST.	INTERSECTION	80n	20"	STL	28	28	RETIRE ±28' 20"
5	Q-S	W. 31ST ST.	9TH AVE.	INTERSECTION	80n	20"	STL	13	13	RETIRE ±13' 20"
5	Q-T	9TH AVE.	W. 31ST ST.	8TH AVE.	80l	12"	STL	100	100	RETIRE ±100' 8"
5	Q-T	9TH AVE.	W. 31ST ST.	W. 30TH ST.	80n	20"	STL	63	63	RETIRE ±63' 20"

A3-22A

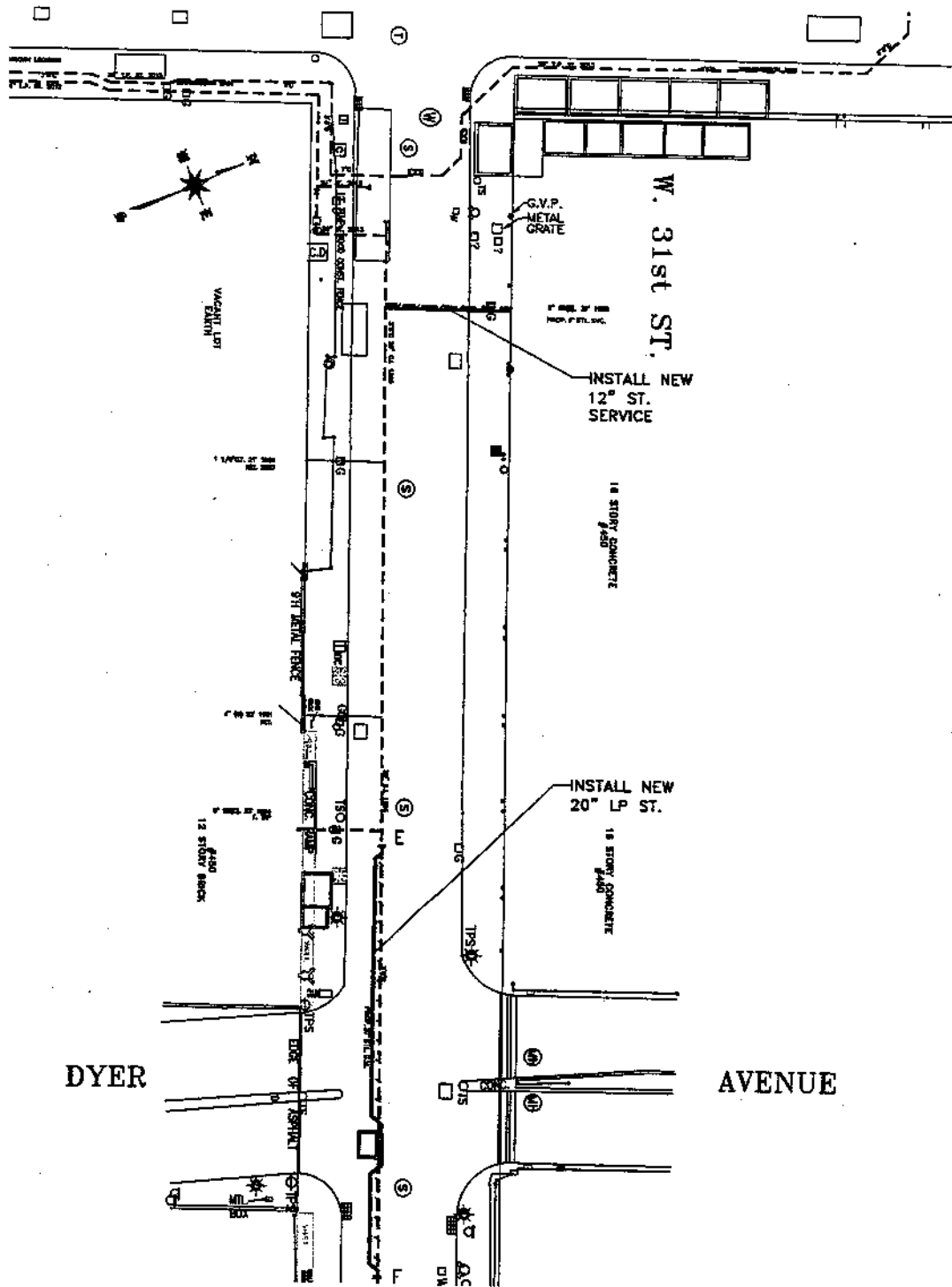


NOVEMBER, 2013
 SCALE = 1:50
 SHEET 1 OF 5



Consolidated Edison Company of New York, Inc.
 CAPITAL PROJECT: MED-598B
 CONSTRUCTION OF WATER MAINS
 9TH AND 10TH AVENUES FROM W. 31 ST. TO W. 28 ST.
 BOROUGH OF THE MANHATTAN

A3-22B

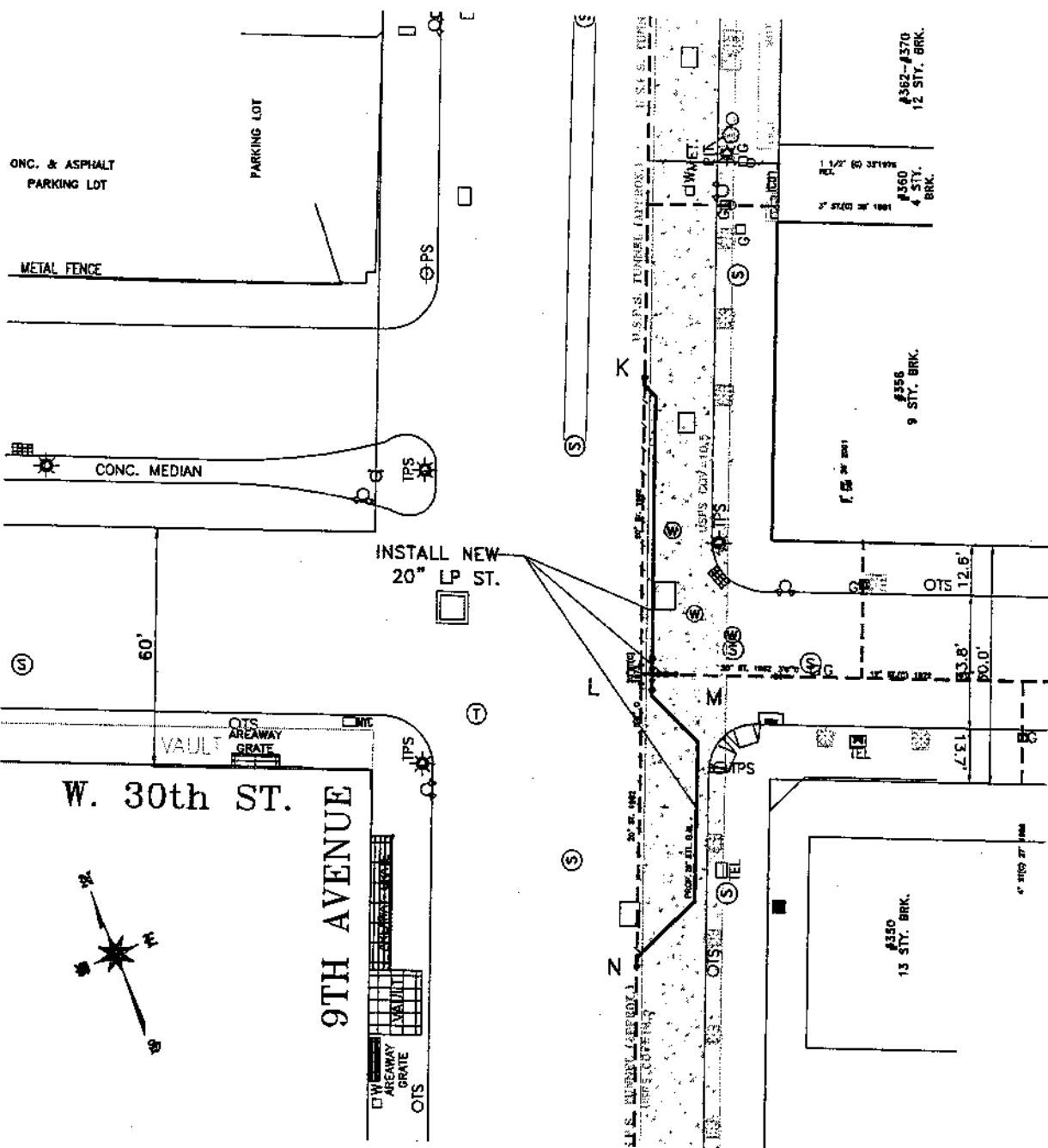


NOVEMBER, 2013
 SCALE = 1:50
 SHEET 2 OF 5



Consolidated Edison Company of New York, Inc.
 CAPITAL PROJECT: MED-598B
 CONSTRUCTION OF WATER MAINS
 9TH AND 10TH AVENUES FROM W. 31 ST. TO W. 28 ST.
 BOROUGH OF THE MANHATTAN

A3-22C



NOVEMBER, 2013

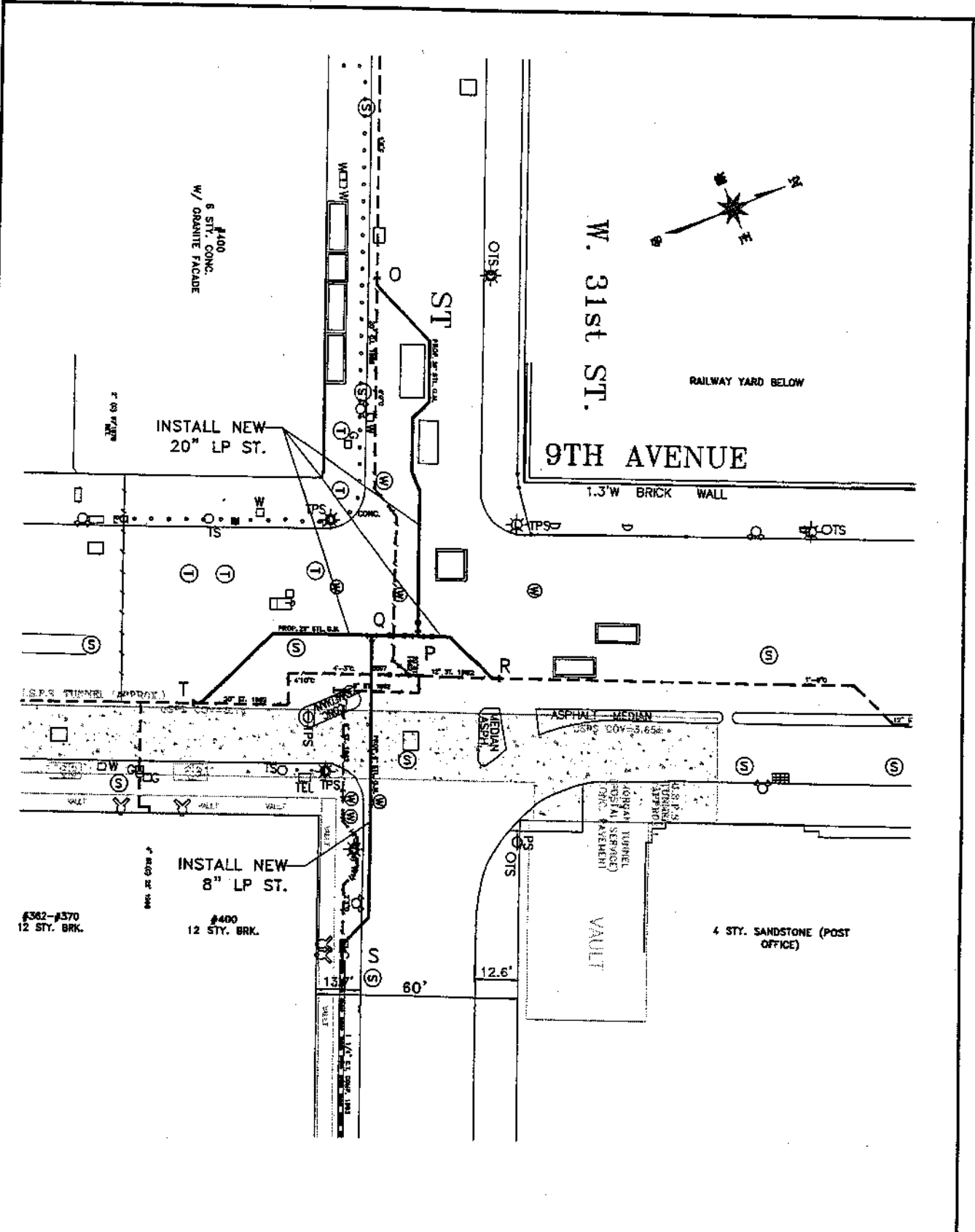
SCALE = 1:40

SHEET 4 OF 5



Consolidated Edison Company of New York, Inc.
CAPITAL PROJECT: MED-598B
 CONSTRUCTION OF WATER MAINS
 9TH AND 10TH AVENUES FROM W. 31 ST. TO W. 28 ST.
 BOROUGH OF THE MANHATTAN

A3-22E



NOVEMBER, 2013
 SCALE = 1:40
 SHEET 5 OF 5



Consolidated Edison Company of New York, Inc.
 CAPITAL PROJECT: MED-598B
 CONSTRUCTION OF WATER MAINS
 9TH AND 10TH AVENUES FROM W. 31 ST. TO W. 28 ST.
 BOROUGH OF THE MANHATTAN

A3-22F

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

(NO TEXT IN THIS AREA, TURN PAGE)

**SCOPE OF WORK
SUPPORT AND PROTECTION
FOR CONTRACT NUMBER MED-598B**

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

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

2 in 10th Ave. Bet. W 28th St. & W 29th St.

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

1 in 9th Ave. @ W 29th St.

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

2 in 10th Ave. Bet. W 28th St. & W 29th St.

1 in 9th Ave. Bet. W 28th St. & W 29th St.

1 in 9th Ave. Bet. W 29th St. & W 30th St.

1 in NEC 9th Ave. & W 30th St.

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

5 in 10th Ave. @ W 29th St.

1 in 10th Ave. Bet. W 28th St. & W 29th St.

3 in 9th Ave. @ W 31st St.

2 in 9th Ave. @ W 30th St.

2 in 9th Ave. @ W 29th St.

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

1 in 10th Ave. Bet. W 29th St. & W 30th St.

1 in 9th Ave. @ W 31st St.

2 in 9th Ave. @ W 29th St.

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

1 in 10th Ave. Bet. W 29th St. & W 30th St.

1 in 9th Ave. Bet. W 28th St. & W 29th St.

1 in 9th Ave. @ W 29th St.

2 in 10th Ave. @ W 29th St.

**SCOPE OF WORK
SUPPORT AND PROTECTION
FOR CONTRACT NUMBER MED-598B**

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

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

1500 in Various Locations As Required

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

200 in Various Locations As Required

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

5 in Various Locations As Required

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

5 in Various Locations As Required

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

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

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

100 in Various Locations As Required.

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

1600 in Various Locations As Required, Including But Not Limited To The Following
Locations:

10th Ave. Bet. W 28th St. & W 29th St.
W 29th St. Bet. 10th Ave. & 11th Ave.
W 28th St. Bet. 10th Ave. & 11th Ave.
W 31st St. Bet. 9th Ave. & 10th Ave.
9th Ave. @ W 29th St.
9th Ave. Bet. W 28th St. & W 29th St.
W 29th St. Bet. 9th Ave. & 8th Ave.

**SCOPE OF WORK
SUPPORT AND PROTECTION
FOR CONTRACT NUMBER MED-598B**

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

9th Ave. @ W 30th St.
9th Ave. Bet. W 29th St. & W 30th St.
W 31st St. Bet. 9th Ave. & 10th St.
W 31st St. @ 9th Ave.
W 31st St. Bet. 9th Ave. & 8th Ave.
9th Ave. Bet. W 30th St. & W 31st St.
W 31st St. Bet. 10th Ave. & 9th Ave.

MED598B - Shaft 26B Connections: W. 28th - W. 31st Streets, 9th & 10th Aves. Item 6.09 - Trench Excavation/ Backfill Calculation						
SHEET	CAPITAL ITEMS	Trench Dimensions				Item 6.09 (CY)
		L	W	D		
1	10th Avenue b/t W. 28th & W. 29th Streets	270	4.67	5.17		241.44
1	W. 29th Street b/t 10th & 11th Avenues	85	3.00	4.50		42.50
1	W. 28th Street b/t 10th & 11th Avenues	45	3.00	4.50		22.50
1	W. 31st Street b/t 9th & 10th Avenue	142	4.67	5.17		126.98
2	9th Avenue & W. 29th Street	138	4.67	5.17		123.40
2	9th Avenue b/t W. 28th & W. 29th Streets	115	4.67	5.17		102.84
2	W. 29th Street b/t 9th & 8th Avenues	75	4.67	5.17		67.07
2	9th Avenue & W. 30th Street	83	4.67	5.17		74.22
2	9th Avenue b/t W. 29th & W. 30th Streets	88	4.67	5.17		78.69
2	W. 31st Street b/t 9th & 10th Avenue	115	4.67	5.17		102.84
2	W. 31st Street & 9th Avenue	41	4.67	5.17		36.66
2	W. 31st Street b/t 9th & 8th Avenues	100	3.00	4.50		50.00
2	9th Avenue b/t W. 30th & W. 31st Streets	63	4.67	5.17		56.34
2	W. 31st Street b/t 10th & 9th Avenues	37.00	2.25	3.83		11.81
1,2	Various Services (<3")	236.00	2.25	3.83		75.32

(A) Gas trench volume 1212.60
 (B) Tie in pits volume 129.86
 15ea.
 (C) TP for Gas Services 12.44
 8 ea.
 (A)+(B)+(C) 1354.90
 add 20% 270.98
 Total (Item 6.09) 1625.89
 SAY 1600

**SECTION 6.09 - Trench Excavation and Backfill for New Gas Mains and Services
(To be performed by City Contractor)**

1. Description:

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

2. Materials:

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

3. Method of Construction:

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

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

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

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

4. Method of Measurement:

The quantity to be measured for payment shall be the number of cubic yards (C.Y.) of trench actually excavated, including roadway pavement, base and/or sidewalk concrete removed within the limits of the trench as directed by the Resident Engineer in consultation with the facility operator. The volume occupied by existing pipes or other structures will be deducted from the total volume measured as shown on drawing EP-7 SECT. 6.09 GAS SPECIALTY CONTRACTOR WORK (Sheets 1 & 2), or as encountered based on existing field conditions.

5. Price to Cover:

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



conEdison

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

DISTRIBUTION ENGINEERING
TOOLS AND STRUCTURES

SPECIFICATION EO-1181
REVISION 6
May 2010

EFFECTIVE DATE
June 1, 2010

GENERAL SPECIFICATION FOR BACKFILLING
OF TRENCH AND SMALL OPENINGS

FILE: CONSTRUCTION STANDARDS MANUAL NO. 3, SECTION 37

TARGET AUDIENCE	REGIONAL CONSTRUCTION
NESC REFERENCE	NONE

A3-22H

TABLE OF CONTENTS

1.0	<u>PURPOSE</u>	3
2.0	<u>APPLICATION</u>	3
3.0	<u>DEFINITIONS</u>	3
4.0	<u>REQUIREMENTS</u>	4
4.1	<u>Compaction</u>	4
4.2	<u>Density Testing</u>	5
4.3	<u>Procedure For Electric Duct Backfill</u>	5
4.4	<u>Procedure For 138kv Cable Pipe Installation</u>	6
4.5	<u>Procedure For Backfilling Gas Trenches & Small Openings</u>	6
4.6	<u>Backfilling Concrete Coated & Steel Jacketed Steam Main Trenches</u>	7
5.0	<u>PRECAUTIONS</u>	7

Specification	Revision	Rev Date	Effective Date	Copyright Information	Page
EO-1181	6	05/01/2010	06/01/2010	2007-2008 Consolidated Edison Co. of New York, Inc.	2/7
Filing Information		Construction Standards		Manual No. 3, Section 37	

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A3-22 I

1.0 PURPOSE

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

2.0 APPLICATION

This specification applies to all Con Edison Customer Service Areas.

3.0 REFERENCE SPECIFICATION AND DEFINITIONS

- 3.1 The term "Engineer" used in this specification refers to the Distribution Tools & Structures Engineer or his authorized representative.
- 3.2 The term Construction Representative shall mean the Construction Manager, Contract Construction Manager, or his authorized representative.
- 3.3 The terms "Type 3/8", "Type I" and "Type II" shall be as defined in EO-8085.
- 3.4 The term "small opening" shall refer to street openings which are 6' x 5' or smaller.
- 3.5 The term "suitable backfill" shall refer to in-place material excavated from the trench or opening which satisfies the following requirements:
- 3.5.1 The excavated material shall be free of all broken asphalt pavement, broken concrete, brick, all organic material, and all debris.
- 3.5.2 The excavated material shall be substantially sandy soil gritty and granular in texture and have a small amount of rocks compared to the total volume of soil. It shall have no rocks greater than 2 inches in size.
- 3.5.3 The excavated material shall be substantially free of clay like or clayey soil. Clayey soil shall be determined as soil that is powder like in texture when dry and capable of being molded when wet.

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A3-22J

- 3.5.4 Frozen backfill material shall either be removed or broken into small particles before being compacted. Excessively wet material shall be mixed with dry material to reduce moisture content before backfilling.
- 3.5.5 Fill materials, known as "Stone Dust", or "Pond Fill", containing crystalline silica shall not be used as backfill material.
- 3.5.6 If there are any questions as to suitability of the excavated material, the Engineer shall be consulted.
- 3.6 The term "mechanical compaction" shall mean the use of equipment, either impact or plate vibratory, which is designed specifically for soil compaction. The term "hand tamping" shall mean compaction of backfill by means of a plate tamper, which will impart sufficient force to compact the backfill material.
- 3.7 The term "wetted backfill" shall mean backfill material containing sufficient moisture so that when molded by hand it will form a firm shape. If the specimen crumbles it lacks sufficient moisture. If water is squeezed from the specimen it contains too much moisture.

4.0 REQUIREMENTS

4.1 Compaction

- 4.1.1 The term "compacted", for both "mechanical compaction" and "hand tamping", shall mean a minimum level of compaction of 95% of the maximum dry density of the backfill material used as determined by a Standard Proctor Test (ASTM D-698). In lieu of a Standard Proctor Test a "one point" test shall be done by taking a sample of the soil and compacting it using a Standard Proctor mold procedure and determining the maximum in field density that can be obtained and 95% of this value should be used as a comparison to the actual compaction achieved.
- 4.1.2 In lieu of the above, when using "suitable backfill", compaction will be considered adequate if density readings of the compacted fill equal 95% of the readings of the in-place material (i.e. density readings must be taken at the time of excavation to use as reference for compaction). For this type of "before and after" comparison, devices such as the nuclear density tester may be used.

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A3-22K

4.2 Density Testing

- 4.2.1 The sand-cone test, ASTM D1556 or nuclear density tester may be used for all in place density tests. Other methods may be used upon approval of the Engineer.
- 4.2.2 The Construction Representative or Engineer may order as many in-place density tests as he deems necessary to insure proper compaction. If an in-place density test indicates insufficient compaction, the Contractor shall re-compact the area in question until the backfill is compacted to the requirements set forth in paragraph 4.1.1. The Contractor may elect to take additional tests 5 feet on both sides of the test which failed, and average the values of the three readings. If the average value of the three tests meets the compaction requirements, the area in question will be considered sufficiently compacted and no additional compaction will be required. If the average value does not meet the compaction requirements, the Contractor will be required to pay for the two additional in-place density tests and to re-compact the area, which has been determined to be insufficiently compacted. Test after recompaction.

4.3 Procedure For Electric Duct Backfill

- 4.3.1 The following backfill procedure shall be used for concrete duct, asbestos cement, and plastic and fibre conduit.
- 4.3.2 Where the ducts are in a rock area, a minimum 4" bed of Type 3/8" backfill shall be placed. It shall be wetted and mechanically compacted to form a firm base for the support of the ducts. Suitable backfill shall be free of stones larger than 2 inches.
- 4.3.3 For concrete conduit, asbestos cement conduit, plastic and fibre conduit encased in concrete, the trench shall be filled with suitable backfill as defined in paragraph 3.5 or Type II material (EO-8085) in 12 inch wetted lifts. Each lift shall be mechanically compacted.
- 4.3.4 For direct buried asbestos cement, plastic and fibre conduit, the trench shall be filled with Type 3/8 material to a level of 12 inches above the ducts. It shall be compacted by hand in a no more than 12 inch wetted lifts. The remaining trench shall be backfilled with suitable backfill or Type II material (EO-8085) in 12 inch wetted lifts mechanically compacted.

Specification	Revision	Rev Date	Effective Date	Copyright Information	Page
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4.4 Procedure For 138kv Cable Pipe Installation

- 4.4.1 All installation of 138KV and 345KV cable pipe type feeders shall comply with the requirements set forth in CE-TS-3352.
- 4.4.2 The requirement for the use of excavated material as "suitable backfill" shall follow the requirements of paragraph 3.5.

4.5 Procedure For Backfilling Gas Trenches & Small Openings

4.5.1 Coated Steel & Plastic Gas Pipe Trenches

- a. A smooth surface shall be excavated in the bottom of the trench and the pipes laid to grade. Where the trench is in a rock area, a minimum of 4 inches of Type 3/8 material shall be placed, wetted and mechanically compacted to form a firm base for the gas pipes.
- b. The trench shall be backfilled with Type 3/8 material to a height of 12 inches above the pipe in a maximum of 12 inch wetted lifts which shall be hand compacted.
- c. The remaining trench shall be backfilled with Type 3/8, Type I, Type II or suitable existing backfill in a maximum of 12 inch wetted lifts, which shall be mechanically compacted.
- d. The density of the compacted backfill shall be tested and accepted or rejected in accordance with paragraph 4.2.2.

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

- a. Backfill material shall be Type 3/8, or suitable existing backfill, which has been segregated to remove all rocks, which may damage the pipe coating.
- b. Openings shall be backfilled to a height of 12 inches above the pipe in a maximum of 12 inch wetted lifts, which shall be hand, compacted. The remainder of the openings shall be backfilled in 12 inch wetted lifts with Type I or Type II or "suitable backfilled" as per paragraph 7 which shall be mechanically compacted.
- c. The density of the compacted backfill shall be tested and

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A3-22M

accepted or rejected in accordance with paragraph 4.2.2.

4.6 Backfilling Concrete Coated & Steel Jacketed Steam Main Trenches

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

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

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

5.0 PRECAUTIONS

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

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

Marco Meza

<u>REVISION No. 5</u> Revised section 4.4 (added installation spec.). Due to be reviewed 05/2015	<u>FILE:</u> Construction Standards Manual 3 Section 237 - Subway
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A3-22N

309495

REVISIONS

R.GROGAN 7/21/98 0

M. BALDWIN 2/02/06 1
 REVISED TRENCH WIDTH FOR 4" THRU 12" MAINS IN TABLE 1
 REMOVED REQUIREMENT FOR SANDBAGS FOR STEEL DISTRIBUTION MAIN.
 RAL. 2/1/06

M. BALDWIN 4/04/06 2
 ADDED REQUIREMENTS OF SAND BAGS FOR STEEL DISTRIBUTION MAIN.
 RAL. 4/4/06

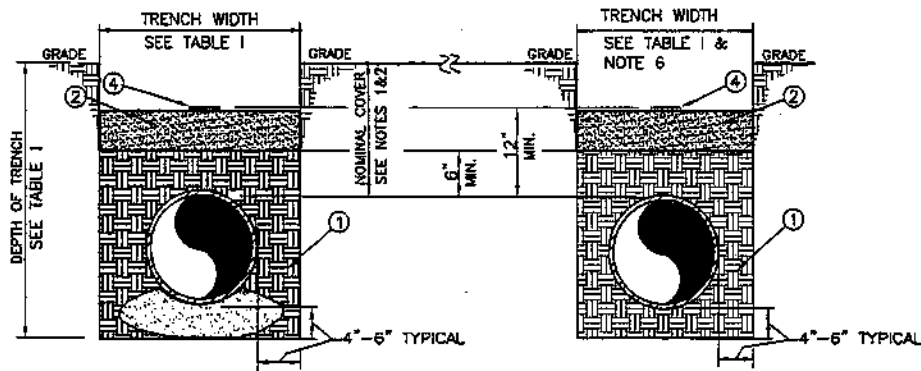
M. BALDWIN 3/12/08 3
 REVISED TRENCH WIDTH OF 16" AND GREATER SIZE MAINS IN TABLE 1.

P.L.S. 1/28/08 4
 M. BALDWIN 04/29/13

REVISED TITLE REVISED DRAWING IN ITS ENTIRETY.

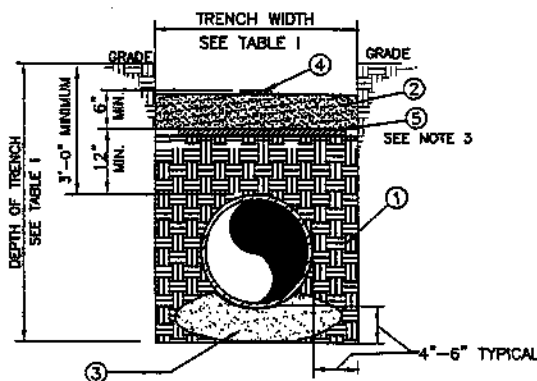
HT 04/24/13

GAS OPERATIONS CONSTRUCTION STDS. VOLUME 2 SECTION 5



STEEL MAIN OR SERVICE (DISTRIBUTION)

PLASTIC MAIN OR SERVICE (DISTRIBUTION)



STEEL MAIN (TRANSMISSION)

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

ITEM NO.	DESCRIPTION	SPEC. OR DWG. NO.	CLASS & STOCK NO.
1	3/8" SANDY CLEAN FILL/ RECYCLED BACKFILL	EO-8005	
2	SUITABLE BACKFILL	EO-1181	
3	SANDBAG	ASTM C-33	000-0075
4	"WARNING BURIED GAS LINES BELOW" TAPE	G-8833 G-9100	024-8880
5	STEEL PROTECTIVE COVER	EO-6789-C	

NOTES:

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

REFERENCE SPECS & DWGS:

- GAS MAIN INSTALLATION G-8005
- GAS SERVICE INSTALLATION G-8100
- GAS SERVICE SIZING G-8200
- STEEL PROTECTION PLATES EO-6789-C; G-8851; G-11863
- PROPER CLEARANCES CI-920-1; EO-5570-C
- SHEETING EO-16954-B; EO-16965-B
- BACKFILLING EO-1181; EO-8005

THIS DWG. SUPERSEDES - - - - EO-7922

**TRENCH EXCAVATION FOR
 GAS MAINS & SERVICES UP TO 350 PSIG**

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

DATE 7/21/98 DWG. NO. **309495** REV. 4
 LAST REV. 04/29/13

A3-220

END OF APPENDUM NO. 3

This Addendum consists of fifty-two (52) pages

A3-22 P

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

PROJECT ID: MED598B

TRUNK WATER MAINS IN W. 30TH STREET BETWEEN
10TH AVENUE AND 9TH AVENUE, ETC.
TO CONNECT SHAFT 26B TO THE DISTRIBUTION SYSTEM

INCLUDING SEWER, WATER MAIN, STREET LIGHTING AND TRAFFIC WORK
TOGETHER WITH ALL WORK INCIDENTAL THERETO

BOROUGH OF MANHATTAN
CITY OF NEW YORK

ADDENDUM NO. 4

DATED: July 22, 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 A4-53)
 - D. Section U-3 Page A4-54 (as per the Private Utilities reference document for SECTION U called "CET SPECIFICATIONS AND SKETCHES", dated November 2010), Test Pits, Pages (A4-55 through A4-59) and Sketches, Pages (A4-60 through A4-64) in this Addendum; and,
 - E. Utility drawings (16 Sheets) consisting of:
 - * Coned General Notes and Conditions (1 sheet)
 - * Coned Electric Facilities (7 sheets)
 - * Coned Steam Facilities (2 sheets)
 - * Coned Capital Relocations (2 sheets)
 - * Coned Special Care Excavations (2 sheets)
 - * ECS Special Care Excavation CET 700 (1 sheet)
 - * ECS Facility Plate (1 sheet)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, ¶2, informs the Contractor that the duration of the Contract as shown in Schedule A includes the time which may be necessary for the Contractor to perform the necessary Interference Work.
 - C. The Contractor is hereby informed that the duration of the Contract as shown in Schedule A includes the time which may be necessary for the Company to perform whatever portion of the Interference Work which the Company elects to perform with its own forces or by specialty contractors retained by the Company.
 - D. Section U informs the Contractor that the City has entered into a Utility Agreement with the Companies regarding interferences to the City work in this Contract created by the facilities owned and/or operated by such Companies. Pursuant to this Addendum, a sample of the Utility Agreement letter as executed by the Companies is annexed on page A4-13, as an Exhibit to the Contract. Signed copies of those Utility Agreement letters are on file with NYCDDC.
 - E. The City has no contract with any of the Companies for work on or adjacent to the site of work under this Contract, and the Companies are not "Other Contractors" as defined for the purposes of this Contract. The Contractor is reminded, however, that pursuant to Section U, ¶4, the City will not compensate the Contractor for any direct and/or indirect costs related to Interference Work, regardless of whether such Interference Work is covered by an Interference Agreement between the Contractor and the Company or is performed by the Company using its own forces or by specialty contractors retained by the Company.
 - F. Section U, ¶14, provides that the provisions of Section U are material provisions of the Contract and that the Contractor's failure to comply with the procedures set forth in Section U are sufficient for the Commissioner to declare the Contractor in default pursuant to Article 48 of the Contract. Pursuant to this Addendum, the Contractor is informed that the Performance Bond required of the Contractor pursuant to the Contract is not deemed to guarantee performance of any of the Interference Work.

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

The Contractor is hereby notified that pursuant to the law and franchise agreements issued by the City, certain private utility and public service companies named in Schedule U-1 ("the Companies") own and/or operate surface and/or subsurface facilities within the limits of this contract. The existence of these facilities impacts the productivity of the City work called for in the contract. In order to improve coordination of the City construction with the private utility facilities owned and/or operated by the Companies named in Schedule U-1, Article 1.06.30 of the Standard Highway Specifications of the New York City Department of Transportation, Dated November 1, 2010; Articles 1.06.14 through 1.06.17 of the General Provisions of the Standard Water Main Specifications of the New York City Department of Environmental Protection, dated August 1, 2009; and/or Articles 1.06.14 through 1.06.17 of the Standard Sewer Specifications of the New York City Department of Environmental Protection, Dated August 1, 2009; as applicable, are amended and will be implemented as follows:

1. Pre-engineering:

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

2. Means and methods for City work:

- a) The Contractor is hereby notified that the utility interferences identified on the plans and/or listed in the Specifications to be known conditions which may impact the performance of, and/or interferes with, City work. The contractor will be required to perform such utility work as directed by the Resident Engineer in order to clear all utility interferences from the project site as required for satisfactory completion of City work within specified contract schedule.
- b) In areas serviced by overhead electric system, the contractor understands and by bidding for this contract agrees that he/she has reviewed the section 'U' package and

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

3. *Field inspection prior to construction:*

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

4. *Compensation for interference work:*

Compensation for Interference Work is a matter of adjustment between the Contractor and each private utility company located within the limits of the project area and whose utility facilities are affected by City contract work. In particular, the City will not compensate the Contractor for any direct and/or indirect costs related to Interference Work, including, but not limited to, lost profit, increased overhead, or any other impact costs. Upon receipt of a Notice of Award from the City, the Contractor shall immediately commence negotiations with each of the Companies concerning the manner in which and the price for which the Contractor,

through its own forces or by others hired by it, will perform and be paid by the Company for all necessary Interference Work as defined above that the Company(ies) choose(s) not to perform with its(their) own forces or by specialty Contractors hired by it (them) (as per "Interference Agreement"). (Specialty contractors' work is limited to (i) insulation installation and removal, (ii) live gas and steam work, (iii) cleanup and disposal of hazardous materials, (iv) splicing live electrical and telecommunications facilities, and (v) work not traditionally performed by general construction contractors.)

5. *Interference Agreement:*

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

6. *City contract work to continue without Interference Agreement :*

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

and equipment expended, and will provide copies of this information to the other party on a daily basis for reconciliation. These T&M records along with cost evaluations will be submitted daily to the Resident Engineer for review and approval. The total cost of City work will be based on quantity of work performed multiplied by unit price contract bid items. The total interference cost will be calculated as the difference between the total T&M cost and total cost for City work. The Resident Engineer will conduct a monthly reconciliation session of the daily T&M records with the affected Company (ies) and contractor. If the contractor and affected utility companies cannot reconcile their T&M records, by the last day of each month, then the Resident Engineer will submit the approved City's T&M records along with total cost evaluations to the DDC Director of Construction who will review 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 agree to immediately submit the dispute to binding arbitration as described in Paragraph 10. During the pendency of any arbitration, the Company (ies) and the Contractor

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

10. Arbitration of utility work:

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

- (a) Once an arbitrator(s) has been appointed by the AAA, the arbitration shall be scheduled as promptly as possible given the arbitrator(s) and the parties' schedules.
- (b) No later than seven days prior to the first arbitration hearing, Company and Contractor shall submit to the arbitrator(s), and to each other, a summary of each party's respective position and such other information as is deemed appropriate, along with a copy of each party's Final Offer as specified in paragraph 9.
- (c) The arbitration shall be conducted and concluded in two days.
- (d) On the morning of the first day of the arbitration, Contractor and/or representatives shall have 3 ½ hrs to make a presentation of its claim to the arbitrator. During its presentation, Contractor shall not be permitted to produce any documents or cost records which have not already been provided to the Company. Contractor shall be permitted to produce any analysis or description of its claim which has been prepared for the purpose of its presentation.
- (e) After lunch, Company and/or its representatives shall have two hours to ask Contractor questions about its claim and its presentation. Thereafter the arbitrator(s) shall have two hours to ask Contractor questions about its claim and its presentation.

- (f) On the morning of the second day of the arbitration, Company and/or its representatives shall have 3 ½ hours to make a presentation of its claim to the arbitrator. During its presentation, the Company shall not be permitted to produce any documents or cost records which have not already been provided to the Contractor. The Company shall be permitted to produce any analysis or description of its claim which has been prepared for the purpose of its presentation.
- (g) After lunch, Contractor and/or its representatives shall have two hours to ask Company questions about its claim and its presentation. Thereafter the arbitrator(s) shall have two hours to ask Company questions about its claim and its presentation.
- (h) Subject to the above time limitations, the arbitrator(s) may conduct the arbitration in such manner as the arbitrator(s) deems reasonable.
- (i) The arbitrator(s) shall then have one week to select in writing, as the arbitrator ('s) award, that party's Final Offer which appears to be more reasonable, based on the presentations at the arbitration hearings.
- (j) The arbitrator shall have no discretion to grant an award other than one of the two Final Offers submitted by the parties.
- (k) Any award for work that has already been performed shall be paid on the 7th day after receipt of the arbitrator's decision, or on the 30th day after completion of the work, whichever is later. Payment for work not yet completed at the time of the arbitrator's decision shall be paid within 30 days of completion of work. Interest shall accrue from the date payment is due at the rate of 9% per annum. Either party may cause judgment to be entered in accordance with the arbitrator(s) decision in a court in the State of New York, County of New York.
- (l) The arbitrator's fees and any other costs of the arbitration shall be initially shared equally by Company and Contractor. The non-prevailing party shall then pay all arbitrator's fees and costs of the arbitration and shall reimburse the prevailing party for its share of such fees and costs theretofore paid.
- (m) The parties may, at any time, settle any matter submitted to arbitration.

11. Order-out waiver:

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

12. Cost of insurance:

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

13. Cost of utility interference work:

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

14. Default declaration:

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

15. NYS Labor Law:

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

16. Facility operators:

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

[End]

"STANDARD UTILITY LETTER OF AGREEMENT"

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

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

Dear (Name):

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

Sincerely,

By: Authorized Company Representative

Title

NOTARY PUBLIC

CERTIFIED AS TO FORM
AND LEGAL AUTHORITY:

By: _____

SCHEDULE U-1

MED-598

TRUNK WATER MAINS IN W. 30TH STREET
BOROUGH OF MANHATTAN

SCHEDULE U-1

LISTING OF COMPANIES NAMED FOR THIS CONTRACT

<u>COMPANY NAME</u>	<u>CONTACT NAME</u>	<u>CONTACT TELEPHONE</u>
CON EDISON	THERESA KONG	212-460-4834
ECS	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

MED598B
 9TH & 10TH AVE B/ W 31 ST & W 28 ST

CET ITEM	DESCRIPTION	UNITS	ESTIMATED QUANTITY
CET 100.1	UTILITIES CROSSING TRENCH FOR CATCH BASIN CHUTE CONNECT. AND/OR TESTPIT (TYPE .1)	EA	2
CET 100.3	UTILITIES CROSSING TRENCH FOR CATCH BASIN CHUTE CONNECT. AND/OR TESTPIT (TYPE .3)	EA	2
CET 101.1	UTILITIES CROSSING TRENCH FOR SEWERS UP TO AND INCL. 24" DIAMETER (TYPE .1)	EA	2
CET 101.3	UTILITIES CROSSING TRENCH FOR SEWERS UP TO AND INCL. 24" DIAMETER (TYPE .3)	EA	1
CET 103.1	UTILITIES CROSSING TRENCH FOR SEWERS OVER 36" TO 48" DIAMETER (TYPE .1)	EA	12
CET 103.2	UTILITIES CROSSING TRENCH FOR SEWERS OVER 36" TO 48" DIAMETER (TYPE .2)	EA	4
CET 103.3	UTILITIES CROSSING TRENCH FOR SEWERS OVER 36" TO 48" DIAMETER (TYPE .3)	EA	2
CET 108.1	UTILITIES CROSSING TRENCH FOR WATERMAIN UP TO AND INCL. 12" DIAMETER (TYPE .1)	EA	36
CET 108.2	UTILITIES CROSSING TRENCH FOR WATERMAIN UP TO AND INCL. 12" DIAMETER (TYPE .2)	EA	9
CET 108.3	UTILITIES CROSSING TRENCH FOR WATERMAIN UP TO AND INCL. 12" DIAMETER (TYPE .3)	EA	9
CET 109.1	UTILITIES CROSSING TRENCH FOR WATERMAIN OVER 12" AND UP TO 24" (TYPE .1)	EA	30
CET 109.2	UTILITIES CROSSING TRENCH FOR WATERMAIN OVER 12" AND UP TO 24" (TYPE .2)	EA	9
CET 109.3	UTILITIES CROSSING TRENCH FOR WATERMAIN OVER 12" AND UP TO 24" (TYPE .3)	EA	9
CET 110.1	UTILITIES CROSSING TRENCH FOR WATERMAIN OVER 24" AND UP TO 36" (TYPE .1)	EA	2
CET 111.1	UTILITIES CROSSING TRENCH FOR WATERMAIN OVER 36" AND UP TO 48" (TYPE .1)	EA	30
CET 111.2	UTILITIES CROSSING TRENCH FOR WATERMAIN OVER 36" AND UP TO 48" (TYPE .2)	EA	3
CET 111.3	UTILITIES CROSSING TRENCH FOR WATERMAIN OVER 36" AND UP TO 48" (TYPE .3)	EA	12

SCHEDULE U-2
FOR INFORMATION ONLY
ENGINEER'S ESTIMATE OF QUANTITY AND TYPES OF INTERFERENCE
FOR CONSOLIDATED EDISON
MED598B
9TH & 10TH AVE B/ W 31 ST & W 28 ST

CET ITEM	DESCRIPTION	UNITS	ESTIMATED QUANTITY
CET 111.4	UTILITIES CROSSING TRENCH FOR WATERMAIN OVER 36" AND UP TO 48" (TYPE .4)	EA	2
CET 200.1	EXTRA DEPTH EXCAVATION OF CATCH BASIN CHUTE CONNECTIONSS (INVERT DEPTH 4'-6" TO 5' FOR TYPE 2 OR UP TO 5'-6" FOR TYPE 3)	L.F.	10
CET 200.2	EXTRA DEPTH EXCAVATION OF CATCH BASIN CHUTE CONNECTIONSS (INVERT DEPTH 5' TO 6' FOR TYPE 2 OR > 5'-6" TO 6'-6" FOR TYPE 3)	L.F.	15
CET 225.1A	INSTALLATION AND REMOVAL OF CATCH BASINS WITH UTILITY INTERFERENCES	EA	4
CET 225.1B	INSTALLATION OF CATCH BASINS WITH UTILITY INTERFERENCES	EA	1
CET 225.1C	REMOVAL OF CATCH BASINS WITH UTILITY INTERFERENCES	EA	1
CET 300	SPECIAL CARE EXCAVATION AND BACKFILING	C.Y.	279
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)	L.F.	64
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)	L.F.	45
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)	L.F.	102
CET 330E-A.4	SUPPORT & PROTECT ELEC, GAS & STEAM FAC. DURING EXCAVATION OF CITY TRENCH WHEN FAC. LIE W/IN TRENCH LIMITS W/O SHEETING (TYPE .4)	L.F.	30
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)	L.F.	33
CET 330E-B.2	SUPPORT & PROTECT ELEC, GAS & STEAM FAC. DURING EXCAVATION OF CITY TRENCH WHEN FAC. LIE W/IN TRENCH LIMITS W/ SHEETING (TYPE .2)	L.F.	45
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)	L.F.	100
CET 330E-B.4	SUPPORT & PROTECT ELEC, GAS & STEAM FAC. DURING EXCAVATION OF CITY TRENCH WHEN FAC. LIE W/IN TRENCH LIMITS W/ SHEETING (TYPE .4)	L.F.	20
CET 331E	TRENCH EXCAVATION FOR WIDENING CITY TRENCHES	C.Y.	86
CET 401	TRENCH EXCAVATION FOR ADJUSTMENT OF UTILITIES	C.Y.	277

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

MED598B
9TH & 10TH AVE B/ W 31 ST & W 28 ST

CET ITEM	DESCRIPTION	UNITS	ESTIMATED QUANTITY
CET 402.1	EXISTING OCCUPIED CONCRETE ENCASED CONDUITS PLACED IN FINAL POSITION W/O CONCRETE ENCASMENT	L.F.	1,505
CET 402.2	EXISTING OCCUPIED NON-CONCRETE ENCASED CONDUITS PLACED IN FINAL POSITION W/O CONCRETE ENCASMENT	L.F.	1,950
CET 403	PLACING STEEL PROTECTION PLATES FOR UTILITY FACILITIES	S.F.	2,539
CET 406	EXCAVATION FOR UTILITY STRUCTURE	C.Y.	234
CET 500	REMOVAL OF ABANDONED UTILITY CONDUITS (NON-CONCRETE ENCASED)	L.F.	29,135
CET 501	REMOVAL OF ABANDONED MASONRY FOR ELEC. AND TEL. FACILITIES	C.Y.	8
CET 600.1	INSTALL CONDUIT IN UNPAVED AREA (1 EA. 2", 4" OR 5" CONDUIT - ALL TYPES)	L.F.	439
CET 600.2	INSTALL CONDUIT IN UNPAVED AREA. (2 EA. 4" CONDUIT - ALL TYPES)	L.F.	820
CET 600.3	INSTALL CONDUIT IN UNPAVED AREA (4 EA. 4" CONDUIT - ALL TYPES)	L.F.	974
CET 600.4	INSTALL CONDUIT IN UNPAVED AREA (6 EA. 4" CONDUIT - ALL TYPES)	L.F.	155
CET 600.5	INSTALL CONDUIT IN UNPAVED AREA (8 EA. 4" CONDUIT - ALL TYPES)	L.F.	73
CET 601.1	INSTALL CONDUIT IN PAVED AREA (1 EA. 2", 4" OR 5" CONDUIT - ALL TYPES)	L.F.	2,687
CET 601.2	INSTALL CONDUIT IN PAVED AREA (2 EA. 4" CONDUIT - ALL TYPES)	L.F.	2,719
CET 601.3	INSTALL CONDUIT IN PAVED AREA (4 EA. 4" CONDUIT - ALL TYPES)	L.F.	3,348
CET 601.4	INSTALL CONDUIT IN PAVED AREA (6 EA. 4" CONDUIT - ALL TYPES)	L.F.	1,443
CET 601.5	INSTALL CONDUIT IN PAVED AREA (8 EA. 4" CONDUIT - ALL TYPES)	L.F.	756
CET 636 RM	REBUILDING & MODIFICATIONS OF UTILITY STRUCTURE	C.Y.	92

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

MED598B
 9TH & 10TH AVE B/ W 31 ST & W 28 ST

CET ITEM	DESCRIPTION	UNITS	ESTIMATED QUANTITY
CET 638N	INSTALLATION OF FIELD CONSTRUCTED UTILITY STRUCTURE	C.Y.	166
CET 638R	BREAK OUT AND REMOVE UTILITY STRUCTURE	C.Y.	88
CET 700	SPECIAL MOD. OF WORK METHODS TO ACCOMM./ PROTECT U.G. FACILITIES WITH LIMITED COVER	C.Y.	27
CET 711	USE SHEETING LINE AS FORM	L.F.	110
CET 802A	SPECIAL MODIFICATION OF WORK FOR INSTALLATION OF NEW SIDEWALKS	S.F.	349
CET 802B	SPECIAL MODIFICATION OF WORK FOR INSTALLATION OF NEW CURBS	L.F.	98
CET 1006V	6" VERTICAL OR ROLLED WATER MAIN OFFSET	EA	16
CET 1012V	12" VERTICAL OR ROLLED WATER MAIN OFFSET	EA	3
CET 1020V	20" VERTICAL OR ROLLED WATER MAIN OFFSET	EA	3

CON EDISON SCOPE OF WORK
SUPPORT AND PROTECTION
MED598B
9TH & 10TH AVE B/W 31 ST & W 28 ST

CET 100.1	UTILITIES CROSSING TRENCH FOR CATCH BASIN CHUTE CONNECT. AND/OR TESTPIT (TYPE .1) <i>At the following locations:</i> W 28 St & 10 Ave W 29 St B/10 Ave & 9 Ave Total quantity for CET 100.1 = 2	EA
CET 100.3	UTILITIES CROSSING TRENCH FOR CATCH BASIN CHUTE CONNECT. AND/OR TESTPIT (TYPE .3) <i>At the following locations:</i> W 28 St & 10 Ave W 29 St B/10 Ave & 9 Ave Total quantity for CET 100.3 = 2	EA
CET 101.1	UTILITIES CROSSING TRENCH FOR SEWERS UP TO AND INCL. 24" DIAMETER (TYPE .1) <i>At the following locations:</i> W 28 St & 10 Ave Total quantity for CET 101.1 = 2	EA
CET 101.3	UTILITIES CROSSING TRENCH FOR SEWERS UP TO AND INCL. 24" DIAMETER (TYPE .3) <i>At the following locations:</i> W 28 St & 10 Ave Total quantity for CET 101.3 = 1	EA
CET 103.1	UTILITIES CROSSING TRENCH FOR SEWERS OVER 36" TO 48" DIAMETER (TYPE .1) <i>At the following locations:</i> W 30 St & 9 Ave W 29 St B/10 Ave & 9 Ave W 29 St & 9 Ave 9 Ave B/W 30 St & W 29 St Total quantity for CET 103.1 = 12	EA

**CON EDISON SCOPE OF WORK
SUPPORT AND PROTECTION
MED598B
9TH & 10TH AVE B/ W 31 ST & W 28 ST**

CET 103.2	UTILITIES CROSSING TRENCH FOR SEWERS OVER 36" TO 48" DIAMETER (TYPE 2)	EA
	<i>At the following locations:</i>	
	W 30 St & 9 Ave	
	W 29 St B/10 Ave & 9 Ave	
	W 29 St & 9 Ave	
	9 Ave B/W 30 St & W 29 St	
	Total quantity for CET 103.2 = 4	
CET 103.3	UTILITIES CROSSING TRENCH FOR SEWERS OVER 36" TO 48" DIAMETER (TYPE 3)	EA
	<i>At the following locations:</i>	
	W 29 St & 9 Ave	
	Total quantity for CET 103.3 = 2	
CET 108.1	UTILITIES CROSSING TRENCH FOR WATERMAIN UP TO AND INCL. 12" DIAMETER (TYPE 1)	EA
	<i>At the following locations:</i>	
	W 30 St B/10 Ave & 9 Ave	
	W 30 St & 9 Ave	
	9 Ave B/W 30 St & W 31 St	
	W 31 St & 9 Ave	
	W 28 St & 10 Ave	
	10 Ave B/W 29 St & W 28 St	
	W 29 St & 10 Ave	
	W 10 Ave B/W 30 St & W 29 St	
	W 29 St & 9 Ave	
	9 Ave B/W 30 St & W 29 St	
	Total quantity for CET 108.1 = 36	
CET 108.2	UTILITIES CROSSING TRENCH FOR WATERMAIN UP TO AND INCL. 12" DIAMETER (TYPE 2)	EA
	<i>At the following locations:</i>	
	W 30 St & 9 Ave	
	9 Ave B/W 30 St & W 31 St	
	W 31 St B/dyer Ave & 9 Ave	
	W 31 St B/10 Ave & Dyer Ave	
	W 29 St B/10 Ave & 9 Ave	
	W 29 St & 9 Ave	
	Total quantity for CET 108.2 = 9	

CON EDISON SCOPE OF WORK
SUPPORT AND PROTECTION
MED598B
9TH & 10TH AVE B/ W 31 ST & W 28 ST

CET 108.3	UTILITIES CROSSING TRENCH FOR WATERMAIN UP TO AND INCL. 12" DIAMETER (TYPE 3)	EA
	<i>At the following locations:</i>	
	W 30 St B/10 Ave & 9 Ave	
	W 30 St & 9 Ave	
	W 31 St & 9 Ave	
	9 Ave B/W 30 St & W 31 St	
	W 10 Ave B/W 30 St & W 29 St	
	W 29 St B/10 Ave & 9 Ave	
	9 Ave B/W 30 St & W 29 St	
	Total quantity for CET 108.3	= 9
CET 109.1	UTILITIES CROSSING TRENCH FOR WATERMAIN OVER 12" AND UP TO 24" (TYPE .1)	EA
	<i>At the following locations:</i>	
	W 31 St & 9 Ave	
	W 31 St B/10 Ave & Dyer Ave	
	W 29 St & 10 Ave	
	W 10 Ave B/W 30 St & W 29 St	
	W 29 St B/10 Ave & 9 Ave	
	9 Ave B/W 29 St & W 28 St	
	Total quantity for CET 109.1	= 30
CET 109.2	UTILITIES CROSSING TRENCH FOR WATERMAIN OVER 12" AND UP TO 24" (TYPE .2)	EA
	<i>At the following locations:</i>	
	W 31 St & 9 Ave	
	W 31 St & Dyer Ave	
	W 29 St & 10 Ave	
	W 29 St & 10 Ave	
	W 29 St B/10 Ave & 9 Ave	
	Total quantity for CET 109.2	= 9

CON EDISON SCOPE OF WORK
SUPPORT AND PROTECTION
MED598B
8TH & 10TH AVE B/ W 31 ST & W 28 ST

CET 109.3	UTILITIES CROSSING TRENCH FOR WATERMAIN OVER 12" AND UP TO 24" (TYPE .3) <i>At the following locations:</i> W 31 St & 9 Ave W 29 St & 10 Ave W 29 St B/10 Ave & 9 Ave W 28 St & 9 Ave Total quantity for CET 109.3 = 9	EA
CET 110.1	UTILITIES CROSSING TRENCH FOR WATERMAIN OVER 24" AND UP TO 36" (TYPE .1) <i>At the following locations:</i> W 10 Ave B/W 30 St & W 29 St Total quantity for CET 110.1 = 2	EA
CET 111.1	UTILITIES CROSSING TRENCH FOR WATERMAIN OVER 36" AND UP TO 48" (TYPE .1) <i>At the following locations:</i> W 30 St B/10 Ave & 9 Ave W 30 St & 9 Ave 9 Ave B/W 30 St & W 31 St 10 Ave B/W 29 St & W 28 St W 10 Ave B/W 30 St & W 29 St W 29 St B/10 Ave & 9 Ave W 29 St & 9 Ave Total quantity for CET 111.1 = 30	EA
CET 111.2	UTILITIES CROSSING TRENCH FOR WATERMAIN OVER 36" AND UP TO 48" (TYPE .2) <i>At the following locations:</i> W 30 St & 9 Ave W 29 St & 9 Ave Total quantity for CET 111.2 = 3	EA

CON EDISON SCOPE OF WORK
SUPPORT AND PROTECTION
MED598B
9TH & 10TH AVE B/ W 31 ST & W 28 ST

CET 111.3	UTILITIES CROSSING TRENCH FOR WATERMAIN OVER 36" AND UP TO 48" (TYPE 3) <i>At the following locations:</i> W 30 St & 9 Ave W 29 St B/10 Ave & 9 Ave W 29 St & 9 Ave Total quantity for CET 111.3 = 12	EA
CET 111.4	UTILITIES CROSSING TRENCH FOR WATERMAIN OVER 36" AND UP TO 48" (TYPE 4) <i>At the following locations:</i> W 31 St & 9 Ave Total quantity for CET 111.4 = 2	EA
CET 200.1	EXTRA DEPTH EXCAVATION OF CATCH BASIN CHUTE CONNECTIONSS (INVERT DEPTH 4'-6" TO 5' FOR TYPE 2 OR UP TO 5'-6" FOR TYPE 3) <i>At the following locations:</i> W 28 St & 10 Ave Total quantity for CET 200.1 = 10	L.F.
CET 200.2	EXTRA DEPTH EXCAVATION OF CATCH BASIN CHUTE CONNECTIONSS (INVERT DEPTH 5' TO 6' FOR TYPE 2 OR > 5'-6" TO 6'-6" FOR TYPE 3) <i>At the following locations:</i> W 30 St & 9 Ave Total quantity for CET 200.2 = 15	L.F.
CET 225.1A	INSTALLATION AND REMOVAL OF CATCH BASINS WITH UTILITY INTERFERENCES <i>At the following locations:</i> W 30 St & 9 Ave W 29 St B/10 Ave & 9 Ave W 29 St B/10 Ave & 9 Ave Total quantity for CET 225.1A = 4	EA
CET 225.1B	INSTALLATION OF CATCH BASINS WITH UTILITY INTERFERENCES <i>At the following locations:</i> W 28 St & 10 Ave Total quantity for CET 225.1B = 1	EA

**CON EDISON SCOPE OF WORK
SUPPORT AND PROTECTION
MED598B
9TH & 10TH AVE B/ W 31 ST & W 28 ST**

CET 225.1C	REMOVAL OF CATCH BASINS WITH UTILITY INTERFERENCES <i>At the following locations:</i> W 28 St & 10 Ave Total quantity for CET 225.1C = 1	EA
CET 300	SPECIAL CARE EXCAVATION AND BACKFILING <i>At the following locations:</i> W 30 St B/10 Ave & 9 Ave W 30 St & 9 Ave 9 Ave B/W 30 St & W 31 St W 31 St & 9 Ave W 31 St B/dyer Ave & 9 Ave W 28 St & 10 Ave 10 Ave B/W 29 St & W 28 St W 29 St & 10 Ave W 10 Ave B/W 30 St & W 29 St W 29 St B/10 Ave & 9 Ave W 29 St & 9 Ave 9 Ave B/W 30 St & W 29 St Total quantity for CET 300 = 279	C.Y.
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) <i>At the following locations:</i> W 31 St B/dyer Ave & 9 Ave W 30 St & 9 Ave Total quantity for CET 330E-A.1 = 64	L.F.
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) <i>At the following locations:</i> 10 Ave B/W 29 St & W 28 St Total quantity for CET 330E-A.2 = 45	L.F.

CON EDISON SCOPE OF WORK
SUPPORT AND PROTECTION
MED598B
9TH & 10TH AVE B/W 31 ST & W 28 ST

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- 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) L.F.
At the following locations:
W 31 St & 9 Ave
W 29 St & 10 Ave
Total quantity for CET 330E-A.3 = 102
- CET 330E-A.4 SUPPORT & PROTECT ELEC, GAS & STEAM FAC. DURING EXCAVATION OF CITY TRENCH WHEN FAC. LIE W/IN TRENCH LIMITS W/O SHEETING (TYPE .4) L.F.
At the following locations:
S/Side Of 10 Ave & W 30 St
Total quantity for CET 330E-A.4 = 30
- 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) L.F.
At the following locations:
W 30 St B/10 Ave & 9 Ave
W 30 St & 9 Ave
W 29 St & 10 Ave
W 29 St & 9 Ave
Total quantity for CET 330E-B.1 = 33
- CET 330E-B.2 SUPPORT & PROTECT ELEC, GAS & STEAM FAC. DURING EXCAVATION OF CITY TRENCH WHEN FAC. LIE W/IN TRENCH LIMITS W/ SHEETING (TYPE .2) L.F.
At the following locations:
W 31 St & 9 Ave
W 29 St & 10 Ave
Total quantity for CET 330E-B.2 = 45
- 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) L.F.
At the following locations:
W 30 St B/10 Ave & 9 Ave
W 30 St & 9 Ave
W 10 Ave B/W 30 St & W 29 St
W 29 St & 9 Ave
Total quantity for CET 330E-B.3 = 100
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CON EDISON SCOPE OF WORK
SUPPORT AND PROTECTION
MED598B
9TH & 10TH AVE B/ W 31 ST & W 28 ST

CET 330E-B.4	SUPPORT & PROTECT ELEC, GAS & STEAM FAC. DURING EXCAVATION OF CITY TRENCH WHEN FAC. LIE W/IN TRENCH LIMITS W/ SHEETING (TYPE .A) <i>At the following locations:</i> S/Side Of 10 Ave & W 30 St Total quantity for CET 330E-B.4 = 20	L.F.
CET 331E	TRENCH EXCAVATION FOR WIDENING CITY TRENCHES <i>At the following locations:</i> W 30 St & 9 Ave W 30 St & 9 Ave W 29 St B/10 Ave & 9 Ave W 29 St & 9 Ave AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE Total quantity for CET 331E = 86	C.Y.
CET 401	TRENCH EXCAVATION FOR ADJUSTMENT OF UTILITIES <i>At the following locations:</i> S/e Corner Of 10th Ave & W 30 St W 30 St & 9 Ave W 30 St & 9 Ave W 31 St & 9 Ave W 28 St & 10 Ave W 29 St & 10 Ave W 29 St & 9 Ave AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE Total quantity for CET 401 = 277	C.Y.
CET 402.1	EXISTING OCCUPIED CONCRETE ENCASED CONDUITS PLACED IN FINAL POSITION W/O CONCRETE ENCASEMENT <i>At the following locations:</i> S/Side of 10 Ave & W 30 St W 30 St & 9 Ave W 30 St & 9 Ave W 31 St & 9 Ave W 28 St & 10 Ave AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE Total quantity for CET 402.1 = 1,505	L.F.

CON EDISON SCOPE OF WORK
SUPPORT AND PROTECTION
MED598B
9TH & 10TH AVE B/ W 31 ST & W 28 ST

CET 402.2 EXISTING OCCUPIED NON-CONCRETE ENCASED CONDUITS PLACED IN FINAL POSITION W/O CONCRETE ENCASEMENT L.F.

At the following locations:

 W 30 St & 9 Ave
 W 31 St & 9 Ave
 W 28 St & 10 Ave
 W 29 St & 10 Ave
 W 29 St & 9 Ave
 AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE

 Total quantity for CET 402.2 = 1,950

CET 403 PLACING STEEL PROTECTION PLATES FOR UTILITY FACILITIES S.F.

At the following locations:

 S/E Corner Of 10th Ave & W 30 St
 W 30 St & 9 Ave
 W 31 St & 9 Ave
 W 28 St & 10 Ave
 W 29 St & 10 Ave
 W 29 St & 9 Ave
 AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE

 Total quantity for CET 403 = 2,539

CON EDISON SCOPE OF WORK
SUPPORT AND PROTECTION
MED598B
9TH & 10TH AVE B/ W 31 ST & W 28 ST

CET 406 EXCAVATION FOR UTILITY STRUCTURE C.Y.

At the following locations:

- W 30 St B/10 Ave & 9 Ave
- W 30 St & 9 Ave
- W 30 St B/9 Ave & 8 Ave
- Dyer Ave & 9 Ave
- 9 Ave B/W 30 St & W 31 St
- W 31 St & 9 Ave
- W 31 St B/dyer Ave & 9 Ave
- W 28 St & 10 Ave
- 10 Ave B/W 29 St & W 28 St
- W 29 St B/10 Ave & 9 Ave
- W 29 St & 9 Ave
- 9 Ave B/W 30 St & W 29 St
- 9 Ave B/W 29 St & W 28 St
- W 28 St & 9 Ave

Total quantity for CET 406 = 234

CET 500 REMOVAL OF ABANDONED UTILITY CONDUITS (NON-CONCRETE ENCASED) L.F.

At the following locations:

- W 30 St B/10 Ave & 9 Ave
- W 30 St & 9 Ave
- 9 Ave B/W 30 St & W 31 St
- W 31 St & 9 Ave
- W 31 St B/dyer Ave & 9 Ave
- 10 Ave B/W 29 St & W 28 St
- W 29 St & 10 Ave
- W 10 Ave B/w 30 St & W 29 St
- W 29 St B/10 Ave & 9 Ave
- W 29 St & 9 Ave

AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE

Total quantity for CET 500 = 29,135

CON EDISON SCOPE OF WORK
SUPPORT AND PROTECTION
MED598B
9TH & 10TH AVE B/ W 31 ST & W 28 ST

CET 501	REMOVAL OF ABANDONED MASONRY FOR ELEC. AND TEL. FACILITIES <i>At the following locations:</i> Dyer Ave & 9 Ave 9 Ave B/W 30 St & W 31 St W 31 St B/dyer Ave & 9 Ave AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE Total quantity for CET 501 = 8	C.Y.
CET 600.1	INSTALL CONDUIT IN UNPAVED AREA (1 EA. 2", 4" OR 5" CONDUIT - ALL TYPES) <i>At the following locations:</i> W 30 St B/9 Ave & 8 Ave W 30 St & 9 Ave W 31 St & 9 Ave 10 Ave B/W 29 St & W 28 St W 29 St & 10 Ave W 29 St & 9 Ave AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE Total quantity for CET 600.1 = 439	L.F.
CET 600.2	INSTALL CONDUIT IN UNPAVED AREA. (2 EA. 4" CONDUIT - ALL TYPES) <i>At the following locations:</i> Dyer Ave & 9 Ave 9 Ave B/W 30 St & W 31 St W 31 St & 9 Ave W 29 St B/10 Ave & 9 Ave W 29 St B/9 Ave & 8 Ave AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE Total quantity for CET 600.2 = 820	L.F.

CON EDISON SCOPE OF WORK
SUPPORT AND PROTECTION
MED598B
9TH & 10TH AVE B/ W 31 ST & W 28 ST

- CET 600.3 INSTALL CONDUIT IN UNPAVED AREA (4 EA. 4" CONDUIT - ALL TYPES) L.F.
At the following locations:
 W 30 St B/10 Ave & 9 Ave
 W 30 St & 9 Ave
 Dyer Ave & 9 Ave
 W 31 St & 9 Ave
 W 29 St & 10 Ave
 W 29 St & 10 Ave
 W 29 St B/10 Ave & 9 Ave
 AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE
 Total quantity for CET 600.3 = 974
- CET 600.4 INSTALL CONDUIT IN UNPAVED AREA (6 EA. 4" CONDUIT - ALL TYPES) L.F.
At the following locations:
 W 31 St & 9 Ave
 AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE
 Total quantity for CET 600.4 = 155
- CET 600.5 INSTALL CONDUIT IN UNPAVED AREA (8 EA. 4" CONDUIT - ALL TYPES) L.F.
At the following locations:
 W 29 St & 10 Ave
 AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE
 Total quantity for CET 600.5 = 73
-

CON EDISON SCOPE OF WORK
SUPPORT AND PROTECTION
MED598B
9TH & 10TH AVE B/ W 31 ST & W 28 ST

CET 601.1 INSTALL CONDUIT IN PAVED AREA (1 EA. 2", 4" OR 5" CONDUIT - ALL TYPES) L.F.

At the following locations:

W 30 St B/10 Ave & 9 Ave
W 30 St & 9 Ave
W 30 St B/9 Ave & 8 Ave
9 Ave B/W 30 St & W 31 St
W 28 St & 10 Ave
10 Ave B/W 29 St & W 28 St
W 10 Ave B/W 30 St & W 29 St
W 29 St B/10 Ave & 9 Ave
W 29 St & 9 Ave
9 Ave B/W 30 St & W 29 St
9 Ave B/W 29 St & W 28 St

AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE

Total quantity for CET 601.1 = 2,687

CET 601.2 INSTALL CONDUIT IN PAVED AREA (2 EA. 4" CONDUIT - ALL TYPES) L.F.

At the following locations:

W 30 St B/10 Ave & 9 Ave
W 30 St B/9 Ave & 8 Ave
Dyer Ave & 9 Ave
W 30 St & 9 Ave
9 Ave B/W 30 St & W 31 St
W 31 St & 9 Ave
W 31 St B/dyer Ave & 9 Ave
W 28 St & 10 Ave
10 Ave B/W 29 St & W 28 St
W 29 St B/10 Ave & 9 Ave
9 Ave B/W 30 St & W 29 St
W 29 St B/9 Ave & 8 Ave
9 Ave B/W 29 St & W 28 St

AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE

Total quantity for CET 601.2 = 2,719

CON EDISON SCOPE OF WORK
SUPPORT AND PROTECTION
MED598B
9TH & 10TH AVE B/W 31 ST & W 28 ST

CET 601.3 INSTALL CONDUIT IN PAVED AREA (4 EA. 4" CONDUIT - ALL TYPES) L.F.

At the following locations:

- W 30 St B/10 Ave & 9 Ave
- W 30 St B/9 Ave & 8 Ave
- 9 Ave B/W 30 St & W 31 St
- W 31 St B/9 Ave & 8 Ave
- W 28 St & 10 Ave
- 10 Ave B/W 29 St & W 28 St
- W 10 Ave B/W 30 St & W 29 St
- W 29 St B/10 Ave & 9 Ave
- 9 Ave B/W 29 St & W 28 St

AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE

Total quantity for CET 601.3 = 3,348

CET 601.4 INSTALL CONDUIT IN PAVED AREA (6 EA. 4" CONDUIT - ALL TYPES) L.F.

At the following locations:

- W 30 St B/10 Ave & 9 Ave
- W 30 St & 9 Ave
- W 31 St & 9 Ave
- W 29 St B/10 Ave & 9 Ave
- 9 Ave B/W 30 St & W 29 St
- 9 Ave B/W 29 St & W 28 St

AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE

Total quantity for CET 601.4 = 1,443

CET 601.5 INSTALL CONDUIT IN PAVED AREA (3 EA. 4" CONDUIT - ALL TYPES) L.F.

At the following locations:

- 10 Ave B/W 29 St & W 28 St
- W 10 Ave B/W 30 St & W 29 St
- 9 Ave B/W 29 St & W 28 St

AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE

Total quantity for CET 601.5 = 756

CON EDISON SCOPE OF WORK
SUPPORT AND PROTECTION
MED598B
9TH & 10TH AVE B/ W 31 ST & W 28 ST

CET 636 RM REBUILDING & MODIFICATIONS OF UTILITY STRUCTURE C.Y.

At the following locations:

W 30 St & 9 Ave
W 30 St B/9 Ave & 8 Ave
9 Ave B/W 30 St & W 31 St
W 31 St & 9 Ave
W 31 St B/dyer Ave & 9 Ave
W 28 St & 10 Ave
W 29 St B/10 Ave & 9 Ave
9 Ave B/W 30 St & W 29 St
W 28 St & 9 Ave

AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE

Total quantity for CET 636 RM = 92

CET 638N INSTALLATION OF FIELD CONSTRUCTED UTILITY STRUCTURE C.Y.

At the following locations:

W 30 St B/10 Ave & 9 Ave
Dyer Ave & 9 Ave
9 Ave B/W 30 St & W 31 St
10 Ave B/W 29 St & W 28 St
W 29 St B/10 Ave & 9 Ave
W 29 St & 9 Ave
9 Ave B/W 30 St & W 29 St
9 Ave B/W 29 St & W 28 St

Total quantity for CET 638N = 166

CET 638R BREAK OUT AND REMOVE UTILITY STRUCTURE C.Y.

At the following locations:

W 30 St B/10 Ave & 9 Ave
W 30 St & 9 Ave
W 31 St & 9 Ave
10 Ave B/W 29 St & W 28 St
W 29 St B/10 Ave & 9 Ave
W 29 St & 9 Ave

AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE

Total quantity for CET 638R = 88

**CON EDISON SCOPE OF WORK
SUPPORT AND PROTECTION
MED598B
9TH & 10TH AVE B/ W 31 ST & W 28 ST**

CET 700	SPECIAL MOD. OF WORK METHODS TO ACCOMM/ PROTECT U.G. FACILITIES WITH LIMITED COVER	C.Y.
	<i>At the following locations:</i>	
	As Per Special Care Excavation Plans	
	AS SHOWN ON CONTRACT DRAWINGS AND DIRECTED BY A CON EDISON REP.	
	Total quantity for CET 700 = 27	
CET 711	USE SHEETING LINE AS FORM	L.F.
	<i>At the following locations:</i>	
	10 Ave B/W 28 St & W 28 St	
	AS SHOWN ON CONTRACT DRAWINGS AND DIRECTED BY CON EDISON REP	
	Total quantity for CET 711 = 110	
CET 802A	SPECIAL MODIFICATION OF WORK FOR INSTALLATION OF NEW SIDEWALKS	S.F.
	<i>At the following locations:</i>	
	As Per Special Care Excavation Plans	
	AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE	
	Total quantity for CET 802A = 349	
CET 802B	SPECIAL MODIFICATION OF WORK FOR INSTALLATION OF NEW CURBS	L.F.
	<i>At the following locations:</i>	
	As Per Special Care Excavation Plans	
	AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE	
	Total quantity for CET 802B = 98	

CON EDISON SCOPE OF WORK
SUPPORT AND PROTECTION
MED598B
9TH & 10TH AVE B/ W 31 ST & W 28 ST

CET 1006V	6" VERTICAL OR ROLLED WATER MAIN OFFSET	EA
	<i>At the following locations:</i>	
	W 30 St & 9 Ave	
	9 Ave B/W 30 St & W 31 St	
	W 31 St & 9 Ave	
	W 31 St B/dyer Ave & 9 Ave	
	W 10 Ave B/W 30 St & W 29 St	
	W 29 St B/10 Ave & 9 Ave	
	W 29 St & 9 Ave	
	9 Ave B/W 30 St & W 29 St	
	AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE	
	Total quantity for CET 1006V = 16	
CET 1012V	12" VERTICAL OR ROLLED WATER MAIN OFFSET	EA
	<i>At the following locations:</i>	
	W 31 St & 9 Ave	
	AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE	
	Total quantity for CET 1012V = 3	
CET 1020V	20" VERTICAL OR ROLLED WATER MAIN OFFSET	EA
	<i>At the following locations:</i>	
	W 31 St & 9 Ave	
	AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE	
	Total quantity for CET 1020V = 3	

**MED 598B - Trunk Water Main in W 30th St, Etc.
Borough of Manhattan**

Schedule U-2: Scope of Work for CET items

CET ITEM	UNITS	TOTAL	DESCRIPTION
100.1	EACH	8	UTILITIES CROSSING TRENCH FOR CATCH BASIN CHUTE CONNECTIONS AND/OR TEST PITS (TYPE .1)
100.2	EACH	3	UTILITIES CROSSING TRENCH FOR CATCH BASIN CHUTE CONNECTIONS AND/OR TEST PITS (TYPE .2)
100.3	EACH	2	UTILITIES CROSSING TRENCH FOR CATCH BASIN CHUTE CONNECTIONS AND/OR TEST PITS (TYPE .3)
101.1	EACH	1	UTILITIES CROSSING TRENCH FOR SEWERS OVER 12" TO 24" DIAMETER (TYPE .1)
101.3	EACH	1	UTILITIES CROSSING TRENCH FOR SEWERS OVER 12" TO 24" DIAMETER (TYPE .3)
103.2	EACH	1	UTILITIES CROSSING TRENCH FOR SEWERS OVER 36" TO 48" DIAMETER (TYPE .2)
103.3	EACH	1	UTILITIES CROSSING TRENCH FOR SEWERS OVER 36" TO 48" DIAMETER (TYPE .3)
108.1	EACH	10	UTILITIES CROSSING TRENCH FOR WATER MAIN UP TO AND INCLUDING 12" DIAMETER (TYPE .1)
108.2	EACH	5	UTILITIES CROSSING TRENCH FOR WATER MAIN UP TO AND INCLUDING 12" DIAMETER (TYPE .2)
108.3	EACH	5	UTILITIES CROSSING TRENCH FOR WATER MAIN UP TO AND INCLUDING 12" DIAMETER (TYPE .3)
108.4	EACH	1	UTILITIES CROSSING TRENCH FOR WATER MAIN UP TO AND INCLUDING 12" DIAMETER (TYPE .4)
108.5	EACH	1	UTILITIES CROSSING TRENCH FOR WATER MAIN UP TO AND INCLUDING 12" DIAMETER (TYPE .5)
109.1	EACH	7	UTILITIES CROSSING TRENCH FOR WATER MAIN OVER 12" AND UP TO 24" DIAMETER (TYPE .1)
109.2	EACH	2	UTILITIES CROSSING TRENCH FOR WATER MAIN OVER 12" AND UP TO 24" DIAMETER (TYPE .2)
109.3	EACH	3	UTILITIES CROSSING TRENCH FOR WATER MAIN OVER 12" AND UP TO 24" DIAMETER (TYPE .3)

**MED 598B - Trunk Water Main in W 30th St, Etc.
Borough of Manhattan**

Schedule U-2: Scope of Work for CET Items

CET ITEM	UNITS	TOTAL	DESCRIPTION
109.4	EACH	1	UTILITIES CROSSING TRENCH FOR WATER MAIN OVER 12" AND UP TO 24" DIAMETER (TYPE .4)
109.5	EACH	1	UTILITIES CROSSING TRENCH FOR WATER MAIN OVER 12" AND UP TO 24" DIAMETER (TYPE .5)
110.1	EACH	8	UTILITIES CROSSING TRENCH FOR WATER MAIN OVER 24" AND UP TO 36" DIAMETER (TYPE .1)
110.2	EACH	1	UTILITIES CROSSING TRENCH FOR WATER MAIN OVER 24" AND UP TO 36" DIAMETER (TYPE .2)
110.3	EACH	2	UTILITIES CROSSING TRENCH FOR WATER MAIN OVER 24" AND UP TO 36" DIAMETER (TYPE .3)
110.4	EACH	1	UTILITIES CROSSING TRENCH FOR WATER MAIN OVER 24" AND UP TO 36" DIAMETER (TYPE .4)
110.5	EACH	1	UTILITIES CROSSING TRENCH FOR WATER MAIN OVER 24" AND UP TO 36" DIAMETER (TYPE .5)
111.1	EACH	15	UTILITIES CROSSING TRENCH FOR WATER MAIN OVER 36" AND UP TO 48" DIAMETER (TYPE .1)
111.3	EACH	6	UTILITIES CROSSING TRENCH FOR WATER MAIN OVER 36" AND UP TO 48" DIAMETER (TYPE .3)
111.4	EACH	1	UTILITIES CROSSING TRENCH FOR WATER MAIN OVER 36" AND UP TO 48" DIAMETER (TYPE .4)
200	LF	17	EXTRA DEPTH EXCAVATION OF CATCH BASIN CHUTE CONNECTION PIPES
225.1B	EACH	6	INSTALLATION OF CATCH BASINS WITH UTILITY INTERFERENCES
300	CY	34	SPECIAL CARE EXCAVATION AND BACKFILLING
330T	LF	1,245	SUPPORT AND PROTECTION OF COMMUNICATION UTILITY FACILITIES DURING EXCAVATION OF CITY TRENCH WHEN FACILITIES LIE IN OR IN CLOSE PROXIMITY TO TRENCH LIMITS
400	CY	50	TEST PITS FOR UTILITY FACILITIES
401	CY	1,705	TRENCH EXCAVATION FOR ADJUSTMENT OF UTILITY FACILITIES

**MED 598B - Trunk Water Main in W 30th St, Etc.
Borough of Manhattan**

Schedule U-2: Scope of Work for CET items

CET ITEM	UNITS	TOTAL	DESCRIPTION
402T.1A	LF	17,974	EXISTING CONCRETE ENCASED TELECOMMUNICATION CONDUITS PLACED IN FINAL POSITION WITH CONCRETE ENCASEMENT
402T.V1A	LF	1,797	EXISTING VACANT CONCRETE ENCASED TELECOMMUNICATION CONDUITS PLACED IN FINAL POSITION WITH CONCRETE ENCASEMENT
402T.2	LF	160	EXISTING NON-CONCRETE ENCASED TELECOMMUNICATION CONDUITS PLACED IN FINAL POSITION WITHOUT CONCRETE ENCASEMENT
402T.V2	LF	16	EXISTING VACANT NON-CONCRETE ENCASED TELECOMMUNICATION CONDUITS PLACED IN FINAL POSITION WITHOUT CONCRETE ENCASEMENT
402T.J1A	LF	13,104	EXISTING OCCUPIED CONCRETE ENCASED CONDUITS PLACED IN FINAL POSITION WITH CONCRETE ENCASEMENT IN WHICH ONLY CONDUIT CONDUIT JOINTS ARE BROKEN OUT AND CONDUITS REMAIN INTACT
636 EE RD	EA	8	ADJUSTMENT OF UTILITY HARDWARE (34" TO UNDER 41" WIDTH)
636RM	CY	15	REBUILDING AND MODIFICATIONS TO UTILITY STRUCTURES
700	CY	1,322	SPECIAL MODIFICATION OF WORK METHODS TO ACCOMMODATE /PROTECT UNDERGROUND FACILITIES WITH LIMITED COVER
802A	SF	100	SPECIAL MODIFICATION OF WORK METHODS FOR INSTALLATION OF NEW SIDEWALK
802B	LF	100	SPECIAL MODIFICATION OF WORK METHODS FOR INSTALLATION OF NEW CURB
1006V	EA	3	6" VERTICAL OR ROLLED WATER MAIN OFFSET
1012V	EA	3	12" VERTICAL OR ROLLED WATER MAIN OFFSET
1020V	EA	2	20" VERTICAL OR ROLLED WATER MAIN OFFSET

**MED 598B - Trunk Water Main in W 30th St, Etc.
Borough of Manhattan**

Schedule U-2: Scope of Work for CET items

CET 100.1

**UTILITIES CROSSING TRENCH FOR CATCH BASIN CHUTE CONNECTIONS
AND/OR TEST PITS (TYPE .1)**

@ THE FOLLOWING LOCATIONS

	QTY(EA)
NWC OF INT OF W 28TH ST & 10TH AVE	1
NEC OF INT OF W 28TH ST & 10TH AVE	2
SWC OF INT OF W 29TH ST & 10TH AVE, ON W 29TH ST	1
SEC OF INT OF W 30TH ST & 9TH AVE	2
NEC OF INT OF W 29TH ST & 10TH AVE	2
CET 100.1	TOTAL 8

CET 100.2

**UTILITIES CROSSING TRENCH FOR CATCH BASIN CHUTE CONNECTIONS
AND/OR TEST PITS (TYPE .2)**

@ THE FOLLOWING LOCATIONS

	QTY(EA)
NEC OF INT OF W 28TH ST & 10TH AVE	1
NEC OF INT OF W 29TH ST & 10TH AVE	1
W SIDE OF 9TH AVE BTWN W 29TH ST & W 30TH ST	1
CET 100.2	TOTAL 3

CET 100.3

**UTILITIES CROSSING TRENCH FOR CATCH BASIN CHUTE CONNECTIONS
AND/OR TEST PITS (TYPE .3)**

@ THE FOLLOWING LOCATIONS

	QTY(EA)
SWC OF INT OF W 29TH ST & 10TH AVE, ON W 29TH ST	1
W SIDE OF 9TH AVE BTWN W 29TH ST & W 30TH ST	1
CET 100.3	TOTAL 2

CET 101.1

**UTILITIES CROSSING TRENCH FOR SEWERS OVER 12" TO 24" DIAMETER
(TYPE .1)**

@ THE FOLLOWING LOCATIONS

	QTY(EA)
NEC OF INT OF W 28TH ST & 10TH AVE	1

**MED 598B - Trunk Water Main in W 30th St, Etc.
Borough of Manhattan**

Schedule U-2: Scope of Work for CET items

CET 101.1	TOTAL	1
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CET 101.3

**UTILITIES CROSSING TRENCH FOR SEWERS OVER 12" TO 24" DIAMETER
(TYPE .3)**

@ THE FOLLOWING LOCATIONS

QTY(EA)

SWC OF INT OF W 29TH ST & 10TH AVE

1

CET 101.3

TOTAL 1

CET 103.2

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

@ THE FOLLOWING LOCATIONS

QTY(EA)

S SIDE OF INT OF W 30TH ST & 9TH AVE

1

CET 103.2

TOTAL 1

CET 103.3

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

@ THE FOLLOWING LOCATIONS

QTY(EA)

S SIDE OF INT OF W 30TH ST & 9TH AVE

1

CET 103.3

TOTAL 1

CET 108.1

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

@ THE FOLLOWING LOCATIONS

QTY(EA)

E SIDE OF 10TH AVE BTWN W 29TH ST & W 30TH ST

2

W SIDE OF 9TH AVE BTWN W 29TH ST & W 28TH ST

3

SEC OF INT OF W 29TH ST & 9TH AVE

1

NEC OF INT OF W 29TH ST & 9TH AVE

2

W SIDE OF 9TH AVE BTWN W 29TH ST & W 30TH ST

2

CET 108.1

TOTAL 10

**MED 598B - Trunk Water Main in W 30th St, Etc.
Borough of Manhattan**

Schedule U-2: Scope of Work for CET items

CET 108.2

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

@ THE FOLLOWING LOCATIONS		QTY(EA)
E SIDE OF 10TH AVE BTWN W 29TH ST & W 30TH ST		2
NWC OF INT OF 9TH AVE & W 29TH ST		2
W SIDE OF 9TH AVE BTWN W 29TH ST & W 30TH ST		1
CET 108.2	TOTAL	5

CET 108.3

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

@ THE FOLLOWING LOCATIONS		QTY(EA)
S SIDE OF W 29TH ST BTWN 9TH AVE & 10TH AVE		2
W SIDE OF 9TH AVE BTWN W 29TH ST & W 28TH ST		1
W SIDE OF INT OF W 30TH ST & 9TH AVE		2
CET 108.3	TOTAL	5

CET 108.4

**UTILITIES CROSSING TRENCH FOR WATER MAIN UP TO AND INCLUDING
12" DIAMETER (TYPE .4)**

@ THE FOLLOWING LOCATIONS		QTY(EA)
AS ENCOUNTERED & DIRECTED BY THE ECS FIELD REPRESENTATIVE		1
CET 108.4	TOTAL	1

CET 108.5

**UTILITIES CROSSING TRENCH FOR WATER MAIN UP TO AND INCLUDING
12" DIAMETER (TYPE .5)**

@ THE FOLLOWING LOCATIONS		QTY(EA)
AS ENCOUNTERED & DIRECTED BY THE ECS FIELD REPRESENTATIVE		1
CET 108.5	TOTAL	1

CET 109.1

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

**MED 598B - Trunk Water Main in W 30th St, Etc.
Borough of Manhattan**

Schedule U-2: Scope of Work for CET items

24" DIAMETER (TYPE .1)

@ THE FOLLOWING LOCATIONS	QTY(EA)
N SIDE OF W 29TH ST BTWN 9TH AVE & 10TH AVE	1
N SIDE OF W 31ST BTWN 9TH AVE & 10TH AVE	6
CET 109.1	TOTAL 7

CET 109.2

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

@ THE FOLLOWING LOCATIONS	QTY(EA)
NWC OF INT OF 9TH AVE & W 29TH ST	2
CET 109.2	TOTAL 2

CET 109.3

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

@ THE FOLLOWING LOCATIONS	QTY(EA)
NWC OF INT OF W 29TH ST & 10TH AVE	1
N SIDE OF 29TH ST BTWN 10TH AVE & 11TH AVE	1
SWC OF INT OF 29TH ST & 10TH AVE	1
CET 109.3	TOTAL 3

CET 109.4

**UTILITIES CROSSING TRENCH FOR WATER MAIN OVER 12" AND UP TO
24" DIAMETER (TYPE .4)**

@ THE FOLLOWING LOCATIONS	QTY(EA)
AS ENCOUNTERED & DIRECTED BY THE ECS FIELD REPRESENTATIVE	1
CET 109.4	TOTAL 1

CET 109.5

**UTILITIES CROSSING TRENCH FOR WATER MAIN OVER 12" AND UP TO
24" DIAMETER (TYPE .5)**

@ THE FOLLOWING LOCATIONS	QTY(EA)
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**MED 598B - Trunk Water Main in W 30th St, Etc.
Borough of Manhattan**

Schedule U-2: Scope of Work for CET items

AS ENCOUNTERED & DIRECTED BY THE ECS FIELD REPRESENTATIVE	1
CET 109.5	TOTAL 1

CET 110.1

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

@ THE FOLLOWING LOCATIONS		QTY(EA)
E SIDE OF INT OF W 31ST ST & 9TH AVE		8
CET 110.1	TOTAL	8

CET 110.2

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

@ THE FOLLOWING LOCATIONS		QTY(EA)
SWC OF INT OF W 30TH ST & 9TH AVE		1
CET 110.2	TOTAL	1

CET 110.3

**UTILITIES CROSSING TRENCH FOR WATER MAIN OVER 24" AND UP TO
36" DIAMETER (TYPE .3)**

@ THE FOLLOWING LOCATIONS		QTY(EA)
NEC OF INT OF W 29TH ST & 10TH AVE		1
SWC OF INT OF W 30TH ST & 9TH AVE		1
CET 110.3	TOTAL	2

CET 110.4

**UTILITIES CROSSING TRENCH FOR WATER MAIN OVER 24" AND UP TO
36" DIAMETER (TYPE .4)**

@ THE FOLLOWING LOCATIONS		QTY(EA)
AS ENCOUNTERED & DIRECTED BY THE ECS FIELD REPRESENTATIVE		1
CET 110.4	TOTAL	1

CET 110.5

UTILITIES CROSSING TRENCH FOR WATER MAIN OVER 24" AND UP TO

**MED 598B - Trunk Water Main in W 30th St, Etc.
Borough of Manhattan**

Schedule U-2: Scope of Work for CET items

36" DIAMETER (TYPE .5)

@ THE FOLLOWING LOCATIONS	QTY(EA)
AS ENCOUNTERED & DIRECTED BY THE ECS FIELD REPRESENTATIVE	1
CET 110.5	TOTAL 1

CET 111.1

**UTILITIES CROSSING TRENCH FOR WATER MAIN OVER 36" AND UP TO
48" DIAMETER (TYPE .1)**

@ THE FOLLOWING LOCATIONS	QTY(EA)
S SIDE OF W 29TH ST BTWN 9TH AVE & 10TH AVE	1
SEC OF INT OF W 29TH ST & 9TH AVE	2
NEC OF INT OF W 29TH ST & 9TH AVE	2
NWC OF INT OF W 29TH ST & 9TH AVE	2
W SIDE OF INT OF W 31ST AND 9TH AVE	8
CET 111.1	TOTAL 15

CET 111.3

**UTILITIES CROSSING TRENCH FOR WATER MAIN OVER 36" AND UP TO
48" DIAMETER (TYPE .3)**

@ THE FOLLOWING LOCATIONS	QTY(EA)
W SIDE OF INT OF W 29TH ST & 10TH AVE	1
N SIDE OF INT OF W 29TH ST & 10TH AVE	1
W SIDE OF INT OF W 30TH ST & 9TH AVE	1
S SIDE OF W 29TH ST BTWN 9TH AVE & 10TH AVE	2
W SIDE OF INT W 30TH ST & 9TH AVE	1
CET 111.3	TOTAL 6

CET 111.4

**UTILITIES CROSSING TRENCH FOR WATER MAIN OVER 36" AND UP TO
48" DIAMETER (TYPE .4)**

@ THE FOLLOWING LOCATIONS	QTY(EA)
SEC OF INT OF W 29TH ST & 10TH AVE	1
CET 111.4	TOTAL 1

**MED 598B - Trunk Water Main in W 30th St, Etc.
Borough of Manhattan**

Schedule U-2: Scope of Work for CET items

CET 200**EXTRA DEPTH EXCAVATION OF CATCH BASIN CHUTE CONNECTION PIPES**

@ THE FOLLOWING LOCATIONS

SEC OF INT OF W 31ST ST & DYER AVE	QTY(LF)
	17
CET 200	TOTAL
	17

CET 225.1B**INSTALLATION OF CATCH BASINS WITH UTILITY INTERFERENCES**

@ THE FOLLOWING LOCATIONS

NCW OF INT OF 10TH AVE & W 28TH ST, ON 28TH	QTY(EA)
S SIDE OF W 29TH ST BTWN 9TH AVE & 10TH AVE	1
SEC OF INT OF W 30TH ST & 9TH AVE, ON W 30TH	1
NEC OF INT OF W 28TH ST & 10TH AVE, ON 10TH AVE	1
NEC OF INT OF W 29TH ST & 10TH AVE, ON 10TH AVE	1
SEC OF INT OF W 31ST ST & DYER AVE	1
CET 225.1B	TOTAL
	6

CET 300**SPECIAL CARE EXCAVATION AND BACKFILLING**

@ THE FOLLOWING LOCATIONS

E SIDE OF 10TH AVE BTWN W 29TH ST & 2 30TH ST	QTY(CY)
W SIDE OF INT OF W 30TH ST & 9TH AVE	19
CET 300	TOTAL
	34

CET 330T

**SUPPORT AND PROTECTION OF COMMUNICATION UTILITY FACILITIES
DURING EXCAVATION OF CITY TRENCH WHEN FACILITIES LIE IN OR
IN CLOSE PROXIMITY TO TRENCH LIMITS**

@ THE FOLLOWING LOCATIONS

SEC OF INT OF W 29TH ST & 10TH AVE	QTY(LF)
S SIDE OF INT OF W 29TH ST & 10TH AVE	50
S SIDE OF 29TH ST BTWN 10TH AVE & 11TH AVE	35
E SIDE OF 10TH AVE BTWN W 29TH ST & 2 30TH ST	9
E SIDE OF 10TH AVE BTWN W 29TH ST & 2 30TH ST	53
	100

**MED 598B - Trunk Water Main in W 30th St, Etc.
Borough of Manhattan**

Schedule U-2: Scope of Work for CET items

S SIDE OF W 29TH ST BTWN 9TH AVE & 10TH AVE	466
N SIDE OF INT OF W 29TH ST & 9TH AVE	85
S SIDE OF W 31ST ST BTWN 9TH AVE & 10TH AVE	81
W SIDE OF 9TH AVE BTWN W 31ST ST & W 33RD ST	102
W SIDE OF 9TH AVE BTWN W 30TH ST & W 31ST ST	90
E SIDE OF INT OF W 30TH ST & 9TH AVE	35
W SIDE OF INT OF W 30TH ST & 9TH AVE	30
W SIDE OF 9TH AVE BTWN W 29TH ST & W 30TH ST	109
CET 330T	TOTAL 1245

CET 400

TEST PITS FOR UTILITY FACILITIES

@ THE FOLLOWING LOCATIONS		QTY(CY)
AS ENCOUNTERED & DIRECTED BY THE ECS FIELD REPRESENTATIVE		50
CET 400	TOTAL	50

CET 401

TRENCH EXCAVATION FOR ADJUSTMENT OF UTILITY FACILITIES

@ THE FOLLOWING LOCATIONS		QTY(CY)
NEC OF INT OF W 29TH ST & 10TH AVE		38
S SIDE OF 29TH ST BTWN 9TH AVE & 10TH AVE		38
S SIDE OF 29TH ST BTWN 9TH AVE & 10TH AVE		38
S SIDE OF 29TH ST BTWN 9TH AVE & 10TH AVE		38
S SIDE OF 29TH ST BTWN 9TH AVE & 10TH AVE		38
SEC OF INT OF W 29TH ST & 10TH AVE		38
NEC OF INT OF W 29TH ST & 10TH AVE		38
NEC OF INT OF W 29TH ST & 10TH AVE		38
NEC OF INT OF W 29TH ST & 10TH AVE		68
S SIDE OF W 29TH ST BTWN 9TH AVE & 10TH AVE		56
S SIDE OF W 29TH ST BTWN 9TH AVE & 10TH AVE		56
S SIDE OF W 29TH ST BTWN 9TH AVE & 10TH AVE		38
S SIDE OF W 29TH ST BTWN 9TH AVE & 10TH AVE		38
S SIDE OF W 29TH ST BTWN 9TH AVE & 10TH AVE		216
W SIDE OF INT OF W 29TH ST & 9TH AVE		110
S SIDE OF INT OF W 29TH ST & 9TH AVE		38
W SIDE OF 9TH AVE BTWN W 31ST ST & W 33RD ST		125

**MED 598B - Trunk Water Main in W 30th St, Etc.
Borough of Manhattan**

Schedule U-2: Scope of Work for CET items

W SIDE OF 9TH AVE BTWN W 30TH ST & W 31ST ST	93
NEC OF INT OF W 30TH ST & 9TH AVE	38
NEC OF INT OF W 30TH ST & 9TH AVE	38
NEC OF INT OF W 30TH ST & 9TH AVE	38
NEC OF INT OF W 29TH ST & 9TH AVE	38
W SIDE OF INT OF W 30TH ST & 9TH AVE	311
S SIDE OF W 31ST ST BTWN 9TH AVE & W 10TH AVE	100
CET 401	TOTAL 1705

CET 402T.1A

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

@ THE FOLLOWING LOCATIONS

	QTY(LF)
S SIDE OF 29TH AVE ST S OF INT OF 29TH ST & 10TH AVE	120
S SIDE OF 29TH AVE ST S OF INT OF 29TH ST & 10TH AVE	120
S SIDE OF 29TH AVE ST S OF INT OF 29TH ST & 10TH AVE	480
S SIDE OF 29TH AVE ST S OF INT OF 29TH ST & 10TH AVE	1920
SEC OF INT OF W 29TH ST & 10TH AVE	280
NEC OF INT OF W 29TH ST & 10TH AVE	240
NEC OF INT OF W 29TH ST & 10TH AVE	280
NEC OF INT OF W 29TH ST & 10TH AVE	120
S SIDE OF W 29TH ST BTWN 9TH AVE & 10TH AVE	150
S SIDE OF W 29TH ST BTWN 9TH AVE & 10TH AVE	2400
S SIDE OF W 29TH ST BTWN 9TH AVE & 10TH AVE	80
W SIDE OF INT OF W 29TH ST & 9TH AVE	1530
W SIDE OF 9TH AVE BTWN W 31ST ST & W 33RD ST	810
W SIDE OF 9TH AVE BTWN W 30TH ST & W 31ST ST	600
NEC OF INT OF W 30TH ST & 9TH AVE	400
NEC OF INT OF W 30TH ST & 9TH AVE	320
NEC OF INT OF W 30TH ST & 9TH AVE	160
W SIDE OF INT OF W 30TH ST & 9TH AVE	6020
S SIDE OF W 31ST ST BTWN 9TH AVE & W 10TH AVE	1944
CET 402T.1A	TOTAL 17974

CET 402T.V1A

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

**MED 598B - Trunk Water Main in W 30th St, Etc.
Borough of Manhattan**

Schedule U-2: Scope of Work for CET items

@ THE FOLLOWING LOCATIONS	QTY(LF)
AS ENCOUNTERED & DIRECTED BY THE ECS FIELD REPRESENTATIVE	1797
CET 402T.V1A	TOTAL 1797

**CET 402T.2
EXISTING NON-CONCRETE ENCASED TELECOMMUNICATION CONDUITS
PLACED IN FINAL POSITION WITHOUT CONCRETE ENCASEMENT**

@ THE FOLLOWING LOCATIONS	QTY(LF)
NEC OF INT OF W 29TH ST & 10TH AVE	30
S SIDE OF INT OF W 29TH ST & 9TH AVE	40
NEC OF INT OF W 29TH ST & 9TH AVE	90
CET 402T.2	TOTAL 160

**CET 402T.V2
EXISTING VACANT NON-CONCRETE ENCASED TELECOMMUNICATION
CONDUITS PLACED IN FINAL POSITION WITHOUT CONCRETE ENCASEMENT**

@ THE FOLLOWING LOCATIONS	QTY(LF)
AS ENCOUNTERED & DIRECTED BY THE ECS FIELD REPRESENTATIVE	16
CET 402T.V2	TOTAL 16

**CET 402T.J1A
EXISTING OCCUPIED CONCRETE ENCASED CONDUITS PLACED IN FINAL
POSITION WITH CONCRETE ENCASEMENT IN WHICH ONLY CONDUIT
CONDUIT JOINTS ARE BROKEN OUT AND CONDUITS REMAIN INTACT**

@ THE FOLLOWING LOCATIONS	QTY(LF)
S SIDE OF W 29TH ST BTWN 9TH AVE & 10TH AVE	1920
S SIDE OF W 29TH ST BTWN 9TH AVE & 10TH AVE	11184
CET 402T.J1A	TOTAL 13104

**CET 636EE RD
ADJUSTMENT OF UTILITY HARDWARE (34" TO UNDER 41" WIDTH)**

@ THE FOLLOWING LOCATIONS	QTY(EA)
NEC OF INT OF W 29TH ST & 10TH AVE	1

**MED 598B - Trunk Water Main in W 30th St, Etc.
Borough of Manhattan**

Schedule U-2: Scope of Work for CET items

S SIDE OF W 29TH ST BTWN 9TH AVE & 10TH AVE	1
NWC OF INT OF W 29TH ST & 9TH AVE	1
W SIDE OF 9TH AVE BTWN W 29TH ST & W 30TH ST	1
SWC OF INT OF W 30TH ST & 9TH AVE	1
W SIDE OF 9TH AVE BTWN W 30TH ST & W 31ST ST	3
CET 636EE RD	TOTAL 8

CET 636RM

REBUILDING AND MODIFICATIONS TO UTILITY STRUCTURES

@ THE FOLLOWING LOCATIONS	QTY(CY)
S SIDE OF W 29TH ST BTWN 9TH AVE & 10TH AVE	10
AS ENCOUNTERED & DIRECTED BY THE ECS FIELD REPRESENTATIVE	5
CET 636RM	TOTAL 15

CET 700

**SPECIAL MODIFICATION OF WORK METHODS TO ACCOMMODATE/PROTECT
UNDERGROUND FACILITIES WITH LIMITED COVER**

@ THE FOLLOWING LOCATIONS	QTY(CY)
AS ENCOUNTERED & DIRECTED BY THE ECS FIELD REPRESENTATIVE	1322
CET 700	TOTAL 1322

CET 802A

**SPECIAL MODIFICATION OF WORK METHODS FOR INSTALLATION OF NEW
SIDEWALK**

@ THE FOLLOWING LOCATIONS	QTY(SF)
AS ENCOUNTERED & DIRECTED BY THE ECS FIELD REPRESENTATIVE	100
CET 802A	TOTAL 100

CET 802B

**SPECIAL MODIFICATION OF WORK METHODS FOR INSTALLATION OF NEW
CURB**

@ THE FOLLOWING LOCATIONS	QTY(LF)
AS ENCOUNTERED & DIRECTED BY THE ECS FIELD REPRESENTATIVE	100

**MED 598B - Trunk Water Main in W 30th St, Etc.
Borough of Manhattan**

Schedule U-2: Scope of Work for CET items

CET 802B	TOTAL	100
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**CET 1006V
6" VERTICAL OR ROLLED WATER MAIN OFFSET**

@ THE FOLLOWING LOCATIONS		QTY(EA)
AS ENCOUNTERED & DIRECTED BY THE ECS FIELD REPRESENTATIVE		3
CET 1006V	TOTAL	3

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

@ THE FOLLOWING LOCATIONS		QTY(EA)
AS ENCOUNTERED & DIRECTED BY THE ECS FIELD REPRESENTATIVE		3
CET 1012V	TOTAL	3

**CET 1020V
20" VERTICAL OR ROLLED WATER MAIN OFFSET**

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

**TIME WARNER CABLE
SUPPORT & PROTECTION
MED598B TRUNK WATER MAINS IN WEST 30TH STREET BETWEEN
10TH AVENUE AND 9TH AVENUE, ETC.
TO CONNECT SHAFT 26B TO THE DISTRIBUTION SYSTEM
Borough of Manhattan**

CET ITEM	DESCRIPTION	UNITS	ESTIMATED QUANTITY
100.1	UTILITIES CROSSING TRENCH FOR CB CHUTE CONNECTION	EA	1
101.1	UTILITIES CROSSING TRENCH FOR SEWERS UP TO AND INCLUDING 24" DIAMETER	EA	1
109.1	UTILITIES CROSSING TRENCH TRENCH FOR WATER MAIN OVER 12" TO 24" DIAMETER	EA	3
110.1	UTILITIES CROSSING TRENCH FOR WATER MAIN OVER 24" TO 36" DIAMETER	EA	1
111.1	UTILITIES CROSSING TRENCH FOR WATER MAIN OVER 36" TO 48" DIAMETER	EA	1
225	INSTALLATION / REMOVAL OF CATCH BASINS WITH UTILITY INTERFERENCES	EA	1
330	SUPPORT AND PROTECTION OF UTILITY IN CITY TRENCH	LF	10
700	SPECIAL MODIFICATION OF WORK METHODS TO ACCOMMODATE / PROTECT UNDERGROUND FACILITIES WITH LIMITED COVER	CY	55

**TIME WARNER CABLE
 SUPPORT & PROTECTION
 MED598B TRUNK WATER MAINS IN WEST 30TH STREET BETWEEN
 10TH AVENUE AND 9TH AVENUE, ETC.
 TO CONNECT SHAFT 26B TO THE DISTRIBUTION SYSTEM
 Borough of Manhattan**

CET 100.1 UTILITIES CROSSING TRENCH FOR CB CHUTE CONNECTION At the following location: NWC 10th Avenue & West 28th Street	EA 1 Total quantity for CET 100.1 1
CET 101.1 UTILITIES CROSSING TRENCH FOR SEWERS UP TO AND INCLUDING 24" DIAMETER At the following location: NEC 10th Avenue & West 28th Street	EA 1 Total quantity for CET 101.1 1
CET 109.1 UTILITIES CROSSING TRENCH FOR WATER MAIN OVER 12" TO 24" DIAMETER At the following locations: NWC West 29th Street & 10th Avenue Intersection of West 29th Street & 10th Avenue On West 31 Street ED 10th Avenue	EA 1 1 1 Total quantity for CET 109.1 3
CET 110.1 UTILITIES CROSSING TRENCH FOR WATER MAIN OVER 24" TO 36" DIAMETER At the following location: Intersection of 10th Avenue & West 29th Street	EA 1 Total quantity for CET 110.1 1
CET 111.1 UTILITIES CROSSING TRENCH FOR WATER MAIN OVER 36" TO 48" DIAMETER At the following location: Intersection of 10th Avenue & West 29th Street	EA 1 Total quantity for CET 111.1 1

TIME WARNER CABLE
SUPPORT & PROTECTION
MED598B TRUNK WATER MAINS IN WEST 30TH STREET BETWEEN
10TH AVENUE AND 9TH AVENUE, ETC.
TO CONNECT SHAFT 26B TO THE DISTRIBUTION SYSTEM
Borough of Manhattan

CET 225	INSTALLATION / REMOVAL OF CATCH BASINS WITH UTILITY INTERFERENCES At the following location: NWC of 10th Avenue & West 28th Street	EA 1 Total quantity for CET 225 1
CET 330	SUPPORT AND PROTECTION OF UTILITY IN CITY TRENCH At the following location: NWC 10th Avenue & West 28th Street	LF 10 Total quantity for CET 330 10
CET 700	SPECIAL MODIFICATION OF WORK METHODS TO ACCOMMODATE / PROTECT UNDERGROUND FACILITIES WITH LIMITED COVER At the following locations: Intersection of 10th Avenue & West 28th Street Intersection of 10th Avenue & West 29th Street Intersection of 10th Avenue & West 31st Street	CY 31 23 1 Total quantity for CET 700 55

SECTION U-3

(NO TEXT IN THIS SECTION)

TEST PITS

- (1) **THESE TEST PITS DETAIL EXISTING CONDITIONS (AS OF BID DATE) OF UTILITIES AND OTHER SUBSURFACE FACILITIES AT LOCATIONS AS SHOWN ON THE TEST PIT LOCATIONS PLAN OF THE CONTRACT DRAWINGS.**

- (2) **DEPTHS OF FACILITIES ARE FROM EXISTING ROADWAY AND SIDEWALK ELEVATIONS AS SHOWN, OFFSETS ARE FROM EXISTING CURB, PROPERTY AND BUILDING LINES, AS SHOWN.**

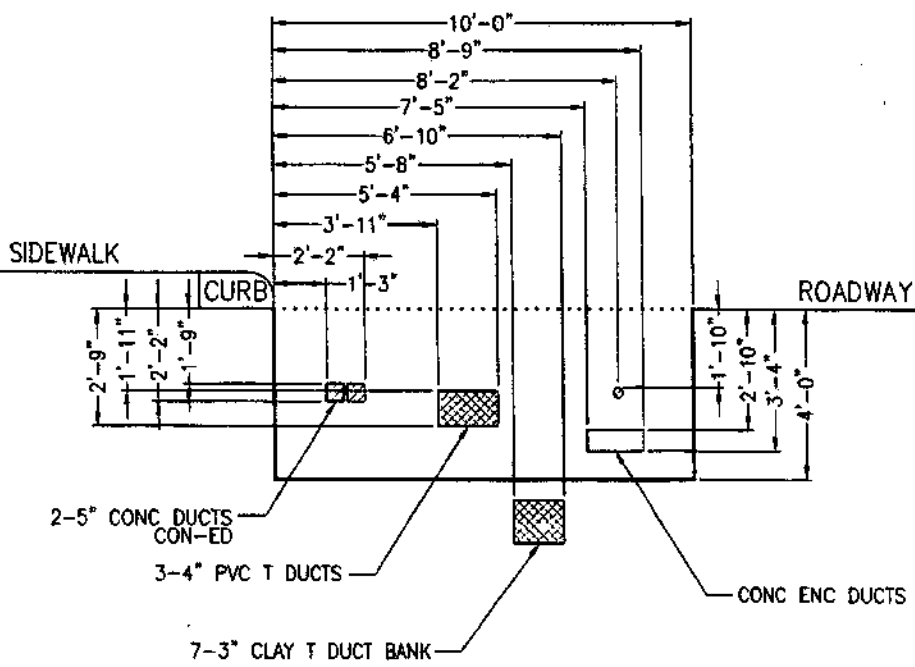
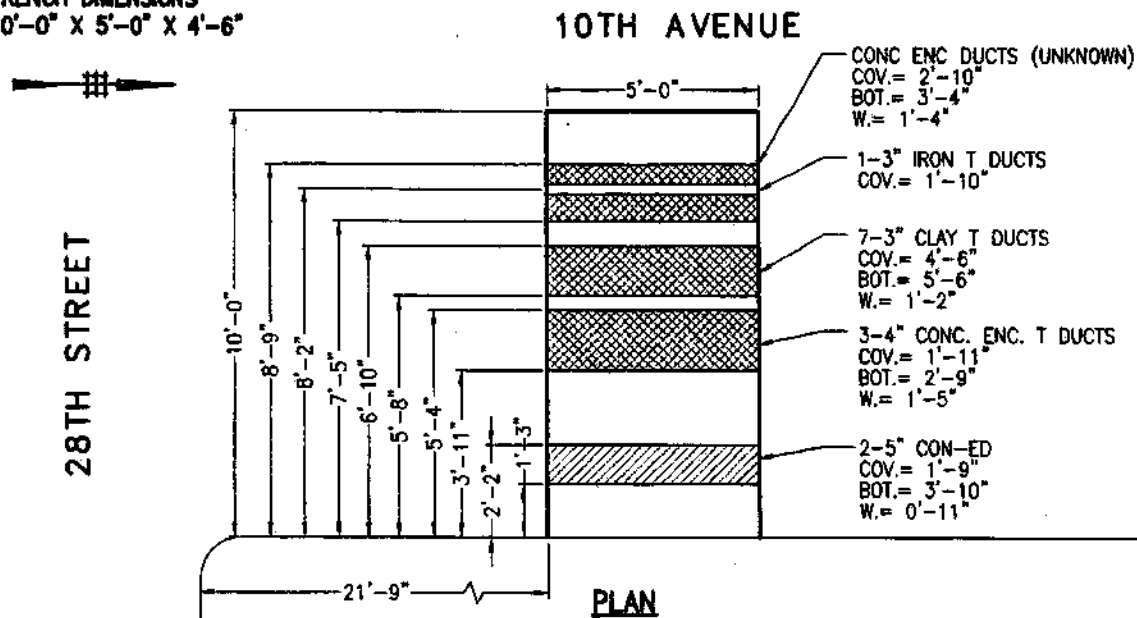
- (3) **RELEVANT ITEMS ARE NOTED ON EACH TEST PIT DIAGRAM.**

(NO TEXT IN THIS SECTION)

JOB: WEST 30TH STREET, MN PREPARED BY: MATT WOZNIAK DATE: 06-2-14
 JOB NO: MED-598B CHECKED BY: ANDREW MATARAZZO DATE: 06-3-14

TEST PIT #1 LOCATION: 21'-9" NORTH OF INTERSECTION OF 10TH AVENUE
 PURPOSE: LOCATE UTILITIES AND 28TH STREET

TRENCH DIMENSIONS
 10'-0" X 5'-0" X 4'-6"



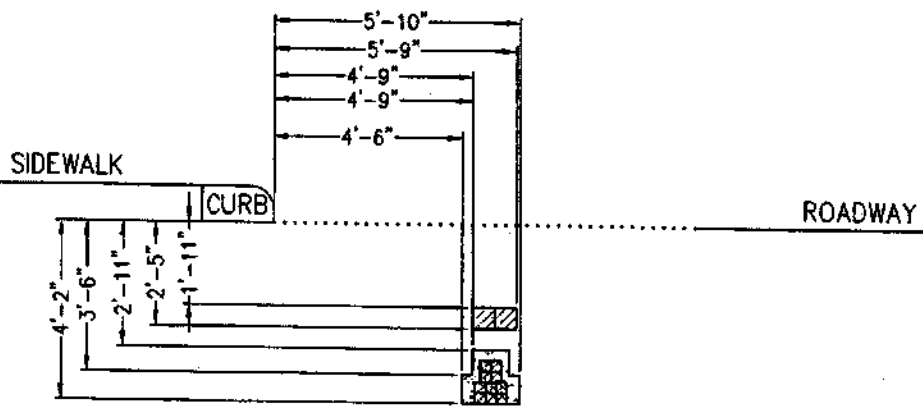
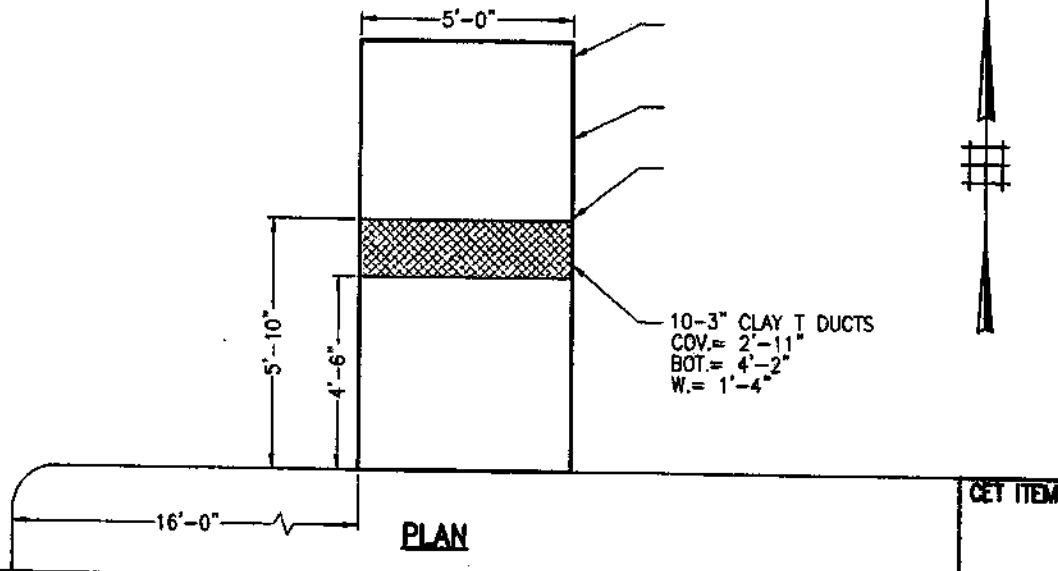
JOB: WEST 30TH STREET, MN PREPARED BY: MATT WOZNIAK DATE: 06-2-14
 JOB NO: MED-598B CHECKED BY: ANDREW MATARAZZO DATE: 06-3-14

TEST PIT #2 LOCATION: 16'-0" EAST OF INTERSECTION OF DYER AVENUE
 PURPOSE: LOCATE UTILITIES AND 31ST STREET

TRENCH DIMENSIONS
 10'-0" X 5'-0" X 4'-0"

31ST STREET

DYER AVENUE

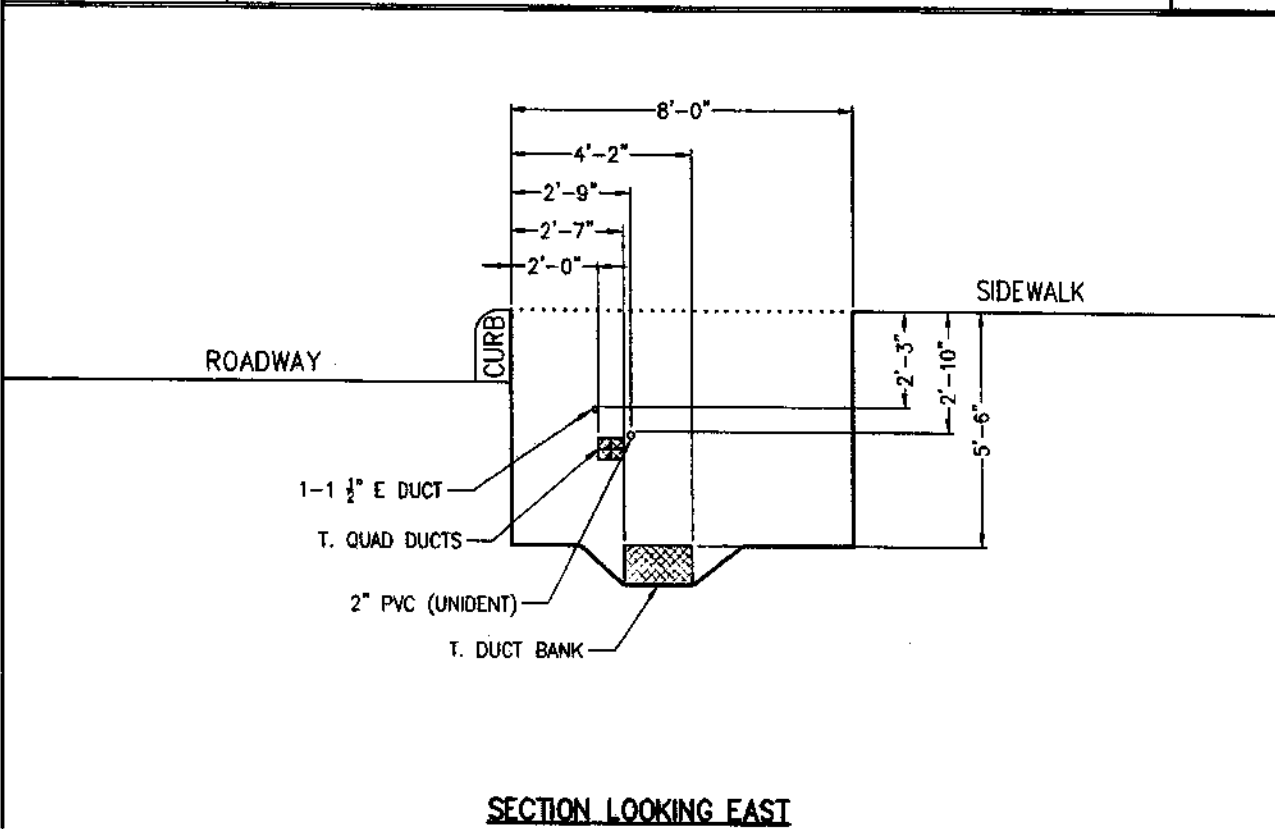
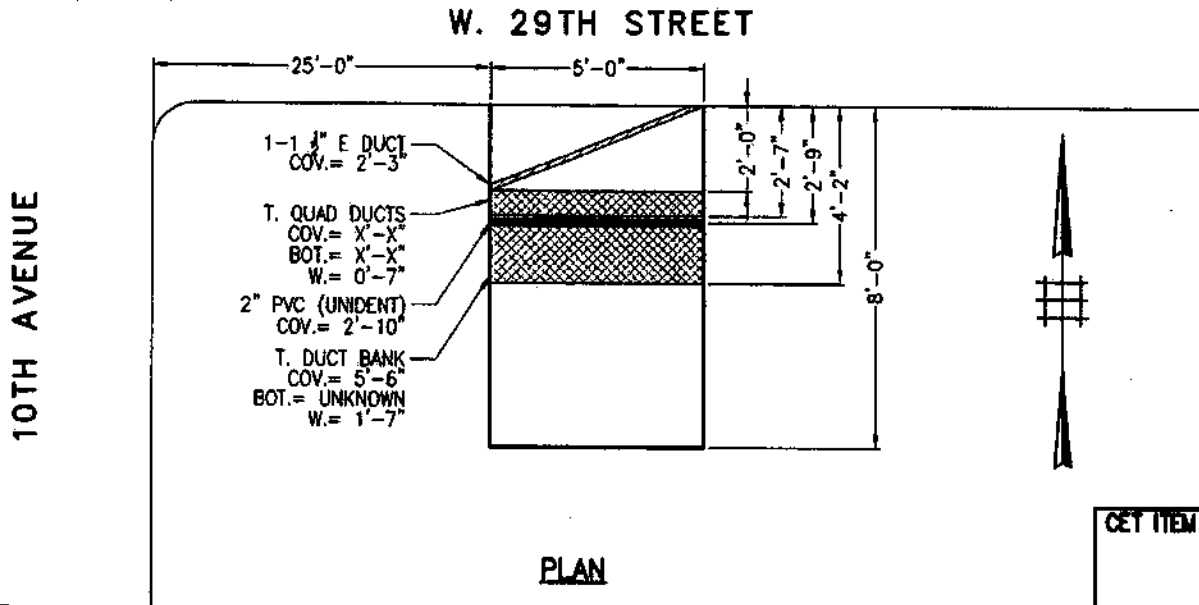


SECTION LOOKING EAST

JOB: WEST 30TH STREET, MN PREPARED BY: MATT WOZNAK DATE: 05-30-14
 JOB NO: MED-598B CHECKED BY: ANDREW MATARAZZO DATE: 06-03-14

TEST PIT #3 LOCATION: 25'-0" EAST OF INT. OF WEST 29TH STREET
 PURPOSE: LOCATE UTILITIES AND 10TH AVENUE

TRENCH DIMENSIONS
 8'-0" X 5'-0" X 5'-6"



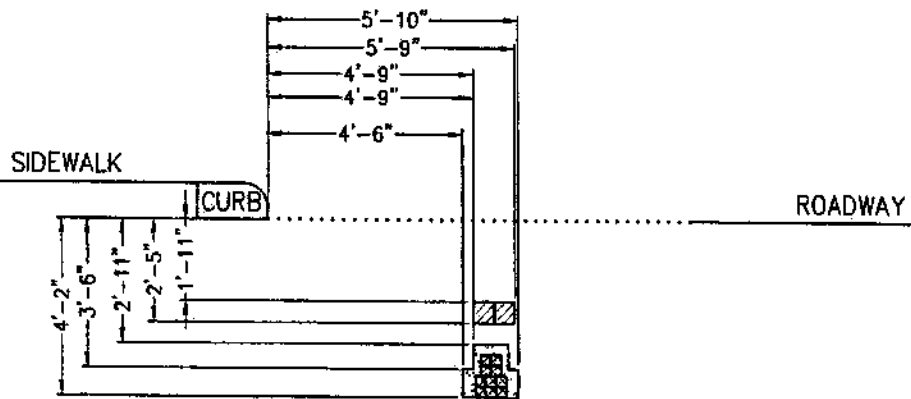
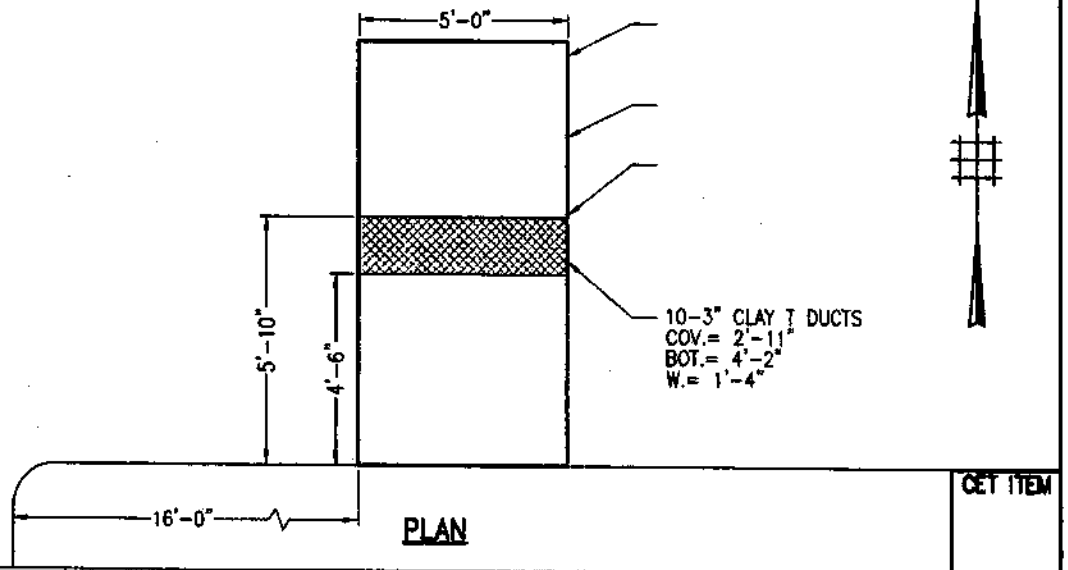
JOB: WEST 30TH STREET, MN PREPARED BY: MATT WOZNAK DATE: 06-2-14
 JOB NO: MED-598B CHECKED BY: ANDREW MATARAZZO DATE: 06-3-14

TEST PIT #4 LOCATION: 16'-0" EAST OF INTERSECTION OF DYER AVENUE
 PURPOSE: LOCATE UTILITIES AND 31ST STREET

TRENCH DIMENSIONS
 10'-0" X 5'-0" X 4'-0"

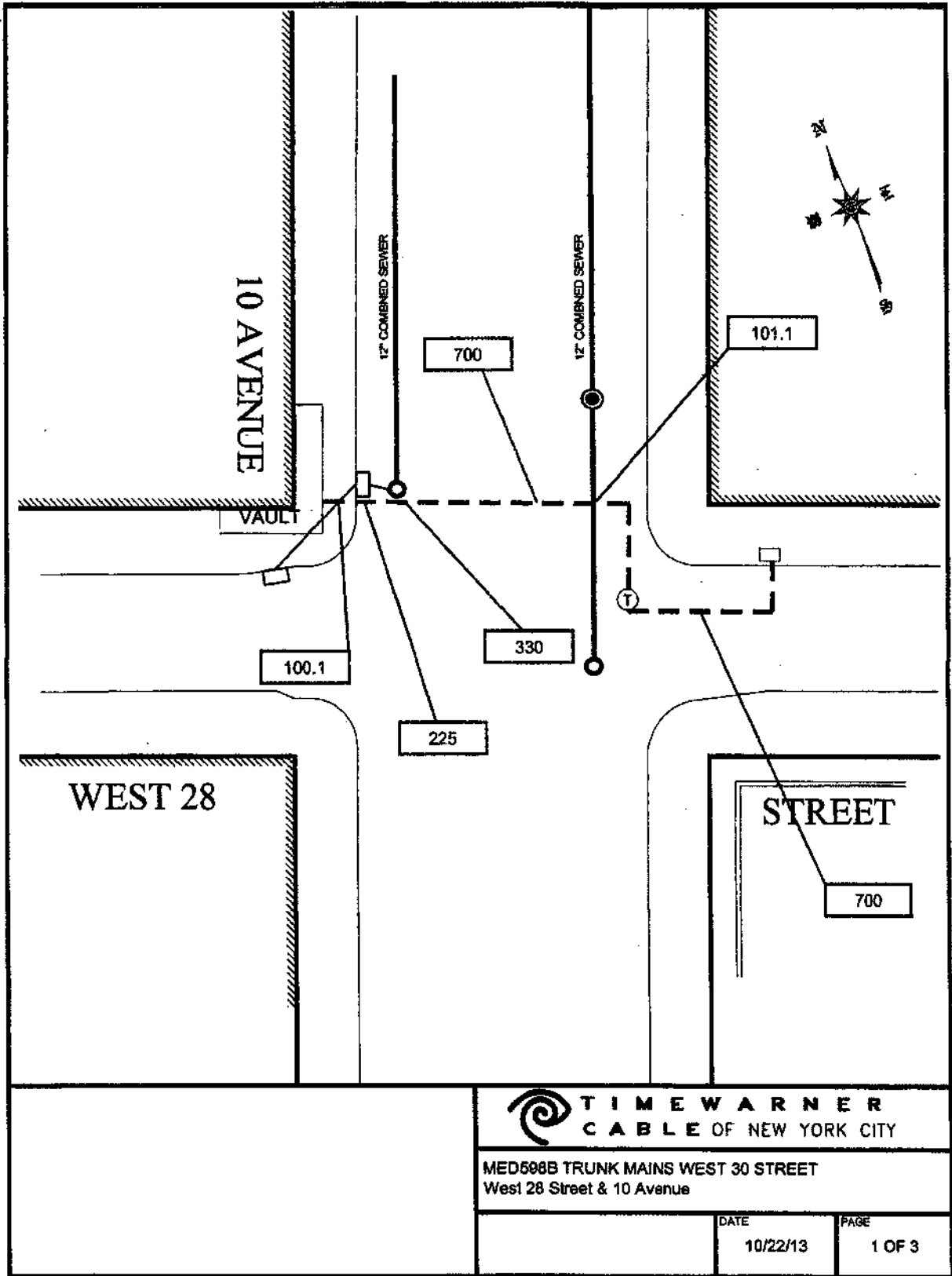
31ST STREET

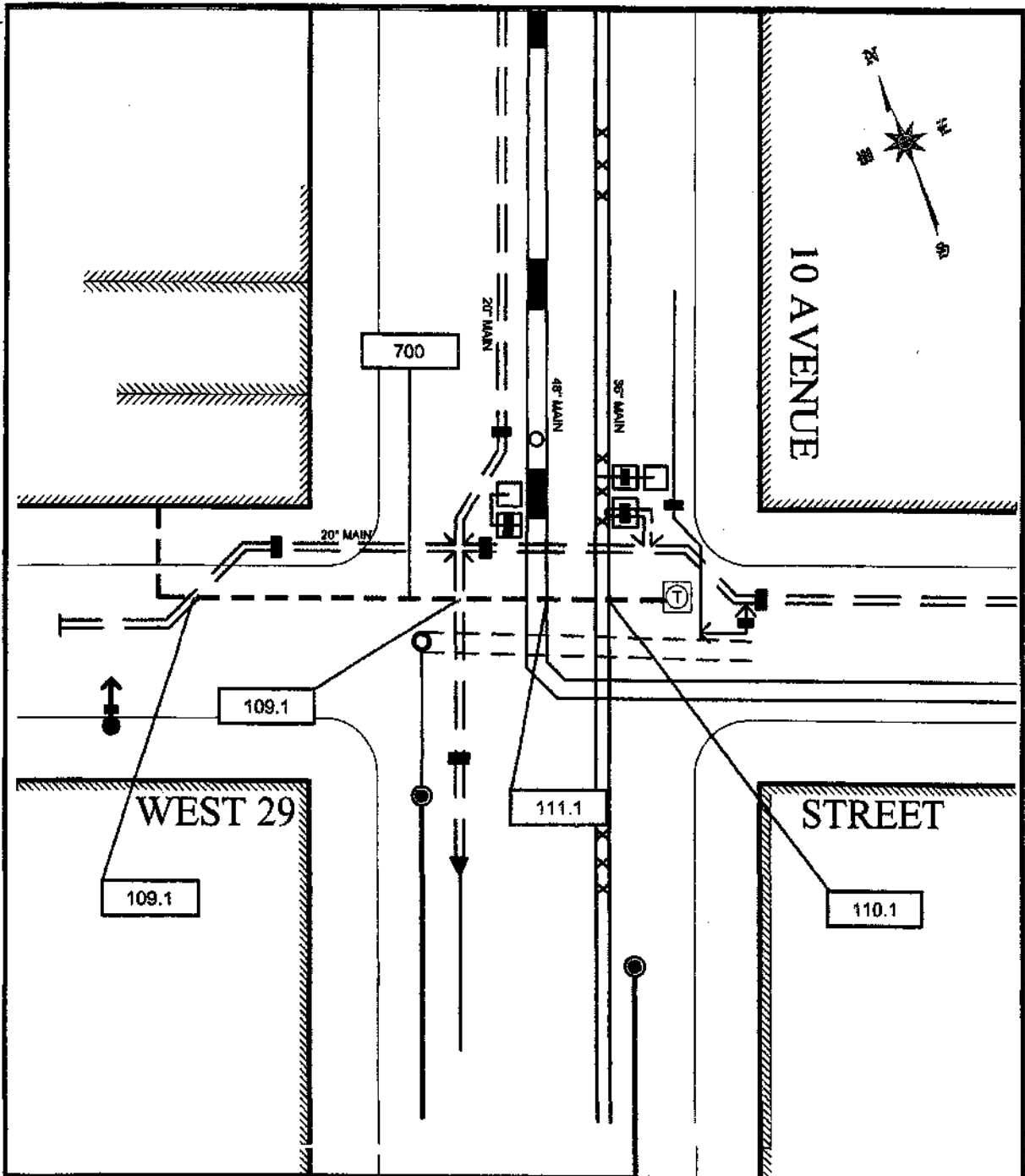
DYER AVENUE



SKETCHES

(NO TEXT IN THIS SECTION)



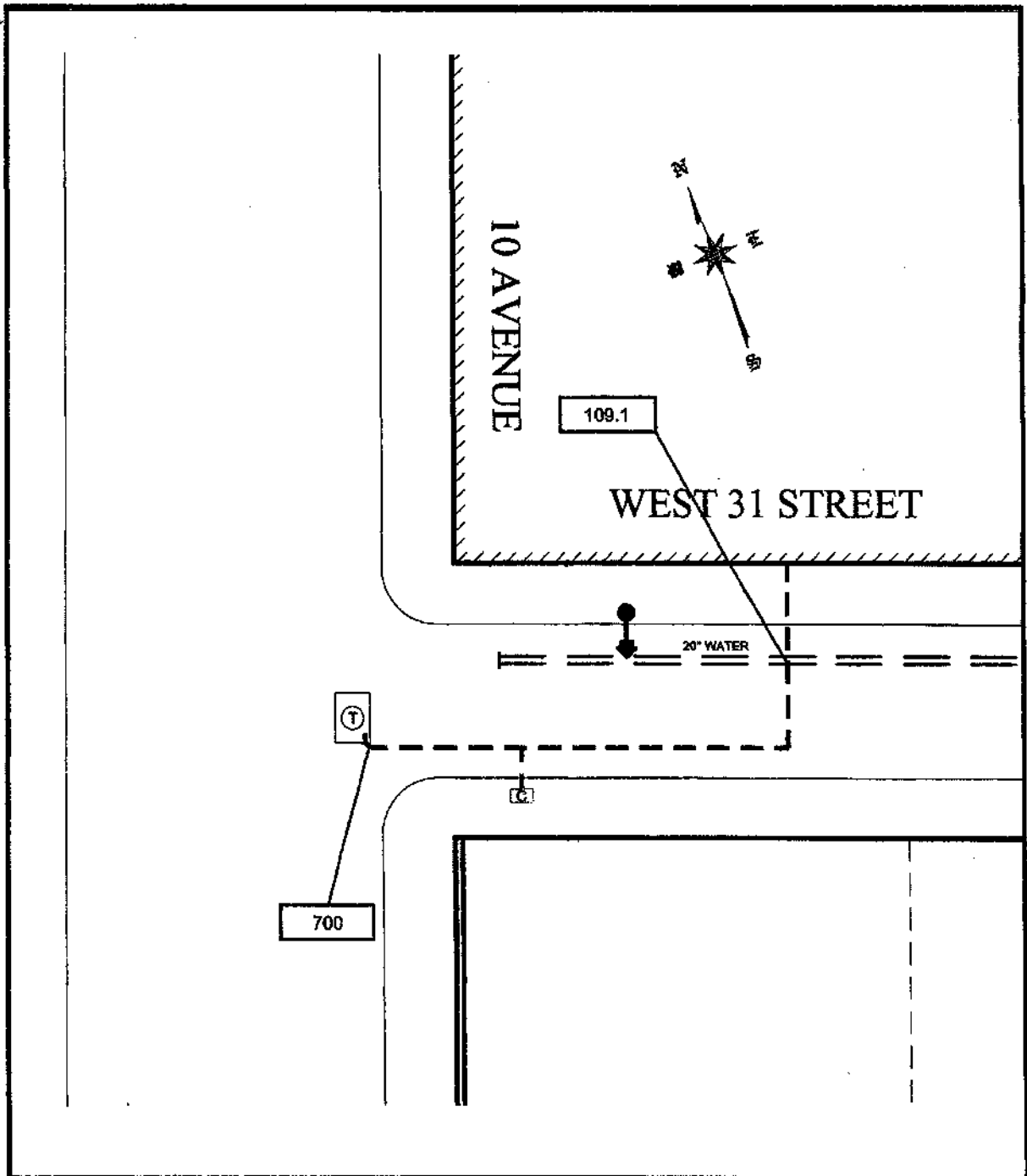


TIME WARNER
CABLE OF NEW YORK CITY

MED598B TRUNK MAINS WEST 30 STREET
West 29 Street & 10 Avenue

DATE
10/22/13

PAGE
2 of 3



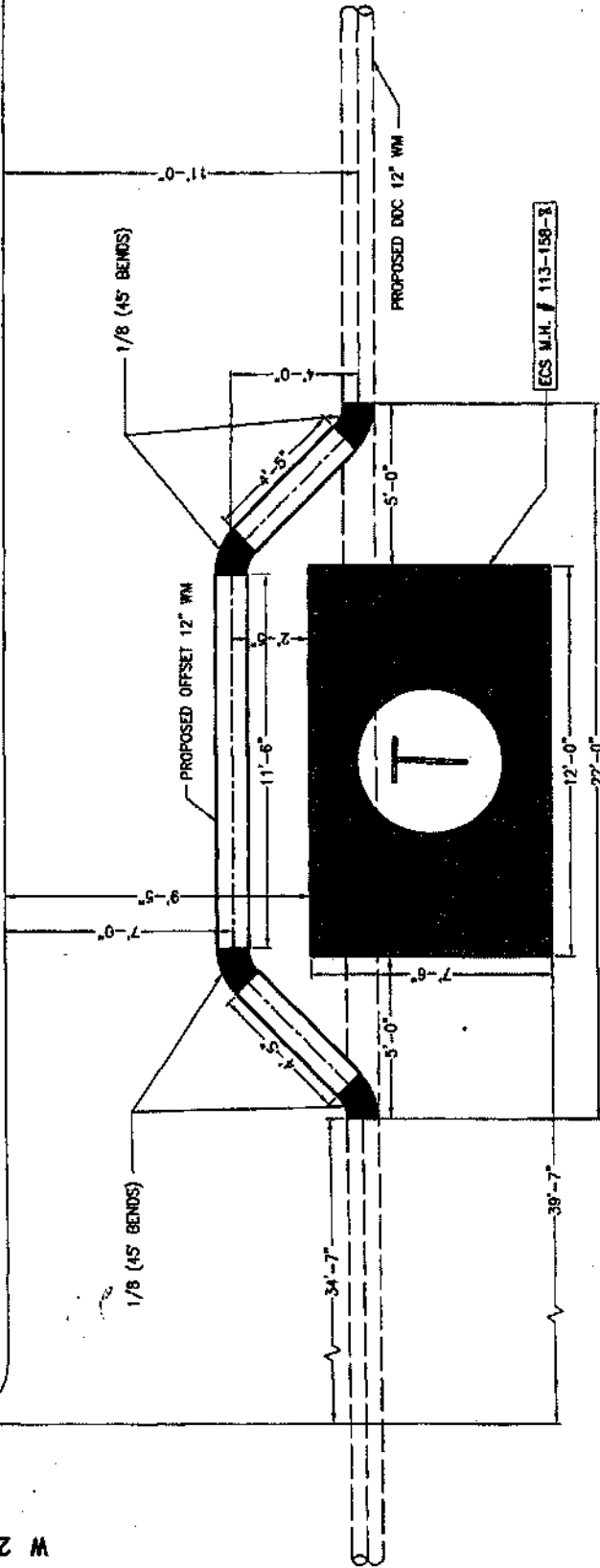
**TIME WARNER
CABLE OF NEW YORK CITY**

**MED596B TRUNK MAINS WEST 30 STREET
West 31 Street & 10 Avenue**

DATE	PAGE
10/22/13	3 OF 3

W 29TH STREET

9TH AVE



ECS M.H. / 113-158-3

EMPIRE CITY SUBWAY	
WATER MAIN OFFSET REQUEST	
9TH AVENUE	
BOROUGH OF MANHATTAN	
SHEET OF	CONTRACT NO. MED 8888
	1/1



END OF ADDENDUM No.4
This Addendum consists of Sixty-Five (65) pages
And Sixteen (16) 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: MED598B

**TRUNK WATER MAINS IN W. 30TH STREET BETWEEN 10TH AVENUE AND 9TH AVENUE, ETC. TO
CONNECT SHAFT 26B TO THE DISTRIBUTION SYSTEM**

INCLUDING SEWER, WATER MAIN, STREET LIGHTING AND TRAFFIC WORK

Together With All Work Incidental Thereto

BOROUGH OF MANHATTAN

ADDENDUM NO. 5

DATED: May 1, 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
HANDLING, TRANSPORTATION AND DISPOSAL
OF NONHAZARDOUS AND POTENTIALLY HAZARDOUS
CONTAMINATED MATERIALS**

**Reconstruction of Trunk Water Mains in W. 30th Street between 10th
Avenue and 9th Avenue to Connect Shaft 26B to the Distribution
System**

Borough of Manhattan

(NO TEXT ON THIS PAGE)

**SPECIFICATIONS FOR
HANDLING, TRANSPORTATION AND DISPOSAL
OF NON-HAZARDOUS AND POTENTIALLY HAZARDOUS
CONTAMINATED MATERIALS**

**Reconstruction of Trunk Water Mains in W. 30th Street between 10th
Avenue and 9th Avenue to Connect Shaft 26B**

Borough of Manhattan

DDC Project No. MED-598B

Prepared By:



**NEW YORK CITY DEPARTMENT OF
DESIGN + CONSTRUCTION**

30-30 Thomson Avenue, 3rd Floor
Long Island City, New York 11101

Date: 2/12/2014

A5-3

Table of Contents

ITEM 8.01 C1	<u>HANDLING, TRANSPORTING AND DISPOSAL OF NON-HAZARDOUS CONTAMINATED SOILS</u>	1
ITEM 8.01 C2	<u>SAMPLING AND TESTING OF CONTAMINATED/POTENTIALLY HAZARDOUS SOILS FOR DISPOSAL PARAMETERS</u>	7
ITEM 8.01 H	<u>HANDLING, TRANSPORTING AND DISPOSAL OF HAZARDOUS SOILS</u>	9
ITEM 8.01 S	<u>HEALTH AND SAFETY</u>	15
ITEM 8.01 W1	<u>REMOVAL, TREATMENT AND DISCHARGE/DISPOSAL OF CONTAMINATED WATER</u>	20
ITEM 8.01 W2	<u>SAMPLING AND TESTING OF CONTAMINATED WATER</u>	27

- Attachments**
1. New York City Department of Environmental Protection Limitations for Effluent to Storm-Sanitary or Combined Sewers Parameters
 2. Applicable Regulations
 3. Definitions
 4. Phase II Subsurface Corridor Investigation Report

A5-4

ITEM 8.01 C1 HANDLING, TRANSPORTING AND DISPOSAL OF NON-HAZARDOUS CONTAMINATED SOILS

8.01 C1.1 WORK TO INCLUDE

General: This work shall consist of the handling, transportation and disposal of non-hazardous contaminated soils. The materials covered by this specification are soils that are contaminated with petroleum or chemical products but cannot be classified as hazardous waste. For the purpose of this specification, soil shall be defined as any material excavated below the pavement and base for pavement.

Non-hazardous contaminated soils are defined as soils exhibiting one or more of the following characteristics:

- ◆ Elevated Photo-Ionization Detector (PID) readings, subsequently confirmed by lab analysis
- ◆ Visual evidence of contamination
- ◆ Petroleum and/or chemical odors
- ◆ Soils that have been documented as contaminated in previous environmental reports

Non-hazardous contaminated soils must be stockpiled at an off-site approved location or secured on-site by the Contractor, meeting all required Federal, State and Local stipulations. Sampling and laboratory analysis must be conducted to determine if the soils are hazardous, unless the alternative procedure as defined under subsection 8.01 C1.1 A.5 has been agreed upon by treatment facilities. Contaminated soils determined to be non-hazardous shall be handled in accordance with the specifications herein for Item 8.01 C1. Contaminated soils determined to be hazardous shall be handled in accordance with the specifications for Item 8.01 H – Handling, Transporting and Disposal of Hazardous Soils.

The Contractor shall retain the services of an independent Environmental Consultant, as specified under Item 8.01 S – Health and Safety, to oversee the work required under this Item.

Non-hazardous soils shall be delivered to the disposal or treatment facility within thirty (30) calendar days after excavation.

The Contractor shall conduct sampling and analysis of the impacted soils as specified under Item 8.01 C2 – Sampling and Testing of Contaminated/Potentially Hazardous Soils for Disposal Parameters. The laboratory results shall be forwarded to DDC Program Administration, Engineering Support Services (ESS) for review to determine if the soils will be handled and disposed of as contaminated regulated soils or hazardous waste. No other soils shall be sampled or tested without the DDC's approval or direction.

The Contractor shall ensure that all operations associated with the handling, sampling, loading, transportation, and disposal of non-hazardous contaminated soils are in compliance with all applicable Federal, State, and City statutes and regulations.

The Contractor shall document the excavation, handling, transportation and disposal of non-hazardous contaminated soils. The Contractor shall supply all equipment, material and labor required to conduct the specified work of this Item.

- A. Material Handling Plan: Within forty-five (45) calendar days after award of Contract, the Contractor shall submit to the Program Administration, ESS for review, a Material Handling Plan (MHP). The MHP must be approved by the Program Administration, ESS, prior to the Contractor's commencement of work. The MHP shall, at a minimum, consist of:

A5-5

1. The Contractor's procedures for identifying non-hazardous contaminated soils during excavation, including the specific model and manufacturer of intended organic vapor monitoring equipment and calibration procedures to be used. It should also include the training and experience of the personnel who will operate the equipment.
2. The Contractor's procedures for safely handling non-hazardous contaminated soils. The procedures must include personnel safety and health as well as environmental protection considerations.
3. Name, address, New York State Department of Health's (DOH) Environmental Laboratories Accreditation Program (ELAP) status and telephone number of the proposed laboratory for analysis of representative soil samples. The ELAP for the intended analysis must approve the laboratory.
4. Identification of the Contractor's proposed waste transporter(s). This information shall include:
 - a. Name and Waste Transporter Permit Number
 - b. Address
 - c. Name of responsible contact for the hauler
 - d. Telephone number for the contact
 - e. Any and all necessary permit authorizations for each type of waste transported
 - f. Previous experience in performing the type of work specified herein
5. All staging/stockpiling areas (if stockpiling areas are intended and available), or alternate procedures that will be used. Alternate procedures may include, but are not limited to, agreements from the intended disposal or treatment facilities to accept boring data and/or analytical data previously obtained during the site characterization so that materials may be directly loaded into vehicles for shipment to the disposal facility.
6. A backup facility should the staging/stockpile areas become unavailable, insufficient in area or not be present by some other unforeseen difficulty.
7. Identification of the Contractor's two proposed Treatment Storage or Disposal (TSD) facilities for non-hazardous contaminated soils (primary and back-up) for final disposal of the soils. The primary TSD shall be an approved soil recycling/treatment facility. The backup facility may be a recycling/treatment facility or a New York State Department of Environmental Conservation (DEC) approved lined landfill or other facility approved by DEC to accept this material. The information required for each facility shall include:
 - a. Facility name and the State identification number
 - (1) Facility location
 - (2) Name of responsible contact for the facility
 - (3) Telephone number for contact
 - (4) Signed letter of agreement to accept waste as specified in this contract
 - (5) Unit of measure utilized at facility for costing purposes
 - b. A listing of all permits, licenses, letters of approval, and other authorizations to operate, which are currently held and valid for the proposed facility.

A5-6

- c. A listing of all permits, licenses, letters of approval, and other authorizations to operate which have been applied for by the proposed facility but not yet granted or issued.
 - d. The Contractor shall specify and describe the disposal/containment unit(s) that the proposed facility will use to manage the waste. The Contractor shall identify the capacity available in the units and the capacity reserved for the subject waste.
 - e. The Contractor shall provide the date of the proposed facility's last compliance inspection.
 - f. A list of all active (unresolved) compliance orders (or agreements), enforcement notices, or notices of violations issued to the proposed facility shall be provided. The source and nature of the cause of violation shall be stated, if known.
8. Description of all sampling and field/laboratory analyses that will be needed to obtain disposal facility approval.

8.01 C1.2 MATERIALS

- A. Containers shall be as required in the United State Department of Transportation (DOT) regulations.
- B. Polyethylene to be placed under (20 mil. thickness minimum) and over (10 mil. thickness minimum) soil piles.
- C. The Contractor shall assure that the waste hauler's appropriate choice of vehicles and operating practices shall prevent spillage or leakage of contaminated material from occurring en route.
- D. The Contractor shall provide, install and maintain any temporary loading facilities on site as required until completion of material handling activities. The location and design of any facilities shall be included in the MHP and be approved by the Program Administration, ESS.

8.01 C1.3 CONSTRUCTION DETAILS

A. Material Handling

1. Immediately after excavation of non-hazardous contaminated soil the Contractor shall:
 - a. Load material directly onto trucks/tankers/roll offs for disposal off site; or
 - b. If interim stockpiling is required, place on a minimum of 20 mil. or equivalent plastic ground cloth and cover by minimum of 10 mil. polyethylene sheeting or equivalent to protect against leaching or runoff of contaminants into groundwater or stormwater. Weight or secure the sheeting by appropriate means and seal seams as approved by the DDC to prevent tearing or removal by weather. Grade surrounding surface to provide for positive drainage away from pile. Stockpile shall not exceed 100 cubic yards.
2. Institute appropriate procedures and security measures to ensure the protection of site personnel and the public from contaminated materials as described in the approved MHP and Item 8.01 S - Health and Safety.
3. Any soil encountered that appears to contain unknown contaminants (based on visual, odor, or other observation), or that vary substantially from the material originally

identified must be segregated in stockpiles and the independent Environmental Consultant promptly notified. Construct stockpiles to the same requirements as stated in subsection A.1.b above.

4. Provide any dewatering that is necessary to complete the work. Contaminated water shall be disposed of in accordance with Item 8.01 W1 – Removal, Treatment and Discharge/Disposal of Contaminated Water.
5. Provide and operate field organic vapor test equipment, a PID or a flame ionization detector (FID), to detect general organic vapor levels at intervals of approximately fifty (50) cubic yards of soil excavated, when visual or odor observations indicate the material may substantially differ from the soil previously excavated and/or as directed by the independent Environmental Consultant.

B. Off-Site Transportation to Disposal or Treatment Facility

1. General

- a. The Contractor shall furnish all labor, equipment, supplies and incidental costs required to transport contaminated material from the work area to the off-site disposal or treatment facility, and any other items and services required for transporting contaminated material for disposal at an off-site facility.
- b. The Contractor shall submit the name and location of the facility where an off-site scale is located. The Contractor shall also submit a plan to the DDC for review outlining procedures on controlling trucks leaving the work site and en-route to the off-site scale. The Contractor shall be responsible for tracking all material/vehicles from the site to the off-site scale.
- c. The Contractor shall provide to the DDC certified tare and gross weight slips for each load received at the accepted facility which shall be attached to each returned manifest.
- d. The Contractor shall coordinate the schedule for truck arrival and material deliveries at the job site to meet the approved project schedule.
- e. The Contractor shall inspect all vehicles leaving the project site to ensure that contaminated soils adhering to the wheels or undercarriage are removed prior to the vehicle leaving the site.
- f. The Contractor shall obtain letters of commitment from the waste haulers and the treatment, disposal or recovery facility to haul and accept shipments. The letter shall indicate agreement to handle and accept the specified estimated quantities and types of material during the time period specified in the project schedule and any time extension as deemed necessary.
- g. **The Program Administration, ESS shall review and approve waste profiles before transportation to the TSD facility.**

2. Hauling

- a. The Contractor shall coordinate manifesting, placarding of shipments, and vehicle decontamination. All quantities shall also be measured and recorded upon arrival at the disposal or treatment facility. If any deviation between the two records occurs, the matter is to be reported immediately to the DDC and to be resolved by the Contractor to the satisfaction of the DDC.

A5-8

- b. The Contractor shall be held responsible, at its own cost for any and all actions necessary to remedy situations involving material spilled in transit or mud and dust tracked off-site.
 - c. The Contractor shall ensure that trucks are protected against contamination by properly covering and lining them with compatible material (such as polyethylene) or by decontaminating them prior to and between acceptances of loads.
 - d. The Contractor shall be responsible for inspecting the access routes for road conditions, overhead clearance, and weight restrictions.
 - e. The Contractor shall only use the transporter(s) identified in the MHP for the performance of work. Any use of substitute or additional transporters must have previous written approval from the Program Administration, ESS at no additional cost to the City.
 - f. The Contractor shall develop, document, and implement a policy for accident prevention.
 - g. The Contractor shall not combine contaminated materials from other projects with material from this project.
 - h. No material shall be transported until approved by the DDC.
3. Off-Site Disposal
- a. The Contractor shall use only the facility(ies) identified in the MPH for the performance of the work. Substitutions or additions shall not be permitted without prior written approval from the Program Administration, ESS, and if approved shall be at no extra cost to the City.
 - b. The Contractor shall be responsible for acceptance of the materials at an approved facility, for ensuring that the facility is properly permitted to accept the stated materials, and that the facility provides the stated treatment and/or disposal services.
 - c. The DDC reserves the right to contact and visit the disposal or treatment facility and regulatory agencies to verify the agreement to accept the stated materials and to verify any other information provided.
 - d. In the event that the identified and approved facility ceases to accept the stated materials or the facility ceases operations, it is the Contractor's responsibility to locate an alternate approved and permitted facility(ies) for accepting materials. The alternate facility(ies) must be approved in writing by the DDC in the same manner and with the same requirements as for the original facility(ies). This shall be done at no extra cost or delay to the City.
 - e. The Contractor shall obtain manifest forms, and complete the shipment manifest records required by the appropriate regulatory agencies for verifying the material and quantity of each load in unit of volume and weight. Copies of each manifest shall be submitted to the DDC within four (4) business days following shipment, and within three (3) business days after notification of receipt of the facility. Any manifest discrepancies shall be reported immediately to the DDC and be resolved by the Contractor to the satisfaction of the DDC.
4. Equipment and Vehicle Decontamination
- a. The Contractor shall design and construct a portable decontamination station to be

used to decontaminate equipment and vehicles exiting from the exclusion zone. The cost for this work will be paid under Item 8.01 S - Health and Safety.

- b. Water generated during the decontamination process shall be disposed of in accordance with Item 8.01 W1 - Removal, Treatment and Discharge/Disposal of Contaminated Water.

8.01 C1.4 METHOD OF MEASUREMENT

Quantities for non-hazardous contaminated soils shall be measured in tons. The tonnage will be determined by off-site truck scales, as per Subsection 8.01 C1.3.B1, that are capable of generating load tickets.

8.01 C1.5 PRICE TO COVER

- A. The unit bid price bid per ton for Item 8.01 C1 shall include the cost of furnishing all labor, materials, plant, equipment, and insurance for excavation, handling, transportation, disposal, documentation, fees, permits, loading, stockpiling, hauling, and any other incidentals necessary to complete all the work as specified herein for handling, transporting, and disposal of non-hazardous contaminated soil.
- B. Final disposal of hazardous soil shall be paid for under Item 8.01 H - Handling, Transporting and Disposal of Hazardous Soils. Disposal of decontamination water shall be paid for under Item 8.01 W1 - Removal, Treatment and Discharge/Disposal of Contaminated Water.
- C. Backfill will be paid for under its respective item as specified in the contract document.
- D. The independent Environmental Consultant shall be paid under Item 8.01 S - Health and Safety.

Payment will be made under:

<u>ITEM NUMBER</u>	<u>ITEM</u>	<u>PAYMENT UNIT</u>
8.01 C1	Handling, Transporting, and Disposal of Non-Hazardous Contaminated Soil	Tons

**ITEM 8.01 C2 SAMPLING AND TESTING OF CONTAMINATED/ POTENTIALLY
HAZARDOUS SOIL FOR DISPOSAL PARAMETERS**

8.01 C2.1 WORK TO INCLUDE

A. Description

The work shall consist of collecting and analyzing representative soil samples for parameters typically requested by the disposal facilities.

B. Sampling and Laboratory Analysis

1. At least thirty (30) days prior to the commencement of work, the Contractor's independent Environmental Consultant must submit a Soil Sampling Plan/Field Sampling Plan (SSP/FSP) to the Program Administration, Engineering Support Services (ESS) for review and approval. The plan shall include the name, address, DOH's ELAP status, and telephone numbers of the proposed laboratory. The plan shall also include training and experience of the personnel who will collect the samples.
2. The Contractor shall sample and analyze representative samples of the contaminated/potentially hazardous soils. For stockpiled soils, the Contractor shall collect and analyze one (1) composite sample per 100 cubic yards or fraction thereof. Each composite sample shall consist of a minimum of five (5) grab samples collected from greater than two (2) feet below the soil surface. For drummed soil, the Contractor shall collect one (1) composite sample per (ten) 10 drums or fraction thereof. Each composite sample shall consist of a grab sample from each of the ten (10) drums or fraction thereof. Each composite sample shall be analyzed for Resource Conservation and Recovery Act (RCRA) hazardous waste characteristics (Ignitability, Reactivity, Corrosivity), Full Toxicity Characteristic Leaching Procedure (TCLP) (including RCRA metals, volatile Organic Compounds (VOCs), Semi-Volatile Organic Compounds (SVOCs), pesticides, herbicides), Total Petroleum Hydrocarbons (TPH) and Polychlorinated Biphenyls (PCBs). All samples collected should be analyzed on a rush four (4) calendar days turn around time and analytical results must be submitted to Program Administration, ESS within five (5) calendar days after sample collection.
3. All sampling shall be conducted by a person trained in sampling protocols using standard accepted practices for obtaining representative samples.
4. The Contractor must also contact the disposal facility where the waste will be sent for permanent disposal, and arrange to collect any additional samples required by the facility. The cost associated with additional sampling and testing shall be included in the bid price of this Item.
5. The quality of the data from the sampling program is the Contractor's responsibility. The Contractor must furnish all qualified personnel, equipment and instruments necessary to carry out the sampling. Unless directed otherwise, all sampling procedures must follow the DEC sampling guidelines and protocols.
6. All sample containers shall be marked and identified with legible sample labels which shall indicate the project name, sample location and/or container, the sample number, the date and time of sampling, preservatives utilized and other information that may be useful in determining the character of the sample. Chain-of-custody shall be tracked from laboratory issuance of sample containers through laboratory receipt of the samples.

AS-11

7. The Contractor shall maintain a bound sample logbook. The Contractor shall provide DDC access to it at all times and shall turn it over to the DDC in good condition at the completion of the work. The following information, as a minimum shall be recorded to the log:
 1. Sample identification number
 2. Sample location
 3. Field observation
 4. Sample type
 5. Analyses
 6. Date/time of collection
 7. Collector's name
 8. Sample procedures and equipment utilized
 9. Date sent to laboratory and name of laboratory
8. The City reserves the right to direct the Contractor to conduct alternative sampling in lieu of the parameters described in subsection B2, if the situation warrants. The substitute sampling parameters shall be of equal or lesser monetary value than those described in subsection B2, as determined by industry laboratory pricing standards.
9. Only dedicated sampling equipment may be used to collect these samples. All equipment involved in field sampling must be decontaminated before being brought to the sampling location, and must be properly disposed after use.
10. Soils exceeding any of the hazardous characteristic criteria meet the legal definition of hazardous soils (rather than non-hazardous contaminated soils) and shall be transported or disposed of under Item 8.01 H – Handling, Transporting and Disposal of Hazardous Soils. All analyses must be done by a laboratory that has received approval from the ELAP for the methods to be used. The Contractor must specify the laboratory in the MHP.

8.01 C2.2 METHOD OF MEASUREMENT

Quantities for samples shall be measured as the number of sets of samples that are tested. A set shall be defined as one (1) composite sample analyzed for the full range of parameters as specified in subsection B2.

8.01 C2.3 PRICE TO COVER

The unit price bid per set for Item 8.01 C2 shall include the cost of furnishing all labor materials, plant, equipment, and insurance necessary for sampling, handling, transporting, testing, documentation, fees, permits and any other incidentals necessary to complete the work as specified herein for sampling and testing of contaminated/potentially hazardous soil.

Payment will be made under:

ITEM NUMBER	ITEM	PAYMENT UNIT
8.01 C2	Sampling and Testing of Contaminated/ Potentially Hazardous Soil for Disposal Parameters	Set

A5-12

ITEM 8.01 H HANDLING, TRANSPORTING, AND DISPOSAL OF HAZARDOUS SOILS

8.01 H.1 WORK TO INCLUDE

General: This work shall consist of the handling, transportation and disposal of soils or materials that are listed as hazardous wastes or exhibit any of the characteristics of a hazardous waste, namely ignitability, corrosivity, reactivity, and toxicity, as defined in 6 NYCRR Part 371, Section 371.3 and 40 CFR Section 261. For the purpose of this specification, soils shall be defined as any materials excavated below the pavement and base for pavement.

Contaminated soils determined to be hazardous under Item 8.01 C2 shall be handled, transported, and disposed of under Item 8.01 H in accordance with the specifications herein.

The independent Environmental Consultant retained by the Contractor, as specified under Item 8.01 S – Health and Safety, shall conduct sampling and analysis of above soils to determine which soils are hazardous.

All work under Item 8.01 H shall be performed under the direct supervision of the Contractor's Environmental Consultant, as approved by the Program Administration, Engineering Support Services (ESS).

The Contractor shall ensure that all operations associated with the handling, sampling, loading, transportation, and disposal of hazardous materials are in compliance with the applicable Federal, State, and Local statutes and regulations.

The Contractor shall document the excavation, handling, sampling, and testing, transportation and disposal of hazardous soils. The City shall be listed in the disposal documents as the waste generator.

The Contractor shall supply all equipment, material and labor required to conduct the specified work of this section.

The Contractor shall ensure that all operations associated with the handling, sampling, loading, transportation and disposal of hazardous soils are conducted in a manner to protect site personnel, the public and the environment, in accordance with all applicable Federal, State, and Local laws and regulations.

The Contractor shall decontaminate all equipment prior to its removal from the exclusion zone and/or following contact with hazardous materials, as detailed in Item 8.01 S - Health and Safety. Water generated during the decontamination process shall be disposed of under Item 8.01 W1 – Removal, Treatment and Discharge/Disposal of Contaminated Water.

A. Material Handling Plan: Within forty-five (45) calendar days after award of Contract, the Contractor shall submit to the Program Administration, ESS for review, a Material Handling Plan (MHP). The MHP must be approved by the Program Administration, ESS, prior to the Contractor's commencement of work. The MHP shall, at a minimum, consist of:

1. The Contractor's procedures for identifying contaminated/potentially hazardous soils during excavation, including instrumentation and calibration procedures to be used.
2. The Contractor's procedures for safely handling hazardous soils or soils which have not yet been tested but are believed to be potentially hazardous.
3. Identification of the Contractor's proposed waste transporter(s). This information shall include:
 - a. Name and waste transporter permit number

AS-13

- b. Address
 - c. Name of responsible contact for the hauler
 - d. Telephone number for the contact
 - e. Any and all necessary permit authorizations for each type of waste transported
 - f. Previous experience in performing the type of work specified herein
4. All staging/stockpiling areas (if stockpiling areas are intended and available), or alternate procedures that will be used. Alternate procedures could include, but are not limited to, agreements from the intended disposal or treatment facilities to accept boring data and/or analytical data previously obtained during the site characterization so that materials may be directly loaded into vehicles for shipment to the disposal facility or the use of off-site stockpiling locations approved by the DEC.
 5. A backup facility, should the staging/stockpile areas become unavailable, insufficient in area or not be present by some other unforeseen difficulty.
 6. Identification of the Contractor's two proposed United State Environmental Protection Agency (EPA) or DEC approved RCRA TSD facilities for hazardous soils.
 7. The Contractor shall submit the following information prior to any transportation of soils regarding the temporary and final off-site TSD or facilities where it is proposing to take hazardous soils. The expense of furnishing all information will be included in the Contractor's bid price:
 - a. General Information
 - (1) Facility name and the EPA identification number
 - (2) Facility location
 - (3) Name of responsible contact for the facility
 - (4) Telephone number for contact
 - (5) Signed letter of agreement to accept waste as specified in this contract
 - (6) Signed letter of agreement with a TSD for disposal of waste that may not be land-disposed
 - (7) Unit of measure utilized at each facility for costing purposes
 - b. A listing of all permits, licenses, letters of approval, and other authorizations to operate, which are currently held and valid for the proposed facility as they pertain to receipt and management of wastes derived from this Contract.
 - c. A listing of all permits, licenses, letters of approval, and other authorizations to operate which have been applied for by the proposed facility.
 - d. The Contractor shall specify and describe the disposal/containment unit(s) that the proposed facility will use to manage the waste. The Contractor shall identify the capacity available in the units and the capacity reserved for the subject waste.
 - e. The Contractor shall provide the date of the proposed facility(ies) last compliance inspection under RCRA.

AS-14

- f. A list of all active (unresolved) compliance orders, agreements, enforcement notices or notices of violations issued to the proposed facility shall be approved. The source and nature of the cause of violation shall be stated, if known.
8. Description of all sampling and analyses that will be needed to obtain disposal facility approval.

8.01 H.2 MATERIALS

- A. Containers shall be watertight as required in the DOT regulations and must meet all applicable regulations including but not limited to those in Attachment 2.
- B. Polyethylene (20 mil. thickness minimum) to be placed under and (10 mil. thickness minimum) over soil piles. If soils are placed in drums, polyethylene must be placed over the drums.

8.01 H1.3 CONSTRUCTION DETAILS

A. Material Handling

1. The Contractor shall institute procedures to protect site personnel and the public from the non-hazardous and hazardous materials as described in Section 8.01 S - Health and Safety.
2. The Contractor shall handle hazardous soil as approved in the MHP.
3. Stockpiled materials at the temporary TSD facility shall be handled according to the facility requirements but at a minimum: shall be drummed or placed on and covered with polyethylene to protect against erosion and leaching into surrounding soils, the stockpile area shall be graded for positive drainage away from the pile, and shall be labeled while being held for sampling prior to permanent disposal.
4. Provide any dewatering that is necessary to complete the work. Water shall be disposed of in accordance with Item 8.01 W1 – Removal, Treatment and Discharge/Disposal of Contaminated Water.

B. Off-Site Transportation and Disposal

1. The Contractor shall furnish all labor, equipment and supplies required to transport hazardous materials from the work area to the off-site TSD facility(ies) and to acquire any other items and services required for transporting hazardous materials for storage and/or disposal at an approved off-site facility.
2. Weight Measurement
 - a. The Contractor shall submit the name and location of the facility where an off-site scale is located. The Contractor shall also submit a plan to the DDC for review outlining procedures on controlling trucks leaving the work site and on-route to the off-site scale. The Contractor shall be responsible for tracking all materials/vehicles from the site to the off-site scale.
 - b. The Contractor shall provide to the DDC certified tare and gross weight slips for each load received at the accepted facility which shall be attached to each returned manifest.

AS-15

3. General

- a. Manifests: The Contractor shall organize and maintain the material shipment records/manifests required by law.
- b. The Contractor shall coordinate the schedule for truck arrival and material deliveries at the job site to meet the approved project schedule. The schedule shall be compatible with the availability of equipment and personnel for material handling at the job site.
- c. The Contractor shall inspect all vehicles leaving the project site to ensure that hazardous soils adhering to the wheels or under carriage are removed prior to the vehicle leaving the site.
- d. The Contractor shall obtain letters of commitment from the waste haulers and the TSD facility to haul and accept shipments. The letter shall indicate agreement to handle and accept the specified estimated quantities and types of material during the time period specified in the project schedule and any time extension as deemed as necessary.

4. Hauling

- a. The Contractor shall not deliver waste to any facility other than the TSD facility(ies) listed on the shipping manifest.
- b. The Contractor shall coordinate manifesting, placarding, of shipments, and vehicle decontamination. All quantities shall also be measured and recorded upon arrival at the TSD facility. If any deviation between the two records occurs, the matter is to be reported immediately to the DDC and to be resolved by the Contractor to the satisfaction of the DDC.
- c. The Contractor shall be held responsible, at its own expense, for any and all actions necessary to remedy situations involving material spilled in transit or mud and dust tracked off-site.
- d. The Contractor shall ensure that trucks are protected against contamination by properly covering and lining them with compatible material (such as polyethylene) or by decontaminating them prior to any use other than hauling hazardous materials.
- e. The Contractor shall be responsible for inspecting the access routes for road conditions, overhead clearance, and weight restrictions.
- f. The Contractor shall only use the transporter(s) identified in the MHP for the performance of work. Only a transporter with a current Part 364 Waste Transporter Permit from the DEC may transport this material. Any use of substitute or additional transporters must have previous written approval from the DDC at no additional cost to the City.
- g. The Contractor shall develop, document, and implement a policy for accident prevention.
- h. The Contractor shall not combine hazardous materials from other projects with material from this project.
- i. **The Contractor shall obtain for the City an EPA hazardous waste generator identification number and a representative of Program Administration, ESS will review and sign the manifest as the generator.**

AS-16

- j. No materials shall be transported until approved by the DDC.
- 5. Off-Site Disposal
 - a. The Contractor shall be responsible for acceptance of the materials at an approved TSD facility, for ensuring that the facility is properly permitted to accept the stated materials, and that the facility provides the stated storage and/or disposal services.
 - b. In the event that the identified and approved facility ceases to accept the stated materials or the facility ceases operations, it is the Contractor's responsibility to locate an alternate approved and permitted facility(ies) for accepting materials. The Contractor is responsible for making the necessary arrangements to utilize the facility(ies), and the alternate facility(ies) must be approved in writing by the DDC in the same manner and with the same requirements as for the original facility(ies). This shall be done with no extra cost or delay to the City.
 - c. The Contractor shall submit all results and weights to the DDC.
 - d. **The Contractor is responsible to pay all fees associated with the generation and disposal of all excavated hazardous waste. These fees include, but are not limited to, the New York State Department of Finance and Taxation (DFT) quarterly fees for hazardous waste and the New York State DEC annual hazardous waste regulatory fee program. The Contractor shall submit a copy of proof of payment to the DDC and Program Administration, ESS.**
- 6. Equipment and Vehicle Decontamination

The Contractor shall design and construct a portable decontamination station to be used to decontaminate equipment and vehicles exiting from the exclusion zone. The cost for this work shall be paid under Item 8.01 S - Health and Safety. Disposal of decontamination liquids is described under Item 8.01 W1 - Removal, Treatment and Discharge/Disposal of Contaminated Water.
- 7. Record Keeping

The Contractor shall obtain manifest forms, and complete the shipment manifest records required by the appropriate regulatory agencies for verifying the material and quantity of each load in unit of volume and weight. Copies of each manifest shall be submitted to the DDC within four (4) business days following shipment, and within three (3) business days after notification of receipt of the facility. Any manifest discrepancies shall be reported immediately to the DDC and be resolved by the Contractor to the satisfaction of the DDC.

8.01 H.4 METHOD MEASUREMENT

Quantities for hazardous soil shall be measured in tons satisfactorily delivered to the treatment, storage or disposal facility. The tonnage will be determined by off-site truck scales, as per subsection 8.01 H1.3.B.2, that are capable of generating load tickets.

8.01 H.5 PRICE TO COVER

- A. The unit price bid per ton for Item 8.01 H shall include the cost of furnishing all labor, materials, plant, equipment, and insurance for excavation, handling, transportation, disposal, documentation, permits, fees, taxes, stockpiling, hauling, and any other incidentals necessary to

AS-17

complete the work as specified herein for handling, transporting and disposal of hazardous soils.

- B. Final disposal of non-hazardous materials shall be paid for under Item 8.01 C1 – Handling, Transporting and Disposal of Non-Hazardous Soils. Disposal of decontamination water shall be paid under Item 8.01 W1 – Removal, Treatment and Discharge/Disposal of Contaminated Water.
- C The independent Environmental Consultant shall be paid under Item 8.01 S – Health and Safety.
- D. Backfill will be paid for under its respective item.

Payment will be made under:

<u>ITEM NUMBER</u>	<u>ITEM</u>	<u>PAYMENT UNIT</u>
8.01 H	Handling, Transporting, and Disposal of Hazardous Soils	Tons

A5-18

ITEM 8.01 S HEALTH AND SAFETY

8.01 S.1 WORK TO INCLUDE

Health and Safety Requirements

A. Scope of Work

It is the Contractor's responsibility to stage and conduct his work in a safe manner. The Contractor shall implement a Health and Safety Plan (HASP) for contaminated/hazardous soil intrusive activities as set forth in Occupational Safety and Health Administration (OSHA) Standards 1910.120 and 1926.650-652. The Contractor shall ensure that all workers have at a minimum hazard awareness training. The Contractor shall segregate contaminated work area in secured exclusion zones. These zones shall limit access to Contractor personnel specifically trained to enter the work area. The exclusion zone shall be set up to secure the area from the public and untrained personnel. The project health and safety program shall apply to all construction personnel including persons entering the work area. In addition, the Contractor shall protect the public from on-site hazards, including subsurface contaminants associated with on-site activities. The HASP shall be signed off by a Certified Industrial Hygienist and reviewed by Program Administration, Engineering Support Services (ESS).

Work shall include, but not be limited to:

1. Implementation of a baseline medical program.
2. Providing safety equipment and protective clothing for site personnel, including maintenance of equipment on a daily basis; replacement of disposable equipment as required; decontamination of clothing, equipment and personnel; and providing all other health and safety measures.
3. Providing, installing, operating and maintaining on-site emergency medical first aid equipment as specified in this section for which payment is not provided under other pay items in this Contract.
4. Providing, installing, operating, maintaining and decommissioning all equipment and personnel decontamination facilities specified within this section, including, but not limited to, the decontamination pad, decontamination water supply, decontamination water collection equipment and all other items and services required for the implementation of the health and safety requirements for which pay items are not provided elsewhere in this Contract.
5. Provide the minimum health and safety requirements for excavation activities within the limits of this Contract.
6. Implement and enforce a HASP: The HASP as presented in these specifications is dynamic with provisions for change to reflect new information, new practices or procedures, changing site environmental conditions or other situations which may affect site workers and the public. The HASP will also address measures for community protection, accident prevention, personnel protection, emergency response/contingency planning, air monitoring, odor control and hazardous chemicals expected on site. Providing a Confined Space Entry Program as defined in the Occupational Safety and Health Act, Confined Space Entry Standard, 29 CFR 1910.146.

AS-19

B. Environmental Consulting Services

The Contractor shall retain an independent Environmental Consultant to obtain all permits and perform all field screening, air monitoring, community air monitoring, soil sampling, and health and safety services. The independent Environmental Consultant shall at a minimum provide documentation to the Program Administration, ESS demonstrating the minimum requirements as set forth below:

1. The independent Environmental Consultant project supervisor on site and other designated key personnel shall have a minimum of three (3) years experience in the environmental field dealing with issues associated with contaminated soils. Such experience shall include oversight on environmental, specifically volatile organic compound and dust monitoring services as a routine part of its daily operations.
2. The independent Environmental Consultant must be experienced in work of this nature, size, and complexity and must have previous experience in working with the DEC.
3. The independent Environmental Consultant shall furnish a project listing identifying the location, nature of services provided, owner, owner's contact, contact's telephone number, project duration and value for at least five (5) projects within the last three (3) years.
4. If conditions within the exclusion zone are deemed hazardous, then the Contractor and its independent Environmental Consultant shall ensure that all personnel working within identified exclusion zones and/or involved (direct contact) with the handling, storage or transport of hazardous and contaminated materials shall have completed a minimum of forty (40) hours of Health and Safety Training on Hazardous Waste Sites in accordance with 29 CFR 1910.120(e). The training program shall be conducted by a qualified safety instructor. If conditions in the exclusion zone are deemed to be non-hazardous, the independent Environmental Consultant shall provide site specific training.
5. The Contractor shall ensure that on-site management and supervisors directly responsible for or who supervise employees engaged in hazardous waste operations shall receive the training specified in above and at least eight (8) additional hours of specialized training on managing such operations at the time of job assignment.

C. Submittals

1. The Contractor shall submit, within forty-five (45) calendar days after the contract award, a written HASP as specified herein, to Program Administration, ESS for review and comment. The Contractor shall make all necessary revisions required by Program Administration, ESS and resubmit the HASP to the Program Administration, ESS for acceptance. Start-up work for the project will not be permitted until written acceptance has been issued by the Program Administration, ESS.
2. Daily safety logs shall be maintained by the Contractor and shall be submitted to the DDC either on request or on completion of the work. Training logs shall be maintained by the Contractor and submitted to the DDC either on request or on completion of the work. Daily logs on air monitoring during excavation activities shall be prepared and maintained by the Contractor and submitted to the DDC either on request or upon completion of the work.
3. A closeout report shall be submitted by the Contractor to the DDC upon completion of the work within the defined exclusion zones. This report shall summarize the daily safety and monitoring logs and provides an overview of the Contractor's performance

AS-20

regarding environmental and safety issues. The report shall carefully document all areas where contamination has been found including pictures, addresses of locations, and potential sources.

4. Medical Surveillance Examinations: The Contractor shall submit to the DDC the name, office address and telephone number of the medical consultant utilized. Evidence of baseline medical examinations together with the evidence of the ability to wear National Institute for Occupational Safety and Health (NIOSH) approved respirators (as specified in American National Standards Institute (ANSI) Z88.6) shall be provided to the DDC for all construction personnel who are to enter the exclusion zones.
5. Accident Reports: All accidents, spills, or other health and safety incidents shall be reported to the DDC.

D. Health and Safety Plan

The HASP shall comply with OSHA regulations 29 CFR 1910.120/1926.65. This document shall at a minimum contain the following:

1. Description of work to be performed
2. Site description
3. Key personnel
4. Worker training procedures
5. Work practices and segregation of work area
6. Hazardous substance evaluation
7. Hazard assessment
8. Personal and community air monitoring procedures and action levels
9. Personal protective equipment
10. Decontamination procedures
11. Safety rules
12. Emergency procedures
13. Spill control, dust control, vapor/odor suppression procedures
14. Identification of the nearest hospital and route
15. Confined space procedures
16. Excavation safety procedures

8.01 S.2 MEASUREMENT

Health and Safety Requirements

- A. 25% of the lump sum price will be paid when the following items are implemented or mobilized:

- Medical surveillance program
- Health and safety training
- Health and safety plan
- Environmental and personnel monitoring
- Instrumentation
- Spill control
- Dust control
- Personnel and equipment decontamination facilities
- Personnel protective clothing
- Communications
- Mobilization

AS-21

- B. 50% will be paid in proportional monthly amounts over the period of work.
- C. 25% will be paid when the operation is demobilized and removed from the project site.

8.01 S.3 PRICE TO COVER

Health and Safety Requirements

The lump sum price bid for the health and safety requirements shall include all labor, materials, equipment, and insurance necessary to complete the work in accordance with these specifications. The price bid shall include, but not be limited to, the following:

- A. Providing training, safety personnel, air monitoring and medical examinations as specified.
- B. Providing safety equipment and protective clothing for site personnel, including maintenance of equipment on a daily basis; replacement of disposable equipment as required; decontamination of clothing, equipment and personnel; and all other health and safety activities or costs not paid for under other pay items in this Contract.
- C. Providing, installing, operating and maintaining on-site emergency medical and first aid equipment. This includes all furnishings, equipment, supplies and maintenance of all medical equipment, and all other health and safety items and services for which payment is not provided under other pay items in this Contract.
- D. Providing, installing, operating, maintaining, and decommissioning all personnel and equipment decontamination facilities, including decontamination pad, decontamination water supply, and all other items and services required for the implementation of the health and safety requirements for which pay items are not provided elsewhere in this Contract. Vehicle decontamination pads shall be included in the price of this item. Disposal of decontamination fluid shall be paid for under Item 8.01 W1 – Removal, Treatment and Discharge/Disposal of Contaminated Water.
- E. Spill Control
 - 1. Payment shall account for furnishing, installing, and maintaining all spill control equipment and facilities. Payment will include equipment and personnel to perform emergency measures required to contain any spillage and to remove spilled materials and soils or liquids that become contaminated due to spillage during work within the exclusion zones and handling of excavated soils and liquids from these areas. This collected spill material will be properly disposed of.
 - 2. Payment under this item shall not include testing, handling, transportation or disposal of petroleum-contaminated/potentially hazardous soils excavated during construction. The price for this work will be paid for under Items 8.01 C1 – Handling, Transporting and Disposal of Non-Hazardous Contaminated Soils, 8.01 C2 – Sampling and Testing of Contaminated/Potentially Hazardous Soil for Disposal Parameters or 8.01 H – Handling, Transporting and Disposal of Hazardous Soils, as appropriate.
- F. Dust Control

Payment shall account for furnishing, installing, and maintaining dust control equipment and facilities to be used whenever applicable dust levels are exceeded. Payment will include all necessary labor, equipment, clean water, foam, and all other materials required by the Dust Control Plan. The DOH Community Air Monitoring Plan (CAMP) may be used as guidance.

AS-22

G. Vapor/Odor Suppression

Payment shall account for furnishing, installing and maintaining vapor/odor control equipment and facilities to be used whenever organic vapor monitoring or the presence of odors indicates that vapor suppression is required to protect workers or the public. Payment will include all necessary labor, equipment, clean water, foam and all other materials required by the Vapor/Odor Suppression Plan.

H. Mobilization/Demobilization

1. Mobilization

Payment shall include but not be limited to:

- a. All work required to furnish, install and maintain all signs, fencing, support zone facilities, parking areas and all temporary utilities;
- b. All work required to furnish, install, and maintain an office space with phone and utilities for health and safety personnel;
- c. All work required for complete preparation of lay down area for roll-off containers, including sampling, and any required fencing;
- d. All direct invoiced cost from bonding companies and government agencies for permits and costs of insurance; and
- e. All other items and services required for mobilization and site preparation.

2. Demobilization

Payment shall include but not be limited to: All work required to sample the area; remove from the site all equipment, temporary utilities and supporting facilities; performance of necessary decontamination and repairs; disposal of disposable equipment and protective gear and other items and services required for complete demobilization.

Payment will be made under:

<u>ITEM NUMBER</u>	<u>ITEM</u>	<u>PAYMENT UNIT</u>
8.01 S	Health and Safety	Lump Sum

A5-23

**ITEM 8.01 W1 REMOVAL, TREATMENT AND DISCHARGE/DISPOSAL OF
CONTAMINATED WATER**

8.01 W1.1 WORK TO INCLUDE

General: This work shall consist of the proper removal and disposal of all contaminated groundwater and decontamination water generated during construction operations. The Contractor shall be solely responsible for the proper disposal or discharge of all contaminated water generated at the job site. The Contractor will have the option of treating water on-site for discharge to the combined sanitary/storm sewer system or removing contaminated water for off-site disposal. The Contractor shall be responsible to choose a method compatible to the construction work and shall be compensated on a per day basis regardless of method employed. The Contractor will be compensated for only those days where the system is in full operation.

The Contractor shall retain a dewatering/water treatment Specialist (hereinafter the "Specialist") and laboratory as specified under Item 8.01 W2 - Sampling and Testing of Contaminated Water, to conduct any testing that may be required for disposal of impacted water.

The dewatering/water treatment Specialist is responsible to obtain all permits; perform all water sampling, testing; and provide ancillary services related to dewatering and water treatment. The Specialist shall at a minimum provide documentation to the Program Administration, Engineering Support Services (ESS) demonstrating the minimum requirements as set forth below:

1. The Specialist shall demonstrate that it has, at a minimum, three (3) years experience in the design of dewatering plans. The Specialist should demonstrate expertise dealing with issues associated with contaminated water. During that three (3) year period, the Specialist shall demonstrate that it provided dewatering and water treatment systems as a routine part of its daily operations.
2. The Specialist must be experienced in work of this nature, size, and complexity and must have previous experience in working with the DEC.
3. The Specialist shall furnish a project listing identifying the location, nature of services provided, owner, owner's contact, contact's telephone number, project duration and value for at least five (5) projects within the last three (3) years of a similar nature, size, and complexity to this one.
4. If conditions within the exclusion zone are deemed hazardous, then the Contractor and its independent Environmental Consultant shall ensure that all personnel working within identified exclusion zones and/or involved (direct contact) with the handling, storage or transport of hazardous and contaminated material shall have completed a minimum of forty (40) hours of Health and Safety Training on Hazardous Waste Sites in accordance with 29 CFR 1910.120(e). The training program shall be conducted by a qualified safety instructor. If conditions in the exclusion zone are deemed to be non-hazardous, the Specialist shall be responsible to provide site-specific training to its employees and other affected personnel.
5. The Contractor shall ensure that on-site management and supervisors directly responsible for or who supervise employees engaged in hazardous waste operations shall receive the training specified in above and at least eight (8) additional hours of specialized training on managing such operations at the time of job assignment.

A5-24

The Contractor shall document all operations associated with the handling, sampling and disposal of contaminated water, and ensure that they are in compliance with applicable Federal, State and Local statutes and regulations.

The Contractor shall supply all labor, equipment, transport, plant, material, treatment, and other incidentals required to conduct the specified work of this section.

If water will be disposed of into the combined sanitary/storm sewer system, the Contractor shall ensure the Specialist treats the water to comply with the New York City Department of Environmental Protection (DEP) Sanitary/Combined and Storm Sewer Effluent Limit concentrations prior to discharge. The Contractor is responsible for providing settling or filtering tanks and any other apparatus required by DEP. Alternatively, the Contractor can provide a plan for transport and disposal at an off-site waste disposal facility.

Within forty-five (45) calendar days after award of Contract, the Contractor shall submit to the Program Administration, ESS for review, a Water Handling Plan (WHP). The WHP must be approved by the Program Administration, ESS, prior to the Contractor's commencement of work. The minimum requirements for the WHP are specified herein Item 8.01W 1.2, for each type of disposal (disposal into the combined sanitary/storm sewer or off-site disposal). The Contractor shall maintain a complete, up to date copy of the WHP on the job site at all times.

8.01 W1.2 CONSTRUCTION DETAILS

For each disposal method the Contractor proposes to utilize (disposal to combined sanitary/storm sewer or off-site disposal), the WHP shall include the information required in paragraphs A and B below, as appropriate.

A. On-site treatment and discharge into New York City combined sanitary/storm sewers.

1. Regulations: The Contractor shall comply with all applicable regulations. This includes but may not be limited to:
Title 15-New DEP Sewer Use Regulations.
2. Permits: The Contractor is solely responsible to obtain all necessary and appropriate Federal, State and Local permits and approvals. The Contractor will be responsible for performing all and any system pilot tests required for permit approval. This includes but may not be limited to:
 - a. Industrial waste approval for the New York City sewer system.
 - b. Groundwater discharge permit for the New York City sewer system (DEP Division of Sewer Regulation and Control), if discharge to sewer exceeds 10,000 gallons per day.
 - c. The Contractor shall comply with DEC State Pollutant Discharge Elimination System (SPDES) Permit Number GP-0-10-001, General Permit for Stormwater Discharges.
 - d. Long Island well point permit for Brooklyn and Queens sites, if well points are used for dewatering.
 - e. Wastewater quality control application, DEP.
3. The WHP for this portion of the work shall include at a minimum:

AS-25

- a. Identification and design of Contractor's proposed treatment to assure that the water meets the DEP sewer use guidelines prior to discharge to the sewer, including identification of all materials, procedures, settling or filtering tanks, filters and other appurtenances proposed for treatment and disposal of contaminated water.
- b. The name, address and telephone number of the contact for the Contractor's proposed chemical laboratory, as well as the laboratory's certifications under Federal, State or non-governmental bodies.
- c. The name, address and telephone number of the contact for the Contractor's proposed independent Environmental Consultant.
- d. Copies of all submitted permit applications and approved permits the Contractor have received.

4. Materials

The Contractor shall supply all settling or filtering tanks, pumps, filters, treatment devices and other appurtenances for treatment, temporary storage and disposal of contaminated water. All equipment shall be suitable for the work described herein.

5. Execution

- a. The Contractor is solely responsible for disposal of all water, in accordance with all Federal, State and Local regulations.
- b. The Contractor is solely responsible for any treatment required to assure that water discharged into the sewer is in compliance with all permits and Federal, State and Local statutes and regulations.
- c. The Contractor is solely responsible for the quality of the water disposed of into the sewers.
- d. The Contractor is responsible for sampling and testing of water for the DEP Sanitary/Combined and Storm sewer Effluent Limit concentrations. The quality of the data is the Contractor's responsibility. Any sampling and testing shall be conducted and paid in accordance with Item 8.01 W2 - Sampling and Testing of Contaminated Water.
- e. The Contractor shall be responsible to maintain the discharge rate to the sewer such that all permit requirements are met, the capacity of the sewer is not exceeded and no surcharging occurs downstream due to the Contractor's actions. Dewatering by means of well points or deep wells will not be allowed in the Boroughs of Brooklyn or Queens where the rate of pumping exceeds forty-five (45) gallons per minute unless the appropriate permit has been secured from the DEC.
- f. Disposal of Treatment Media
 - (1) The Contractor shall be responsible for disposal or recycling of treatment media in accordance with all Federal, State and Local regulations.
 - (2) The Contractor shall provide the DDC with all relevant documentation concerning the disposal of treatment media, including manifests, bills of

AS-26

loading, certificates of recycling or destruction and other applicable documentation.

- (3) **Disposal of treatment media shall not be considered as a separate pay item; instead it shall be considered as incidental work thereto and included in the unit price bid.**

B. Off-Site Disposal

1. Regulations: The Contractor shall conform to all applicable Federal, State and Local regulations pertaining to the transportation, storage and disposal of any hazardous and/or non-hazardous materials as listed in Attachment 2.
2. The following shall be submitted to the DDC prior to initiating any off-site disposal:
 - a.
 - (1) Name and waste transporter permit number
 - (2) Address
 - (3) Name of responsible contact for the hauler
 - (4) Any and all necessary permit authorizations for each type of waste transported
 - (5) Previous experience in performing the type of work specified herein
 - b. General information for each proposed treatment/disposal facility and at least one backup treatment/disposal facility
 - (1) Facility name and EPA identification number
 - (2) Facility location
 - (3) Name of responsible contact for the facility
 - (4) Telephone number for contact
 - (5) Unit of measure utilized at facility for costing purposes
 - c. A listing of all permits, licenses, letters of approval and other authorizations to operate, which are currently held and valid for the proposed facility as they pertain to receipt and management of the wastes derived from this Contract.
 - d. A listing of all permits, licenses, letters of approval and other authorizations to operate which have been applied for by the proposed facility but not yet granted or issued. Provide dates of application(s) submitted. Planned submittals shall also be noted.
 - e. The Contractor shall specify and describe the disposal/containment unit(s) that the proposed facility will use to manage the waste and provide dates of construction and beginning of use, if applicable. Drawings may be provided. The Contractor shall identify the capacity available in the units and the capacity reserved for the subject waste.
 - f. The Contractor shall provide the date of the proposed facility's last compliance inspection.

A5-27

- g. A list of all active (unresolved) compliance orders, agreements, enforcement notices or notices of violations issued to the proposed facility shall be submitted. The source and nature of the cause of violation shall be stated, if known. If groundwater contamination is noted, details of the facility's groundwater monitoring program shall be provided.
- h. Description of all sampling and field/laboratory analyses that will be needed to obtain disposal facility approval.

3. Materials

All vessels for temporary storage and transport to an off-site disposal facility shall be as required in DOT regulations.

4. Execution

a. General

- (1) The Contractor shall organize and maintain the material shipment records/manifests required by Federal, State and Local law. The Contractor shall include all bills of lading, certificates of destruction, recycling or treatment and other applicable documents.
- (2) The Contractor shall coordinate the schedule for truck arrival and material deliveries at the job site to meet the approved project schedule. The schedule shall be compatible with the availability of equipment and personnel for material handling at the job site.
- (3) The Contractor shall inspect all vehicles leaving the project site to ensure that contaminated liquids are not spilling and are contained for transport.
- (4) The Contractor shall obtain letters of commitment from the waste haulers and the treatment, disposal or recovery facility to haul and accept shipment. The letter shall indicate agreement to handle and accept the specified estimated quantities and types of material during the time period specified in the project schedule and any time extension as deemed as necessary.
- (5) The Contractor shall verify the volume of each shipment of water from the site.
- (6) The Contractor is responsible for sampling and testing of water for off-site disposal. The quality of the data is the Contractor's responsibility. Any sampling and testing shall be conducted and paid in accordance with Item 8.01 W2 - Sampling and Testing of Contaminated Water.
- (7) The Contractor shall be responsible for any additional analyses required by the TSD facility, and for the acceptance of the water at an approved TSD facility.

b. Hauling

- (1) The Contractor shall not deliver waste to any facility other than the TSD facility(ies) listed on the shipping manifest.

AS-28

- (2) The Contractor shall coordinate manifesting, placarding of shipments, and vehicle decontamination. All quantities shall also be measured and recorded upon arrival at the TSD facility(ies). If any deviation between the two records occurs, the matter is to be reported immediately to the DDC and shall be resolved by the Contractor to the satisfaction of the DDC.
- (3) The Contractor shall be held responsible for any and all actions necessary to remedy situations involving material spilled in transit or mud and dust tracked off-site. This cleanup shall be accomplished at the Contractor's expense.
- (4) The Contractor shall be responsible for inspecting the access routes for road conditions, overhead clearance and weight restrictions.
- (5) The Contractor shall only use the transporter(s) identified in the WHP for the performance of work. Only a transporter with a current Part 364 Waste Transporter Permit from DEC may transport this material. Any use of substitute or additional transporters must have previous written approval from the DDC at no additional cost to the City.
- (6) The Contractor shall develop, document, and implement a policy for accident prevention.
- (7) The Contractor shall not combine waste materials from other projects with material from this project.
- (8) The Contractor shall obtain for the City a hazardous waste generator identification number and will sign the manifest as the generator, if necessary.
- (9) No material shall be transported until approved by the DDC.

c. Disposal Facilities

- (1) The Contractor shall use only the TSD facility(ies) identified in the WHP for the performance of the work. Substitutions or additions shall not be permitted without prior written approval from the Program Administration, ESS, and, if approved, shall be at no extra cost to the City.
- (2) The Contractor shall be responsible for acceptance of the material at an approved TSD facility, for ensuring that the facility is properly permitted to accept the stated material, and that the facility provides the stated storage and/or disposal services.
- (3) The DDC reserves the right to contact and visit the disposal facility and regulatory agencies to verify the agreement to accept the stated material and to verify any other information provided. This does not in any way relieve the Contractor of his responsibilities under this Contract.
- (4) In the event that the identified and approved facility ceases to accept the stated materials or the facility ceases operations, it is the Contractor's responsibility to locate an alternate approved and permitted facility(ies) for accepting materials. The Contractor is responsible for making the necessary arrangements to utilize the facility(ies), and the alternate facility(ies) must be

AS-29

approved in writing by the DDC in the same manner and with the same requirements as for the original facility(ies). This shall be done with no extra cost or delay to the City.

d. Equipment and Vehicle Decontamination

- (1) The Contractor shall design and construct a portable decontamination station to be used to decontaminate equipment and vehicles exiting the exclusion zone. The cost for this work shall be paid under Item 8.01 S – Health and Safety.

8.01 W1.3 METHOD OF MEASUREMENT

The quantity for on-site treatment and discharge or off-site disposal shall be on a per day basis.

8.01 W1.4 PRICE TO COVER

- A. The per day price bid for Item 8.01 W1 shall include the cost of furnishing all labor, materials, plant, equipment, and insurance for handling, transportation, disposal, documentation, permits, hauling, mobilization and demobilization, and any other incidentals thereto to complete the work.
- B. The Contractor will not be paid for water that is within the DEP Sewer Discharge Limits.

Payment will be made under:

<u>ITEM NUMBER</u>	<u>ITEM</u>	<u>PAYMENT UNIT</u>
8.01 W1	Removal, Treatment and Disposal/Discharge of Contaminated Water	Day

A5-30

ITEM 8.01 W2 SAMPLING AND TESTING OF CONTAMINATED WATER

8.01 W2.1 WORK TO INCLUDE

A. Description

The work shall consist of sampling and testing of potentially contaminated groundwater, surface runoff within the excavated area and all contaminated water generated during the decontamination process.

B. Sampling and Testing

1. The Contractor is responsible, at a minimum, for sampling and testing of contaminated water for the DEP Sanitary/Combined and Storm Sewer Effluent Limit concentrations as listed in Attachment 1. The quality of the data is the Contractor's responsibility. Any additional testing required by the Federal, State and/or disposal facilities shall be included in the bid price of this Item.
2. All sampling and testing shall be conducted by a person trained in sampling protocols using accepted standard practices and/or the DEC sampling guidelines and protocols.
3. All sample containers shall be marked with legible sample labels which shall indicate the project name, sample location and/or container, the sample number, the date and time of sampling, preservatives utilized, how the sample was chilled to 4 degrees Celsius, and other information that may be useful in determining the character of the sample.
4. Chain-of-custody shall be tracked from laboratory issuance of sample containers through receipt of the samples.
5. The Contractor shall maintain a bound sample log book. The Contractor shall provide the DDC access to it at all times and shall turn it over to the DDC in good condition at the completion of the work. The following information, as a minimum, shall be recorded to the log:
 - a. Sample identification number
 - b. Sample location
 - c. Field observation
 - d. Sample type
 - e. Analyses
 - f. Date/time of collection
 - g. Collector's name
 - h. Sample procedures and equipment used
 - i. Date sent to laboratory/name of laboratory
6. Only dedicated sampling equipment may be used to collect these samples. All equipment involved in field sampling must be decontaminated before being brought to the site, and must be properly disposed of after use.

A5-31

7. Samples shall be submitted to the Contractor's laboratory within the holding times for the parameters analyzed.
8. All analyses must be done by a laboratory that has received approval from the DOH's ELAP for the methods to be done. The Contractor must specify the laboratory in the WHP.
9. Analytical results for water discharged to the sewer and for off-site disposal must be submitted to the DDC no later than five (5) days after sample collection.
10. The City reserves the right to direct the Contractor to conduct alternative sampling in lieu of the parameters described above, if the situation warrants. The substitute sampling parameters shall be of equal or lesser monetary value than those described above, as determined by industry laboratory pricing standards.

8.01 W2.2 METHOD OF MEASUREMENT

Quantities for samples shall be measured as the number of sets of samples that are tested for the DEP Sanitary/Combined and Storm Sewer Effluent Limit concentrations. A set shall be defined as one (1) representative sample analyzed for the full range of DEP parameters as specified in attachment 1.

8.01 W2.3 PRICE TO COVER

The unit price bid per set for Item 8.01 W2 shall include the cost of furnishing all labor, materials, plant, equipment, and insurance for handling, transport, sampling, testing, documentation, permits, other incidentals necessary to complete the work of sampling and testing of contaminated water. Any additional costs incurred by the Contractor for sampling and testing of contaminated water shall be included in the bid price of this Item.

Payment will be made under:

<u>ITEM NUMBER</u>	<u>ITEM</u>	<u>PAYMENT UNIT</u>
8.01 W2	Sampling and Testing of Contaminated Water	Set

A5-32

ATTACHMENT 1

**New York City Department of Environmental Protection
Limitations for Discharge To Storm, Sanitary/Combined Sewer**

A5-33

**NEW YORK CITY DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTEWATER TREATMENT**

Limitations for effluent to storm, sanitary or combined sewers

Parameter	Daily Limit	Units	Sample Type	Monthly Limit
Oil & Grease	15	mg/l	Instantaneous	
Total Petroleum Hydrocarbons	50	mg/l	Instantaneous	
pH Range (Storm sewer)	6.5-8.5	SU's	Instantaneous	
(Sanitary sewer)	5-11			
Benzene	134	ppb	Instantaneous	57
Ethyl benzene	380	ppb	Instantaneous	142
Toluene	74	ppb	Instantaneous	28
Xylenes Total	74	ppb	Instantaneous	28
Temperature	< 150	°F	Instantaneous	
Cadmium	2	mg/l	Instantaneous	
	0.69	mg/l	Composite	
Chromium VI	5	mg/l	Instantaneous	
Copper	5	mg/l	Instantaneous	
Lead	2	mg/l	Instantaneous	
Mercury	0.05	mg/l	Instantaneous	
Nickel	3	mg/l	Instantaneous	
Zinc	5	mg/l	Instantaneous	
Flash Point	> 140	°F	Instantaneous	
Total Suspended Solids	350	ppm	Instantaneous	
PCB's Total*	1	ppb	Composite	
Perc (Tetrachloroethylene)	20	ppb	Instantaneous	
MTBE (Methyl-Tert-Butyl-Ether)	10	ppb	Instantaneous	10
Naphthalene	47	ppb	Instantaneous	19

* Analysis for PCB's are requested only if both conditions listed below are met:

- 1) If proposed discharge > 10,000 gpd
- 2) If duration of discharge > 10 days

Analysis for PCB's must be conducted by USEPA Method 608 only with MDL = 65ppt

AS-34

ATTACHMENT 2

Applicable Regulations

AS-35

Applicable regulations include, but are not limited to:

1. 49 CFR 100 to 179 - DOT Hazardous Materials Transport and Manifest System Requirements
2. New York State Department of Environmental Conservation (DEC), Spills Technology and Remediation Series (STARS) Memo #1
3. 6 NYCRR 360-1 DEC Solid Waste Management Facilities
4. 6 NYCRR 364- Waste Transporter permits
5. Local restrictions on transportation of waste/debris
6. 40 CFR 260 to 272 - Hazardous Waste Management (RCRA)
7. 6 NYCRR 371 - Identification and Listing of Hazardous Wastes
8. 6 NYCRR 372 - Hazardous Waste Manifest System and Related Standards for Generators, Transporters and Facilities
9. 6 NYCRR 373-1 - Hazardous Waste Treatment, Storage and Disposal Facility Permitting Requirements
10. 6 NYCRR 376 - Land Disposal Restrictions
11. Posted weight limitations on roads or bridges
12. Transportation Skills Programs, Inc. 1985 - Hazardous Materials and Waste Shipping Papers and Manifests
13. Other local restrictions on transportation of waste/debris
14. Occupational Safety and Health Administration (OSHA), Standards and Regulations, 29 CFR 1910 (General Industry)
15. OSHA 29 CFR 1910.120 Hazardous Waste Operations and Emergency Response
16. OSHA Safety and Health Standards 29 CFR 1926 (Construction Industry)
17. OSHA 29 CFR 1910.146 Confined Space Entry Standard
18. Standard Operating Safety Guidelines, EPA Office of Emergency and Remedial Response Publication, 9285.1-03
19. NIOSH / OSHA / USCG / EPA Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities (1986)
20. U.S. Department of Health and Human Services (DHHS) "NIOSH Sampling and Analytical Methods," DHHS (NIOSH) Publication 84-100
21. ANSI, Practice for Respiratory Protection, Z88.2 (1980)
22. ANSI, Emergency Eyewash and Shower Equipment, Z41.1 (1983)
23. ANSI, Protective Footwear, Z358.1 (1981)
24. ANSI, Physical Qualifications for Respirator Use, Z88.6 (1984)
25. ANSI, Practice for Occupational and Educational Eye and Face Protection, Z87.1 (1968)
26. Water Pollution Control Federation "Manual of Practice No. 1, Safety in Wastewater Works"

A5-36

27. NFPA No. 327 "Standard Procedures for Cleaning and Safeguarding Small Tanks and Containers"
28. Occupational Safety and Health Act Confined Space Entry Standard 29 CFR 1910.146.87
29. Department of Transportation 49 CFR 100 through 179
30. Department of Transportation 49 CFR 387 (46 FR 30974, 47073)
31. Environmental Protection Agency 40 CFR 136 (41 FR 52779)
32. Environmental Protection Agency 40 CFR 262 and 761
33. Resource Conservation and Recovery Act (RCRA)
34. Any transporter of hazardous or non-hazardous materials shall be licensed in the State of New York and all other states traversed in accordance with all applicable regulations.

AS-37

ATTACHMENT 3

Definitions

AS-38

- Contaminated Groundwater and Decontamination Fluids:** Groundwater within the excavation trench or decontamination water that contains regulated compounds above the NYCDEP Discharge to Sanitary/Combined Sewer Effluent limits.
- Disposal or Treatment Facility:** A facility licensed to accept either non-hazardous regulated waste or hazardous waste for either treatment or disposal.
- Exclusion Zone:** Work area that will be limited to access by Contractor personnel specifically trained to enter the work area only. The exclusion zone will be set up to secure the area from the public and untrained personnel. The project health and safety program will apply to all construction personnel including persons entering the work area.
- Hazard Assessment:** An assessment of any physical hazards that may be encountered on a work site.
- Hazardous Soils:** Soils that exhibit any of the characteristics of a hazardous waste, namely ignitability, corrosivity, reactivity, and toxicity, as defined in 6 NYCRR Part 371, Section 371.3 and 40 CFR Section 261.
- Hazardous Substance Evaluation:** An evaluation of the possible or known presence of any hazardous substances that may be encountered on a job site. This evaluation is included in the Health and Safety Plan and will include the identification and description of any hazardous substances expected to be encountered. Material Safety Data Sheets (MSDS) will be included for each substance.
- Health and Safety Plan:** A plan employed at a work site that describes all the measures that will be taken to assure that all work is conducted in a safe manner, and that the health of the workers and the public will be insured.
- Material Handling Plan:** A plan outlining the methods that will be employed to handle, transport and dispose of contaminated materials.
- Non-Hazardous Contaminated Soils:** Soils which exhibit a distinct chemical or petroleum odor, or exhibit elevated photoionization detector readings but are not classified as hazardous waste under 6 NYCRR Part 371, Section 371.3 and 40 CFR Section 261.
- New York State Health Department's Environmental Laboratory Approval Program:** A program by which the state of New York approves and accredits environmental testing laboratories.
- PCBs:** Polychlorinated biphenyls are a group of toxic compounds commonly used as a coolant in transformers and other electrical components.
- Photoionization Detector:** A hand held instrument used to measure volatile organic compounds in air. The instrument ionizes the organic molecules through the use of an ultraviolet lamp.
- RCRA Hazardous Waste Characteristics:** Characteristics of a material which may indicate the material is hazardous. These include: ignitability, corrosivity, reactivity, and toxicity.
- Total Petroleum Hydrocarbons:** An analytical procedure used to determine the total amount of petroleum compounds in a material.

A5-39

ATTACHMENT 4

Phase II Subsurface Corridor Investigation Report

A5-40

- Final -

Phase II Subsurface Corridor Investigation Report

For

Trunk Water Mains in West 30th Street

Between 10th Avenue and 9th Avenue

Manhattan, New York

DDC PROJECT NO. MED598B

TASK ID NO. 9155

WORK ORDER NO. 9155-LIRO-2-8612

CONTRACT REGISTRATION NO. 20101417627

Prepared for:



NEW YORK CITY DEPARTMENT OF
DESIGN + CONSTRUCTION

Bureau of Environmental and Geotechnical Services
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PROJECT NO. 10-62-205

November 25, 2013

AS-41

TABLE OF CONTENTS

EXECUTIVE SUMMARY	ES-1
1.0 INTRODUCTION	1
1.1 Summary of Previous Environmental Investigations.....	1
1.2 Scope of Work	2
2.0 CORRIDOR INFORMATION	4
2.1 Corridor Location, Description, and Use	4
2.2 Description of Surrounding Properties	4
2.3 Corridor and Regional Topographic Setting.....	4
2.4 Corridor and Regional Geology.....	4
2.5 Corridor and Regional Hydrogeology.....	5
3.0 CORRIDOR EVALUATION.....	6
3.1 Soil Quality Investigation	6
3.2 Groundwater Quality Investigation.....	8
3.3 Laboratory Analyses	8
3.4 Data Evaluation	8
4.0 FINDINGS	9
4.1 Field Screening	9
4.2 Soil and Groundwater Laboratory Analytical Results	9
4.2.1 Volatile Organic Compounds (VOCs) in Soil.....	9
4.2.2 Semi-Volatile Organic Compounds (SVOCs) in Soil.....	9
4.2.3 Target Analyte List Metals (TAL Metals) in Soil.....	9
4.2.4 Pesticides in Soil	10
4.2.5 Herbicides in Soil.....	10
4.2.6 PCBs in Soil.....	10
4.2.7 Waste Classification of Soil.....	10
4.2.8 Analysis of NYCDEP Parameters in Groundwater.....	10
5.0 CONCLUSIONS AND RECOMMENDATIONS	11
6.0 STATEMENT OF LIMITATIONS.....	13

TABLE OF CONTENTS (continued)

<u>Tables</u>	1	Summary of Environmental Boring Data
	2	Summary of TCL VOCs Detected in Soil
	3	Summary of TCL SVOCs Detected in Soil
	4	Summary of TAL Metals Detected in Soil
	5	Summary of Pesticides Detected in Soil
	6	Summary of Herbicides Detected in Soil
	7	Summary of PCBs Detected in Soil
	8	Summary of Waste Characterization in Soil
	9	Groundwater Quality
<u>Figures</u>	1	Topographic Corridor Location Map
	2	Sample Location Plan
<u>Appendices</u>	A	Boring Location Sketches
	B	Geologic Boring Logs and Temporary Well Construction Details
	C	Laboratory Analytical Results - Included on Attached CD

EXECUTIVE SUMMARY

On behalf of the New York City Department of Design and Construction (NYCDDC), LiRo Engineers, Inc. (LiRo) conducted a Phase II Subsurface Corridor Investigation (SCI) of the West 30th Street Corridor located within the Chelsea Section of Manhattan, New York (hereinafter referred to as the Corridor). Proposed along the Corridor are infrastructure improvements consisting of the following:

- To connect the proposed water main (WM-6) to the Shaft 26B, City Tunnel No.3, including:
 1. W. 30th Street between 10th Avenue and 9th Avenue.
 2. W. 29th Street between 10th Avenue and 9th Avenue.
 3. 10th Avenue between W. 29th Street and W. 30th Street.
 4. 9th Avenue between W. 29th Street and W. 31st Street.
- To replace old, unlined or undersized water mains (WM-1) within project limit at:
 1. 10th Avenue between W. 29th Street and W. 30th Street.
 2. 9th Avenue between W. 29th Street and W. 31st Street.
 3. W. 30th Street between 10th Avenue and 9th Street
 4. W. 31st Street between 10th Avenue and 9th Avenue
- Combined sewer extension in:
 1. W. 30th Street between 9th Avenue and 10th Avenue
- Combined sewer replacement:
 1. 10th Avenue between W. 28th Street and W. 29th Street

The Corridor is approximately 3,750 linear feet in total length (Figure 1). The Corridor is confined to one (1) localized area and consists of the following five (5) street segments in the Chelsea Section:

Corridor Area

- West 29th Street between 9th Avenue and 10th Avenue (approximately 900 linear feet);
- West 30th Street between 9th Avenue and 10th Avenue (approximately 900 linear feet);
- West 31st Street between 9th Avenue and 10th Avenue (approximately 900 linear feet);
- 9th Avenue between West 29th Street and West 31st Street (approximately 525 linear feet); and,
- 10th Avenue between West 28th Street and West 30th Street (approximately 525 linear feet).

LiRo prepared a Phase I Corridor Assessment Report (Phase I CAR) dated August 14, 2013. The Phase I CAR report identified six (6) Final "High" risk sites and seven (7) Final "Moderate" risk sites in the Corridor. Initially, the CAR recommended 19 borings in the Corridor to determine whether the six (6) "High" and seven (7) "Moderate" risk sites have impacted the Corridor. However, to provide more complete Corridor coverage, the number of borings was increased to 22 as a result of consultation with the DDC Project Manager. SB-20, SB-21, and SB-22 were added to assess additional portions of the Corridor. These additional borings were considered "Moderate" risk borings.

The objective of this Phase II SCI is to assess the Corridor for the presence of subsurface contamination that may potentially impact proposed construction activities. The proposed construction activities for the Corridor include infrastructure improvements consisting of the following: connecting the proposed water main to the Shaft 26B, City Tunnel No. 3; replacing old, unlined or undersized water mains; and combined sewer extensions and replacements. The Phase II SCI consisted of the following components:

- The advancement of 16 borings to a terminal depth of 20 feet below ground surface (ft. bgs) or refusal, if encountered first. Six (6) of the initially proposed soil borings were cancelled because they were located directly above sensitive subsurface features such as tunnels, a boiler room and utility

vaults. Field screening consisted of classification and identification of soils from surface grade to the bottom of each boring. The borings were advanced using a Geoprobe[®] direct push drill rig. Prior to direct push advancement, borings were cleared to a depth of 6 feet using Vac-Tron[®] / Air Knife methods. Soil samples were collected using a 5-foot long 2-inch diameter Macro Core stainless steel sampler equipped with clear plastic (acetate) liners. Soil samples were classified in the field using the Unified Soil Classification System (USCS), including photo ionization detector (PID) readings and visual and olfactory indicators of contamination (staining, odors);

- The collection of 15 soil samples which were analyzed for USEPA Target Compound List (TCL) VOCs;
- The collection of 15 soil samples which were analyzed for the following parameters: (1) TCL BN/A extractable SVOCs; (2) TAL metals; (3) TCL pesticides; (4) TCL Herbicides; and, (5) TCL PCBs;
- The collection of four (4) waste characterization soil samples (WC-01 through WC-04), which were analyzed for: (1) the USEPA Full TCLP parameters, including PCBs; (2) the Resource Conservation and Recovery Act (RCRA) Characteristics (ignitability, reactivity, and corrosivity); and, (3) Total Petroleum Hydrocarbons Diesel Range Organics/Gasoline Range Organics (TPHC DRO/GRO);
- The installation of two (2) temporary well points (TWP), to a depth of 20 ft. bgs. The TWPs consisted of a 20-foot length section of 1-inch diameter schedule 40 PVC screen and riser. The collection of one (1) groundwater sample from each TWP (SB/TW-04 and SB/TW-07) and the laboratory analyses of SB/TW-04 groundwater sample for the parameters published by the NYCDEP as Limitations for Effluent to Sanitary or Combined Sewers (NYCDEP Sewer Discharge Criteria); due to limited volume the groundwater sample from SB/TWP-07 was only analyzed for volatile organic compounds (VOCs); and,
- The preparation of this report, which includes tables summarizing the laboratory analytical results and figures depicting boring locations, significant site features and, if applicable, contamination occurrence and distribution.

In order to evaluate the subsurface soil quality, laboratory analytical results for the soil samples were compared with the regulatory standards identified in: (1) New York State Department of Environmental Conservation (NYSDEC) CP-51 -Soil Cleanup Levels (CP-51 SCLs); (2) NYSDEC Subpart 375-6: Remedial Program Unrestricted and Restricted Use (Track 1 and Track 2) Soil Cleanup Objectives (SCOs); and, (3) the Toxicity Characteristic Regulatory Levels for Hazardous Waste published in RCRA and NYSDEC Part 371. In order to evaluate the groundwater quality, the laboratory analytical results for the groundwater samples were compared to the NYCDEP Sewer Discharge Criteria.

The subsurface soils encountered during this Phase II SCI consisted predominantly of brown fine to medium sand and silt from 1 to 8 ft bgs, as well as silty fine sands followed by some medium and coarse sands and rock fragments from 8 to 20 ft. bgs. Anthropogenic material (non-natural rocks), which is indicative of urban fill, was encountered within the Corridor at depths ranging from 0 to 5 ft. bgs within SB-14, SB-16, SB-17, SB-19, and SB-20. Bedrock was encountered at depths ranging from 7 to 14 ft bgs in SB-02, SB-08, SB-16 and SB-20.

Field screening consisted of measuring total VOC vapors in soil with a PID and visual and olfactory observations. Field screening did identify evidence of petroleum-impacted soils in the Corridor. There were PID readings and/or petroleum odors identified in two (2) of the 16 boring locations. Soil borings

SB-04 and SB-11 exhibited petroleum odors and detectable PID levels ranging from 168 to 178 parts per million (ppm) during the screening. Petroleum odors were not detected in any other soil borings.

Groundwater was encountered in nine (9) of the 16 completed borings, ranging from 12.5 ft. bgs in SB-03 to 18.5 ft. bgs within SB-07.

One (1) VOC (acetone) was detected in eight (8) of the 15 grab samples collected. Acetone was detected at concentrations exceeding the Unrestricted Use (Track 1) SCO in the samples from SB-02, SB-05, SB-07, SB-08, SB-16, SB-19 and SB-20.

SVOCs were detected in six (6) of the 15 composite samples collected at levels that did not exceed the Unrestricted Use (Track 1) and Restricted Use (Track 2) SCOs and/or CP-51 SCLs

One (1) metal (iron) was detected in all composite samples collected at a concentration exceeding the NYSDEC CP-51 SCLs. Metals including barium, copper, chromium, lead, mercury, nickel and/or zinc were detected in six (6) composite samples above the Unrestricted Use (Track 1) and/or Restricted (Track 2) SCO.

Pesticides were detected in three (3) of the 15 composite samples. 4,4-DDE and 4,4-DDT was detected in sample SB-02, SB-17 and SB-19 at a concentration that exceeds the Unrestricted Use (Track 1) SCO. Dieldrin was detected in sample SB-02 at a concentration that exceeds the Unrestricted Use (Track 1) SCO.

Herbicides and PCBs were not detected in the 15 composite samples collected.

Ignitability (flash point), reactivity (cyanide and sulfide), and corrosivity (pH) were within the acceptable RCRA ranges. TCLP VOCs, SVOCs, metals, herbicides, pesticides, PCBs, DRO, and GRO were not detected in the four (4) waste classification soil samples (WC-01 through WC-04). The four (4) waste characterization soil samples did not exhibit evidence of hazardous waste characteristics. However, TPHC, specifically DROs, were detected in all of the composite samples collected during the previous LSCI.

Total Suspended Solids (TSS) was detected at a concentration of 440 milligrams per liter (mg/L) in sample SB/TW-04, which exceeds the NYCDEP Sewer Discharge Limitation of 350 mg/L.

Conclusions

Based on the evaluation of the field screening data and the laboratory analytical results, and a comparison to applicable regulatory standards, the following conclusions are presented:

- Field screening identified evidence of petroleum-impacted soils in the Corridor. Soil borings SB-04 from 5 to 10 ft. bgs and SB-11 from 15 to 20 ft. bgs exhibited petroleum odors and detectable levels with the PID ranging from 168 to 178 ppm during the screening. Petroleum odors were not detected in any other soil borings.
- Groundwater was encountered in nine (9) of the 16 completed borings, ranging from 12.5 ft. bgs in SB-03 to 18.5 ft. bgs within SB-07.
- Laboratory analytical results identified acetone in soils within numerous portions of the Corridor. However, acetone is a common laboratory compound which could be evidence cross-contamination during sample analysis. The VOCs Isopropylbenzene, n-Butylbenzene, n-Propylbenzene and sec-

Butylbenzene were detected in two (2) of the 15 composite samples collected at concentrations below the Unrestricted Use (Track 1) and Restricted Use (Track 2) SCOs and/or CP-51 SCLs. SVOCs were detected in six (6) of the 15 composite samples collected at concentrations below the Unrestricted Use (Track 1) and Restricted Use (Track 2) SCOs and/or CP-51 SCLs.

- Laboratory analytical results identified the presence of iron in all 15 samples at concentrations above the CP-51 SCL. Additional elevated concentrations of metals, including barium, copper, chromium, lead, mercury, nickel and zinc, were detected in six (6) composite samples above the Unrestricted Use (Track 1) and/or Restricted (Track 2) SCO in the subsurface soils (i.e., in the area of SB-02, SB-12, SB-16, SB-17, SB-19 and SB-20). Pesticides including 4,4-DDE and 4,4-DDT were detected in three (3) of the 15 composite samples (SB-02, SB-17 and SB-19) at a concentration that exceeds the Unrestricted Use (Track 1) SCO. Herbicides and PCBs were not detected in the 15 composite samples collected. The elevated metal and pesticides may be attributed to: (a) residuals from releases of petroleum products from the "High" and "Moderate" risk sites identified on and within the vicinity of the Corridor; (b) residuals from pesticide use on the Corridor; (c) contaminants in historic fill material placed on the Corridor; and, (d) natural background levels (metals);
- The subsurface soils did not exhibit hazardous waste characteristics;
- A groundwater sample contained concentrations of TSS that exceeded the NYCDEP Sewer Discharge Criteria. The presence of elevated levels of TSS in the groundwater is attributed to the fact that an unfiltered sample was collected from a TWP. However, the groundwater samples collected from TWPs are considered to be representative of conditions to be encountered during construction activities.

Based on the results of the field investigation and laboratory analytical results, LiRo recommends the following:

- The Contract documents should also identify provisions for managing, handling, transporting, and disposing of non-hazardous contaminated soil and a contingency plan for non-hazardous petroleum-impacted soils, if encountered anywhere else in the Corridor. The Contractor should be required to submit a Material Handling Plan, to identify the specific protocol and procedures that will be employed to manage the waste in accordance with applicable regulations;
- Due to the potential presence of chromium, iron, barium, copper, chromium, lead, mercury, nickel and zinc within the proposed Corridor, dust control mitigation procedures are recommended during excavation activities to minimize the production and dispersion of fugitive airborne dust. The Contractor to minimize the release of potential airborne contaminants as a direct result of construction activities should develop and implement a Community Air Monitoring Plan (CAMP). The CAMP shall be developed in accordance with NYSDEC DER-10 Requirements. The CAMP requires real-time monitoring for VOCs and particulates (i.e., dust) at the downwind perimeter of each designated work area when certain construction activities are in progress at contaminated sites. The CAMP is intended to provide a measure of protection for the surrounding community located downwind from potential airborne contaminant releases as a direct result of investigative and remedial work activities. Specific requirements shall be reviewed for each situation in consultation with New York State Department of Health (NYSDOH) to ensure proper applicability;
- Dewatering may be necessary during construction activities within the Corridor. Since TSS was detected in groundwater samples at concentrations exceeding the NYCDEP Sewer Discharge Limitations, groundwater may require pre-treatment prior to discharge. Therefore, should dewatering

be necessary during construction activities within the Corridor to a sanitary or combined sewer, the contractor should be required to obtain NYCDEP sewer discharge permit;

- In addition, if discharge into storm sewers is required during dewatering, it may be done under the appropriate NYSDEC State Pollutant Discharge Elimination System (SPDES) permit. Additional sampling and laboratory analysis may be required to satisfy NYSDEC requirements prior to discharge into storm sewers; and,
- Before beginning any excavation activity, the contractor shall submit a site-specific health and safety plan (HASP) that will meet the requirements set forth by the Occupational, Safety, and Health Administration (OSHA), the NYSDOH, and any other applicable regulations. The HASP should identify the possible locations along the Corridor and risks associated with the potential contaminants that may be encountered, and the administrative and engineering controls that will be utilized to mitigate environmental concerns (i.e., dust control procedures for metals and pesticides).

1.0 INTRODUCTION

On behalf of the New York City Department of Design and Construction (NYCDDC), LiRo Engineers, Inc. (LiRo) conducted a Phase II Subsurface Corridor Investigation (Phase II SCI) of the West 30th Street Area located within the Chelsea Section of Manhattan, New York (hereinafter referred to as the Corridor). Proposed along the Corridor are infrastructure improvements consisting of the following:

- To connect the proposed water main (WM-6) to the Shaft 26B, City Tunnel No.3, including:
 1. W. 30th Street between 10th Avenue and 9th Avenue.
 2. W. 29th Street between 10th Avenue and 9th Avenue.
 3. 10th Avenue between W. 29th Street and W. 30th Street.
 4. 9th Avenue between W. 29th Street and W. 31st Street.
- To replace old, unlined or undersized water mains (WM-1) within project limit at:
 1. 10th Avenue between W. 29th Street and W. 30th Street.
 2. 9th Avenue between W. 29th Street and W. 31st Street.
 3. W. 30th Street between 10th Avenue and 9th Street
 4. W. 31st Street between 10th Avenue and 9th Avenue
- Combined sewer extension in:
 1. W. 30th Street between 9th Avenue and 10th Avenue
- Combined sewer replacement:
 1. 10th Avenue between W. 28th Street and W. 29th Street

The Phase II SCI was conducted to determine if the Corridor's environmental condition might impact proposed construction activities. The Corridor is approximately 3,750 linear feet in total length (Figure 1). The Corridor is confined to one (1) localized area and consists of the following five (5) street segments in the Chelsea Section:

Corridor Area

- West 29th Street between 9th Avenue and 10th Avenue (approximately 900 linear feet);
- West 30th Street between 9th Avenue and 10th Avenue (approximately 900 linear feet);
- West 31st Street between 9th Avenue and 10th Avenue (approximately 900 linear feet);
- 9th Avenue between West 29th Street and West 31st Street (approximately 525 linear feet); and,
- 10th Avenue between West 28th Street and West 30th Street (approximately 525 linear feet).

1.1 Summary of Previous Environmental Investigations

LiRo prepared a Phase I Corridor Assessment Report (Phase I CAR) dated August 14, 2013. The Phase I CAR presented the results of an investigation to document the current use, a review of fire insurance maps to document historical use, and a review of the state and federal government databases to identify sites on or adjoining the Corridor that constitute a potential environmental concern. Based on the Risk Criteria protocol established by the NYCDDC, findings presented in the CAR defined these sites as posing either "High", "Moderate", or "Low" Risk for possible contamination to the subsurface environment along the Corridor.

The LiRo Phase I CAR report identified six (6) Final "High" risk sites and seven (7) Final "Moderate" risk sites in the Corridor. Initially, the CAR recommended 19 borings in the Corridor to determine whether the six (6) "High" and seven (7) "Moderate" risk sites have impacted the Corridor. However, to provide more complete Corridor coverage, the number of borings was increased to 22 as a result of

consultation with the DDC Project Manager. SB-20, SB-21, and SB-22 were added to assess additional portions of the Corridor. The final "High" and "Moderate" risk sites identified in the LiRo Phase I CAR are listed below:

HIGH RISK SITES

- 1) Former Auto Repair (352-358 9th Ave.) / Cleaners / (356 9th Ave.) / [352-358 9th Ave.] (High Risk Site No. 1) – SB-01 and SB-02
- 2) Evan Auto (319th 10th Ave.)/International Automotive Center (323 10th Ave.)/Former Gas Station (327 10th Ave.)/ [319-327 10th Ave.] (High Risk Site No. 2) – SB-03 and SB-04
- 3) Call Towing & Repairs (329 10th Ave.) / Morgan Parking Lot (331-343 10th Ave.)/ [329-343 10th Ave.] (High Risk site No. 3) – SB-05 and SB-06
- 4) Auto Repair (358 10th Ave.) / Stuart Dean Company (366 10th Ave.)/ Vault 1606 & 1873 (368-380 10th Ave.) / [358-380 10th Ave] (High Risk Site No. 4) – SB-07 and SB-08
- 5) Shlomi & Avi Repair Inc. / (303) [303-309 10th Ave. and West 28th Street / 505 W 27th St.] (High Risk Site No. 5) – SB-09 and SB-10
- 6) ACC Car Care Center (420 W. 29th St.) / Express Depot (420 W. 29th St.) / Bus Garage (43 W. 29th St.) / [420-430 W. 29th St.] (High Risk Site No. 6) - SB-11 and SB-12

MODERATE RISK SITES

- 1) Auto and Battery Service (316 10th Ave.) /Auto Sales and Service (318-324 10th Ave.) / Filling Station (326-328 10th Ave.) / [316-328 10th Ave.] (Moderate Risk Site No. 1) – SB-13
- 2) Postal Facility (349 9th Ave.) / USPS – Morgan P&DC (341 9th Ave.) / [341-349 9th Ave.] (Moderate Risk site No. 2) – SB-14
- 3) MTA LIRR - West Side Yard / J.D. Caemmerer West Side Staging (351 10th Ave.) [10th Ave. between 33rd and 30th Streets) (Moderate Risk Site No. 3) – SB-15
- 4) Auto Body Works / 431 W. 30th Street (Moderate Risk site No. 4) – SB-16
- 5) Amtrak New York Penn Station Cleaners (31st St. and 9th Ave.) / Penn Station Central Control (400 W. 31st St.) / [W. 31st St. between 8th and 9th Avenues] (Moderate Risk Site No. 5) – SB-17
- 6) James Banyon Photo Engraving / Fashion Institute of Technology / Office Building / Kingslawn Press / (406 W. 31st St.) (Moderate Risk Site No. 6) – SB-18
- 7) Former Automobile Repair / 456-480 W. 31st St. LLC / [456-480 W. 31st St.] (Moderate Risk Site No. 7) – SB-19

1.2 Scope of Work

The Phase II SCI consisted of a field investigation, laboratory analyses, and the preparation of this report, which includes tables summarizing the laboratory analytical results and figures depicting boring locations, significant site features and, if applicable, contamination occurrence and distribution. Drilling activities for the field investigation were performed by Associated Environmental Services, Limited (AES) of Hauppauge, New York. Oversight of drilling activities was performed by LiRo. Laboratory analyses were provided by Con-Test Analytical Laboratory (Con-Test) of East Longmeadow, Massachusetts, a NYS Department of Health (NYSDOH) approved laboratory (No. 10899). Field derived Quality Assurance/Quality Control samples (i.e., field blanks, trip blanks, and duplicates) were not collected for this project. The field investigation was conducted between October 18, 2013 and October 24, 2013 and consisted of the following components:

- The advancement of 16 borings to a terminal depth of 20 feet below ground surface (ft. bgs) or refusal, if encountered first. Six (6) of the initially proposed soil borings were cancelled because they were located directly above sensitive subsurface features such as tunnels, a boiler room and utility

vaults. Field screening consisted of classification and identification of soils from surface grade to the bottom of each boring. The borings were advanced using a Geoprobe® direct push drill rig. Prior to direct push advancement, borings were cleared to a depth of 6 feet using Vac-Tron® / Air Knife methods. Soil samples were collected using a 5-foot long 2-inch diameter Macro Core stainless steel sampler equipped with clear plastic (acetate) liners. Soil samples were classified in the field using the Unified Soil Classification System (USCS), including photo ionization detector (PID) readings and visual and olfactory indicators of contamination (staining, odors).

- The collection of one (1) composite and one (1) grab sample from 15 soil borings (SB-02, SB-03, SB-04, SB-05, SB-07, SB-08, SB-09, SB-10, SB-11, SB-12, SB-14, SB-16, SB-17, SB-19, and SB-20). The composite samples were comprised of soil from the entire boring column. The grab samples were collected from the bottom 6-inch interval in each boring or 0 to 6 inches above the water table (if encountered). Grab and/or composite samples were not collected from the remaining soil borings since contamination was not identified during field screening.
- Laboratory analysis of the composite samples for: (1) Target Compound List (TCL) BN/A extractable SVOCs by United States Environmental Protection Agency (USEPA) Method 8270; (2) Target Analyte List (TAL) metals by USEPA Method 6010B/7010; (3) TCL pesticides by USEPA Method 8081A; (4) TCL herbicides by Method 8151A; and, (5) TCL PCBs by USEPA Method 8082.
- Laboratory analysis of the grab samples for TCL VOCs by USEPA Method 8260.
- The installation of two (2) TWP, the collection of one (1) groundwater sample from each TWP (SB/TW-04 and SB/TW-07) and the laboratory analyses of these samples for the parameters published by the NYCDEP as Limitations for Effluent to Sanitary or Combined Sewers (NYCDEP Sewer Discharge Criteria); and,
- Laboratory analysis of the groundwater samples for the parameters published by the NYCDEP as Limitations for Effluent to Sanitary or Combined Sewers (NYCDEP Sewer Discharge Criteria).
- The collection of four (4) composite waste characterization (WC) samples as follows:
 - WC-1: composited of soil aliquots from borings SB-07, SB-08 and SB-17 (grade to bottom).
 - WC-2: composited of soil aliquots from borings SB-02, SB-16, SB-19, SB-20 and SB-22 (grade to bottom).
 - WC-3: composited of soil aliquots from borings SB-11, SB-12 and SB-14 (grade to bottom).
 - WC-4: composited of soil aliquots from borings SB-03, SB-04, SB-05, SB-09 and SB-10 (grade to bottom).
- Laboratory analysis of the waste characterization samples for: (a) Full TCLP by USEPA Method SW846, including PCBs; (b) RCRA Characteristics (ignitability, reactivity, and corrosivity) by USEPA Method SW846; and, (c) TPHC DRO/GRO by USEPA Method 8015B.

2.0 CORRIDOR INFORMATION

2.1 Corridor Location, Description, and Use

The project corridor is located in the Chelsea section of the Borough of Manhattan, New York. The location is shown on Figure 1. The corridor consists of West 29th, West 30th, and West 31st Streets between 9th and 10th Avenues, 9th Avenue between 29th and 31st Streets and 10th Avenue between 28th and 30th Streets which is developed with a paved roadway, and existing infrastructure systems. Property usage along the Corridor consists primarily of governmental postal and transportation service facilities and, commercial and residential properties.

Specific properties of concern that were identified along the Corridor include New York City Metropolitan Transportation Authority Hudson Yard and Penn Station, former and current auto repair shops and the USPS facility.

2.2 Description of Surrounding Properties

The Corridor is primarily surrounded by governmental transportation facilities including the Lincoln Tunnel, New York City Metropolitan Transportation Authority Facilities, as well as buildings with mixed commercial and residential uses. Specific properties of potential environmental concern include auto repair shops.

2.3 Corridor and Regional Topographic Setting

Based on a review of the United States Geological Survey (USGS.) 7.5-minute Topographic Quadrangle Maps for the Central Park NY Quad (1975) to the Corridor exhibits a vertical change of approximately 20 feet along the length of the Corridor. The approximate elevation of the Corridor ranges from 15 feet above mean sea level (msl) by 10th Avenue near 28th Street to 35 feet above msl by 9th Avenue near 31st Street. Surface runoff is expected to follow the westerly slope leading toward 10th Avenue. A copy of the topographic map is presented in Figure 1.

2.4 Corridor and Regional Geology

Site and Regional Geology are based on information provided in the Geologic Map of New York State (Lower Hudson Sheet). Manhattan is underlain by high-grade metamorphic bedrock consisting of a sequence of Cambrian and Ordovician age gneiss, schistose-gneiss, and marble. The bedrock is characterized by numerous faults and fractures, many of which are transmissive and contain groundwater. Depth to bedrock ranges from zero (0) to 15 ft bgs. In general, areas of higher elevation are characterized by shallower bedrock. In addition, depth to bedrock is generally greater along the East and Hudson Rivers.

Unconsolidated sediments overlie the bedrock and consist of Pleistocene aged sand, gravel and silty clays, deposited by glacial-fluvial activity. In addition, Holocene-age river and tidal deposits are present along the coastline of Manhattan.

The subsurface soils encountered during this Phase II SCI consisted predominantly of grey-light brown, grey-brown, brown, yellow, yellow-brown, red, red-brown, and black-red fine to medium sand and silt, as well as silty fine sands followed by some medium and coarse sands. Anthropogenic material (non-natural rocks), which is indicative of urban fill, was encountered within the Corridor at depths ranging from 0.0

to 5 ft bgs within SB-14, SB-16, SB-17, SB-19, and SB-20. Bedrock (Schist) was encountered at depths ranging from 7 to 14 ft bgs in SB-02, SB-08, SB-16 and SB-20.

2.5 Corridor and Regional Hydrogeology

Based on the topographic mapping, and recent subsurface investigation work completed in the vicinity, groundwater is anticipated to be present at depths ranging from 15 to 35 feet below ground surface (ft bgs) depending on the location along the Corridor. The nearest surface water body is the Hudson River located approximately 1/3 miles to the west. Based on the proximity of the Hudson River to the Corridor, groundwater flow direction is anticipated to be west. Groundwater flow directions may also vary due to seasonal fluctuations in precipitation, local usage demands, geology, underground structures, or dewatering operations.

Based on the Phase II SCI, the depth to groundwater within the Corridor ranged from 12.5 to 18.5 ft bgs within the TWP's installed. Estimated groundwater levels and/or flow direction(s) may vary due to seasonal fluctuations in precipitation, local usage demands, geology, underground structures, or dewatering operations.

3.0 CORRIDOR EVALUATION

Proposed construction activities at this site include soil excavation and may include dewatering, which in-turn requires that soils and groundwater at the site be characterized to identify material handling requirements (i.e., use of protective equipment) and for material reuse, handling, and/or waste disposal requirements. LiRo provided oversight for the advancement of 16 soil borings, the installation of two (2) TWPs, and the collection of soil and groundwater samples during the field investigation at the designated areas in the vicinity of the planned construction. A summary of the field observations, including the location of the sites and the details of the soil borings, is provided in Table 1.

3.1 Soil Quality Investigation

A total of 16 borings were advanced to a terminal depth of 20 ft bgs, or refusal, if encountered first, using a Geoprobe[®] direct push drill rig. Prior to direct push advancement, borings were cleared to a depth of 6 ft bgs using an air knife. Soil samples were collected using a 5-foot long 2-inch diameter Macro Core stainless steel sampler equipped with clear plastic (acetate) liners to facilitate retrieval of the sample. Soil boring locations are shown on Figure 2. The designations and sampling intervals for the samples that were submitted to the laboratory are included in Table 1. Maps depicting each boring location are included in Appendix A. Boring logs are provided in Appendix B. The locations of each boring are described below:

- **SB-02** - Advanced on 9th Avenue in the vicinity of "High Risk Site # 1" and located 75 feet north of 30th Street and 5 feet east of 9th Avenue.
- **SB-03** - Advanced on 10th Avenue in the vicinity of "High Risk Site # 2" and located 85 feet south of 29th Street and 5 feet west of 10th Avenue.
- **SB-04** - Advanced on 10th Avenue in the vicinity of "High Risk Site # 2" and located 5 feet south of 29th Street and 5 feet west of 10th Avenue.
- **SB-05** - Advanced on 10th Avenue in the vicinity of "High Risk Site # 3" and located 2 feet north of 29th Street and 17 feet west of 10th Avenue.
- **SB-07** - Advanced on West 31st Street in the vicinity of "Moderate Risk Site # 3," "Moderate Risk Site # 7" and "High Risk Site # 4" and located 1 feet south of 31st Street and 117 feet east of 10th Avenue.
- **SB-08** - Advanced on West 31st Street in the vicinity of "High Risk Site # 4" and located 5 feet north of 31st Street and 70 feet west of Dyer Avenue.
- **SB-09** - Advanced on 10th Avenue in the vicinity of "High Risk Site # 5" and located 15 feet north of 28th Street and 5 feet west of 10th Avenue.
- **SB-10** - Advanced on 10th Avenue in the vicinity of "Moderate Risk Site # 2" and located 60 feet north of 28th Street and 5 feet east of 10th Avenue.
- **SB-11** - Advanced on West 29th Street in the vicinity of "High Risk Site # 6" and located 2 feet south of 29th Street and 247 feet east of 10th Avenue.
- **SB-12** - Advanced on West 29th Street in the vicinity of "Moderate Risk Site # 1" and located 1 feet north of 29th Street and 137 feet west of 9th Avenue.
- **SB-14** - Advanced on West 29th Street in the vicinity of "Moderate Risk Site # 1" and located 5 feet north of 29th Street and 35 feet east of 10th Avenue.

- **SB-16** - Advanced on West 30th Street in the vicinity of "Moderate Risk Site # 4" and located 5 feet north of 30th Street and 365 feet west of 9th Avenue.
- **SB-17** - Advanced on West 31st Street in the vicinity of "Moderate Risk Site # 5" and located 7 feet north of 31st Street and 15 feet east of 9th Avenue.
- **SB-19** - Advanced on West 30th Street in the vicinity of "Moderate Risk Site # 3," "Moderate Risk Site # 7" and located 2 feet north of 30th Street and 30 feet west of 10th Avenue.
- **SB-20** - Advanced on West 30th Street in the vicinity of "Moderate Risk Site # 4," "Moderate Risk Site # 6" and located 5 feet north of 30th Street and 312 feet east of 10th Avenue.
- **SB-22** - Advanced on 9th Avenue in the vicinity of "Moderate Risk Site # 1" and located 13 feet north of 29th Street and 6 feet west of 9th Avenue.

Soil from each boring was classified and examined for visual evidence (i.e., staining, discoloration) and any olfactory indications (i.e., odors) of contamination. Continuous soil samples were collected from each of the borings at 5-foot intervals. Upon sample retrieval, a PID was used to screen the soil for VOC vapors.

In order to identify representative conditions relative to the presence of SVOCs, metals, pesticides, herbicides, and PCBs over the entire soil column in each boring, composite soil samples were collected by mixing the soil from the entire column in a stainless steel bowl and placing soil in laboratory provided containers. Boring composite samples were collected from 15 borings (SB-02, SB-03, SB-04, SB-05, SB-07, SB-08, SB-09, SB-10, SB-11, SB-12, SB-14, SB-16, SB-17, SB-19, and SB-20).

In order to identify representative conditions relative to the presence of VOCs, grab soil samples were collected from 0 to 6 inches above the water table (if encountered) within SB-03, SB-04, SB-05, SB-07, SB-09, SB-10, SB-11, SB-14, SB-19 and SB-20 or from the bottom 6-inch interval of the boring within SB-02, SB-08, SB-12, SB-16, and SB-17. Grab samples were collected from all of the borings completed; samples were not collected from SB-01, SB-06, SB-13, SB-15, SB-18, SB-21 and SB-22 because these borings met refusal.

In order to identify representative conditions for disposal purposes, waste classification (WC) samples were collected as follows:

- WC-1: composited of soil aliquots from borings SB-07, SB-08 and SB-17 (grade to bottom).
- WC-2: composited of soil aliquots from borings SB-02, SB-16, SB-19, SB-20 and SB-22 (grade to bottom).
- WC-3: composited of soil aliquots from borings SB-11, SB-12 and SB-14 (grade to bottom).
- WC-4: composited of soil aliquots from borings SB-03, SB-04, SB-05, SB-09 and SB-10 (grade to bottom).

Soil classification information, including stratigraphy, is documented on the boring logs included in Appendix B. All boring equipment was cleaned by rinsing with tap water, scrubbing with Alconox, then rinsing with deionized water again between each sample interval. A clear plastic liner was used inside the sampler at each interval advanced to maintain the integrity of the soil cores. Following the completion of each boring, the boreholes were back-filled with drill cuttings, and then sealed to the surface grade with cement grout.

3.2 Groundwater Quality Investigation

As groundwater may be encountered within the depths associated with the proposed excavation, two (2) groundwater samples were collected for field screening and laboratory analysis during the soil boring activities. TWP's were installed in soil borings SB-04 (SB/TW-04) and SB-07 (SB/TW-07) where groundwater was encountered at approximate depths of 13 ft. bgs and 18.5 ft. bgs, respectively. To facilitate the installation of the TWP's, the soil borings were advanced to a depth of 20 ft. bgs, which was approximately 1.5 to 7 feet into the encountered water table. The TWP's consisted of a 20-foot length of 1-inch diameter schedule 40 PVC that included 10 feet of screen and 10 feet of riser. A groundwater sample was collected from each TWP for screening and laboratory analysis via dedicated Teflon tubing equipped with check valves. All tubing was new, clean, and unused and was properly disposed after use. Upon extraction, the samples were examined for visual evidence (i.e., discoloration, sheen) and any olfactory indications (i.e., odors) of contamination were noted.

A summary of the measurements taken from the TWP's is provided in Appendix B. The location of the TWP's is provided in Figure 2.

3.3 Laboratory Analyses

The soil and groundwater samples were submitted to Con-Test, a NYSDOH approved laboratory (No. 10899). Field derived Quality Assurance/Quality Control samples (i.e., field blank, trip blank, duplicate) were not collected for this project. Laboratory analytical reports are included in Appendix C.

The grab soil samples were analyzed for USEPA TCL VOCs by Method 8260. The boring composite soil samples were analyzed for: (1) TCL BN/A extractable SVOCs by USEPA Method 8270; (2) TAL metals by USEPA Method 6010B/7010; (3) TCL pesticides by USEPA Method 8081A; (4) TCL herbicides by Method 8151A; and, (5) TCL PCBs by USEPA Method 8082.

The waste characterization soil samples were analyzed for: (1) the USEPA Full TCLP parameters, including PCBs; (2) the RCRA Characteristics (ignitability, reactivity, and corrosivity); and, (3) TPHC DRO/GRO.

The groundwater samples were analyzed for parameters published by NYCDEP as Limitations for Effluent to Sanitary or Combined Sewers.

3.4 Data Evaluation

In order to evaluate the subsurface soil quality, the laboratory analytical results of the grab and composite soil samples were compared with the regulatory standards identified in: (1) NYSDEC Subpart 375-6: Remedial Program Unrestricted and Restricted Use (Track 1 and Track 2) Soil Cleanup Objectives (SCOs); and, (2) NYSDEC CP-51 Soil Cleanup Levels (CP-51 SCLs). The laboratory analytical results of the waste classification soil samples were compared with the Toxicity Characteristic Regulatory Levels for Hazardous Waste published in RCRA and NYSDEC Part 371. The analytical results of the groundwater samples were compared to the NYCDEP Sewer Discharge Criteria.

4.0 FINDINGS

This section discusses the analytical data and findings for the activities discussed in Section 3.0. Boring logs and well installation records can be found in Appendix B. Complete analytical data reports are included in Appendix C.

4.1 Field Screening

Field screening consisted of measuring total VOC vapors in soil with a PID and visual and olfactory observations. Field screening identified evidence of petroleum-impacted soils in the Corridor. There were elevated PID readings and/or petroleum odors identified in two (2) of the 16 boring locations. Soil borings SB-04 and SB-11 exhibited petroleum odors with the PID readings ranging from 168 to 178 ppm during the screening. Petroleum odors were not detected in any other soil borings.

Groundwater was encountered at 12.5 ft bgs in SB-03 and SB-09 and at 13.0 ft bgs in SB-04 and SB-20. Groundwater was encountered at 14 ft bgs in SB-05, at 15 ft bgs in SB-14, at 18.0 ft bgs in SB-19 and SB-22 and at 18.5 ft bgs within SB-07. Groundwater was not encountered within the remaining on-site borings. Refer to Table 1 for a summary of environmental boring data.

4.2 Soil and Groundwater Laboratory Analytical Results

4.2.1 Volatile Organic Compounds (VOCs) in Soil

One (1) VOC (acetone) was detected in eight (8) of the 15 grab samples collected. Acetone was detected at concentrations exceeding the Unrestricted Use (Track 1) SCO in the samples from SB-02, SB-05, SB-07, SB-08, SB-16, SB-19 and SB-20. Acetone is a common compound used in laboratory cleaning processes and is most likely the result of cross contamination during analysis and thus is not representative of subsurface conditions. VOCs were detected in two (2) of the 15 composite samples collected at levels that did not exceed the Unrestricted Use (Track 1) and Restricted Use (Track 2) SCOs and/or CP-51 SCLs. Refer to Table 2 for a summary of TCL VOC detections.

4.2.2 Semi-Volatile Organic Compounds (SVOCs) in Soil

SVOCs were detected in six (6) of the 15 composite samples collected at levels that did not exceed the Unrestricted Use (Track 1) and Restricted Use (Track 2) SCOs and/or CP-51 SCLs. Refer to Table 3 for a summary of TCL SVOC results.

4.2.3 Target Analyte List Metals (TAL Metals) in Soil

Metals were detected in all 15 composite samples collected. One (1) metal (iron) were detected in all composite samples collected at concentrations that exceed the NYSDEC CP-51 SCL. Metals including barium, copper, chromium, lead, mercury, nickel and/or zinc were detected in six (6) composite samples collected (SB-02, SB-12, SB-16, SB-17, SB-19 and SB-20) above the Unrestricted Use (Track 1) and/or Restricted (Track 2) SCO. Based on their consistency, the detected iron concentrations are attributed to background levels. However, some of the detected concentrations for barium, copper, chromium, lead, mercury, nickel and zinc may be attributed to contaminants in historic fill material placed throughout the Corridor. Refer to Table 4 for a summary of TAL metals detections.

4.2.4 Pesticides in Soil

Pesticides were detected in three (3) of the 15 composite samples. 4,4-DDE and 4,4-DDT were detected in sample SB-02, SB-17 and SB-19 at concentrations that exceeds the Unrestricted Use (Track 1) SCOs. Dieldrin was detected in sample SB-02 at a concentration that exceeds the Unrestricted Use (Track 1) SCO. These detections may be attributed to contaminants in historic fill material placed throughout the Corridor. Refer to Table 5 for a summary of pesticide detections.

4.2.5 Herbicides in Soil

Herbicides were not detected in the 15 composite samples collected. Refer to Table 6 for a summary of herbicide detections.

4.2.6 PCBs in Soil

PCBs were not detected in the 15 composite samples collected. Refer to Table 7 for a summary of PCB detections.

4.2.7 Waste Classification of Soil

Ignitability (flash point), reactivity (cyanide and sulfide), and corrosivity (pH) were within the acceptable RCRA ranges. TCLP VOCs, SVOCs, and herbicides were not detected in the four (4) waste classification soil samples (WC-1 through WC-4) collected. Metals detected were within the acceptable RCRA ranges. PCBs (Aroclor 1260) were detected in each of the four (4) composite samples collected by TCLP analysis. There is not a regulatory standard to compare to the leachable PCBs identified in the samples. The detections may be attributed to contaminants in historic fill material placed throughout the Corridor. DRO were detected at concentrations ranging from approximately 30 mg/kg to 410 mg/kg in all three (3) of four (4) samples. The highest concentration, 410 mg/kg, was detected in sample WC-3 which was representative of subsurface soils along West 29th Street between 9th and 10th Avenues. GRO were non-detect in all four (4) samples collected. There are no regulatory standards for DRO and GRO.

Analytical results will need to be compared to levels acceptable by the chosen receiving facility to determine appropriate waste classification prior to off-site disposal. Refer to Table 8 for a summary of TCLP parameters, RCRA characteristics and DRO/GRO results.

4.2.8 Analysis of NYCDEP Parameters in Groundwater

The groundwater sample from SB/TW-04 was analyzed for the parameters required by the NYCDEP Limitations for Effluent to Sanitary or Combined Sewers (Daily Limit). Due to limited volume the groundwater sample from SB/TWP-07 was only analyzed for VOCs. Total Suspended Solids (TSS) was detected at concentrations of 440 milligrams per liter (mg/L) in sample SB/TW-04, which exceeds the NYCDEP Sewer Discharge Limitation of 350 mg/L. The presence of TSS in the groundwater is attributed to the fact that an unfiltered sample was collected from a TWP and not a permanent monitoring well. However, the groundwater sample collected from a TWP is considered to be representative of conditions to be encountered during construction activities.

All other parameters were within NYCDEP Sewer Discharge Criteria. However, based on the results for TSS, groundwater does not meet NYCDEP Sewer Discharge Criteria and may require pre-treatment prior to discharge. Refer to Table 9 for a summary of selected NYCDEP parameters in groundwater.

5.0 CONCLUSIONS AND RECOMMENDATIONS

Based on the evaluation of the field screening data and the laboratory analytical results, and a comparison to applicable regulatory standards, the following conclusions are presented:

- Field screening identified evidence of petroleum-impacted soils in the Corridor. Soil borings SB-04 from 5 to 10 ft. bgs and SB-11 from 15 to 20 ft. bgs exhibited petroleum odors and detectable levels with the PID ranging from 168 to 178 ppm during the screening. Petroleum odors were not detected in any other soil borings.
- Groundwater was encountered in nine (9) of the 16 completed borings, ranging from 12.5 ft. bgs in SB-03 to 18.5 ft. bgs within SB-07.
- Laboratory analytical results identified acetone in soils within numerous portions of the Corridor. However, acetone is a common laboratory compound which could be evidence cross-contamination during sample analysis. The VOCs Isopropylbenzene, n-Butylbenzene, n-Propylbenzene and sec-Butylbenzene were detected in two (2) of the 15 composite samples collected at concentrations below the Unrestricted Use (Track 1) and Restricted Use (Track 2) SCOs and/or CP-51 SCLs. SVOCs were detected in six (6) of the 15 composite samples collected at concentrations below the Unrestricted Use (Track 1) and Restricted Use (Track 2) SCOs and/or CP-51 SCLs.
- Laboratory analytical results identified the presence of iron in all 15 samples at concentrations above the CP-51 SCL. Additional elevated concentrations of metals, including barium, copper, chromium, lead, mercury, nickel and zinc, were detected in six (6) composite samples above the Unrestricted Use (Track 1) and/or Restricted (Track 2) SCO in the subsurface soils (i.e., in the area of SB-02, SB-12, SB-16, SB-17, SB-19 and SB-20). Pesticides including 4,4-DDE and 4,4-DDT were detected in three (3) of the 15 composite samples (SB-02, SB-17 and SB-19) at a concentration that exceeds the Unrestricted Use (Track 1) SCO. Herbicides and PCBs were not detected in the 15 composite samples collected. The elevated metal and pesticides may be attributed to: (a) residuals from releases of petroleum products from the "High" and "Moderate" risk sites identified on and within the vicinity of the Corridor; (b) residuals from pesticide use on the Corridor; (c) contaminants in historic fill material placed on the Corridor; and, (d) natural background levels (metals);
- The subsurface soils did not exhibit hazardous waste characteristics;
- A groundwater sample contained concentrations of TSS that exceeded the NYCDEP Sewer Discharge Criteria. The presence of elevated levels of TSS in the groundwater is attributed to the fact that an unfiltered sample was collected from a TWP. However, the groundwater samples collected from TWPs are considered to be representative of conditions to be encountered during construction activities.

Based on the results of the field investigation and laboratory analytical results, LiRo recommends the following:

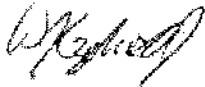
- The Contract documents should also identify provisions for managing, handling, transporting, and disposing of non-hazardous contaminated soil and a contingency plan for non-hazardous petroleum-impacted soils, if encountered anywhere else in the Corridor. The Contractor should be required to submit a Material Handling Plan, to identify the specific protocol and procedures that will be employed to manage the waste in accordance with applicable regulations;

- Due to the potential presence of chromium, iron, barium, copper, chromium, lead, mercury, nickel and zinc within the proposed Corridor, dust control mitigation procedures are recommended during excavation activities to minimize the production and dispersion of fugitive airborne dust. The Contractor to minimize the release of potential airborne contaminants as a direct result of construction activities should develop and implement a Community Air Monitoring Plan (CAMP). The CAMP shall be developed in accordance with NYSDEC DER-10 Requirements. The CAMP requires real-time monitoring for VOCs and particulates (i.e., dust) at the downwind perimeter of each designated work area when certain construction activities are in progress at contaminated sites. The CAMP is intended to provide a measure of protection for the surrounding community located downwind from potential airborne contaminant releases as a direct result of investigative and remedial work activities. Specific requirements shall be reviewed for each situation in consultation with New York State Department of Health (NYSDOH) to ensure proper applicability;
- Dewatering may be necessary during construction activities within the Corridor. Since TSS was detected in groundwater samples at concentrations exceeding the NYCDEP Sewer Discharge Limitations, groundwater may require pre-treatment prior to discharge. Therefore, should dewatering be necessary during construction activities within the Corridor to a sanitary or combined sewer, the contractor should be required to obtain NYCDEP sewer discharge permit;
- In addition, if discharge into storm sewers is required during dewatering, it may be done under the appropriate NYSDEC State Pollutant Discharge Elimination System (SPDES) permit. Additional sampling and laboratory analysis may be required to satisfy NYSDEC requirements prior to discharge into storm sewers; and,
- Before beginning any excavation activity, the contractor shall submit a site-specific health and safety plan (HASP) that will meet the requirements set forth by the Occupational, Safety, and Health Administration (OSHA), the NYSDOH, and any other applicable regulations. The HASP should identify the possible locations along the Corridor and risks associated with the potential contaminants that may be encountered, and the administrative and engineering controls that will be utilized to mitigate environmental concerns (i.e., dust control procedures for metals and pesticides).

6.0 STATEMENT OF LIMITATIONS

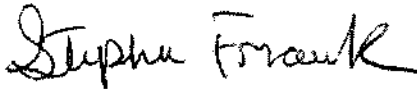
The data presented and the opinions expressed in this report are qualified as stated in the attachment to this section of the report.

Report Prepared By:



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Report Reviewed By:



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Report Reviewed By:



Robert Kreuzer
Project Manager

STATEMENT OF LIMITATIONS

The data presented and the opinions expressed in this report are qualified as follows:

The sole purpose of the investigation and of this report is to assess the physical characteristics of the Site with respect to the presence or absence in the environment of oil or hazardous materials and substances as defined in the applicable state and federal environmental laws and regulations and to gather information regarding current and past environmental conditions at the Site.

LiRo derived the data in this report primarily from visual inspections, examination of records in the public domain, interviews with individuals with information about the Site, and a limited number of subsurface explorations made on the dates indicated. The passage of time, manifestation of latent conditions or occurrence of future events may require further exploration at the Site, analysis of the data, and reevaluation of the findings, observations, and conclusions expressed in the report.

In preparing this report, LiRo has relied upon and presumed accurate certain information (or the absence thereof) about the Site and adjacent properties provided by governmental officials and agencies, the Client, and others identified herein. Except as otherwise stated in the report, LiRo has not attempted to verify the accuracy or completeness of any such information.

The data reported and the findings, observations, and conclusions expressed in the report are limited by the Scope of Services, including the extent of subsurface exploration and other tests. The Scope of Services was defined by the requests of the Client, the time and budgetary constraints imposed by the Client, and the availability of access to the Site.

Because of the limitations stated above, the findings, observations, and conclusions expressed by LiRo in this report are not, and should not be considered, an opinion concerning the compliance of any past or present owner or operator of the site with any federal, state or local law or regulation. No warranty or guarantee, whether express or implied, is made with respect to the data reported or findings, observations, and conclusions expressed in this report. Further, such data, findings, observations, and conclusions are based solely upon site conditions in existence at the time of investigation.

This report has been prepared on behalf of and for the exclusive use of the Client, and is subject to and issued in connection with the Agreement and the provisions thereof.

TABLES

TABLE 1 – SUMMARY OF ENVIRONMENTAL BORING DATA

TABLE 2 – SUMMARY OF TCL VOCs DETECTED IN SOIL

TABLE 3 – SUMMARY OF TCL SVOCs DETECTED IN SOIL

TABLE 4 – SUMMARY OF TAL METALS DETECTED IN SOIL

TABLE 5 – SUMMARY OF PESTICIDES DETECTED IN SOIL

TABLE 6 – SUMMARY OF HERBICIDES DETECTED IN SOIL

TABLE 7 – SUMMARY OF PCBs DETECTED IN SOIL

TABLE 8 – SUMMARY OF WASTE CHARACTERIZATION IN SOIL

TABLE 9 – GROUNDWATER QUALITY

**Table 1. Summary of Environmental Boring Data
 Phase II Subsurface Corridor Investigation for Trunk Water Mains
 in W. 30th Street - Chelsea Section, Manhattan, NY**

Boring No.	Sample ID	PID (ppm)	Sample Interval (ft bgs)	Total VOCs (ug/kg)	Total SVOCs (ug/kg)	Metals Exceed (Yes/No) ¹	Total Pesticide (ug/kg)	Herbicides Exceed (ug/kg)	Total PCBs (ug/kg)	Depth to Water (ft bgs)	Total Depth (ft bgs)	Other Comments
SB-02	W30th SB-02-7.5'-8'	0	7.5-8.0	280	NA	NA	NA	NA	NA	NA	8.0	No petroleum odors or elevated PID readings.
	W30th SB-02-0'-8'		Composite	NA	2370	Yes	Yes	ND	ND			
SB-03	W30th SB-03-11.5'-12'	0	11.5-12.0	ND	NA	NA	NA	NA	NA	12.5	20.0	No petroleum odors or elevated PID readings.
	W30th SB-03-0'-20'		Composite	NA	ND	Yes	ND	ND	ND			
SB-04	W30th SB-04-9.5'-10'	168	9.5-10.0	1560	NA	NA	NA	NA	NA	13.0	20.0	Petroleum odors and elevated PID readings detected. Temporary well point installed (SB/TW-04).
	W30th SB-04-0'-20'		Composite	NA	ND	Yes	ND	ND	ND			
SB-05	W30th SB-05-14'-14.5'	0	14.0-14.5	270	NA	NA	NA	NA	NA	14.0	20.0	No petroleum odors or elevated PID readings.
	W30th SB-05-0'-20'		Composite	NA	ND	Yes	ND	ND	ND			
SB-07	W30th SB-07-18'-18.5'	0	18.0-18.5	1100	NA	NA	NA	NA	NA	18.5	20.0	Petroleum odors and elevated PID readings detected. Temporary well point installed (SB/TW-07).
	W30th SB-07-0'-20'		Composite	NA	ND	Yes	ND	ND	ND			
SB-08	W30th SB-08-6.5'-7'	0	6.5-7.0	200	NA	NA	NA	NA	NA	NA	7.0	No petroleum odors or elevated PID readings.
	W30th SB-08-0'-7'		Composite	NA	ND	Yes	ND	ND	ND			
SB-09	W30th SB-09-11.5'-12'	0	11.5-12.0	ND	NA	NA	NA	NA	NA	12.5	20.0	No petroleum odors or elevated PID readings.
	W30th SB-09-0'-20'		Composite	NA	ND	Yes	ND	ND	ND			
SB-10	W30th SB-10-12'-12.5'	0	12.0-12.5	ND	NA	NA	NA	NA	NA	13.0	20.0	No petroleum odors or elevated PID readings.
	W30th SB-10-0'-20'		Composite	NA	ND	Yes	ND	ND	ND			
SB-11	W30th SB-11-18.5'-19'	178	18.5-19.0	1230	NA	NA	NA	NA	NA	NA	20.0	Petroleum odors and elevated PID readings detected.
	W30th SB-11-0'-20'		Composite	NA	300	Yes	ND	ND	ND			
SB-12	W30th SB-12-6.5'-7'	0	6.5-7.0	ND	NA	NA	NA	NA	NA	NA	7.0	No petroleum odors or elevated PID readings.
	W30th SB-12-0'-7'		Composite	NA	ND	Yes	ND	ND	ND			
SB-14	W30th SB-14-14.5'-15'	0	14.5-15.0	ND	NA	NA	NA	NA	NA	15.0	20.0	No petroleum odors or elevated PID readings.
	W30th SB-14-0'-20'		Composite	NA	400	Yes	ND	ND	ND			
SB-16	W30th SB-16-7.5'-8'	0	7.5-8.0	230	NA	NA	NA	NA	NA	NA	8.0	No petroleum odors or elevated PID readings.
	W30th SB-16-0'-8'		Composite	NA	ND	Yes	ND	ND	ND			
SB-17	W30th SB-17-3.5'-4'	0	3.5-4.0	510	NA	NA	NA	NA	NA	NA	4.0	No petroleum odors or elevated PID readings.
	W30th SB-17-0'-4'		Composite	NA	5200	Yes	Yes	ND	ND			
SB-19	W30th SB-19-17.5'-18'	0	17.5-18.0	480	NA	NA	NA	NA	NA	18.0	20.0	No petroleum odors or elevated PID readings.
	W30th SB-19-0'-20'		Composite	NA	2880	Yes	Yes	ND	ND			
SB-20	W30th SB-20-12.5'-13'	0	12.5-13.0	290	NA	NA	NA	NA	NA	15.0	14.0	No petroleum odors or elevated PID readings.
	W30th SB-20-0'-14'		Composite	NA	5460	Yes	ND	ND	ND			
SB-22	NA	0	NA	NA	NA	NA	NA	NA	NA	18.0	20.0	No petroleum odors or elevated PID readings.
	NA		NA	NA	NA	NA	NA	NA	NA			

A5-64

Notes:
 1. Metals exceed CP-51 SCLs/SCLs, Unrestricted Use (Track 1) SCOs, and/or Restricted Residential Use (Track 2) SCOs.
 All soil samples were analyzed for Target Compound List (TCL) Semi-Volatile Organic Compounds (SVOCs), Pesticides, PCBs, Herbicides, and Target Analyte List (TAL) Metals.
 ppm = parts per million
 ug/kg = microgram per kilogram
 ft bgs = feet below grade surface
 NA = Not Analyzed/Not Applicable
 ND = Non detect

Table 2. Summary of Target Compound List (TCL) Volatile Organic Compounds (VOCs) Detected in Soil
 Phase II Subsurface Corridor Investigation for Trunk Water Mains
 In W. 30th Street - Chelsea Section, Manhattan, NY

TCL VOC	Part 375-6.8 (a) Unrestricted Use (Track 1) Soil Cleanup Objectives (SCOs)	Part 375-6.8 (b) Restricted Use (Track 2) Residential Soil Cleanup Objectives (SCOs)	CP-51 Soil Cleanup Levels (SCLs) - Residential	Sample ID, Date Collect, and Depth (ft bgs)													
				W30th SB-02- 7.5'-8' 10/23/2013	W30th SB-03- 11.5'-12' 10/22/2013	W30th SB-04- 9.5'-10' 10/24/2013	W30th SB-05- 14'-14.5' 10/24/2013	W30th SB-07- 18'-18.5' 10/24/2013	W30th SB-08- 6.5'-7' 10/24/2013	W30th SB-09- 11.5'-12' 10/22/2013	W30th SB-10- 12'-12.5' 10/22/2013						
Acetone	50	100,000	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Isopropylbenzene	NS	NS	100,000	ND	ND	300	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
n-Butylbenzene	12,000	NS	NS	ND	ND	290	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
n-Propylbenzene	3,900	100,000	NS	ND	ND	430	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
sec-Butylbenzene	11,000	100,000	NS	ND	ND	540	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total VOCs	NS	NS	NS	280	ND	1560	270	1100	200	200	ND	ND	ND	ND	ND	ND	ND

Notes:
 All concentrations are reported in parts per billion (ppb or ug/kg)
 ft bgs = feet below grade surface
 NS = No Standard

ND = Compound not detected above method detection limit (see attached lab report for mdl's)
 SCOs = Soil Cleanup Objectives as per the NYSDEC Regulations 6 NYCRR Subpart 375-6 Remedial Program Soil Cleanup Objectives (December 14, 2006).
 CP-51 SCLs = New York State Department of Environmental Conservation (NYSDEC) CP-51 - Soil Cleanup Guidance (October 21, 2010).

BOLD = Concentration exceeds NYSDEC CP-51 SCLs
 Italicized = Concentration exceeds Unrestricted Use (Track 1) Soil Cleanup Objectives
 Underlined = Concentration exceeds Restricted Use (Track 2) Residential Soil Cleanup Objectives

A5-65



Table 2. Summary of Target Compound List (TCL) Volatile Organic Compounds (VOCs) Detected in Soil
Phase II Subsurface Corridor Investigation for Trunk Water Mains
In W. 30th Street - Chelsea Section, Manhattan, NY

TCL VOC	Part 375-6.8 (a) Unrestricted Use (Track 1) Soil Cleanup Objectives (SCOs)	Part 375-6.8 (b) Restricted Use (Track 2) Residential Soil Cleanup Objectives (SCOs)	Sample ID, Date Collect, and Depth (ft bgs)														
			CP-51 Soil Cleanup Levels (SCLs) - Residential	W30th SB-11- 18.5'-19' 10/23/2013	W30th SB-12- 6.5'-7' 10/22/2013	W30th SB-14- 14.5'-15' 10/22/2013	W30th SB-16- 7.5'-8' 10/24/2013	W30th SB-17- 3.5'-4' 10/18/2013	W30th SB-19- 17.5'-18' 10/24/2013	W30th SB-20- 12.5'-13' 10/23/2013	W30th SB-19- 17.5'-18.0	W30th SB-20- 12.5'-13.0					
Acetone	50	100,000	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
n-Butylbenzene	12,000	NS	NS	640	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
n-Propylbenzene	3,900	100,000	NS	240	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
sec-Butylbenzene	11,000	100,000	NS	350	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total VOCs	NS	NS	NS	1230	ND	ND	ND	230	510	480	290						

Notes:

All concentrations are reported in parts per billion (ppb or ug/kg)

ft bgs = feet below grade surface

NS = No Standard

ND = Compound not detected above method detection limit (see attached lab report for mdl's)

SCOs = Soil Cleanup Objectives as per the NYSDEC Regulations 6 NYCRR Subpart 375-6 Remedial Program Soil Cleanup Objectives (December CP-51 SCLs = New York State Department of Environmental Conservation (NYSDEC) CP-51 -- Soil Cleanup Guidance (CP-51) (October 21, 2010).

BOLD = Concentration exceeds NYSDEC CP-51 SCLs

Strikethrough = Concentration exceeds Unrestricted Use (Track 1) Soil Cleanup Objectives

Italicized = Concentration exceeds Restricted Use (Track 2) Residential Soil Cleanup Objectives

A5 '66



Table 3. Summary of Target Compound List (TCL) Semi-Volatile Organic Compounds (SVOCs) Detected in Soil
 Phase II Subsurface Corridor Investigation for Trunk Water Mains
 in W. 30th Street - Chelsea Section, Manhattan, NY

TCL SVOC	Part 375-6.8 (a) Unrestricted Use (Track 1) Soil Cleanup Objectives (SCOs)	Part 375-6.8 (b) Restricted Use (Track 2) Residential Soil Cleanup Objectives (SCOs)	CP-51 Soil Cleanup Levels (SCLs) - Residential	Sample ID, Date Collect, and Depth (ft bgs)									
				W30th SB-11- 0'-20'	W30th SB-12- 0'-7'	W30th SB-14- 0'-20'	W30th SB-16- 0'-8'	W30th SB-17- 0'-4'	W30th SB-19- 0'-20'	W30th SB-20- 0'-14'			
				10/23/2013 Composite	10/22/2013 Composite	10/22/2013 Composite	10/24/2013 Composite	10/18/2013 Composite	10/24/2013 Composite	10/23/2013 Composite			
Benzof(a)anthracene	1,000	1,000	NS	ND	ND	ND	ND	460	260	490			
Benzof(a)pyrene	1,000	1,000	NS	ND	ND	ND	450	280	510				
Benzo(b)fluoranthene	1,000	1,000	NS	ND	ND	ND	480	300	550				
Benzo(g,h,i)perylene	100,000	100,000	NS	ND	ND	ND	270	ND	ND				
Benzo(k)fluoranthene	800	1,000	NS	ND	ND	ND	470	270	510				
Chrysene	1,000	1,000	NS	ND	ND	ND	460	250	550				
Fluoranthene	100,000	100,000	NS	ND	400	ND	1200	640	1100				
Indeno(1,2,3- cd)pyrene	500	500	NS	ND	ND	ND	290	210	290				
Phenanthrene	100,000	100,000	NS	300	ND	ND	540	230	470				
Pyrene	100,000	100,000	NS	ND	ND	ND	590	440	720				
Total SVOCs	NS	NS	NS	300	ND	400	5200	2880	5460				

Notes:

All concentrations are reported in parts per billion (ppb or ug/kg)

ft bgs = feet below grade surface

NS = No Standard

ND = Compound not detected above method detection limit (see attached lab report for mdl's)

SCOs = Soil Cleanup Objectives as per the NYSDEC Regulations 6 NYCRR Subpart 375-6 Remedial Program Soil Cleanup Objectives

CP-51 SCLs = New York State Department of Environmental Conservation (NYSDEC) CP-51 - Soil Cleanup Guidance (CP-51) (October

BOLD = Concentration exceeds NYSDEC CP-51 SCLs

Italicized = Concentration exceeds Unrestricted Use (Track 1) Soil Cleanup Objectives

Underlined = Concentration exceeds Restricted Use (Track 2) Residential Soil Cleanup Objectives

AS 788

Table 4. Summary of Target Analyte List (TAL) Metals Detected in Soil
Phase II Subsurface Corridor Investigation for Trunk Water Mains
in W. 30th Street - Chelsea Section, Manhattan, NY

Target Analyte List Metal	Part 375-6.8 (a) Unrestricted Use (Track 1) Soil Cleanup Objectives (SCOs)	Part 375-6.8 (b) Restricted Use (Track 2) Residential Soil Cleanup Objectives (SCOs)	CP-51 Soil Cleanup Levels (SCLs) - Residential	Sample ID, Date Collect, and Depth (ft bgs)											
				W30th SB-02 0'-8'	W30th SB-03 0'-20'	W30th SB-04 0'-20'	W30th SB-05 0'-20'	W30th SB-07 0'-20'	W30th SB-08 0'-7'	W30th SB-09 0'-20'	W30th SB-10 0'-20'	Composite	Composite	Composite	Composite
Aluminum	NS	NS	NS	10/23/2013 12,000	10/22/2013 8,100	10/24/2013 6,300	10/24/2013 7,700	10/24/2013 11,000	10/24/2013 7,200	10/24/2013 7,200	10/22/2013 5,500	10/22/2013 5,300			
Barium	350	360	NS	95	51	43	65	110	61	53	49				
Beryllium	7.2	14	NS	0.34	ND	ND	ND	ND	ND	ND	ND				
Calcium	NS	NS	NS	5,300	5,600	1,600	1,600	1,800	1,700	2,200	3,100				
Chromium (total)	30	36	NS	20	15	28	20	25	13	17	16				
Cobalt	NS	NS	30	12	6.8	4.5	6.9	8.4	5.3	6.5	5.4				
Copper	50	270	NS	13	13	9.8	16	17	12	12	15				
Iron	NS	NS	2,000	17,000	14,000	9,900	13,000	16,000	14,000	12,000	11,000				
Lead	63	400	NS	11.0	11.0	9.8	9.0	7.7	11.0	9.0	20				
Magnesium	NS	NS	NS	3,300	3,000	1,900	2,600	3,300	2,200	2,700	3,000				
Manganese	1,600	2,000	NS	340	400	240	200	320	790	290	300				
Mercury	0.18	0.81	NS	ND	ND	ND	ND	ND	ND	0.044	0.050				
Nickel	30	140	NS	27	16	11	19	18	11	30	14				
Potassium	NS	NS	NS	2,000	1,500	910	1,400	2,000	880	1,900	1,500				
Sodium	NS	NS	NS	360	400	490	460	240	160	260	220				
Vanadium	NS	NS	100	29	21	16	22	22	18	18	19				
Zinc	109	2,200	NS	36	36	22	27	32	27	26	31				

Notes:

All concentrations are in parts per million (ppm or mg/kg)

ft bgs = feet below grade surface

NS = No Standard

ND = Compound not detected above method detection limit (see attached lab report for md's)

SCOs = Soil Cleanup Objectives as per the NYSDEC Regulations 6 NYCRR Subpart 375-6 Remedial Program Soil Cleanup Objectives (December 14, 2006).

CP-51 SCLs = New York State Department of Environmental Conservation (NYSDEC) CP-51 - Soil Cleanup Guidance (CP-51) (October 21, 2010).

BOLD = Concentration exceeds NYSDEC CP-51 SCLs

Shaded = Concentration exceeds Unrestricted Use (Track 1) Soil Cleanup Objectives

italicized = Concentration exceeds Restricted Use (Track 2) Residential Soil Cleanup Objectives



Table 4. Summary of Target Analyte List (TAL) Metals Detected in Soil
Phase II Subsurface Corridor Investigation for Trunk Water Mains
in W. 30th Street - Chelsea Section, Manhattan, NY

Target Analyte List Metal	Part 375-6.8 (a) Unrestricted Use (Track 1) Soil Cleanup Objectives (SCOs)	Part 375-6.8 (b) Restricted Use (Track 2) Residential Soil Cleanup Objectives (SCOs)	CP-51 Soil Cleanup Levels (SCLs) - Residential	Sample ID, Date Collect, and Depth (ft bgs)									
				W30th SB-11	W30th SB-12	W30th SB-14	W30th SB-16	W30th SB-17	W30th SB-19	W30th SB-20	Composite	Composite	Composite
				10/23/2013 0'-20"	10/22/2013 0'-7"	10/22/2013 0'-20"	10/24/2013 0'-9"	10/18/2013 0'-4"	10/24/2013 0'-20"	10/23/2013 0'-14"			
Aluminum	NS	NS	NS	7,400	5,400	4,800	12,000	11,000	8,300	9,600			
Barium	350	350	NS	37	69	38	130	100	600	600			
Beryllium	7.2	14	NS	ND	0.29	ND	ND	ND	ND	ND			
Cadmium	2.5	2.5	NS	ND	ND	ND	0.35	0.41	1.4	ND			
Calcium	NS	NS	NS	15,000	6,900	5,800	3,900	5,000	29,000	20,000			
Chromium (total)	30	36	NS	12	12	12	24	21	21	16			
Cobalt	NS	NS	30	4.4	8.5	4.4	11	9.8	4.0	6.4			
Copper	50	270	NS	12	13	9.8	30	33	34	24			
Iron	NS	NS	2,000	9,700	14,000	10,000	27,000	18,000	12,000	13,000			
Lead	63	400	NS	35	20	13	100	100	100	300			
Magnesium	NS	NS	NS	8,000	3,400	2,200	5,600	3,600	3,600	3,000			
Manganese	1,600	2,000	NS	220	1200	120	600	410	320	290			
Mercury	0.18	0.81	NS	0.075	0.037	ND	ND	0.07	0.09	0.09			
Nickel	30	140	NS	11	12	12	27	19	17	16			
Potassium	NS	NS	NS	1,000	1,600	1,000	6,600	2,900	1,600	1,400			
Sodium	NS	NS	NS	530	660	200	190	300	880	260			
Vanadium	NS	NS	100	20	20	18	28	31	27	22			
Zinc	109	2,200	NS	29	30	25	97	83	60	270			

Notes:

All concentrations are in parts per million (ppm or mg/kg)

ft bgs = feet below grade surface

NS = No Standard

ND = Compound not detected above method detection limit (see attached lab report for md/l's)

* = Duplicate analysis not within control limits

SCOs = Soil Cleanup Objectives as per the NYSDEC Regulations 6 NYCRR Subpart 375-6 Remedial Program Soil Cleanup Objectives (December 14, 2006).

CP-51 SCLs = New York State Department of Environmental Conservation (NYSDEC) CP-51 - Soil Cleanup Guidance (CP-51) (October 21, 2010).

BOLD = Concentration exceeds NYSDEC CP-51 SCLs

Shading = Concentration exceeds Unrestricted Use (Track 1) Soil Cleanup Objectives

Italicized = Concentration exceeds Restricted Use (Track 2) Residential Soil Cleanup Objectives

AS-70

Table 5. Summary of Pesticides Detected in Soil
Phase II Subsurface Corridor Investigation for Trunk Water Mains
in W. 30th Street - Chelsea Section, Manhattan, NY

Pesticides	Part 375-6.8 (a) Unrestricted Use (Track 1) Soil Cleanup Objectives (SCOs)	Part 375-6.8 (b) Restricted Use (Track 2) Residential Soil Cleanup Objectives (SCOs)	CP-51 Soil Cleanup Levels (SCLs) - Residential	Sample ID, Date Collect, and Depth (ft bgs)													
				W30th SB-02 10/23/2013 Composite	W30th SB-03 10/22/2013 Composite	W30th SB-04 10/24/2013 Composite	W30th SB-05 10/24/2013 Composite	W30th SB-07 10/24/2013 Composite	W30th SB-08 10/24/2013 Composite	W30th SB-09 10/22/2013 Composite	W30th SB-10 10/22/2013 Composite						
4,4'-DDE	3.3	1,800	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4,4'-DDT	3.3	1,700	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dieldrin	5	39	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Pesticides	NS	NS	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Notes:

All concentrations are reported in parts per billion (ppb or ug/kg)

ft bgs = feet below grade surface

NS = No Standard

ND = Compound not detected above method detection limit (see attached lab report for mdl's)

SCOs = Soil Cleanup Objectives as per the NYSDEC Regulations 6 NYCRR Subpart 375-6 Remedial Program Soil Cleanup Objectives (December 14, 2006).

CP-51 SCLs = New York State Department of Environmental Conservation (NYSDEC) CP-51 - Soil Cleanup Guidance (CP-51) (October 21, 2010).

BOLD = Concentration exceeds NYSDEC CP-51 SCLs

Shading = Concentration exceeds Unrestricted Use (Track 1) Soil Cleanup Objectives

Italicized = Concentration exceeds Restricted Use (Track 2) Residential Soil Cleanup Objectives

AS-71



Table 5. Summary of Pesticides Detected in Soil
 Phase II Subsurface Corridor Investigation for Trunk Water Mains
 in W. 30th Street - Chelsea Section, Manhattan, NY

Pesticides	Part 375-6.8 (a) Unrestricted Use (Track 1) Soil Cleanup Objectives (SCOs)	Part 375-6.8 (b) Restricted Use (Track 2) Residential Soil Cleanup Objectives (SCOs)	CP-51 Soil Cleanup Levels (SCLs) - Residential	Sample ID, Date Collect, and Depth (ft bgs)												
				W30th SB-11 0'-20" Composite	W30th SB-11 0'-7" Composite	W30th SB-12 10/22/2013 Composite	W30th SB-12 0'-7" Composite	W30th SB-14 10/22/2013 Composite	W30th SB-14 0'-20" Composite	W30th SB-16 10/24/2013 Composite	W30th SB-16 0'-8" Composite	W30th SB-17 10/18/2013 Composite	W30th SB-17 0'-4" Composite	W30th SB-19 10/24/2013 Composite	W30th SB-19 0'-20" Composite	W30th SB-20 10/23/2013 Composite
4,4'-DDE	3.3	1,800	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4,4'-DDT	3.3	1,700	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dieldrin	5	39	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Pesticides	NS	NS	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Notes:

All concentrations are reported in parts per billion (ppb or ug/kg)

ft bgs = feet below grade surface

NS = No Standard

ND = Compound not detected above method detection limit (see attached lab report for mdl's)

SCOs = Soil Cleanup Objectives as per the NYSDEC Regulations 6 NYCRR Subpart 375-6 Remedial Program Soil Cleanup Objectives (December 14, 2006).

CP-51 SCLs = New York State Department of Environmental Conservation (NYSDEC) CP-51 - Soil Cleanup Guidance (CP-51) (October 21, 2010).

BOLD = Concentration exceeds NYSDEC CP-51 SCLs

Shading = Concentration exceeds Unrestricted Use (Track 1) Soil Cleanup Objectives

Italicized = Concentration exceeds Restricted Use (Track 2) Residential Soil Cleanup Objectives

AS-72

Table 6. Summary of Herbicides Detected in Soil
Phase II Subsurface Corridor Investigation for Trunk Water Mains
in W. 30th Street - Chelsea Section, Manhattan, NY

Herbicides	Part 375-6.8 (a) Unrestricted Use (Track 1) Soil Cleanup Objectives (SCOs)	Part 375-6.8 (b) Restricted Use (Track 2) Residential Soil Cleanup Objectives (SCOs)	CP-51 Soil Cleanup Levels (SCLs) - Residential	Sample ID, Date Collect, and Depth (ft bgs)									
				W30th SB-02 0'-8' 10/23/2013 Composite ND	W30th SB-03 0'-20' 10/22/2013 Composite ND	W30th SB-04 0'-20' 10/24/2013 Composite ND	W30th SB-05 0'-20' 10/24/2013 Composite ND	W30th SB-07 0'-20' 10/24/2013 Composite ND	W30th SB-08 0'-7' 10/24/2013 Composite ND	W30th SB-09 0'-20' 10/22/2013 Composite ND	W30th SB-10 0'-20' 10/22/2013 Composite ND		
Herbicides	NS	NS	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Notes:
All concentrations are reported in parts per billion (ppb or ug/kg)
ft bgs = feet below grade surface
NS = No Standard
ND = Compound not detected above method detection limit (see attached lab report for mdl's)
SCOs = Soil Cleanup Objectives as per the NYSDEC Regulations 6 NYCRR Subpart 375-6 Remedial Program Soil Cleanup Objectives (December 14, 2006).
CP-51 SCLs = New York State Department of Environmental Conservation (NYSDEC) CP-51 - Soil Cleanup Guidance (CP-51) (October 21,

BOLD = Concentration exceeds NYSDEC CP-51 SCLs
Shaded = Concentration exceeds Unrestricted Use (Track 1) Soil Cleanup Objectives
Italicized = Concentration exceeds Restricted Use (Track 2) Residential Soil Cleanup Objectives

A5-73



**Table 6. Summary of Herbicides Detected in Soil
Phase II Subsurface Corridor Investigation for Trunk Water Mains
in W. 30th Street - Chelsea Section, Manhattan, NY**

Herbicides	Part 375-6.8 (a) Unrestricted Use (Track 1) Soil Cleanup Objectives (SCOs)		Part 375-6.8 (b) Restricted Use (Track 2) Residential Soil Cleanup Objectives (SCOs)		CP-51 Soil Cleanup Levels (SCLs) - Residential		Sample ID, Date Collect, and Depth (ft bgs)												
	NS	NS	NS	NS	NS	NS	W30th SB-11 0'-20' Composite ND	W30th SB-11 0'-7' Composite ND	W30th SB-12 10/22/2013 Composite ND	W30th SB-12 0'-20' Composite ND	W30th SB-14 10/22/2013 Composite ND	W30th SB-14 0'-8' Composite ND	W30th SB-16 10/24/2013 Composite ND	W30th SB-16 0'-4' Composite ND	W30th SB-17 10/18/2013 Composite ND	W30th SB-17 0'-20' Composite ND	W30th SB-19 10/24/2013 Composite ND	W30th SB-20 0'-14' Composite ND	

Notes:

All concentrations are reported in parts per billion (ppb or ug/kg)

ft bgs = feet below grade surface

NS = No Standard

ND = Compound not detected above method detection limit (see attached lab report for mdi's)

SCOs = Soil Cleanup Objectives as per the NYSDEC Regulations 6 NYCRR Subpart 375-6 Remedial Program Soil Cleanup Objectives (December 14, 2006).

CP-51 SCLs = New York State Department of Environmental Conservation (NYSDEC) CP-51 - Soil Cleanup Guidance (CP-51) (October 21,

BOLD = Concentration exceeds NYSDEC CP-51 SCLs

Shading = Concentration exceeds Unrestricted Use (Track 1) Soil Cleanup Objectives

italicized = Concentration exceeds Restricted Use (Track 2) Residential Soil Cleanup Objectives

A574

Table 7. Summary of Polychlorinated Biphenyls (PCBs) Detected in Soil
Phase II Subsurface Corridor Investigation for Trunk Water Mains
in W. 30th Street - Chelsea Section, Manhattan, NY

PCBs	Part 375-6.8 (a) Unrestricted Use (Track 1) Soil Cleanup Objectives (SCOs)	Part 375-6.8 (b) Restricted Use (Track 2) Residential Soil Cleanup Objectives (SCOs)	CP-51 Soil Cleanup Levels (SCLs) - Residential	Sample ID, Date Collect, and Depth (ft bgs)												
				W30th SB-02 0'-8" 10/23/2013 Composite	W30th SB-03 0'-20" 10/22/2013 Composite	W30th SB-04 0'-20" 10/24/2013 Composite	W30th SB-05 0'-20" 10/24/2013 Composite	W30th SB-07 0'-20" 10/24/2013 Composite	W30th SB-08 0'-7" 10/24/2013 Composite	W30th SB-09 0'-20" 10/22/2013 Composite	W30th SB-10 0'-20" 10/22/2013 Composite	W30th SB-11 0'-20" 10/22/2013 Composite	W30th SB-12 0'-20" 10/22/2013 Composite			
Total PCBs	100	1,000	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Notes:

All concentrations are reported in parts per billion (ppb or ug/kg)

ft bgs = feet below grade surface

NS = No Standard

ND = Compound not detected above method detection limit (see attached lab report for mdl's)

SCOs = Soil Cleanup Objectives as per the NYSDEC Regulations 6 NYCRR Subpart 375-6 Remedial Program Soil Cleanup Objectives (December 14, 2006).

CP-51 SCLs = New York State Department of Environmental Conservation (NYSDEC) CP-51 - Soil Cleanup Guidance (CP-51) (October 21,

BOLD = Concentration exceeds NYSDEC CP-51 SCLs

Shaded = Concentration exceeds Unrestricted Use (Track 1) Soil Cleanup Objectives

Italicized = Concentration exceeds Restricted Use (Track 2) Residential Soil Cleanup Objectives

A5-75



Table 7. Summary of Polychlorinated Biphenyls (PCBs) Detected in Soil
 Phase II Subsurface Corridor Investigation for Trunk Water Mains
 in W. 30th Street - Chelsea Section, Manhattan, NY

PCBs	Part 375-6.8 (a) Unrestricted Use (Track 1) Soil Cleanup Objectives (SCOs)	Part 375-6.8 (b) Restricted Use (Track 2) Residential Soil Cleanup Objectives (SCOs)	CP-51 Soil Cleanup Levels (SCLs) - Residential	Sample ID, Date Collect, and Depth (ft bgs)										
				W30th SB-11 0'-20" 10/23/2013 Composite	W30th SB-12 0'-7" 10/22/2013 Composite	W30th SB-14 0'-20" 10/22/2013 Composite	W30th SB-16 0'-8" 10/24/2013 Composite	W30th SB-17 0'-4" 10/18/2013 Composite	W30th SB-19 0'-20" 10/24/2013 Composite	W30th SB-20 0'-14" 10/23/2013 Composite	ND	ND	ND	ND
Total PCBs	100	1,000	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Notes:

All concentrations are reported in parts per billion (ppb or ug/kg)

ft bgs = feet below grade surface

NS = No Standard

ND = Compound not detected above method detection limit (see attached lab report for mdl's)

SCOs = Soil Cleanup Objectives as per the NYSDEC Regulations 6 NYCRR Subpart 375-6 Remedial Program Soil Cleanup Objectives (December 14, 2006).

CP-51 SCLs = New York State Department of Environmental Conservation (NYSDEC) CP-51 - Soil Cleanup Guidance (CP-51) (October 21,

BOLD = Concentration exceeds NYSDEC CP-51 SCLs

Shading = Concentration exceeds Unrestricted Use (Track 1) Soil Cleanup Objectives

italicized = Concentration exceeds Restricted Use (Track 2) Residential Soil Cleanup Objectives

A5-76



Table 8. Summary of Waste Characterization in Soil
Phase II Subsurface Corridor Investigation for Trunk Water Mains
in W. 30th Street - Chelsea Section, Manhattan, NY

Parameter	6 NYCRR Part 371 and RCRA Hazardous Waste Limits	Sample ID and Date Collected			
		W30th-WC-1 10/24/2013	W30th-WC-2 10/24/2013	W30th-WC-3 10/24/2013	W30th-WC-4 10/24/2013
VOCs ¹	ug/L	ND	ND	ND	ND
SVOCs ¹	ug/L	ND	ND	ND	ND
Pesticides ¹	ug/L	ND	ND	ND	ND
Herbicides ¹	ug/L	ND	ND	ND	ND
Metals¹	ug/L				
Arsenic	5,000	ND	ND	ND	ND
Barium	100,000	0.70	0.76	0.60	0.65
Cadmium	1,000	ND	0.0065	ND	ND
Chromium	5,000	ND	ND	ND	ND
Lead	5,000	ND	0.44	ND	0.019
Mercury	200.0	ND	ND	ND	ND
Selenium	1,000	ND	ND	ND	ND
Silver	5,000	ND	ND	ND	ND
PCBs¹	ug/L				
Aroclor-1260	NS	0.33	0.37	0.32	0.32
TOXIC PARAMETERS (units)					
Reactivity Sulfide (mg/kg)	500	ND	ND	ND	ND
Reactivity Cyanide (mg/kg)	250	ND	ND	ND	ND
pH (SU)	2-12.5	7.1	9.9	8.0	7.8
Ignitability	>140 °F	No	No	No	No
TPHC Diesel Range Organics (mg/kg)	NS	ND	110	410	30
TPHC Gasoline Range Organics (mg/kg)	NS	ND	ND	6.7	ND

Notes:

- 1 Sample prepared using Total Characteristic Leaching Procedure (TCLP)
- NS = No Standard
- ND = Compound not detected above method detection limit (see attached lab report for mdl's)
- SU = Standard unit
- mg/Kg = milligram per kilogram
- ug/L = microgram per liter
- ug/Kg = microgram per kilogram
- °F = Degrees Fahrenheit

Shading = Concentration exceeds 6 NYCRR Part 371 and RCRA Toxicity Characteristic Regulatory Levels for Hazardous Waste.

AS-77



Table 9. Groundwater Quality
Phase II Subsurface Corridor Investigation for Trunk Water Mains
in W. 30th Street - Chelsea Section, Manhattan, NY

Parameter ¹	NYCDEP Limitations to Sanitary or Combined Sewers		Well ID and Date Collected	
			W30th-SB/TW-04	W30th-SB/TW-07
			10/23/2013	10/24/2013
CBOD ⁴	NS	mg/L	ND	NA
Chloride ⁴	NS	mg/L	770	NA
Flash Point - Liquid/Solid	> 140	°F	>212 ° F	NA
Nitrate+Nitrite	NS	mg/L	ND	NA
Non-Polar Material ²	50	mg/L	ND	NA
pH	5-12	pH	7.3	NA
Phenolics	NS	mg/L	ND	NA
TKN	NS	mg/L	18	NA
Total Nitrogen ⁴	NS	mg/L	18	NA
Total Solids ⁴	NS	mg/L	2,600	NA
Total Suspended Solids (TSS) ³	350	mg/L		NA
Cadmium (instantaneous/composite)	2 / 0.69	mg/L	ND	NA
Chromium Hexavalent (VI)	5	mg/L	ND	NA
Copper	5	mg/L	ND	NA
Lead	2	mg/L	ND	NA
Mercury	0.05	mg/L	ND	NA
Nickel	3	mg/L	ND	NA
Zinc	5	mg/L	0.031	NA
Benzene	134	ug/L	2.9	ND
Carbontetrachloride	NS	ug/L	ND	ND
Chloroform	NS	ug/L	ND	ND
cis-1,2-Dichloroethylene	NS	mg/L	ND	ND
1,4 Dichlorobenzene	NS	ug/L	ND	ND
Ethylbenzene	380	ug/L	4.3	4.4
Methyl-Tert-Butyl-Ether (MTBE)	50	ug/L	ND	ND
Naphthalene	47	ug/L	NA	NA
Tetrachloroethylene (Perc)	20	ug/L	ND	ND
Toluene	74	ug/L	1.7	ND
1,2,4 Trichlorobenzene	NS	ug/L	NA	NA
1,1,1 Trichloroethane	NS	ug/L	ND	ND
Xylenes (Total)	74	ug/L	25.6	26.2
PCBs (Total)	1	ug/L	ND	NA

Notes:

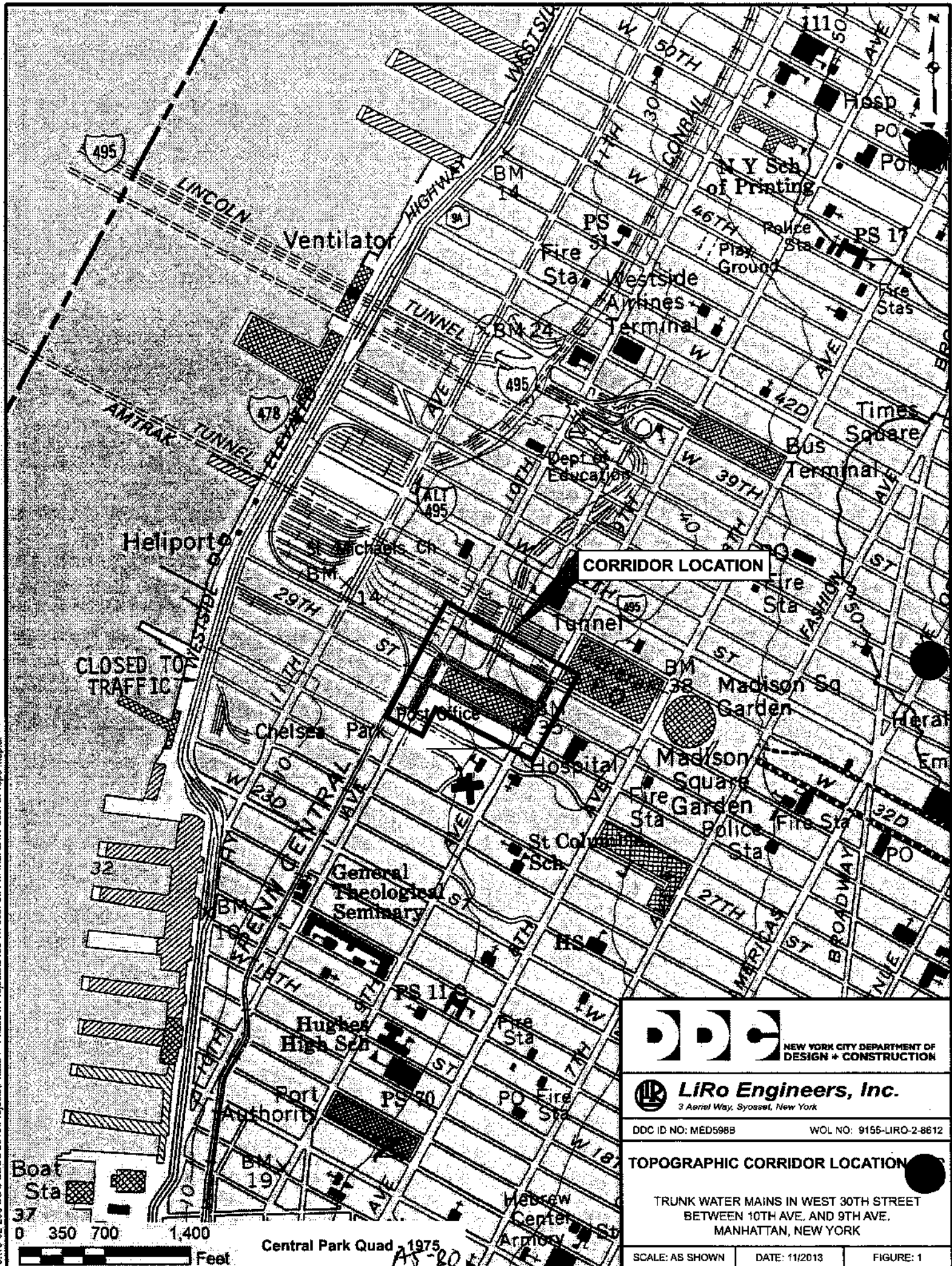
- NA = Not Analyzed (due to limited sample volume)
- NS = No Standard/Not Sampled
- ND = Compound not detected above method detection limit (see attached lab report for mdl's)
- mg/L = milligram per liter
- ug/L = microgram per liter

Shading = Concentration exceeds NYCDEP Limitations for Effluent to Sanitary or Combined Sewers (daily limit).

¹ All handling and preservation of collected samples and laboratory analyses of samples was performed in accordance with 40 CFR
² Analysis for non-polar materials was performed by USEPA method 1664.
³ For discharge >= 10,000 gallons per day (gpd), the TSS limit is 350 mg/l. For discharge < 10,000 gpd, the limit is determined on a
⁴ Analysis for Carbonaceous Biochemical Oxygen Demand (CBOD), Chloride, Total Solids, and Total Nitrogen are required if proposed discharge >= 10,000 gpd.
³ For discharge >= 10,000 gpd, the TSS limit is 350 mg/l. For discharge < 10,000 gpd, the limit is determined on a case by case
⁴ Analysis for Carbonaceous Biochemical Oxygen Demand (CBOD), Chloride, Total Solids, and Total Nitrogen are required if proposed discharge >= 10,000 gpd.

AS-78

FIGURE 1 - TOPOGRAPHIC CORRIDOR LOCATION MAP



CORRIDOR LOCATION

DDC NEW YORK CITY DEPARTMENT OF DESIGN + CONSTRUCTION

LiRo Engineers, Inc.
3 Aerial Way, Syosset, New York

DOC ID NO: MED5985 WOL NO: 9155-LIRO-2-8612

TOPOGRAPHIC CORRIDOR LOCATION

TRUNK WATER MAINS IN WEST 30TH STREET
BETWEEN 10TH AVE. AND 9TH AVE.
MANHATTAN, NEW YORK

SCALE: AS SHOWN DATE: 11/2013 FIGURE: 1

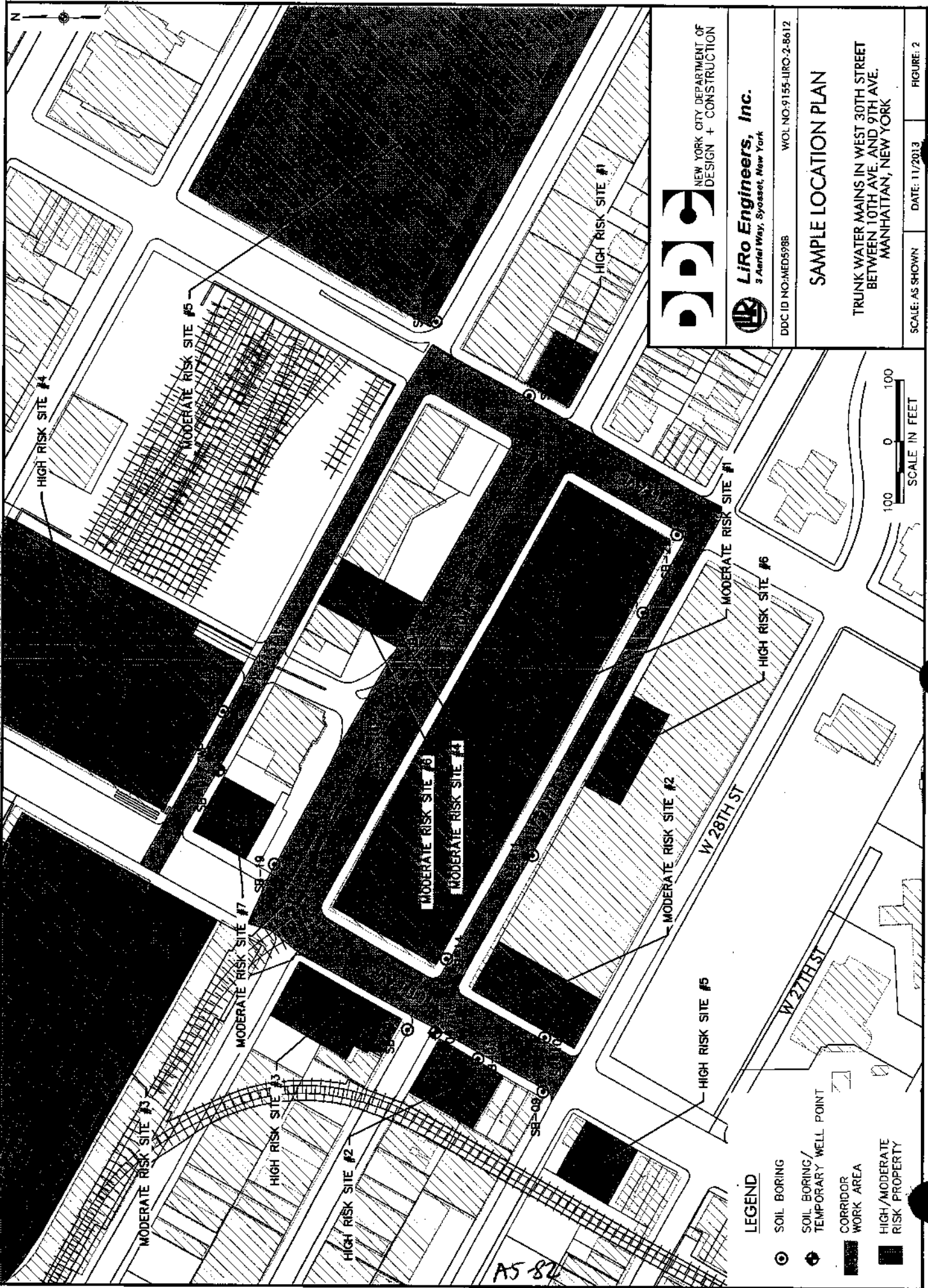
J:\10-62-205 DDC BEGS 2010\Projects\Phase 1 - Phase II Projects\9155 W. 30th St. Ph. II\CAD\W 30th St Topo Map.at

Central Park Quad - 1975

AS-20

FIGURE 2 – SAMPLE LOCATION PLAN

JAYD-62-205 DDC BEGS 2010\Projects\Phase I - Phase II Projects\9165 W. 30th St. Ph. II\CAD\DW 30ST Sample Loc Plan.DWG. 1/28/2013 11:36:19 AM, ES



NEW YORK CITY DEPARTMENT OF
DESIGN + CONSTRUCTION

LiRo Engineers, Inc.
3 Aerial Way, Syosset, New York

DDC ID NO: MED598B

WOL NO: 9155-LIRO-2-8612

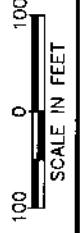
SAMPLE LOCATION PLAN

TRUNK WATER MAINS IN WEST 30TH STREET
BETWEEN 10TH AVE. AND 9TH AVE.
MANHATTAN, NEW YORK

SCALE: AS SHOWN

DATE: 11/2013

FIGURE: 2



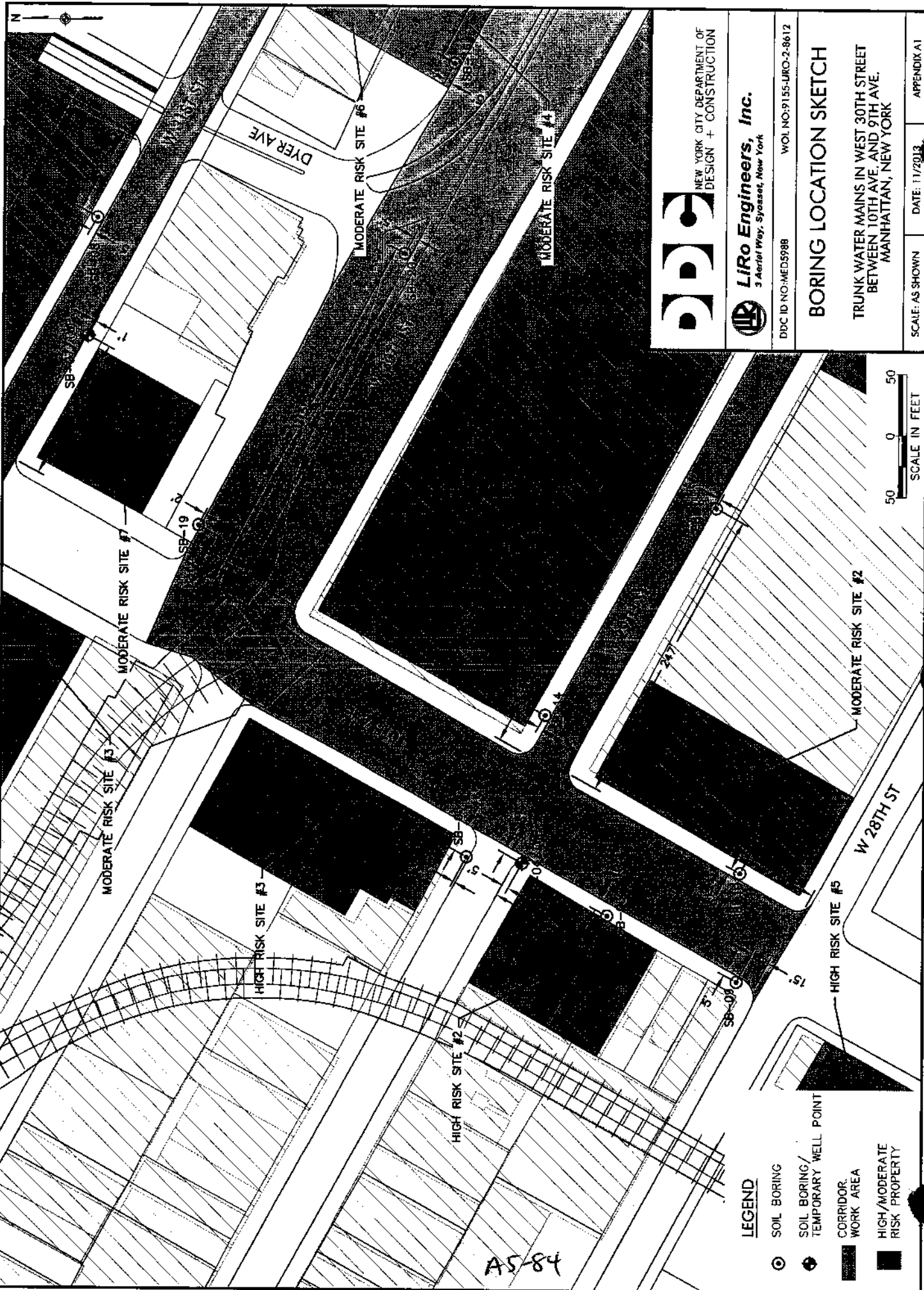
LEGEND

- SOIL BORING
- ⊕ SOIL BORING/TEMPORARY WELL POINT
- ▨ CORRIDOR WORK AREA
- HIGH/MODERATE RISK PROPERTY

AS 80

APPENDIX A
BORING LOCATION SKETCHES

J-110-62-205 DDC BEGS 2010\Projects\Phase I - Phase II\Projects\9155 W. 30th St. Ph. II\CAD\W. 30ST Boring Loc Plan.DWG. 11/8/2013 1:13:19 PM. ES



A5-84



NEW YORK CITY DEPARTMENT OF
DESIGN + CONSTRUCTION



LiRo Engineers, Inc.
3 Aerial Way, Syosset, New York

DDC ID NO: MEDS998

WOL NO: 9155-LRO-2-8612

BORING LOCATION SKETCH

TRUNK WATER MAINS IN WEST 30TH STREET
BETWEEN 10TH AVE. AND 9TH AVE.
MANHATTAN, NEW YORK

SCALE: AS SHOWN

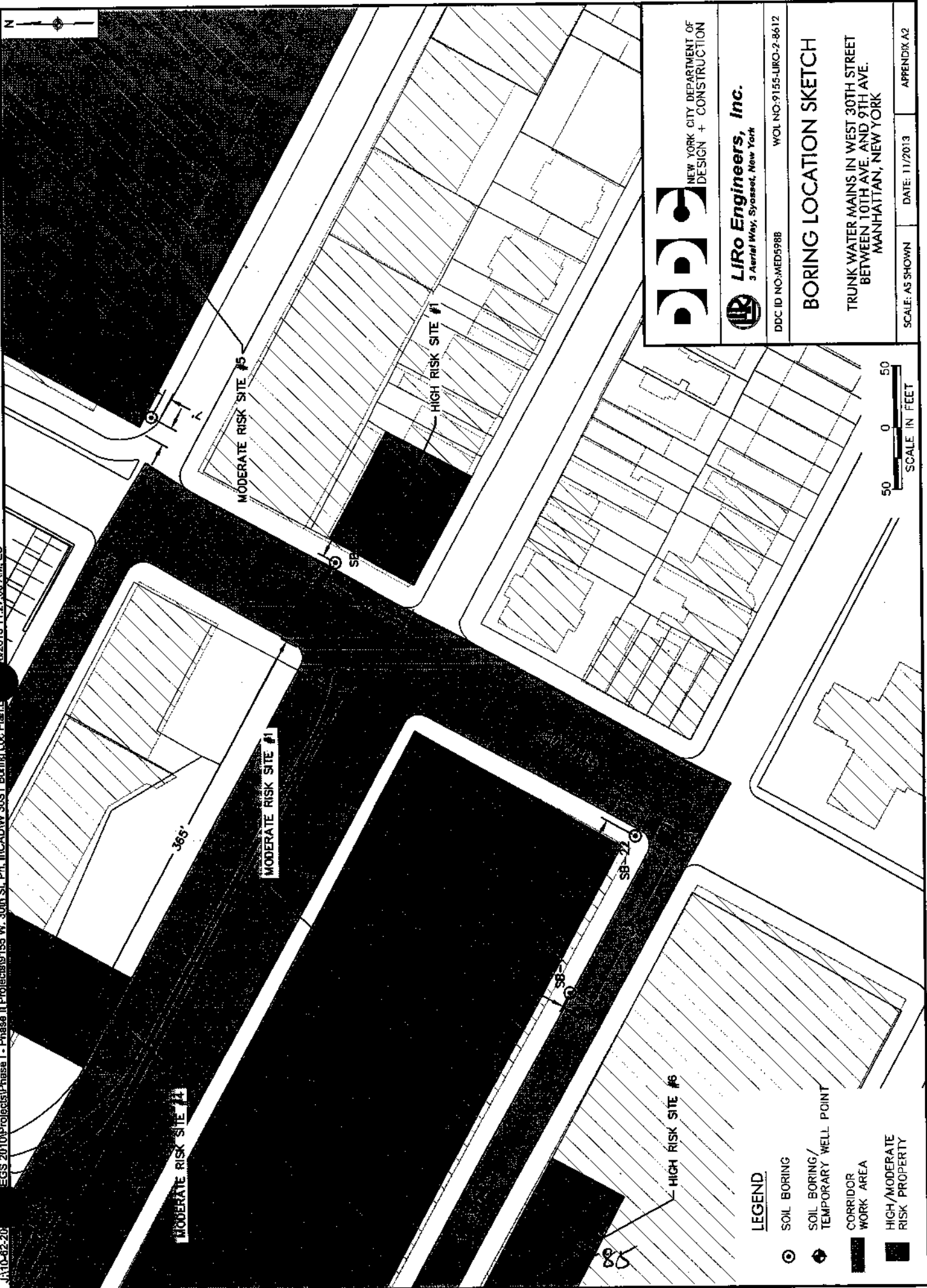
DATE: 11/20/13

APPENDIX A1

LEGEND

- SOIL BORING
- ⊕ SOIL BORING/ TEMPORARY WELL POINT
- ▨ CORRIDOR WORK AREA
- HIGH/MODERATE RISK PROPERTY

J-110-82-201 EGS 2010\Projects\Phase I - Phase II\Projects\9155 W. 30th St. Ph. II\CAD\W 30ST Boring Loc. Plan.L 8/2013 11:27:06 AM, ES



NEW YORK CITY DEPARTMENT OF
DESIGN + CONSTRUCTION



LIRO Engineers, Inc.
3 Aerial Way, Syosset, New York

DDC ID NO: MED5988

WOL NO: 9155-LIRO-2-8612

BORING LOCATION SKETCH

TRUNK WATER MAINS IN WEST 30TH STREET
BETWEEN 10TH AVE. AND 9TH AVE.
MANHATTAN, NEW YORK

SCALE: AS SHOWN DATE: 11/2013

APPENDIX A2

LEGEND

- SOIL BORING
- SOIL BORING/
TEMPORARY WELL POINT
- CORRIDOR
WORK AREA
- HIGH/MODERATE
RISK PROPERTY





NEW YORK CITY DEPARTMENT OF
DESIGN + CONSTRUCTION

New York City Department of Design and Construction
Final Phase II Subsurface Corridor Investigation Report
Trunk Water Mains, W. 30th St. - 10th Ave. and 9th Ave., Manhattan, NY

APPENDIX B
GEOLOGIC BORING LOGS AND TEMPORARY WELL CONSTRUCTION DETAILS



LiRo Engineers, Inc.

TEST BORING LOG

PROJECT: Trunk Water Main in West 30th Street, Manhattan					LOCATION: SB-02				
CLIENT: NYC Department of Design and Construction					SHEET: 1 of 1				
BORING CONTRACTOR: Aquifer Drilling and Testing					JOB NO.: 10-62-205				
GROUNDWATER:					LOCATION: See Comments				
CAS.					GROUND ELEVATION:				
SAMPLER					DATE STARTED: October 18, 2013				
TUBE					DATE FINISHED: October 23, 2013				
DATE					DRILLER: German Torres				
TIME					GEOLOGIST: Vladimir Ortiz				
LEVEL					REVIEWED BY: William Czelusta, CHMM				
TYPE									
TYPE									
DIA.									
WT.									
FALL									

DEPTH FEET	STRATA	SAMPLE				REC% RQD%	COLOR	CONSISTENCY HARDNESS	DESCRIPTION	USCS	REMARKS
		"S" NO.	"N" NO.	BLOWS PER 6"							
1	[Pattern]					NA	Brown Light Brown	Medium Dense	Cleared with Air Knife and hand tool to 6 ft 0-5.0 ft. Fine to medium sand and gravel, some silt.	SM	Dry PID 0.0
5						23%	Brown Gray	Medium Dense	5.0-8.0 ft. Fine to medium sand and gravel, trace silt. Refusal on weathered rock (Schist).	SM	Dry PID 0.0
									END OF BORING DUE TO REFUSAL		
10											
15											
20											

COMMENTS: Advanced on 9th Avenue in the vicinity of "High Risk Site # 1" and located 75 feet north of 30th Street and 5 feet east of 9th Avenue. Soil samples were classified in the field using the Unified Soil Classification System (USCS). Groundwater was not encountered. Boring was terminated at a total depth of 8 ft bgs due to refusal (evidence of Schist was noted in the sampler). No elevated PID readings were noted. Two (2) soil samples were collected and sent for laboratory analysis, a grab sample (SB-02-7.5'-8") of the last 6" of the boring and a composite sample (SB-02-0-8") of the entire boring column. A portion of the composite sample was used for waste characterization sample WC-02.	PROJECT NO.: 9155-LIRO-2-8612
	BORING NO.: SB-02

A5-87



LiRo Engineers, Inc.

TEST BORING LOG

PROJECT: Trunk Water Main in West 30th Street, Manhattan
 CLIENT: NYC Department of Design and Construction
 BORING CONTRACTOR: Aquifer Drilling and Testing

LOCATION: SB-03
 SHEET: 1 of 1
 JOB NO.: 10-62-205
 LOCATION: See Comments

GROUNDWATER:				CAS.	SAMPLER	TUBE
DATE	TIME	LEVEL	TYPE		Macrocore	5'
10/22/13		12.5'		DIA.		
				WT.		
				FALL		

GROUND ELEVATION:
 DATE STARTED: October 15, 2013
 DATE FINISHED: October 22, 2013
 DRILLER: Joseph McGill
 GEOLOGIST: Vladimir Ortiz
 REVIEWED BY: William Czelusta, CHMM

DEPTH FEET	STRATA	SAMPLE				DESCRIPTION				USCS	REMARKS	
		"S" NO.	"N" NO.	BLOWS PER 6"	REC% ROD%	COLOR	CONSISTENCY HARDNESS	MATERIAL DESCRIPTION				
1	[Pattern]					NA	Gray/Brown	Soft	Cleared with Air Knife and hand tool to 6 ft 0-1.0 ft. Concrete and Run-of-Crush Aggregate 1-5.0 ft. Fine to medium sand, some gravel, trace silt	Fill	Dry PID 0.0	
5					60%	Yellow	Soft	5.0-10.0 ft. Fine to medium sand, some silt	SM			
10												
		SB-03-11.5'-12'				83%	Brown Yellow	Soft	10.0-15.0 ft. Fine to medium sand, some silt, some coarse sand	SM		Moist to Wet PID 0.0
15						100%	Brown Yellow	Soft to Very soft	15.0-20.0 ft. Fine to medium sand and silt	SM		Wet PID 0.0
20								END OF BORING				

COMMENTS:

Advanced on 10th Avenue in the vicinity of "High Risk Site # 2" and located 85 feet south of 29th Street and 5 feet west of 10th Avenue. Soil samples were classified in the field using the Unified Soil Classification System (USCS). Groundwater was noted at 12.5 ft bgs. The boring was driven to a depth of 20 ft bgs. No elevated PID readings were detected. Two (2) soil samples were collected and sent for laboratory analysis, a grab sample (SB-03-11.5'-12') of the 6" above the saturation zone and a composite sample (SB-03-0-20') of the entire boring. A portion of the composite sample was used for waste characterization sample WC-04.

PROJECT NO.: 9155-LIRO-2-8612
 BORING NO.: SB-03

A5-88



LiRo Engineers, Inc.

TEST BORING LOG

PROJECT: Trunk Water Main in West 30th Street, Manhattan					LOCATION: SB-04				
CLIENT: NYC Department of Design and Construction					SHEET: 1 of 1				
BORING CONTRACTOR: Aquifer Drilling and Testing					JOB NO.: 10-62-205				
GROUNDWATER:					LOCATION: See Comments				
					GROUND ELEVATION:				
DATE	TIME	LEVEL	TYPE	TYPE	CAS.	SAMPLER	TUBE	DATE STARTED:	October 15, 2013
10/15/13		13.0'		DIA.		Macrocore	5'	DATE FINISHED:	October 23, 2013
				WT.				DRILLER:	German Torres
				FALL				GEOLOGIST:	Vladimir Ortiz
					REVIEWED BY: William Czelusta, CHMM				

DEPTH FEET	STRATA	SAMPLE				REC% RQD%	COLOR	CONSISTENCY HARDNESS	DESCRIPTION	USCS	REMARKS	
		"S" NO.	"N" NO.	BLOWS PER 6"								
1						NA	Gray/Brown	Medium Dense	Cleared with Air Knife and hand tool to 6 ft 0-1.0 ft. Concrete and Run-of-Crush Aggregate 1.0-5.0 ft. Fine to medium sand and silt, some gravel	Fill	Dry PID 0.0	
5						40%	Light Brown Black	Soft	5.0-10.0 ft. Fine to medium sand and gravel, trace silt, medium sand (stained soils)	SM	Dry 168 ppm	
10		SB-04-9.5'-10'					30%	Brown	Soft	10.0-15.0 ft. Silty fine sand	SM	Moist to Wet PID 0.0
15							77%	Gray	Medium Dense	15.0-20.0 Silty fine sand and medium sand and silt, trace coarse sand	SM	Wet PID 0.0
20										END OF BORING		

COMMENTS: Advanced on 10th Avenue in the vicinity of "High Risk Site # 2" and located 5 feet south of 29th Street and 5 feet west of 10th Avenue. Soil samples were classified in the field using the Unified Soil Classification System (USCS). Groundwater was encountered at 13 ft bgs. The boring was driven to 20 ft bgs. PID readings as high as 168 ppm were noted at a depth of 9.5-10.0 ft bgs. Two (2) soil samples were collected and sent for laboratory analysis, a grab sample (SB-04-9.5'-10') of the 9.5-10 ft bgs interval and a composite sample (SB-04-0-20') of the entire boring. A portion of the composite was used for waste characterization sample WC-04. A groundwater sample SB/TWP-04 was also collected and sent for Laboratory analysis for NYCDEP Sanitary or Combined Sewer Discharge Parameters.

PROJECT NO.: 9155-LIRO-2-8612
BORING NO.: SB-04

AS-89



LiRo Engineers, Inc.

TEST BORING LOG

PROJECT: Trunk Water Main in West 30th Street, Manhattan
CLIENT: NYC Department of Design and Construction
BORING CONTRACTOR: Aquifer Drilling and Testing

LOCATION: SB-05
SHEET: 1 of 1
JOB NO.: 10-62-205
LOCATION: See Comments

GROUNDWATER:			CAS.	SAMPLER	TUBE
DATE	TIME	LEVEL	TYPE	TYPE	
10/21/13		14.0'		DIA.	Macrocore
				WT.	2"
				FALL	

GROUND ELEVATION:
DATE STARTED: October 21, 2013
DATE FINISHED: October 24, 2013
DRILLER: German Torres
GEOLOGIST: Vladimir Ortiz
REVIEWED BY: William Czelusta, CHMM

DEPTH FEET	STRATA	SAMPLE				CAS.	SAMPLER	TUBE	DESCRIPTION	USCS	REMARKS
		"S" NO.	"N" NO.	BLOWS PER 6'	REC% ROD%						
1	[Patterned]									Fill	
					NA	Gray/Light Brown	Medium Dense	Cleared with Air Knife and hand tool to 6 ft 0-1.0 ft. Concrete and Run-of-Crush Aggregate 1.0-5.0 ft. Fine to medium sand and gravel, some silt.	SM	Dry PID 0.0	
5					17%	Brown	Medium Dense	5.0-10.0 ft. Fine to medium sand, some gravel, trace silt.	SM	Dry PID 0.0	
10					80%	Brown Black	Very soft to Soft	10.0-15.0 ft. Silty fine sand trace of medium sand, some gravel.	SM	Moist to Wet to Moist PID 0.0	
15					93%	Brown Gray	Medium Dense	15.0-20.0 ft. Silty fine sand, some gravel, some medium sand, some silt.	SM	Wet PID 0.0	
20								END OF BORING			

COMMENTS:
 Advanced on 10th Avenue in the vicinity of "High Risk Site # 3" and located 2 feet north of 29th Street and 17 feet west of 10th Avenue. Soil samples were classified in the field using the Unified Soil Classification System (USCS). Groundwater was noted at 14 ft bgs. The boring was driven to a total depth of 20 ft bgs. No elevated PID readings were noted. Two (2) soil samples were collected and sent for laboratory analysis, a grab sample (SB-05-14'-14.5') of the 6" above the saturation zone and a composite sample (SB-05-0-20') of the entire boring column. A portion of the composite sample was used for waste characterization sample WC-04.

PROJECT NO.: 9155-LIRO-2-8612
BORING NO.: SB-05
 AS-90



LiRo Engineers, Inc.

TEST BORING LOG

PROJECT: Trunk Water Main in West 30th Street, Manhattan					LOCATION: SB-07				
CLIENT: NYC Department of Design and Construction					SHEET: 1 of 1				
BORING CONTRACTOR: Aquifer Drilling and Testing					JOB NO.: 10-62-205				
GROUNDWATER:					LOCATION: See Comments				
					GROUND ELEVATION:				
DATE	TIME	LEVEL	TYPE	TYPE	CAS.	SAMPLER	TUBE	DATE STARTED:	October 21, 2013
10/24/13		18.5'		DIA.		Macrocore	5'	DATE FINISHED:	October 24, 2013
				WT.				DRILLER:	German Torres
				FALL				GEOLOGIST:	Vladimir Ortiz
					REVIEWED BY: William Czelusta, CHMM				

DEPTH FEET	STRATA	SAMPLE				DESCRIPTION			USCS	REMARKS
		"S" NO.	"N" NO.	BLOWS PER 6"	REC% RQD%	COLOR	CONSISTENCY HARDNESS	MATERIAL DESCRIPTION		
1					NA	Gray/Light Brown	Medium Dense	Cleared with Air Knife and hand tool to 6 ft 0-1.0 ft. Concrete and Run-of-Crush Aggregate	Fill	Dry PID 0.0
5					47%	Brown	Medium Dense	1.0-5.0 ft. Fine to medium sand and gravel, some silt.	SM	
10					77%	Yellow Red	Medium Dense	5.0-10.0 ft. Silty fine to medium sand, some gravel.	SM	
15					67%	Red Brown	Medium Dense	10.0-15.0 ft. Silty fine sand, Rock fragments (Quartzite), some gravel	SM	
20		SB-07-18'-18.5'						15.0-20.0 ft. Fine sand and silt, some medium sand, trace weathered rock (Schist).	SM	Moist to Wet PID 0.0
END OF BORING										

COMMENTS: Moderate Risk Site # 7 and High Risk Site # 4 and located 1 feet south of 31st Street and 117 feet east of 10th Avenue. Soil samples were classified in the field using the Unified Soil Classification System (USCS). Groundwater was noted at around 18.5 ft bgs. The boring was driven to a total depth of 20 ft bgs. No elevated PID readings were noted. Two (2) soil samples were collected and sent for laboratory analysis, a grab sample (SB-07-18'-18.5') from 6" above the saturation zone and a composite sample (SB-07-0-20') of the entire boring column. A portion of the composite was used for waste characterization sample WC-01. A limited sample (300 mL) of groundwater (SB/TWP-07) was collected for laboratory analysis because the well was not producing sufficient water.

PROJECT NO.: 9155-LIRO-2-8612
BORING NO.: SB-07

A5-91



LiRo Engineers, Inc.

TEST BORING LOG

PROJECT: Trunk Water Main in West 30th Street, Manhattan

LOCATION: SB-08

CLIENT: NYC Department of Design and Construction

SHEET: 1 of 1

BORING CONTRACTOR: Aquifer Drilling and Testing

JOB NO.: 10-62-205

GROUNDWATER:

LOCATION: See Comments

DATE	TIME	LEVEL	TYPE	TYPE	CAS.	SAMPLER	TUBE
10/24/13		NA		DIA.		Macrocore	5'
				WT.			
				FALL			

GROUND ELEVATION:

DATE STARTED: October 24, 2013

DATE FINISHED: October 24, 2013

DRILLER: German Torres

GEOLOGIST: Vladimir Ortiz

REVIEWED BY: William Czelusta, CHMM

DEPTH FEET	STRATA	SAMPLE				DESCRIPTION				USCS	REMARKS
		"S" NO.	"N" NO.	BLOWS PER 6"	REC% ROD%	COLOR	CONSISTENCY HARDNESS	MATERIAL DESCRIPTION			
1					NA	Gray Brown	Medium Dense	Cleared with Air Knife and hand tool to 6 ft 0-1.0 ft. Concrete and Run-of-Crush Aggregate	Fill	Dry PID 0.0	
5							1.0-5.0 ft. Fine to medium sand some gravel, trace silt.	SM			
		SB-08-6.5-7				10%	Brown	Medium Dense	5.0-7.0 ft. Fine to medium sand and silt, some gravel. Rock encountered (Schist).	SM	Dry PID 0.0
10								END OF BORING DUE TO REFUSAL			
15											
20											

COMMENTS: Advanced on West 31st Street in the vicinity of "High Risk Site # 4" and located 5 feet north of 31st Street and 70 feet west of Dyer Avenue. Soil samples were classified in the field using the Unified Soil Classification System (USCS). Groundwater was not encountered. Boring was terminated at a total depth of 7 ft bgs after encountering refusal (evidence of Schist). No elevated PID readings were noted. Two (2) soil samples were collected and sent for laboratory analysis, a grab sample (SB-08-6.5-7') of the last 6" of the boring and a composite sample (SB-08-0-7') of the entire boring column. A portion of the composite sample was used for waste characterization sample WC-01.

PROJECT NO.: 9155-LIRO-2-8612
 BORING NO.: SB-08

AS-92



LiRo Engineers, Inc.

TEST BORING LOG

PROJECT: Trunk Water Main in West 30th Street, Manhattan	LOCATION: SB-09
CLIENT: NYC Department of Design and Construction	SHEET: 1 of 1
BORING CONTRACTOR: Aquifer Drilling and Testing	JOB NO.: 10-62-205
GROUNDWATER:	LOCATION: See Comments
DATE: 10/22/13	GROUND ELEVATION:
TIME:	DATE STARTED: October 15, 2013
LEVEL: 12.5'	DATE FINISHED: October 22, 2013
TYPE: DIA.	DRILLER: Joseph McGill
WT.	GEOLOGIST: Vladimir Ortiz
FALL: 5'	REVIEWED BY: William Czelusta, CHMM

DEPTH FEET	STRATA	SAMPLE				CAS. COLOR	SAMPLER	TUBE	DESCRIPTION	USCS	REMARKS	
		"S" NO.	"N" NO.	BLOWS PER 6"	REC% RQD%							CONSISTENCY HARDNESS
1						Gray/Dark Brown/Brown	Macrocore	5'	Cleared with Air Knife and hand tool to 6 ft 0-1.0 ft. Concrete and Run-of-Crush Aggregate	Fill	Dry PID 0.0	
5					NA		2"	1.0-5.0 ft. Fine to medium sand and gravel, trace silt	SM			
10					83%	Brown-Red	Medium Dense		5.0-10.0 Fine to medium sand and silt	SM		
15		SB-09-11.5'-12'				70%	Brown	Medium Dense	10.0-15.0 Fine to medium sand, trace of silt, some gravel	SM		Moist to Wet
20					100%	Brown Gray	Medium Dense		15.0-20.0 ft. Coarse sand, some medium sand, some fine sand.	SM		Wet PID 0.0
								END OF BORING				

COMMENTS: Advanced on 10th Avenue in the vicinity of "High Risk Site # 5" and located 15 feet north of 28th Street and 5 feet west of 10th Avenue. Soil samples were classified in the field using the Unified Soil Classification System (USCS). Groundwater was noted at around 12.5 ft bgs. The boring was driven to a total depth of 20 ft bgs. No elevated PID readings were noted. Two (2) soil samples were collected and sent for laboratory analysis, a grab sample (SB-09-11.5'-12') of the 6 above the saturation zone and a composite sample (SB-09-0-20') of the entire boring. A portion of the composite sample was used for waste characterization sample WC-04.

PROJECT NO.: 9155-LIRO-2-8612
BORING NO.: SB-09

A5-93



LiRo Engineers, Inc.

TEST BORING LOG

PROJECT: Trunk Water Main in West 30th Street, Manhattan
CLIENT: NYC Department of Design and Construction
BORING CONTRACTOR: Aquifer Drilling and Testing
GROUNDWATER:

LOCATION: SB-10
SHEET: 1 of 1
JOB NO.: 10-62-205
LOCATION: See Comments
GROUND ELEVATION:
DATE STARTED: October 15, 2013
DATE FINISHED: October 22, 2013
DRILLER: Joseph McGill
GEOLOGIST: Vladimir Ortiz
REVIEWED BY: William Czelusta, CHMM

DEPTH FEET	STRATA	SAMPLE				DESCRIPTION				USCS	REMARKS
		"S" NO.	"N" NO.	BLOWS PER 6"	REC% ROD%	CAS.	SAMPLER	TUBE	MATERIAL DESCRIPTION		
1	[Pattern]						Macrocore	5'		Fill	
							2"			SM	Dry PID 0.0
5						NA	Light Brown	Soft	0-5.0 ft. Fine to medium sand, some gravel, trace of silt		
						60%	Light Brown Green Brown	Soft	5.0-10.0 ft. Fine to medium sand, trace of silt, some gravel, and coarse sand.	SM	Dry PID 0.0
10						60%	Brown	Medium Dense	10.0-15.0 ft. Fine to medium sand and silt.	SM	Moist to wet PID 0.0
		SB-10-12-12.5'									
15					100%	Brown	Medium Dense	15.0-20.0 ft. Fine to medium sand and silt. Some coarse sand.	SM	Wet PID 0.0	
20								END OF BORING			

COMMENTS:
 Advanced on 10th Avenue in the vicinity of "Moderate Risk Site # 2" and located 60 feet north of 28th Street and 5 feet east of 10th Avenue. Soil samples were classified in the field using the Unified Soil Classification System (USCS). Groundwater was noted at 13 ft bgs. The boring was drove to a total depth of 20 ft bgs. No elevated PID readings were noted. Two (2) soil samples were collected and sent for laboratory analysis, a grab sample (SB-10-12'-12.5') of the 6" above the saturation zone and a composite sample (SB-10-0-20') of the entire boring column. A portion of the composite sample was used for waste characterization sample WC-04.

PROJECT NO.: 9155-LIRO-2-8612
BORING NO.: SB-10
 AS-94



LiRo Engineers, Inc.

TEST BORING LOG

PROJECT: Trunk Water Main in West 30th Street, Manhattan
CLIENT: NYC Department of Design and Construction
BORING CONTRACTOR: Aquifer Drilling and Testing

LOCATION: SB-11
SHEET: 1 of 1
JOB NO.: 10-62-205
LOCATION: See Comments

GROUNDWATER:					CAS.	SAMPLER	TUBE
DATE	TIME	LEVEL	TYPE	TYPE		Macrocore	5'
10/22/13		NA		DIA.		2"	
				WT.			
				FALL			

GROUND ELEVATION:
DATE STARTED: October 16, 2013
DATE FINISHED: October 22, 2013
DRILLER: German Torres
GEOLOGIST: Vladimir Ortiz
REVIEWED BY: William Czelusta, CHMM

DEPTH FEET	STRATA	SAMPLE				REC% RQD%	COLOR	CONSISTENCY HARDNESS	DESCRIPTION	USCS	REMARKS
		"S" NO.	"N" NO.	BLOWS PER 6"							
1						NA	Gray/ Brown	Medium Dense	Cleared with Air Knife and hand tool to 6 ft 0-1.0 ft. Concrete and Run-of-Crush Aggregate 1.0-5.0 ft. Fine to medium sand and some gravel	Fill	Dry PID 0.0
5						67%	Brown Yellow	Medium Dense	5.0-10.0 ft. Fine to medium sand and gravel, trace silt.	SM	Dry PID 0.0
10						57%	Yellow	Medium Dense	10.0-15.0 ft. Silty fine sand and gravel, some medium sand, trace coarse sand	SM	Dry to Moist PID 0.0
15						70%	Brown	Medium Dense	15.0-20.0 ft. Medium to coarse sand, some fine sand, trace of gravel, trace silt.	SM	Moist to very moist 178 ppm
20									END OF BORING		

COMMENTS: Advanced on West 29th Street in the vicinity of "High Risk Site # 6" and located 2 feet south of 29th Street and 247 feet east of 10th Avenue. Soil samples were classified in the field using the Unified Soil Classification System (USCS). Groundwater was not noted. The boring was driven to a total depth of 20 ft bgs. PID readings as high as 178 ppm were noted at the 18'-19' bgs interval. Two (2) soil samples were collected and sent for laboratory analysis, a grab sample (SB-11-18.5'-19') of the interval with the high PID reading and a composite sample (SB-11-0-20') of the entire boring. A portion of the composite sample was used for waste characterization sample WC-03. Attempted to collect a water sample but the well did not produce any water. No groundwater sample was collected.

PROJECT NO.: 9155-LIRO-2-8612
BORING NO.: SB-11

A5-95



LiRo Engineers, Inc.

TEST BORING LOG

PROJECT: Trunk Water Main in West 30th Street, Manhattan					LOCATION: SB-12		
CLIENT: NYC Department of Design and Construction					SHEET: 1 of 1		
BORING CONTRACTOR: Aquifer Drilling and Testing					JOB NO.: 10-62-205		
GROUNDWATER:					LOCATION: See Comments		
DATE	TIME	LEVEL	TYPE	CAS.	SAMPLER	TUBE	GROUND ELEVATION:
10/22/13		NA			Macrocore	5'	DATE STARTED: October 16, 2013
			DIA.		2"		DATE FINISHED: October 22, 2013
			WT.				DRILLER: Joseph McGill
			FALL				GEOLOGIST: Vladimir Ortiz
					REVIEWED BY: William Czelusta, CHMM		

DEPTH FEET	STRATA	SAMPLE				DESCRIPTION			USCS	REMARKS
		"S" NO.	"N" NO.	BLOWS PER 6"	REC% ROD%	COLOR	CONSISTENCY HARDNESS	MATERIAL DESCRIPTION		
1	[Pattern]					NA	Gray/Brown	Medium Dense	Fill	Dry PID 0.0
5									SM	
7		SB-12-6.5-7'				13%	Gray Brown	Dense	5.0-7.0 ft. Fine to medium sand and silt, some gravel. Refusal 7' bgs	SM
								END OF BORING DUE TO REFUSAL		
10										

COMMENTS: Advanced on West 29th Street in the vicinity of "Moderate Risk Site # 1" and located 1 feet north of 29th Street and 137 feet west of 9th Avenue. Soil samples were classified in the field using the Unified Soil Classification System (USCS). Groundwater was not encountered. The boring was terminated at a total depth of 7 ft bgs upon refusal. No elevated PID readings were noted. Two (2) soil samples were collected and sent for laboratory analysis, a grab sample (SB-12-6.5-7') of the last 6" of the boring and a composite sample (SB-12-0-20') of the entire boring. A portion of the composite sample was used for waste characterization sample WC-03.	PROJECT NO.: 9155-LIRO-2-8612
	BORING NO.: SB-12 AS-96



LiRo Engineers, Inc.

TEST BORING LOG

PROJECT: Trunk Water Main in West 30th Street, Manhattan

LOCATION: SB-16

CLIENT: NYC Department of Design and Construction

SHEET: 1 of 1

BORING CONTRACTOR: Aquifer Drilling and Testing

JOB NO.: 10-62-205

GROUNDWATER:

LOCATION: See Comments

DATE	TIME	LEVEL	TYPE	CAS.	SAMPLER	TUBE
10/23/13		NA	DIA.		Macrocore	5'
			WT.		2"	
			FALL			

GROUND ELEVATION:

DATE STARTED: October 17, 2013

DATE FINISHED: October 23, 2013

DRILLER: German Torres

GEOLOGIST: Vladimir Ortiz

REVIEWED BY: William Czelusta, CHMM

DEPTH FEET	STRATA	SAMPLE				DESCRIPTION			USCS	REMARKS
		"S" NO.	"N" NO.	BLOWS PER 6"	REC% RQD%	COLOR	CONSISTENCY HARDNESS	MATERIAL DESCRIPTION		
1					NA	Gray/ Brown Black Red	Medium Dense	Cleared with Air Knife and hand tool to 6 ft 0-1.0 ft. Concrete and Run-of-Crush Aggregate 1.0-5.0 ft. Fill (concrete, red brick, glass, metal, pottery) fine to medium sand and silt.	FILL	Dry PID 0.0
5					33%	Brown	Medium Dense	5.0-8.0 ft. Fine to medium sand and gravel. Weathered rock (Schist). REFUSAL	SM	Dry PID 0.0
								END OF BORING DUE TO REFUSAL		
10										
15										
20										

COMMENTS:

Advanced on West 30th Street in the vicinity of "Moderate Risk Site # 4" and located 5 feet north of 30th Street and 365 feet west of 9th Avenue. Soil samples were classified in the field using the Unified Soil Classification System (USCS). Groundwater was not encountered. Boring was terminated at a total depth of 8 ft bgs after encountering refusal (evidence of Schist). No PID readings were noted. Two (2) soil samples were collected and sent for laboratory analysis, a grab sample of the last 6" of the boring and a composite of the entire boring column. A portion of the composite sample was used for waste characterization sample WC-02.

PROJECT NO.: 9155-LIRO-2-8612
 BORING NO.: SB-16

A598



LiRo Engineers, Inc.

TEST BORING LOG

PROJECT: Trunk Water Main in West 30th Street, Manhattan
CLIENT: NYC Department of Design and Construction
BORING CONTRACTOR: Aquifer Drilling and Testing

LOCATION: SB-19
SHEET: 1 of 1
JOB NO.: 10-62-205
LOCATION: See Comments
GROUND ELEVATION:
DATE STARTED: October 17, 2013
DATE FINISHED: October 23, 2013
DRILLER: German Torres
GEOLOGIST: Vladimir Ortiz
REVIEWED BY: William Czeizusta, CHMM

GROUNDWATER:					CAS.	SAMPLER	TUBE
DATE	TIME	LEVEL	TYPE	TYPE		Macrocore	5'
10/23/13		18.0'		DIA.		2"	
				WT.			
				FALL			

DEPTH FEET	STRATA	SAMPLE				REC% RQD%	COLOR	CONSISTENCY HARDNESS	DESCRIPTION MATERIAL DESCRIPTION	USCS	REMARKS
		"S" NO.	"N" NO.	BLOWS PER 6"							
1						NA	Gray/Brown	Dense	Cleared with Air Knife and hand tool to 6 ft 0-1.0 ft. Concrete and Run-of-Crush Aggregate 1.0-5.0 ft. Fill material (concrete, red brick, glass, ash), fine to medium sand and silt gravel some silt.	FILL	Dry PID 0.0
5						10%	Brown	Medium Dense	5.0-10.0 ft. Fine to medium sand and gravel, trace weathered rock (Schist).	SM	Dry PID 0.0
10						60%	Brown Gray	Medium Dense	10.0-15.0 ft. Fine to medium sand and weathered rock (Schist). Silty fine to medium sand.	SM	Moist PID 0.0
15						67%	Brown Red	Dense	15.0-20.0 ft. Silty fine sand, and fine to medium sand and silt.	SM	Moist to very moist PID 0.0
20									END OF BORING		

COMMENTS:

Advanced on West 30th Street in the vicinity of "Moderate Risk Site # 3," "Moderate Risk Site # 7" and located 2 feet north of 30th Street and 30 feet west of 10th Avenue. Groundwater was noted at 18 ft bgs. The boring was driven to a total depth of 20 ft bgs. No elevated PID readings were noted. Two (2) soil samples were collected and sent for laboratory analysis, a grab sample (SB-19-17.5'-18') of the 6" above the saturation zone and a composite samples (SB-19-0-20') of the entire boring column. A portion of the composite sample was used for waste characterization sample WC-02.

PROJECT NO.: 9155-LIRO-2-8612
BORING NO.: SB-19

A5-100



LiRo Engineers, Inc.

TEST BORING LOG

PROJECT: Trunk Water Main in West 30th Street, Manhattan						LOCATION: SB-20	
CLIENT: NYC Department of Design and Construction						SHEET: 1 of 1	
BORING CONTRACTOR: Aquifer Drilling and Testing						JOB NO.: 10-62-205	
GROUNDWATER:						LOCATION: See Comments	
CAS.						GROUND ELEVATION:	
SAMPLER						DATE STARTED: October 17, 2013	
TUBE						DATE FINISHED: October 22, 2013	
DATE						DRILLER: Joseph McGill	
TIME						GEOLOGIST: Vladimir Ortiz	
LEVEL						REVIEWED BY: William Czejusta, CHMM	
TYPE							
TYPE							
DIA.							
WT.							
FALL							

DEPTH FEET	SAMPLE						DESCRIPTION			USCS	REMARKS		
	STRATA	"S" NO.	"N" NO.	BLOWS PER 6"	REC% ROD%	COLOR	CONSISTENCY HARDNESS	MATERIAL DESCRIPTION					
1	[Grid]					NA	Gray/ Beige Brown	Dense	Cleared with Air Knife and hand tool to 6 ft 0-1.0 ft. Concrete and aggregate 1.0-5.0 ft. Fill material (concrete, red brick, glass), fine to medium sand and silt gravel some silt. Weathered rock (Schist).		FILL	Dry PID 0.0	
5						50%	Gray Red Yellow	Medium Dense	5.0-10.0 ft. Fine to medium sand and silt, some gravel.		SM	Moist PID 0.0	
10										10.0-15.0 Fine to medium sand and silt, some rock fragments (Schist) REFUSAL		SM	Moist PID 0.0
15									END OF BORING DUE TO REFUSAL				
20													

COMMENTS: Advanced on 9th Avenue in the vicinity of "Moderate Risk Site # 4," "Moderate Risk Site # 6" and located 5 feet north of 30th Street and 312 feet east of 10th Avenue. Soil samples were classified in the field using the Unified Soil Classification System (USCS). Groundwater was not encountered. Boring was terminated at a total depth of 14 ft bgs after encountering refusal (evidence of Schist). No elevated PID readings were noted. Two (2) soil samples were collected and sent for laboratory analysis, a grab sample (SB-20-12.5'-13') of the last 6" of the boring and a composite sample (SB-20-0-14') of the entire boring column. A portion of the composite sample was used for waste characterization sample WC-02.

PROJECT NO.: 9155-LIRO-2-8612
BORING NO.: SB-20

AS-101



LiRo Engineers, Inc.

TEST BORING LOG

PROJECT: Trunk Water Main in West 30th Street, Manhattan
 CLIENT: NYC Department of Design and Construction
 BORING CONTRACTOR: Aquifer Drilling and Testing

LOCATION: SB-22
 SHEET: 1 of 1
 JOB NO.: 10-62-205
 LOCATION: See Comments

GROUNDWATER:					CAS.	SAMPLER	TUBE
DATE	TIME	LEVEL	TYPE	TYPE		Macrocore	5'
10/22/13		18.0'		DIA.		2"	
				WT.			
				FALL			

GROUND ELEVATION:
 DATE STARTED: October 18, 2013
 DATE FINISHED: October 22, 2013
 DRILLER: Joseph McGill
 GEOLOGIST: Vladimir Ortiz
 REVIEWED BY: William Czelusta, CHMM

DEPTH FEET	STRATA	SAMPLE				REC% RQD%	COLOR	CONSISTENCY HARDNESS	MATERIAL DESCRIPTION	USCS	REMARKS	
		"S" NO.	"N" NO.	BLOWS PER 6"								
1						NA	Gray Red Brown	Soft	Cleared with Air Knife and hand tool to 6 ft 0-1.0 ft. Concrete and Run-of-Crush Aggregate 1.0-5.0 ft. Fine to medium sand and silt, some gravel	FIH	Dry PID 0.0	
5					100%	Yellow Red	Medium Dense	5.0-10.0 ft. Coarse sand and gravel, some fine to medium sand.		SM		
10					73%	Yellow Brown Beige Red	Medium Dense	10.0-15.0 ft. Fine to medium sand and silt, some gravel.		SM		Moist PID 0.0
15					43%	Red Dark Brown Brown	Medium Dense	15.0-20.0 ft Silty fine sand, some gravel, some medium sand.		SM		Wet PID 0.0
20								END OF BORING				

COMMENTS:

 Advanced in the vicinity of "Moderate Risk Site # 1" and located 13 feet north of 29th Street and 6 feet west of 9th Avenue. Soil samples were classified in the field using the Unified Soil Classification System (USCS). Groundwater was noted at around 18' below ground surface (bgs). The bore hole was driven to a total depth of 20' bgs. No elevated PID readings were noted. A composite sample of the entire boring column was used for a waste characterization sample (WC-02).

PROJECT NO.: 10-62-205
 BORING NO.: LSB-22

 AS-102

DRILLING SUMMARY		TEMPORARY WELL CONSTRUCTION DETAIL	
Geologist: Vladimir Ortiz			
Drilling Company: Aquifer Drilling and Testing			
Driller: Joseph McGill			
Rig Make/Model: Geoprobe 6610DT			
Date: 10/23/2013			
GEOLOGIC LOG			
Depth(ft.)	Description		
	See Log		
WELL DESIGN		NOT TO SCALE	
CASING MATERIAL		SCREEN MATERIAL	FILTER MATERIAL
Surface: None		Type: 1" PVC	Type: #2 Sand Setting:
Monitor: 1" PVC		Slot Size: 0.02"	SEAL MATERIAL
			Type: NA Setting:
			Type: NA Setting:
COMMENTS: Temporary well. Groundwater noted at approximately 13 ft bgs		LEGEND	
Client: NYCDDC	Location: West 30th Street, Manhattan	Project No.: 9155-LIRO-2-8612	
LiRo Engineers, Inc.	TEMPORARY WELL CONSTRUCTION DETAILS	Well Number: SB/TWP-04	

AS-103

DRILLING SUMMARY		TEMPORARY WELL CONSTRUCTION DETAIL			
Geologist: Vladimir Ortiz		<p style="text-align: right;">Ground Level</p> <p>BOREHOLE 2" Diameter 20' Ft. Length</p> <p>PVC CASING 1" Diameter 10' Length</p> <p>PVC SCREEN 1" Diameter 10' Length</p> <p>Bottom of Screen @ 20' ft bgs</p>			
Drilling Company: Aquifer Drilling and Testing					
Driller: German Torres					
Rig Make/Model: Geoprobe 6610DT					
Date: 10/24/2013					
GEOLOGIC LOG		NOT TO SCALE			
Depth(ft.)	Description				
	See Log				
WELL DESIGN					
CASING MATERIAL		SCREEN MATERIAL		FILTER MATERIAL	
Surface: None		Type: 1" PVC		Type: #2 Sand Setting:	
Monitor: 1" PVC		Slot Size: 0.02"		SEAL MATERIAL	
				Type: NA Setting:	
				Type: NA Setting:	
COMMENTS: Temporary well. Groundwater noted at approximately 18.5 ft bgs			LEGEND		
Client: NYCDDC		Location: West 30th Street, Manhattan		Project No.: 9155-LIRO-2-8612	
LiRo Engineers, Inc.		TEMPORARY WELL CONSTRUCTION DETAILS		Well Number: SB/TWP-07	

AS-104

END OF ADDENDUM NO. 5

This Addendum consists of one hundred five (105) pages

A5-105



ATTACH TO CONTRACT DOCUMENTS

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

PROJECT ID: MED598B

**TRUNK WATER MAINS IN W. 30TH STREET BETWEEN
10TH AVENUE AND 9TH AVENUE, ETC.
TO CONNECT SHAFT 26B TO THE DISTRIBUTION SYSTEM**

Including Sewer, Distribution Water Mains, Street Lighting, and Traffic Work

Together With All Work Incidental Thereto

BOROUGH OF MANHATTAN

ADDENDUM NO. 6

DATED: June 18, 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 Coal Tar Wrap Asbestos Containing Materials
Associated with Water Mains Replacements in 9th Avenue
Manhattan, NY**



**NEW YORK CITY DEPARTMENT OF
DESIGN + CONSTRUCTION**

Prepared By:

**Bureau of Environmental and Geotechnical Services
30-30 Thomson Avenue, 5th Floor
Long Island City, New York 11101**

**Final Submission
Date: 06/18/2014**

TABLE OF CONTENTS

PART 1 – GENERAL	3
1.01 DESCRIPTION.....	3
1.02 SCOPE OF WORK.....	3
1.03 QUALIFICATIONS OF ASBESTOS ABATEMENT CONTRACTOR	6
1.04 WORK BY OTHERS	8
1.05 DEFINITIONS.....	8
1.06 STANDARD OPERATING PROCEDURES	20
1.07 NOTIFICATIONS, PERMITS, WARNING SIGNS, LABELS, AND POSTERS	24
1.08 EMERGENCY PRECAUTIONS	24
1.09 SUBMITTALS	25
1.10 QUALITY ASSURANCE.....	29
1.11 CITY/CONTRACTOR RESPONSIBILITIES.....	32
1.12 USE OF THE AREA	33
1.13 PROTECTION AND DAMAGE	34
1.14 RESPIRATORY PROTECTION REQUIREMENTS	34
1.15 PROTECTIVE CLOTHING.....	37
1.16 AIR MONITORING - CONTRACTOR	39
1.17 THIRD PARTY MONITORING AND LABORATORY	41
1.18 TAMPERING WITH TEST EQUIPMENT	49
1.19 GUARANTEE.....	49
PART 2 – PRODUCTS	50
2.01 MATERIALS HANDLING.....	50
2.02 MATERIALS.....	50
2.03 TOOLS AND EQUIPMENT	52
2.04 CLEANING	55
PART 3 – EXECUTION	56
3.01 WORKER DECONTAMINATION FACILITY.....	56
3.02 WASTE DECONTAMINATION FACILITY	59
3.03 PERSONNEL ENTRANCE AND DECONTAMINATION PROCEDURES FOR REMOVAL OPERATIONS UTILIZING REMOTE DECONTAMINATION FACILITIES	61
PART 4 – PREPARATION OF WORK AREA AND REMOVAL PROCEDURES	61
4.01 REMOVAL OF ASBESTOS-CONTAINING MATERIAL	61
4.02 MAINTENANCE OF CONTAINED WORK AREA AND DECONTAMINATION ENCLOSURE SYSTEMS	62
PART 5 – ASBESTOS WASTE MANAGEMENT	62
5.01 ACM WASTE REQUIREMENTS.....	62
PART 6 – ACCEPTANCE	69
6.01 ACCEPTANCE	69
PART 7 - MEASUREMENT AND PAYMENT	69
7.01 MEASUREMENT	69
7.02 PAYMENT	70
 APPENDIX – NYCDEP ATTACHMENTS	 72
“D”, “TM”, AND “COAL TAR WRAP REMOVAL PROCEDURE”	

SECTION 67.11AA**ASBESTOS ABATEMENT****A. Part 1 – GENERAL****1.01 DESCRIPTION**

- A. The Contract Documents are as defined in the "Standard Construction Contract". The General Conditions shall apply to all Work of this Section.
- B. Work specified herein shall be the removal and disposal of water main pipe up to 72" in diameter Coal Tar Wrap Asbestos-Containing Materials (ACM) and asbestos-contaminated materials from designated areas of the water main replacement on Atlantic Avenue and Washington Avenue located in Brooklyn, N.Y.
- C. The phasing and scheduling of work for this project shall be coordinated with and approved by the Resident Engineer (RE) and Engineer-In-Charge (EIC). The RE and EIC 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).

1.02 SCOPE OF WORK

- A. Contractor is to provide all labor, materials, equipment, services, testing, appurtenances, permits and agreements necessary to perform the work required for the abatement of ACM and removal of pipe covered with asbestos containing Coal Tar Wrap 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.
- B. The intent of this Specification section is to ensure that the Contractor is responsible for the following:
 - 1. Abatement of all ACM.
 - 2. Cleaning and decontamination of the entire affected area.
 - 3. Removal of various sections of pipe in varying lengths, as necessary, that may be required to access ACM in each excavated area. Contractor shall dispose of all debris associated with such removal activities as ACM waste.
 - 4. Removal and disposal of all ACM found within these areas such as soil within excavated area, section of pipes, and coal tar wrap, etc.

5. 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.
 6. The Contractor shall be responsible for and shall include in its Bid any and all fees or changes imposed by Local, State or Federal Law, Rule or Regulation applicable to the work specified herein, including fees or charges which may be imposed subsequent to the date of the Bid opening.
 7. Prior to destructive demolition activities, the DDC may elect to collect bulk samples of assumed asbestos-containing materials and analyze the bulk samples for asbestos content.
- C. Contractor shall perform the following work as described below and indicated on the drawings. The drawings are only a diagrammatic representation of the Work Areas and do not constitute the actual quantities of material and or size of the pipe. Contractor is responsible for the confirmation of the actual total quantities of the Work to be performed prior to Bidding.

Work Area: Excavation-1:

- a. Remove and dispose of asbestos-containing coal tar pipe wrap within **Work Area**. Asbestos-containing coal tar wrap 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 coal tar wrap and pipe with coating of same are to be removed, the Contractor shall be responsible to remove all coal tar wrap material within the soil below the area where the pipe has to be removed. Repeating this procedure at several locations will not be cause for additional compensation to the Contractor. All piping and associated materials as well as impacted soil shall be disposed of as contaminated waste.
- D. 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. 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, the Contractor must notify the Commissioner of the City of New

York Department of Design and Construction if he anticipates any difficulty in performing the work as directed and required by these Specifications. Contractor shall be required to attend an on-site job meeting with the Resident Engineer prior to start of work to examine conditions of the site for removal and plan the sequence for removal operations.

- G. 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 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.
- I. 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 Conditions 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 them to perform the work of their Contract.
- M. Work Hours:
 - 1. The Contractor shall establish his work schedule in a way that avoids interference or conflict with the normal activities of the area. Work in the evenings shall be done at no additional cost to the City.

2. All work shall be done during regular working hours unless the Contractor requests 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). If such work schedule is authorized by the Commissioner the work shall be done at no additional cost to the City.
3. The order of phases and start dates associated with each will be determined by the Resident Engineer and/or the Engineer-In-Charge.
4. Waste transfer must be approved by the Resident Engineer and/or the Engineer-In-Charge.

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. The Contractor is responsible for verifying all quantities of materials listed here and Bid accordingly.

- 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 Resident Engineer.
- P. The general contractor shall retain a Registered Design Professional (person licensed and registered to practice the professions of architecture or engineering under the Education Law of the State of New York) to prepare a Work Place Safety Plan (WPSP), if required.
- Q. The general contractor shall retain a Registered Design Professional (person licensed and registered to practice the professions of architecture or engineering under the Education Law of the State of New York) to perform final inspections required pursuant to Title 28 of the Administrative Code, including but not limited to special inspections required under Chapter 17 of the Building Code. Such special inspections and A-TR1 forms shall be completed by the Registered Design professional.

1.03 QUALIFICATIONS OF ASBESTOS ABATEMENT CONTRACTOR

- A. General: 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.

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 coal tar wrap asbestos containing materials. The Contractor is advised that he will not be permitted to commence excavation work at the site for that phase of construction which may require possible removal of coal tar wrap asbestos containing materials, should his 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. Compliance by the Asbestos Abatement contractor as an Entity: 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 year period prior to the bid opening. During such period, the bidding 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. Requirements: 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, must demonstrate for the three 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 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
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 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: 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.

1.04 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.

1.05 DEFINITIONS

- A. General Explanation: Certain terms used in this Specification Section are defined below. Definitions and explanations of this Specification Section 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 Asbestos abatement 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 Asbestos abatement 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 Asbestos abatement 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 cross-reference, 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 the asbestos abatement contractor, or its sub-asbestos abatement contractor 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. **Third-Party Air Monitor:** The term "Third-Party Air Monitor" is defined as an entity engaged by City and Construction Project Manager 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.

A. **Definitions Relative to Asbestos Abatement:**

1. **Abatement:** Any and all procedures physically taken to control fiber release from asbestos-containing materials. This includes removal, encapsulation, enclosure, cleanup and repair.
2. **Adequately Wet:** The complete penetration of a material with amended water to prevent the release of particulates. If visible emissions are observed coming from asbestos-containing material, then the material has not been adequately wetted. However, the absence of visible emissions is not evidence of being adequately wet. ACM must be fully penetrated with the wetting agent in order to be considered adequately wet. If the ACM being abated is resistant to amended water penetration, wetting agent shall be applied to the material prior to and during removal as necessary to minimize fiber release.
3. **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.
4. **AHERA:** Asbestos Hazard Emergency Response Act of 1986
5. **AIHA:** American Industrial Hygiene Association.
6. **Airlock:** System for permitting entrance and exit while restricting air movement between a contaminated area and an uncontaminated area. It consists of two curtained doorways separated by a distance of at least three 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.
7. **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.
8. **Ambient Air Monitoring:** "Ambient air monitoring" shall mean measurement or determination of airborne asbestos fiber concentrations outside but in the general vicinity of the worksite.

9. Amended Water: Water to which a surfactant has been added.
10. ANSI: American National Standards Institute
11. Area Air Sampling: Any form of air sampling or monitoring where the sampling device is placed at some stationary location.
12. 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.
13. Asbestos-Containing Material (ACM): Asbestos or any material containing more than one-percent asbestos.
14. Asbestos-Containing Waste Material: ACM, asbestos-contaminated objects or debris associated with asbestos abatement requiring disposal.
15. Asbestos-Contaminated Objects: Any objects which have been contaminated by asbestos or asbestos-containing material.
16. Asbestos Assessment Report: "Asbestos Assessment Report" shall mean the "Form ACP-5" form, as approved by NYCDEP, by which a NYCDEP-certified asbestos investigator certifies that a building or structure (or portion thereof) is free of ACM or the amount of ACM to be abated constitutes a minor project.
17. Asbestos Handler: Individual who disturbs, removes, repairs, or encloses asbestos material. This individual shall have completed approved training course(s) and be in possession of certification issued by NYCDEP and NYSDOL.
18. 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.
19. Asbestos Investigator: An individual certified by NYCDEP as having successfully demonstrated his or her ability to identify the presence of and evaluate the condition of asbestos in a building or structure.
20. Asbestos Project: Any form of work performed in a building or structure which will disturb (e.g., remove, enclose, encapsulate) more than 25 linear feet or more than 10 square feet of asbestos-containing material.

21. ASTM: American Society for Testing and Materials.
22. Asbestos Project Notification: The "Form ACP-7" asbestos project notification form as approved by DEP.
23. Authorized Visitor: Authorized visitor shall mean the building owner and his/her representative, and any representative of a regulatory or other agency having jurisdiction over the project.
24. Building Owner: Person in whom legal title to the premises is vested unless the premises are held in land trust, in which instance Building Owner means the person in whom beneficial title is vested.
25. Building Materials: Any and all manmade materials, including but not limited to interior and exterior finishes, equipment, bricks, mortar, concrete, plaster, roofing, flooring, caulking, sealants, tiles, insulation, and outdoor paving such as sidewalks, paving tiles and asphalt.
26. Certified Industrial Hygienist (CIH): Individual with a minimum of five 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.
27. Certified Safety Professional (CSP): Individual having a bachelor's degree from an accredited college or university and a minimum of four 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.
28. Chain of Custody: "Chain of Custody" shall mean the form or set of forms that document the collection and transfer of a sample.
29. City: City of New York
30. 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.
31. 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.
32. Commissioner: shall mean the head of the Agency that has entered into this contract or his/her duly authorized representative.
33. Competent Person: Shall mean the designated person as defined by OSHA in 29 CFR1926.1101.

34. Curtained Doorway: Device that consists of at least three overlapping sheets of fire retardant plastic 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.
35. 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.
36. Demolition: The dismantling or razing of a building, including all operations incidental thereto (except for asbestos abatement activities), for which a demolition permit from the New York City Department of Buildings is required.
37. NYCDEP or DEP: The New York City Department of Environmental Protection.
38. Disturb: Any action taken which may alter, change, or stir, such as but not limited to the removal, encapsulation, enclosure or repair of asbestos-containing material.
39. DOB: The New York City Department of Buildings.
40. Egress: A continuous and unobstructed path of vertical and horizontal egress travel from any occupied portion of a building or structure to a public way. A means of egress consists of three separate and distinct parts: the exit access, the exit and the exit discharge.
41. ELAP: Environmental Laboratory Approval Program administered by the New York State Department of Health.
42. 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). A thin coat of lockdown encapsulant shall be applied to all surfaces in the work area which were not the subject of removal or abatement, including the cleaned layer of the surface barriers, but excepting sprinklers, standpipes, and other active elements of the fire suppression system.
43. Encapsulation: The coating or spraying of asbestos-containing material encapsulant. A thin coat of lockdown encapsulant shall be applied to all surfaces in the work area which were not the subject of removal or

- abatement, including the cleaned layer of the surface barriers, but excepting sprinklers, standpipes, and other active elements of the fire suppression system.
44. 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.
 45. EPA or USEPA: United States Environmental Protection Agency.
 46. 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.
 47. Exit: That portion of a means of egress system which is separated from other interior spaces of a building or structure by fire-resistance-rated construction to provide a protected path of egress travel between the exit access and the exit discharge.
 48. FDNY: The Fire Department of the City of New York.
 49. Fiber: An acicular single crystal or a similarity elongated polycrystalline aggregate which displays some resemblance to organic fibers by having such properties as flexibility, high aspect ratio, silky luster, axial lineation, and others, and which has attained its shape primarily through growth rather than cleavage.
 50. Fixed Object: A unit of equipment, furniture, or other item in the work area which cannot be removed from the work area. Fixed objects shall include equipment, furniture, or other items that are attached, in whole or in part, to a floor, ceiling, wall, or other building structure or system or to another fixed object and cannot be reasonably removed from the work area. Fixed objects shall also include pipes and other equipment inside the work area which are not the subject of the asbestos project. Active fire suppression system components shall not be considered fixed objects.
 51. Glovebag technique: shall mean a method for removing asbestos-containing material from heating, ventilation and air conditioning (HVAC) ducts, short piping runs, valves, joints, elbows, and other nonplanar surfaces. The glovebag assembly is a manufactured device consisting of a large bag (constructed of at least 6-mil transparent plastic), two inward-projecting long sleeve gloves, one inward-projecting waterwand sleeve, an internal tool pouch, and an attached, labeled receptacle for asbestos waste. The glovebag 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.

52. 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.
53. HEPA vacuum equipment: "HEPA vacuum equipment" shall mean vacuuming equipment with a HEPA filter.
54. Holding Area: Chamber in the equipment decontamination enclosure located between the washroom and an uncontaminated area.
55. Homogeneous Work Area: Portion of the Work Area that contains one type of ACM and/or where one type of abatement is used.
56. 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.
57. 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.
58. Isolation Barrier: The construction of partitions, the placement of solid materials, and the plasticizing of apertures to seal off the work place from surrounding areas and to contain asbestos fibers in the work area.
59. Large Asbestos Project: Asbestos project involving the disturbances (e.g., removal, enclosure, encapsulation) of 260 linear feet or more of ACM or 160 square feet or more of ACM.
60. Log: An official record of all activities that occurred during the project. At a minimum, the log shall identify the building owner, agent, asbestos

abatement contractor, and workers, and other pertinent information including daily activities, cleanings and waste transfers, names and certificate numbers of asbestos handler supervisors and asbestos handlers; results of inspections of decontamination systems, barriers, and negative pressure ventilation equipment; summary of corrective actions and repairs; work stoppages with reason for stoppage; manometer readings at least twice per work shift; daily checks of emergency and fire exits and any unusual events.

61. Minor Project: A project involving the disturbance (e.g., removal, enclosure, encapsulation, repair) of 25 linear feet or less of asbestos containing material or 10 square feet or less of asbestos containing material.
62. Movable Object: Unit of equipment or furniture in the Work Area that can be removed from the Work Area.
63. 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.
64. NESHAPS: National Emission Standards for Hazardous Air Pollutants.
65. NFPA: The National Fire Protection Association.
66. NIOSH: National Institute for Occupational Safety and Health.
67. DEP or NYCDEP: New York City Department of Environmental Protection
68. NYSDOL: New York State Department of Labor.
69. NYSDOL ICR 56: "NYSDOL ICR 56" shall mean Part 56 of the Official Compilation of Codes, Rules and Regulations of the State of New York or 12 NYCRR Part 56.
70. NYSDOH: The New York State Department of Health.
71. Obstruction: The blocking of a means of egress with any temporary structure or barrier. A double layer of fire-retardant 6-mil polyethylene sheeting shall not be considered an obstruction when it is prominently marked as an exit with photo luminescent signage or paint and cutting tools (knife, razor) are attached to the work area side of the sheeting for use in the event that the sheeting must be cut to permit egress. A corridor shall not be considered obstructed when there is a clear path measuring at least three (3) feet wide.

72. 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.
73. OSHA: Occupational Safety and Health Administration.
74. Outside air: "Outside air" shall mean the air outside the work place.
75. Person: Individual, partnership, company, corporation, association, firm, organization, governmental agency, administration, or department, or any other group of individuals, or any officer or employee thereof.
76. Personal Air Monitoring: Method used to determine employees' exposure to airborne asbestos fibers. The sample is collected outside the respirator in the worker's breathing zone.
77. Personal Protective Equipment (PPE): Appropriate protective clothing, gloves, eye protection, footwear, and head gear.
78. Phase Contrast Microscopy (PCM): The measurement protocol for the assessment of the fiber content of air. (NIOSH Method 7400).
79. Physician: Person licensed or otherwise authorized under Article 131 Section 65.22 of the New York State Education Law.
80. Plasticize: To cover floors and walls with fire retardant plastic sheeting as herein specified or by using spray plastics as acceptable to the Department.
81. Polarized Light Microscopy (PLM): The measurement protocol for the assessment of the asbestos content of bulk materials. (Interim Method for the Determination of Asbestiform Materials in Bulk Insulation Samples- 40 CFR Part 763, Subpart F, Appendix A as amended on September 1, 1982)
82. Project Designer: A person who holds a valid Project Designer Certificate issued by the New York State Department of Labor.
83. Project Monitor: A person who holds a valid Project Monitor Certificate issued by the New York State Department of Labor.
84. Qualitative Fit Test: Individual test subject's responding (either voluntarily or involuntarily) to a chemical challenge outside the respirator face-piece. Acceptable methods include irritant smoke test, odorous vapor test, and taste test.
85. 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.

86. Registered Design Professional: A person licensed and registered to practice the professions of architecture or engineering under the Education Law of the State of New York.
87. Removal: Stripping of any asbestos- containing materials from surfaces or components of a facility or taking out structural components in accordance with 40 CFR 61 Subparts A and M.
88. Renovation: An addition or alteration or change or modification of a building or the service equipment thereof, that is not classified as an ordinary repair as defined in §27-125 of the Administrative Code of the City of New York.
89. Repair: Corrective action using specified work practices (e.g., glovebag, plastic tent procedures, etc.) to minimize the likelihood of fiber release from minimally damaged areas of ACM.
90. Replacement material: Any material used to replace ACM that contains less than .01 percent asbestos.
91. Shift: A worker's, or simultaneous group of workers', complete daily term of work.
92. 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.
93. Small Asbestos Project: Asbestos project involving the disturbance (e.g., removal, enclosure, encapsulation) of more than 25 and less than 260 linear feet of ACM or more than ten and less than 160 square feet of ACM.
94. Staging Area: Work Area near the waste transfer airlock where containerized asbestos waste has been placed prior to removal from the Work Area.
95. Strip: To remove asbestos materials from any part of the facility.
96. Structural Member: Load-supporting member of a facility, such as beams and load-supporting walls, or any non-load-supporting member, such as ceiling and non-load-supporting walls.

97. Surface barriers: The plasticizing of walls, floors, and fixed objects within the work area to prevent contamination from subsequent work.
98. Surfactant: Chemical wetting agent added to water to improve penetration.
99. Transmission Electron Microscopy (TEM): The measurement protocol for the assessment of the asbestos fiber content of air. Interim Transmission Electron Microscopy Analytical Methods-40 CFR Part 763, Subpart E, Appendix A.
100. Visible Emissions: Emissions containing particulate material that are visually detectable without the aid of instruments.
101. 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.
102. Waste decontamination enclosure system: "Waste decontamination enclosure system" shall mean the decontamination enclosure system designated for the controlled transfer of materials and equipment, consisting of a washroom and a holding area.
103. Wet Cleaning: "Wet cleaning" shall mean the removal of asbestos fibers from building surfaces and objects by using cloths, mops, or other cleaning tools which have been dampened with water.
104. Wet methods: "Wet methods" shall mean the use of amended water or removal encapsulants to minimize the generation of fibers during ACM disturbance.
105. Work Area: Designated rooms, spaces, or areas of the building or structure where asbestos abatement activities take(s) place.
106. 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.
107. Work Place: The work area and the decontamination enclosure system(s).
108. Work Place Safety Plan: Construction documents prepared by a registered design professional and submitted for review by DEP in order to obtain an asbestos abatement permit. Such plan shall include, but not be limited to, plans, sections, and details of the work area clearly showing the extent, sequence, and means and methods by which the work is to be performed.

109. Work Site: Premises where abatement activity is being performed. May be composed of one or more Work Areas.

1.06 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 his 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/or cellular telephones which can be activated by a telephone number in the 212 or 646 or 718 or 917 area code. He shall supply the Department of Design and Construction with the activation number for the device and he is liable to respond back to the calls from DDC within the next one (1) hour period after he receives calls from DDC. The cost to the Contractor for this device and all charges accruing thereto is deemed included in the unit price Bid.

- 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.
 12. The asbestos abatement contractor shall provide a 24-hour fire watch throughout the entire term of the project, to protect against fire and unauthorized entry into the workspace. Fire watch shall be performed by an individual who is a certified asbestos worker capable of entering the Work Area for regular inspections.
- 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, are trained in its use and hold valid NYCDEP and NYSDOL Asbestos Handler certificates.
 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 once per work shift or as required by Title 15, Chapter 1 of RCNY and NYSDOL ICR 56 -7.3, to ensure the integrity of work place isolation, negative pressure equipment and workers personal protective equipment is not torn or ripped and that respiratory protection is worn at all times.
 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.
 6. Perform work area inspection with project monitor prior to the commencement of final clearance air monitoring.
 7. The asbestos abatement contractor shall retain the asbestos handler supervisor to perform a visual inspection prior to the post-abatement clearance air monitoring to confirm that all containerized waste has been removed from work and holding areas and there is no visible ACM debris or residue on or about all abated surfaces.

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 asbestos projects shall utilize negative pressure ventilation equipment.
 - a. The asbestos abatement contractor shall use a manometer to document the pressure differential. The asbestos abatement contractor shall install and make the manometer operational once the negative pressure has been established in the work area. Magnahelic manometers shall be calibrated at least every six months and a copy of the current calibration certification shall be available at the work site.
3. Negative pressure ventilation equipment shall be installed and operated to provide at least one air change in the work area every 15 minutes. Where there are no floor or wall barriers because floor or wall material is being abated, there shall be at least one air change in the work area every ten minutes.
4. 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.
5. A static negative air pressure of 0.02 inches (minimum) water column shall be maintained at all times in the work place during abatement to ensure that contaminated air in the Work Area does not filter back to uncontaminated areas.
6. If the contaminated area of an asbestos project covers the entire floor of the affected building, or an area greater than 15,000 square feet on any given floor, the installation of a negative air cut off switch or switches shall be required at a single location outside the work place, such as inside a stairwell, or at a secured location in the ground floor lobby when conditions warrant. The required switch or switches shall be installed by a licensed electrician pursuant to a permit issued by the Department of Buildings. If negative pressure ventilation equipment is used on multiple floors, the cut off switch shall be able to turn off the equipment on all floors.
7. 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.

8. Negative pressure ventilation equipment shall be exhausted to the outside of the building away from occupied areas.
 - a. All openings (including but not limited to operable windows, doors, vents, air intakes or exhausts of any mechanical devices) less than 15 feet from the exterior exhaust duct termination location shall be plasticized with two layers of fire retardant 6-mil polyethylene sheeting, or a second negative pressure ventilation unit with the primary unit's capacity shall be connected in series prior to exhausting to the outside.
 - b. Negative pressure ventilation equipment shall exhaust away from areas accessible to the public.
 - c. All ducting shall be sealed and braced or supported to maintain airtight joints. Ducts shall be reinforced and shall be installed so as to prevent breakage. Damage to ducts must be repaired immediately.
9. 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, non-recycling exhaust capacity to the outside of the structure.
10. 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 asbestos abatement 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 Construction Project Manager.

F. LOCKDOWN ENCAPSULATION PROCEDURES

1. 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 non-metallic 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.
- e. The cleaned layer of the surface barriers shall be removed from walls and floors.

The isolation barriers shall remain in place throughout cleanup. Decontamination enclosure systems shall remain in place and be utilized. A thin coat of lockdown encapsulant shall be applied to all surfaces in the work area which were not the subject of removal or abatement, including the cleaned layer of the surface barriers, but excepting sprinklers, standpipes, and other active elements of the fire suppression system.

1.07 NOTIFICATIONS, PERMITS, WARNING SIGNS, LABELS, AND POSTERS

- G. 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.
- H. 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.
- I. 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.
- J. Furnish all permits, variances and notices required to perform the Work.

1.08 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.

1.09 SUBMITTALS

E. Pre-Construction Submittals

1. Attend a pre-construction meeting scheduled by the City of New York Department of Design and Construction. This meeting shall also be attended by a designated representative of the City of New York third party air monitoring firm, Resident Engineer and the Engineer-In-Charge. At this meeting, the Contractor shall present three copies of the following items, bound and indexed. The detailed plan of action must be submitted at least five (5) days prior to the pre-construction meeting.
 - 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 Resident Engineer a copy of the following schedules for approval. Once approved, schedules shall be maintained and updated as received. 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 Resident 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.
 - l. 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 him and his 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; 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 non-washable, 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.

F. Submit copies of the following items 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 shall be submitted daily to the Resident Engineer.

3. Contractor's current work progress shall be submitted for review by the Resident Engineer at weekly progress meetings.
4. All Contractors' air monitoring and inspection results.

G. Project Closeout Submittals

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

1. Lien Waivers from Contractor, Sub-Contractors 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.
8. Project Record: The Contractor shall maintain a project record for all small and large asbestos projects. During the project, the project record shall be kept on site at all times. Upon completion of the project, the project record shall be maintained by the building owner. The project record shall be submitted to DDC as part of the close out documents. The project record shall consist of:
 - a. Copies of licenses of all asbestos abatement contractors involved in the project;
 - b. Copies of DEP and NYSDOL supervisor and handler certificates for all workers engaged in the project;
 - c. Copies of all project notifications and reports filed with DEP and NYSDOL for the project, with any amendments or variances;
 - d. Copies of all asbestos abatement permits, including associated approved plans and work place safety plan;
 - e. A copy of the air sampling log and all air sampling results;
 - f. A copy of the abatement asbestos abatement contractor's daily log book;
 - g. All data related to bulk sampling including the results of any asbestos surveys performed by an asbestos investigator;

- h. Copies of all asbestos waste manifests;
 - i. A copy of all Project Monitor's Reports (ACP-15)
 - j. A copy of each ATR-1 Form completed for the asbestos project (if required)
 - k. copy of each Asbestos Project Conditional Closeout Report (ACP-20)
 - l. A copy of the Asbestos Project Completion Form (ACP-21)
9. The Contractor shall submit one of the following certifications to the DOB, with a copy provided to DDC:
- a. Asbestos Project Completion Form. If an asbestos project has been performed, a copy of the asbestos project completion form issued by DEP shall be submitted to DOB, with a copy being provided to DDC, prior to the issuance of a DOB permit and to any amendment of the underlying construction document approval which increases the scope of the project to include (a) work area(s) not previously covered
 - b. An Asbestos Project Conditional Close-out Form. If an asbestos project has been performed a copy of the asbestos project conditional close-out form issued by DEP shall be submitted to DOB, with a copy being provided to DDC, prior to the issuance of a DOB permit and to any amendment of the underlying construction document approval which increases the scope of the project to include (a) work area(s) not previously covered.

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 Resident 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 his 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 his 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 notarized affidavit to the effect that the above requirements have been satisfied.
- E. The Contractor will have at all times in his 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. He 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 Non Complying 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 non-complying items subject to an adjustment in the Contract amount as approved 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 & Waste Management Division
(Air Compliance Branch) - USEPA
290 Broadway, 21st Floor
New York, New York 10007-1866
212-637-3660
 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 Pkwy
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 43rd Street (between 5th and 6th Avenue) 4th Floor
New York, NY 10036
212-642-4900
8. American Society for Testing and Materials (ASTM)
100 Bar Harbor Drive
West Conshohocken, PA 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, 8th 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

12. State Office Building Campus
Albany, New York 12240-0010
13. New York City Fire Department (FDNY)
9 Metrotech Center
Brooklyn, NY 11201-5431
718-999-2117

- I. 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.

1.11 CITY/CONTRACTOR RESPONSIBILITIES

- A. 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. 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. Contractor shall provide their own means of power if needed and the City will not be held responsible for the downtime due to faulty contractor's equipment.
- D. Contractor shall provide, at his own expense, all electrical, water, and waste connections, tie-ins, extensions, and construction materials, supplies, etc. At the end of each shift, Contractor shall disconnect all hoses within the work zone and place in equipment room of the worker decontamination unit. Contractor shall ensure positive shutoff of all water to Work Area during non-working 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 Resident 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 and the cost thereof included in the unit price Bid for abatement work. 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 at the Contractor's expense.
- H. 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.
- K. Asbestos abatement contractor shall remove all flammable materials from the work area and all sources of ignition (including but not limited to pilot lights) shall be extinguished.
- L. Asbestos abatement 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:
 - 1. 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.

1.12 USE OF THE AREA

- A. Contractor shall confine his apparatus, the storage of materials, and supplies, and the operation of his workmen to limits established by law, ordinances, and the directions of the Resident Engineer. All flammable or combustible materials shall be properly stored to obviate fire and in areas approved by the Resident Engineer.
- B. 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, at no additional cost.
- 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 his work and shall fully cooperate and coordinate his 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 Resident Engineer.

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 Resident Engineer.

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. 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 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:

Table 1. -- Assigned Protection Factors

Type of Respirator	Half mask	Full facepiece	Helmet/hood
1. Air-Purifying Respirator	³ 10	50
2. Powered Air-Purifying Respirator (PAPR)	50	1,000	⁴ 25/1,000
3. Supplied-Air Respirator (SAR) or Airline Respirator			
• Demand mode	10	50
• Continuous flow mode	50	1,000	⁴ 25/1,000
• Pressure-demand or other positive-pressure mode	50	1,000
4. Self-Contained Breathing Apparatus (SCBA)			
• Demand mode	10	50	50
• Pressure-demand or other positive-pressure mode (e.g., open/closed circuit)	10,000	10,000

Notes:

¹Employers may select respirators assigned for use in higher workplace concentrations of a hazardous substance for use at lower concentrations of that substance, or when required respirator use is independent of concentration.

²The assigned protection factors in Table 1 are only effective when the employer implements a continuing, effective respirator program as required by this section (29 CFR 1910.134), including training, fit testing, maintenance, and use requirements.

³This APF category includes filtering facepieces, and half masks with elastomeric facepieces.

⁴The employer must have evidence provided by the respirator manufacturer that testing of these respirators demonstrates performance at a level of protection of 1,000 or greater to receive an APF of 1,000. This level of performance can best be demonstrated by performing a WPF or SWPF study or equivalent testing. Absent such testing, all other PAPRs and SARs with helmets/hoods are to be treated as loose-fitting facepiece respirators, and receive an APF of 25.

⁵These APFs do not apply to respirators used solely for escape. For escape respirators used in association with specific substances covered by 29 CFR 1910 subpart Z, employers must refer to the appropriate substance-specific standards in that subpart. Escape respirators for other IDLH atmospheres are specified by 29 CFR 1910.134 (d)(2)(ii).

- 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.
- I. 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. 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 he/she 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:
 - 1. 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 Section 3.03 and/or 3.04.
 - 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.

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. He/she 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 Resident 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 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.
- D. The outer disposable suit (if 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.
- E. 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.
- F. 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.
- G. Hard Hats: provide hard hats as required by OSHA for all workers, and provide a minimum of four 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.
- H. 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.
- I. 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.

- J. Reusable footwear, hard hats and eye protection devices shall be left in the contaminated Equipment Room until the end of the Asbestos Abatement Work.
- K. 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.
- L. Respirators, disposable coveralls, head covers and foot covers shall be provided by the Contractor for the Project Monitor, Resident Engineer and any other authorized representative who may inspect the Work Area. Provide two respirators and six respirator filter changes per day.

1.16 AIR MONITORING - CONTRACTOR

- A. 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. All costs for this work shall be deemed included in the unit Price Bid.
- 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. 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. 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:
 - 1. 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 OSHA 1926.1101) 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 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 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 days.
- L. 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. All costs for required air monitoring by the Contractor's competent person shall be borne by the Contractor.
- N. 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.
- O. All samples shall be accompanied by a Chain of Custody Record that shall be submitted to the Project Monitor upon completion of analysis.

1.17 THIRD PARTY MONITORING AND 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 in Paragraph 1.17. B.
- 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	PCM	PCM	TEM
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. The number of air samples required per stage of abatement and size of abatement project is listed in the table below:

		Pre-Abatement	During Abatement	Post Abatement
Large Asbestos Projects				
1.	Full Containment	10	5	10
2.	Glovebag inside Tent	5 ^a	5 ^a	5 ^a
3.	Exterior Foam and Vertical Surfaces	-	5 ^c	5 ^d
4.	Interior Foam	10	5 ^c	10 ^d
Small Asbestos Projects				
1.	Full Containment	6	3	6
2.	Glovebag inside Tent	3 ^b	3 ^b	3 ^b
3.	Tent	3 ^b	3 ^b	3 ^b
4.	Exterior Foam and Vertical Surfaces	-	3 ^c	3 ^d
5.	Interior Foam	6	3 ^c	6 ^d
Minor Projects				
1.	Glovebag inside Tent	-	-	1 ^d
2.	Tent	-	-	1 ^d
3.	Exterior Foam and Vertical Surfaces	-	-	1 ^d
4.	Interior Foam	-	-	1 ^d

Notes:

- a. if more than three (3) tents then two (2) samples required per enclosure.
- b. if more than three (3) tents then one (1) sample required per enclosure.
- c. samples shall be taken within the work area(s).
- d. area sampling is required only if:
 - visible emissions are detected during the project
 - during-abatement area sampling results exceeded 0.01 f/cc or the pre-abatement area sampling result(s) for interior projects where applicable.
 - work area to be reoccupied is an interior space at a school, healthcare, or daycare facility.

H. Prior to commencement of abatement activities, the Testing Laboratory will collect a minimum number of area samples inside each homogeneous work area.

- 4. Samples will be taken during normal activities and circumstances at the work site.
- 5. Samplers shall be located within the proposed work area and at all proposed isolation barrier locations.
- 6. Samples shall be analyzed using PCM.
- 7. The number of samples to be collected will be determined by the size of

the project.

- I. Frequency and duration of the air sampling during abatement shall be representative of the actual conditions during the abatement. The size of the asbestos project will be a factor in the number of samples required to monitor the abatement activities. The following minimum schedule of samples shall be required daily.
 1. For large asbestos projects employing full containment, area air sampling shall be performed at the following locations:
 - a. Two area samples outside the work area in uncontaminated areas of the building, remote from the decontamination facilities.
 - (1) Primary location selection shall be within 10 feet of isolation barriers.
 - (2) Where negative ventilation exhaust runs through uncontaminated building areas, one of the area samples will be required in these areas to monitor any potential fiber release.
 - (3) Where exhaust tubes have been grouped together in banks of up to five (5) tubes, with each tube exhausting separately and the bank of tubes terminating together at the same controlled area, one area air sample shall be taken.
 - b. One area sample within the uncontaminated entrance to each decontamination enclosure system.
 - c. Where adjacent non-work areas do not exist, an exterior area sample shall be taken.
 - d. One area sample within 5 feet of the unobstructed exhaust from a negative pressure ventilation system exhausting indoors but not within a duct.
 - e. One area sample outside, but within 25 feet of, the building or structure, if the entire building or structure is the work area.

2. For large asbestos projects involving interior foam method, area air sampling shall be performed at the following sampling locations:
 - a. One area sample taken outside the work area within 10 feet of isolation barriers.
 - b. One area sample taken within the uncontaminated entrance to each worker decontamination and waste decontamination enclosure system.
 - c. One area sample within 5 feet of the unobstructed exhaust from a negative pressure ventilation system exhausting indoors but not within a duct, if applicable.
 - d. Three area samples inside the work area.
 - e. One area sample where the negative ventilation exhaust ducting runs through uncontaminated building areas, if applicable.
3. For large asbestos projects employing the glovebag procedure within a tent, a minimum of five continuous air samples shall be taken concurrently with the abatement for each work area, unless there are more than three enclosures, in which case two area samples per enclosure are required.
 - a. Four area samples taken outside the work area within ten feet of tent enclosure(s).
 - b. One area sample taken within the uncontaminated entrance to each worker and waste decontamination enclosure system.
 - c. One area sample within five feet of the unobstructed exhaust from a negative pressure ventilation system exhausting indoors, but not within a duct, if applicable.
 - d. One area sample where negative ventilation exhaust ducting runs through uncontaminated building areas, if applicable.
4. For large asbestos projects involving exterior foam method or removal of ACM from vertical surfaces, a minimum of five continuous area samples shall be taken concurrently with the abatement for each work area using the following minimum requirements:
 - a. Three area samples inside the work area and remote from the decontamination systems.

- b. One area sample within the uncontaminated entrance to each worker and waste decontamination enclosure system.
 - c. One area sample outside the work area within 25 feet of the building or structure, if the entire building or structure is the work area.
 - d. One area sample inside the building or structure at the egress point to the work area, if applicable.
5. For small asbestos projects employing full containment, a minimum of three continuous area samples shall be taken concurrently with the abatement for each work area at the following locations:
- a. Two area samples taken outside the work area within ten feet of the isolation barriers.
 - b. One area sample within the uncontaminated entrance to each worker or waste decontamination enclosure system.
 - c. One area sample within five feet of the unobstructed exhaust from a negative pressure ventilation system exhausting indoors, but not within a duct, if applicable.
 - d. One area sample where negative ventilation exhaust ducting runs through an uncontaminated building area, if applicable.
6. Tent Procedures:
For projects involving more than 25 linear feet or 10 square feet, a minimum of three continuous samples shall be taken concurrently throughout abatement.
- J. Post-abatement clearance air monitoring for projects not solely employing glove-bag procedures shall include a minimum number of area samples inside each homogeneous work area and outside each homogeneous work area (five samples inside/five samples outside for Large Projects and three samples inside/three samples outside for Small Projects). In addition to the five sample inside/five sample outside minimum for Large Projects, one additional representative area sample shall be collected inside and outside the work area for every 5,000 square feet above 25,000 square feet of floor space where ACM has been abated
- K. Post-abatement clearance air monitoring for Small Projects solely employing glove-bag procedures is not required unless one or more of the following events occurs. In such cases, post-abatement clearance air monitoring procedures shall be followed. The events requiring post-abatement clearance air monitoring are:
1. The integrity of the glove-bag was compromised,

2. Visible emissions are detected outside the glove-bag, and/or
 3. Ambient levels exceed 0.01 f/cc during abatement.
- L. Monitoring requirements for other than post-abatement clearance air monitoring are as follows:
1. The sampling zone for indoor air samples shall be representative of the building occupants' breathing zone.
 2. If possible, outdoor ambient and baseline samplers should be placed about 6 feet above the ground surface in reasonable proximity to the building and away from obstructions and drafts that may unduly affect airflow.
 3. For outdoor samples, if access to electricity and concerns about security dictate a rooftop site, locations near vents and other structures on the roof that would unduly affect airflow shall be avoided.
 4. Air sampling equipment shall not be placed in corners of rooms or near obstructions such as furniture.
- M. 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 non-mandatory Electron Microscopy Methods set forth in 40 CFR Part 763, Subpart E, Appendix A.
 5. NIOSH 7400 method using "A" counting rules
- N. 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, 25mm cassettes	560 liters	5 to 15 liters/minute
TEM, 25mm cassettes	560 liters	1 to 10 liters/minute
TEM, 37mm cassettes	1,250 liters	1 to 10 liters/minute

- O. Post-abatement clearance air monitoring requirements are as follows:
1. Sampling shall not begin until at least one hour after wet cleaning has been completed and no visible pools of water or condensation remain.
 2. Samplers shall be placed at random around the work area. If the work area contains the number of rooms equivalent to the number of required samples based on floor area, a sampler shall be placed in each room. When the number of rooms is greater than the required number of samples, a representative sample of rooms shall be selected.
 3. The representative samplers placed outside the work area but within the building shall be located to avoid any air that might escape through the isolation barriers and shall be approximately 50 feet from the entrance to the work area, and 25 feet from the isolation barriers.
- P. The following aggressive sampling procedures shall be used within the work area during all clearance air monitoring:
1. Before starting the sampling pumps, use forced air equipment (such as a one horsepower leaf blower) to direct exhaust air against all walls, ceilings, floors, ledges and other surfaces in the work area. This pre-sampling procedure shall take at least five minutes per 1,000 square feet of floor area; then
 2. Place a 20-inch diameter fan in the center of the room. Use one fan per 10,000 cubic feet of room space. Place the fan on slow speed and point it toward the ceiling.
 3. Start the sampling pumps and sample for the required time or volume.
 4. Turn off the pump and then the fan(s) when sampling is completed
 5. Collect a minimum number of area samples inside and outside each homogeneous work area (five inside/five outside samples for Large Projects and three inside/three outside samples for Small Projects). In addition to the minimum for Large Projects, one representative area samples shall be collected inside and outside the work area for every 5,000 square feet above 25,000 square feet of floor space where ACM has been abated.

- Q. For post-abatement monitoring, area samples shall conform to the following schedule:

Area Samples for Analysis by	Minimum Volume	Flow Rate
PCM	1,800 liters	5 to 15 liters/minute
TEM	1,250 liters	1 to 10 liters/minute

1. Each homogeneous work area that does not meet the clearance criteria shall be thoroughly re-cleaned using wet methods, with the negative pressure ventilation system in operation. New samples shall be collected in the work area as described above. The process shall be repeated until the work site meets the clearance criteria.
 2. For an asbestos project with more than one homogeneous work area, the release criterion shall be applied independently to each work area.
 3. Should airborne fiber concentrations exceed the clearance criteria, the asbestos abatement contractor shall re-clean the work area utilizing wet wiping and HEPA-vacuuming techniques. Following completion of re-cleaning activities, the Third-Party Air Monitor will perform an observation of the Work Area. If the Third-Party Air Monitor determines that the work was performed in accordance with the specifications, the appropriate settling period will be observed and additional air sampling will be performed.
 4. All costs resulting from additional air tests and observations shall be borne by the asbestos abatement contractor. These costs may include, but are not limited to, labor, analysis fees, materials, and expenses.
 5. After the area has been found to be in compliance, the asbestos abatement contractor may remove Isolation Barriers and perform final cleaning as specified.
- R. Clearance and/or Re-occupancy Criteria:
1. The clearance criteria shall be applied to each homogeneous work area independently.
 2. For PCM analysis, the clearance air monitoring shall be considered satisfactory when each of the 5 inside/5 outside samples for Large Projects and/or 3 inside/3 outside samples for Small Projects is 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 Third-Party Air Monitor will send the results of such tests to the City and notify the Asbestos abatement contractor.
5. The asbestos abatement contractor shall initiate the appropriate closeout information into the DEP ARTS database within 24 hours of work area completion to allow the Third Party Air Monitoring Firm to complete and submit the ACP-15 forms for each specific work area.
6. The asbestos abatement contractor shall provide the ACP-20 and ACP-21 forms to the Third Party Air Monitoring Firm within 48 hours of receipt.

S. 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.

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.

1.19 GUARANTEE

- A. Work performed in compliance with this Contract shall be guaranteed for a period of one year from the date the completed work is accepted by the City.
- B. The asbestos abatement contractor shall not be held liable for the guarantee where the repair required under the guarantee is a result of obvious abuse or vandalism, as determined by the Commissioner.

- C. The City will notify the asbestos abatement contractor in writing regarding defects in work under the guarantee.

Part 2 – PRODUCTS

2.01 MATERIALS HANDLING

- A. Deliver all materials to the job site in their manufacturer's original container, with the manufacturer's label intact and legible.
 - 1. Maintain packaged materials with seals unbroken and labels intact until time of use.
 - 2. Store all materials on pallets, away from any damp and/or wet surface. Cover materials in order to prevent damage and/or contamination.
 - 3. Promptly remove damaged materials and unsuitable items from the job site, and promptly replace with material meeting the specified requirements, at no additional cost to the City.
- B. The Construction Project Manager may reject as non-complying such material and products that do not bear identification satisfactory to the Construction Project Manager as to manufacturer, grade, quality and other pertinent information.

2.02 MATERIALS

- A. Wetting agents: (Surfactant) shall consist of resin materials in a water base, which have been tested to ensure materials are non-toxic and non-hazardous. Surfactants shall be installed according to the manufacturer's written instructions.
- B. Encapsulants: Liquid material which can be applied to asbestos-containing material 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). A thin coat of lockdown encapsulant shall be applied to all surfaces in the work area which were not the subject of removal or abatement, including the cleaned layer of the surface barriers, but excepting sprinklers, standpipes, and other active elements of the fire suppression system.
- C. During abatement activities, replacement materials shall be stored outside the work area in a manner to prevent contamination. Materials required for the asbestos project (i.e., plastic sheeting, replacement filters, duct tape, etc.) shall be stored to prevent damage or contamination.

- D. Framing Materials and Doors: As required to construct temporary decontamination facilities and isolation barriers. Lumber shall be high grade, new, finished one side and fire retardant.
- E. Fire Retardant Polyethylene Sheeting: minimum uniform thickness of 6-mil. Provide largest size possible to minimize seams. All materials used in the construction of temporary enclosures shall be noncombustible or fire-retardant in accordance with NFPA 701 and 255.
- F. 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. All materials used in the construction of temporary enclosures shall be noncombustible or fire-retardant in accordance with NFPA 701 and 255.
- G. Drums: Asbestos-transporting drums, sealable and clearly marked with warning labels as required by OSHA and EPA.
- H. Polyethylene Disposal Bags: Asbestos disposal bags, minimum of fire retardant 6-mil thick. Bags shall be clearly marked with warning labels as required by OSHA and EPA.
- I. Signs: Asbestos warning signs for posting at perimeter of Work Area, as required by OSHA and EPA.
- J. Waste Container Bag Liners and Flexible Trailer Trays: One piece leak-resistant flexible tray with absorbent pad.
- K. Tape: Provide tape which is of high quality with an adhesive that is formulated to aggressively stick to sheet polyethylene.
- L. Spray Adhesive: Provide spray adhesive in aerosol cans which is specifically formulated to stick tenaciously to sheet polyethylene.
- M. Flexible Duct: Spiral reinforced flex duct for air filtration devices.
- N. 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.
- O. Surfactants, strippers, sealers, or any other chemicals used shall be non-carcinogenic and non-toxic.
- P. Materials used in the construction of temporary enclosures shall be noncombustible or fire-retardant in accordance with NFPA 701 and 255.

2.03 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 maybe used for cleaning pipe joints within glove-bags upon written approval of the Resident 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: 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 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 feet between fire extinguishers within the Work Area.

M. First Aid Kits: 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:

1. 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:

Contractor or his 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). The device shall be activated by a telephone number in the 718, 212, 646, 917, 800, or 888 area codes. Contractor shall supply the City with the activation number for the device and respond to calls from City within one hour. The cost to Contractor for this device and all charges accruing thereto is deemed included in the Bid.

P. Electrical Service:

1. General: Comply with applicable NEMA, NECA and UL standards and governing regulations for materials and layout of temporary electric service.
2. Temporary Power: Provide service to decontamination unit sub panel with minimum 60 AMP, two pole circuit breaker or fused disconnect connected to the building's main distribution panel. Sub panel and disconnect shall be sized and equipped to accommodate all electrical equipment required for completion of the work.
3. Voltage Differences: Provide identification warning signs at power outlets that are other than 110-120 volt power. Provide polarized outlets for plug-in type outlets, to prevent insertion of 110-120 volt plugs into higher voltage outlets. Dry type transformers shall be provided where required to provide voltages necessary for work operations.

4. **Ground Fault Protection:** Equip all circuits for any purpose entering Work Area with ground fault circuit interrupters (GFCI). Locate the GFCIs outside the Work Area so that all circuits are protected prior to entry to Work Area. Provide circuit breaker type ground fault circuit interrupters (GFCI) equipped with test button and reset switch for all circuits to be used for any purpose in Work Area, decontamination units, exterior, or as otherwise required by NEC, OSHA or other authority.
5. **Power Distribution System:** Provide circuits of adequate size and proper characteristics for each use. In general run wiring overhead, and rise vertically where wiring will be least subject to damage from operations.
6. **Temporary Wiring:** In the Work Area shall be type UF non-metallic sheathed cable located overhead and exposed for surveillance. Provide liquid tight enclosures or boxes for all wiring devices. Do not wire temporary lighting with plain, exposed (insulated) electrical conductors.
7. **Electrical Power Cords:** Use only grounded extension cords; use hard service cords where exposed to traffic and abrasion. Use single lengths of cords only.
8. **Temporary Lighting:** All lighting within the Work Area shall be liquid and moisture proof and designed for the use intended.
 - a. Provide sufficient temporary lighting to ensure proper workmanship everywhere; by combined use of daylight, general lighting, and portable plug-in task lighting.
 - b. Provide lighting in the Decontamination Unit as required to supply a minimum 50-foot candle light level.
9. If electrical circuits, machinery, and other electrical systems in or passing through the work area must stay in operation due to health and safety requirements, the following precautions must be taken:
 - a. All unprotected cables, except low-voltage (less than 24 volts) communication and control system cables, panel boxes of cables and joints in live conduit that run through the work area shall be covered with three (3) independent layers of six (6) mil fire retardant polyethylene. Each layer shall be individually duct taped and sealed. All three (3) layers of polyethylene sheeting shall be left in place until satisfactory clearance air sampling results have been obtained.

2.04 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. All costs incurred in cleaning or otherwise decontaminating non-Work Areas and the contents thereof shall be borne by the Contractor at no additional cost to the City.
 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 approved filtration is on operation to remove asbestos fibers.
 2. Asbestos wastes shall be double bagged in six mil (.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 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.
 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.

Part 3 - EXECUTION

3.01 WORKER DECONTAMINATION FACILITY

A. Large Asbestos Projects (Small Project Option):

1. 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 coal tar wrap.

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 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 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 feet apart.

d. Decontamination Enclosure System shall be placed adjacent to the Work Area and shall consist of three 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 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 HEPA-vacuums 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 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 shower, with hot and cold water adjustable at the tap, per eight 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 non-contaminated 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

1. 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.
2. The worker decontamination enclosure system shall consist of, as a minimum, an equipment room, a shower room, and a clean room separated from each other and from the work area by curtained doorways. The equipment storage, personnel gross decontamination and removal of

disposal clothing shall occur in the equipment room prior to entering the shower. All other requirements shall be the same as described above for a large asbestos project.

3. For small asbestos projects with only one exit from the work area, the shower room may be used as a waste washroom. The clean room shall not be used for waste storage. All other requirements shall be the same as described above for a large asbestos project.
- C. Decontamination Enclosure System Utilities: Lighting, heat, and electricity shall be provided as necessary by the Asbestos abatement contractor, and as specified herein.

3.02 WASTE DECONTAMINATION FACILITY

A. Large Asbestos Project (Small Project Option)

1. 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 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 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 curtained doorways placed a minimum of three feet apart.
 - d. **Decontamination Enclosure System** shall be placed adjacent to the Work Area and shall consist of three totally enclosed chambers, separated from the Work Area and each other by airlocks, as follows:
 - (1) **Washroom:** An equipment washroom shall have two 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. **Small Asbestos Project:**
- 1. The worker decontamination enclosure system shall consist of, as a minimum, an equipment room, a shower room, and a clean room separated from each other and from the work area by curtained doorways. The equipment storage, personnel gross decontamination and removal of disposal clothing shall occur in the equipment room prior to entering the shower. All other requirements shall be the same as described above for a large asbestos project.
 - 2. For small asbestos projects with only one exit from the work area, the shower room may be used as a waste washroom. The clean room shall not be used for waste storage. All other requirements shall be the same as described above for a large asbestos project.
- C. **Decontamination Enclosure System Utilities:** Lighting, heat, and electricity shall be provided as necessary by the Contractor, and as specified herein.

3.03 PERSONNEL ENTRANCE AND DECONTAMINATION PROCEDURES FOR REMOVAL OPERATION 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 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.

Part 4 – PREPARATION OF WORK AREA AND REMOVAL PROCEDURES

4.01 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.
 - 1. 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 Coal Tar Wrap shall be as follows:
- a. Work shall be performed as outlined in the coal tar wrap removal procedures (see Appendix) approved by the New York City Department of Environmental Protection (NYCDEP).

4.02 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 non-Work Areas and the decontamination enclosure system for water leakage. Perform the visual inspection a minimum of two times for each 8-hour work shift.

PART 5 – ASBESTOS WASTE MANAGEMENT

5.01 ACM WASTE REQUIREMENTS

- A. The Contractor and all sub-Contractors 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, the cost shall be included in the Bid price. 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.

NOTE: 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.

- C. 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.

- D. 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 extra cost to the City.
4. Keep ACW separate from any other waste.

- E. When storing ACW – The Contractor shall:

1. Ensure that the ACW has been sufficiently wetted down in tight containers.
2. Re-wet 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:
 - a. Submit a written request and receive written approval from the City.

F. 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. Re-wet 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.

G. 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 wrapped in one 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 wrapped 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 non-Work 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 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.
- H. 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.
- I. All asbestos materials shall be prepared for transportation in accordance with this specification and all applicable Federal, State, County and City Regulations. 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.
- J. 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 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.
- K. 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.

- L. 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.
- M. 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.
- N. 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.
- O. 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. Re-wet 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.
- P. Keep ACW in a secured, enclosed, and locked container.
- Q. 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". Contractor shall provide a copy of this document to the City.
- R. 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. Contractor shall provide the Resident Engineer, Testing Laboratory or authorized designated representative with signed copies of the waste manifest before each departure.
- S. Contractor or his registered hazardous Waste Hauler shall transport asbestos-containing waste material from the abatement site directly to the specified disposal site. Contractor or their Waste Hauler shall not accept material from any

other site when transporting asbestos-containing waste material from the abatement site. The authorized DDC representative or Resident Engineer reserves the right to travel with Contractor's Waste Hauler to the waste disposal site. No intermediate storage of waste material (i.e. Contractor's warehouse) shall be permitted.

- T. 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 Resident Engineer.
- U. 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.
- V. 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 sub Contractor 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. Re-wet and repackage any damaged containers.
 5. Keep ACW separate from all other wastes.
- W. Contractor shall notify the waste disposal site, at least 24 hours prior to transportation of contaminated waste to be delivered. Contractor shall determine if a larger notification period is required.
- X. At the site Contractors 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.
- Y. 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.
- Z. 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 asbestos-contaminated waste.

- AA. 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.
- BB. 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).
- CC. 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. Contractor shall then clean the entire truck and its contents using HEPA-vacuums and wet cleaning techniques until no visible residue is observed.
- DD. 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.
- EE. The transporter(s) of all asbestos waste shall not back-haul any items on his return from landfill/disposal site.
- FF. 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.

PART 6 – ACCEPTANCE

6.01 ACCEPTANCE

- A. Upon satisfactory completion of all decontamination procedures, a certificate will be issued by the Resident 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.

Part 7 – MEASUREMENT AND PAYMENT

7.01 MEASUREMENT AND PAYMENT

- A. The quantity of "Incremental Cost for Asbestos Abatement Work Performed on Existing 12-inch Diameter Steel Pipe Water Main to be Removed, Complete" and "Incremental Cost for Asbestos Abatement Work Performed on Existing 48-inch Diameter Steel Pipe Water Main to be Removed, Complete" to be measured for payment shall be the actual number of linear feet of steel water main pipe and fittings with asbestos containing coal tar wrap removed in compliance with the requirements of this Section. Measurement shall be made in linear feet along the axis of the pipes. The removal lengths of valves, fittings and other pipe connections that are attached to the 12-inch and 48-inch diameter steel pipe water main and required to be removed as part of the removal operation of the existing 12-inch and 48-inch diameter steel pipe water main shall be included for the purpose of this calculation.

No additional measurement for payment will be made for the removal of any coal tar wrap asbestos containing material from the existing steel pipe which is designated to remain in place, but is required to facilitate the cutting of the existing pipe and joining it to the new pipe to the existing steel pipe. The cost shall be deemed to be included in the unit price bid for this item.

7.02 PAYMENT

- A. The contract price bid per linear foot for the “Incremental Cost for Asbestos Abatement Work Performed on Existing 12-inch Diameter Steel Pipe Water Main to be Removed, Complete” and “Incremental Cost for Asbestos Abatement Work Performed on Existing 48-inch Diameter Steel Pipe Water Main to be Removed, Complete” shall be the incremental cost difference of all labor, material, equipment, insurance, and incidentals required to complete all work under other scheduled contract items, using the methods required under this Section to remove and dispose of coal tar wrap asbestos containing materials associated with water main replacement.

This item will be paid only in conjunction with other scheduled contract items for installing the 12” ductile iron water main pipe and 48” steel water main pipe (e.g. Payment would be made under the unit price bid for Item No. 60.21SP4T48 – FURNISHING, DELIVERING AND LAYING 48-INCH STRAIGHT STEEL PIPE, 1/2-INCH WALL THICKNESS, for the length of pipe installed plus payment would be made under the unit price bid for Item No. 67.11AA48 – INCREMENTAL COST FOR ASBESTOS ABATEMENT WORK PERFORMED ON EXISTING 48-INCH DIAMETER STEEL PIPE WATER MAIN TO BE REMOVED, COMPLETE, in order to remove and dispose of the existing asbestos contaminated coal tar wrapped pipe). However, payment will be made under these items only for the initial length of pipe and appurtenances removed at a particular location.

Payment will be made under:

Item No.	Item	Pay Unit
67.11AA12	INCREMENTAL COST FOR ASBESTOS ABATEMENT WORK PERFORMED ON EXISTING 12-INCH DIAMETER STEEL PIPE WATER MAIN TO BE REMOVED, COMPLETE	L.F.
67.11AA48	INCREMENTAL COST FOR ASBESTOS ABATEMENT WORK PERFORMED ON EXISTING 48-INCH DIAMETER STEEL PIPE WATER MAIN TO BE REMOVED, COMPLETE	L.F.

END OF SECTION

APPENDIX

NYC DEP ATTACHMENTS

“D”, “TM”, AND “COAL TAR WRAP REMOVAL PROCEDURE”

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
 - I. all tents shall be lined with 2 layers 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 studs spaced not more than 36 inch center-to-center vertically around all 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 airlock 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 not attached to the tents, and
6. If a decontamination unit is not attached to each tent, located within each airlock 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

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

ASBESTOS CONTAINING COAL TAR WRAP AND PIPE REMOVAL PROCEDURE

The work procedure to be utilized for the removal of asbestos and the water main pipe shall be as follows:

I. Personal Protective Equipment

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

1. Tyvek suit with boot protection ("booties").
2. Disposable gloves (latex or nitrile).
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 coal tar wrap.

II. Work Procedure**A Removal:**

The following work procedure shall be employed when removing coal tar wrap:

- 1 Set up the asbestos barrier tape around the perimeter of the excavation.
- 2 Place 6-mil plastic sheeting under the steel water main pipe to collect loose debris.
- 3 Wet down coal tar wrap with amended water.
- 4 Use hand tools to break away the large chunks of coal tar wrap. Place the removed wrap in a plastic asbestos disposal bag.
- 5 Remove only the amount of wrap around the circumference of the pipe (two foot wide strip) necessary to cut the pipe for future removal.
- 6 Ensure that the intact coal tar wrap on the pipe is not damaged when removing the pipe from the excavation.
- 7 For sections of pipe left in the ground, seal all ends of exposed wrap with duct tape. Plastic wrap and duct tape all coated pipes that will be removed from the site.
- 8 In the event that some wrapping material did not fall onto the plastic sheeting, collect these pieces and place them on the sheeting.

- 9 Once coal tar wrap 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.
- 12 Cut the pipe at the abated locations using mechanical, cold cutting methods.
- 13 Double wrap large sections of cut pipe with intact ACM with two (2) layers of six (6) mil plastic sheeting, sealed with tape in ten (10) foot sections.
- 14 Wrapped sections of pipe with intact 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 coal tar wrap:

- 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. 6

This addendum consists of seventy-six (76) pages.

ATTACH TO CONTRACT DOCUMENTS

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

PROJECT ID: MED598B

TRUNK WATER MAINS IN WEST 30TH STREET BETWEEN 10TH AVENUE AND 9TH AVENUE, ETC.,
TO CONNECT SHAFT 26B TO THE DISTRIBUTION SYSTEM

INCLUDING SEWER, WATER MAIN, STREET LIGHTING AND TRAFFIC WORK

Together With All Work Incidental Thereto
BOROUGH OF MANHATTAN

ADDENDUM NO. 7

DATED: September 5, 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) **Refer** to the Bid and Contract Documents, VOLUME 1 OF 3, Page A-1, Attachment 1 - Bid Information;

Change the dates shown for Submission of Bids To: and for Bid Opening: from "September 12, 2014" to read "September 30, 2014."

Refer to the Bid and Contract Documents, VOLUME 1 OF 3, Page 13, Schedule B - MWBE;

Change the dates shown for Bid/Proposal Response Date: from "September 12, 2014" to read "September 30, 2014."

(2) **Refer** to the Bid and Contract Documents, VOLUME 1 OF 3, BID SCHEDULE, pages B-3 to B-49;

Delete all pages in their entirety;

Substitute attached revised pages B-3 (REVISION #1) to B-50 (REVISION #1).

(3) **Refer** to the Bid and Contract Documents, VOLUME 3 of 3, Addendum No. 2, page A2-66, Specific Pavement Restorations Provisions;

Delete

4.02 AF-R	Asphaltic Concrete Wearing Course, 3" Thick	(For 2" asphaltic concrete wearing course for entire width of roadway construction.)
-----------	---	--

Add

4.02 AF-R	Asphaltic Concrete Wearing Course, 2" Thick	(For 2" asphaltic concrete wearing course overlay from curb to curb or edge to edge.)
-----------	---	---

4.02 AG	Asphaltic Concrete Wearing Course, 3" Thick	(For asphaltic concrete wearing course for entire width of roadway restoration.)
---------	---	--

(4) **Refer** to the contract drawings;

Delete sheet Nos. 8 and 14;

Substitute attached revised sheet Nos. 8R and 14R.

(5) In response to questions from a Contractor (see attached letter Attachment A consisting of one (1) page), the answers to the questions are the following:

Answer to Question No. 1: DDC's Contractor currently maintains possession of the rock core samples obtained from Project SES-3828E dated August 2013.

Answer to Question No. 2: Any rock core and soil samples that were not destroyed for testing can be made available for review at the Contractor's office. The Contractor is Aquifer Drilling & Testing Inc. located at 75 East 2nd Street, Mineola NY, 11501. To set up an appointment for review, you may call (516) 616-6026.

Answer to Question No. 3: See contract drawings B8 to B11.

Answer to Question No. 4: The Contractor is notified that the rock testing lab data is available for review at the offices of the Department of Design and Construction (DDC) located at 30-30 Thomson Avenue, 3rd Floor, Long Island City, NY 11101. Contact Ms. Soad Makar at 718-391-3445 or Mr. Hua Yu at 718-391-2209 to set up an appointment for review.

Answer to Question No. 5: The record drawings for the existing 9'-3" circular concrete combined sewer which runs parallel to the proposed 90" sewer alignment doesn't show the method used to construct the existing sewer.

Answer to Question No. 6: See attached revised bid sheets.

Answer to Question No. 7: Fees for disposal of hazardous waste to NYSDFE and NYSDEC vary in time. The Contractor or Contractor's Environmental Consultant is obligated to find out the appropriate fees at the time necessary for disposal of hazardous soils.

By signing in the space provided below, the bidder acknowledges receipt of the two (2) pages of this Addendum plus forty-nine (49) pages of attachment and two (2) sheets of contract drawings.

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

for Purnima Sharma

GURDIP SAINI, P.E.
Assistant Commissioner/Design

Name of Bidder

By: _____

Attachment A



C.A.C. INDUSTRIES, INC.
 54-08 Vernon Blvd.
 Long Island City, New York 11101
 P: 718.729.3600
 F: 718.729.0400
 (engineering fax)
 F: 718.606.6995
 (accounting fax)
 www.cacind.com

August 27, 2014

NYCDDC
 30-30 Thomson Avenue
 Long Island City, NY 11101

Attn: Ms. Lorraine Holley
 Fax: (718) 391-2615

Re: RFI, Contract No. MED598B
 Trunk Water Mains in West 30th Street, between 10th Ave. & 9th Ave.

Dear Madam

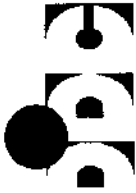
We have the following request with regards to the above referenced project:

1. Has the DDC or its consultant(s) maintained possession of the rock core samples referenced in the contract documents?
2. Are the core samples available for inspection prior to the bid date? If so, what is the procedure for inspection?
3. Please provide lab test results which may provide some indication of anticipated performance and cutter wear for the specified "tunnel" method;
4. At a minimum, please provide test results showing the following:
 - a. Compressive strength
 - b. Tensile strength
 - c. Abrasivity
5. Was Rock Blasting method used to construct the existing 9'3" circular concrete combined sewer which runs parallel to proposed 90" sewer alignment?
6. Please provide depth & configuration of Building foundation on NE corner 9th Ave. & W. 30th Str., so underpinning system could be analyzed;
7. Item 8.01H - 'Handling, Transportation & Disposal of Hazardous Soils', section 8.01H.3.B.5 calls for Contractor to pay all fees associated with the generation and disposal of all hazardous waste to NYSDPT & NYSDEC. Please furnish Fee Schedules for subject regulatory fee programs.

Very truly yours,

David Adar, P.E.

cc:



9/5/2014 12:00 AM

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

CONTRACT PIN: 8502014WWM0003C
PROJECT ID: MED598B

BID SCHEDULE

- NOTE:**
- (1) The Agency may reject a bid if it contains unbalanced bid prices. An unbalanced bid is considered to be one containing lump sum or unit items which do not reflect reasonable actual costs plus a reasonable proportionate share of the Bidder's anticipated profit, overhead costs, and other indirect costs, anticipated for the performance of the items in question.
 - (2) The following bid prices on Unit Price Contracts are to be paid for the actual quantities of the item numbers in the completed work or structure, and they cover the cost of all work, labor, material, tools, plant and appliances of every description necessary to complete the entire work, as specified, and the removal of all debris, temporary work and appliances.
 - (3) **PLEASE BE SURE A LEGIBLE BID IS ENTERED, IN INK, FOR EACH ITEM.**
Alterations must be initiated 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 Through B - 50
[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.**

9/5/2014 12:00 AM

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

PROJECT ID: MED598B

CONTRACT PIN: 8502014WM0003C

BID SCHEDULE FORM

SEQ. NO.	ITEM NUMBER and DESCRIPTION	COL. 3 ENGINEERS ESTIMATE OF QUANTITY	UNIT	UNIT PRICE (IN FIGURES)	COL. 5 EXTENDED AMOUNT (IN FIGURES)	COL. 6 TOTAL AMOUNT (IN FIGURES)
				DOLLARS	DOLLARS	CTS
001	4.02 AF-R ASPHALTIC CONCRETE WEARING COURSE, 2" THICK	2,567.00	S.Y.			
002	4.02 AG ASPHALTIC CONCRETE WEARING COURSE, 3" THICK	19,503.00	S.Y.			
003	4.02 CA BINDER MIXTURE	7,455.00	TONS			
004	4.04 H CONCRETE BASE FOR PAVEMENT, VARIABLE THICKNESS FOR TRENCH RESTORATION, (HIGH-EARLY STRENGTH)	154.00	C.Y.			
005	4.04 HD CONCRETE BASE FOR PAVEMENT, 9" THICK (HIGH-EARLY STRENGTH)	5,339.00	C.Y.			
006	4.05 AX HIGH-EARLY STRENGTH REINFORCED CONCRETE PAVEMENT (BUS STOPS)	85.00	C.Y.			

9/5/2014 12:00 AM

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

PROJECT ID: MED598B

CONTRACT PIN: 8502014WWM0003C

BID SCHEDULE FORM

CO	ESTIMATE	UNIT	QTY	UNIT PRICE	TOTAL PRICE	UNIT	QTY	UNIT PRICE	TOTAL PRICE
007	4.07 BA RESET GRANITE CURB	L.F.	60.00						
008	4.08 BA CONCRETE CURB (21" DEEP)	L.F.	530.00						
009	4.09 AD STRAIGHT STEEL FACED CONCRETE CURB (18" DEEP)	L.F.	1,120.00						
010	4.09 AE STRAIGHT STEEL FACED CONCRETE CURB (21" DEEP)	L.F.	3,797.00						
011	4.09 BD DEPRESSED STEEL FACED CONCRETE CURB (18" DEEP)	L.F.	120.00						
012	4.09 BE DEPRESSED STEEL FACED CONCRETE CURB (21" DEEP)	L.F.	2,041.00						

BID SCHEDULE FORM

ITEM NO.	ITEM NUMBER & DESCRIPTION	COL. ENGINEER ESTIMATE QUANTITY	COL. UNIT PRICE (IN DOLLARS)	EXTENDED AMOUNT (IN DOLLARS)
013	4.09 CD CORNER STEEL FACED CONCRETE CURB (18" DEEP)	265.00	L.F.	
014	4.09 CE CORNER STEEL FACED CONCRETE CURB (21" DEEP)	240.00	L.F.	
015	4.13 AAS 4" CONCRETE SIDEWALK (UNPIGMENTED)	24,770.00	S.F.	
016	4.13 BAS 7" CONCRETE SIDEWALK (UNPIGMENTED)	1,550.00	S.F.	
017	4.13 BR 7" REINFORCED CONCRETE SIDEWALK (UNPIGMENTED)	7,073.00	S.F.	
018	4.13 DE EMBEDDED PREFORMED DETECTABLE WARNING UNITS	630.00	S.F.	

BID SCHEDULE FORM

SEC. NO.	DESCRIPTION	QUANTITY	UNIT	EST. PRICE (IN DOLLARS)
019	4.15 TOPSOIL	25.00	C.Y.	
020	4.16 AAT TREES TRANSPLANTED, UP TO 4" CALIPER, ALL TYPES	4.00	EACH	
021	4.18 A MAINTENANCE TREE PRUNING (UNDER 12" CAL.)	30.00	EACH	
022	4.18 B MAINTENANCE TREE PRUNING (12" TO UNDER 18" CAL.)	2.00	EACH	
023	4.21 TREE CONSULTANT	192.00	P/HR	
024	50.11CS056090 5'-6"W X 9'-0"H SINGLE BARREL FLAT TOP REINFORCED CONCRETE COMBINED SEWER	35.00	L.F.	

9/5/2014 12:00 AM

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

PROJECT ID: MED598B

CONTRACT PIN: 8502014VWM0003C

BID SCHEDULE FORM

SECTION	ITEM NUMBER	DESCRIPTION	CITY ENGINEERS ESTIMATE QUANTITY	UNIT	UNIT PRICE (IN FIGURES) DOLLARS	EXTENDED AMOUNT (IN FIGURES) DOLLARS
025	50.21C3E048D	48" R.C.P. CLASS III COMBINED SEWER, ENCASED IN CONCRETE	160.00	L.F.		
026	50.21C4C090D	90" R.C.P. CLASS IV COMBINED SEWER, ON CONCRETE CRADLE	352.00	L.F.		
027	50.31CC15	15" E.S.V.P. COMBINED SEWER, ON CONCRETE CRADLE	382.00	L.F.		
028	50.41C6E16	16" D.I.P. CLASS 56 COMBINED SEWER, ENCASED IN CONCRETE	35.00	L.F.		
029	50.62C90R5	DIRECT JACKED 90" R.C.P. CLASS V COMBINED SEWER	456.00	L.F.		
030	50.72C0208VB0400	RECONSTRUCTION OF EXISTING 2'-8"W X 4'-0"H VERTICAL ELLIPTICAL BRICK COMBINED SEWER USING SHOTCRETE METHOD	75.00	L.F.		

9/5/2014 12:00 AM

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

PROJECT ID: MED598B

CONTRACT PIN: 8502014WWM0003C

BID SCHEDULE FORM

LINE	ITEM NUMBER	DESCRIPTION	COL 3 ENGINEERING STANDARD OF QUANTITY	COL 4 UNIT	UNIT PRICE	EXTENDED AMOUNT (IN FIGURES)
031	50.72C0400DC0000	RECONSTRUCTION OF EXISTING 4'-0" DIAMETER CIRCULAR CONCRETE COMBINED SEWER USING SHOTCRETE METHOD	249.00	L.F.		
032	51.11C001 CHAMBER NO. 1		1.00	EACH		
033	51.11C002 CHAMBER NO. 2		1.00	EACH		
034	51.21L001000V SPECIAL MANHOLE NO. 1		1.00	EACH		
035	51.21L002000V SPECIAL MANHOLE NO. 2		1.00	EACH		
036	51.21L003000V SPECIAL MANHOLE NO. 3		1.00	EACH		

9/5/2014 12:00 AM

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

PROJECT ID: MED596B

CONTRACT PIN: 8502014WWM0003C

BID SCHEDULE FORM

COL 1 SEC	COL 2 ITEM NUMBER AND DESCRIPTION	COL 3 ENGINEER'S ESTIMATE OF QUANTITY	COL 4 UNIT	COL 5 UNIT PRICE (IN FIGURES) DOLLARS	COL 6 EXTENDED AMOUNT (IN FIGURES) DOLLARS
037	51.21L004000V SPECIAL MANHOLE NO. 4	1.00	EACH		
038	51.21S0A1000V STANDARD MANHOLE TYPE A-1	3.00	EACH		
039	51.21S0D1090R STANDARD MANHOLE TYPE D-1 ON 90° R.C.P. SEWER	1.00	EACH		
040	51.22RS RECONSTRUCTION OF EXISTING MANHOLE ON EXISTING SHOTCRETE SEWER	4.00	EACH		
041	51.23RF REPLACEMENT OF EXISTING MANHOLE FRAME AND COVER	2.00	EACH		
042	51.41S001 STANDARD CATCH BASIN, TYPE 1	23.00	EACH		

9/5/2014 12:00 AM

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

PROJECT ID: MED598B

CONTRACT PIN: 8502014WWM0003C

BID SCHEDULE FORM

COL 1 SEQ	COL 2 ITEM DESCRIPTION	COL 3 ENGINEER ESTIMATE F. QUANTITY	COL 4 UNIT	COL 5 EXTENDED AMOUNT	COL 6 EXTENDED AMOUNT
043	52.11D12 12" DUCTILE IRON PIPE BASIN CONNECTION	1,150.00	L.F.		
044	52.31V08C15 8" E.S.V.P. SPUR FOR HOUSE CONNECTION ON 15" E.S.V.P. COMBINED SEWER	6.00	EACH		
045	52.41D08R 8" D.I.P. HOUSE CONNECTION DRAIN ON CONCRETE CRADLE (RECONNECTION)	50.00	L.F.		
046	52.41V08R 8" E.S.V.P. HOUSE CONNECTION DRAIN ON CONCRETE CRADLE (RECONNECTION)	50.00	L.F.		
047	53.11DR TELEVISION INSPECTION AND DIGITAL AUDIO-VISUAL RECORDING OF SEWERS	901.00	L.F.		
048	54.11SC SEWER CLEANING	375.00	L.F.		

9/5/2014 12:00 AM

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

PROJECT ID: MED598B

CONTRACT PIN: 8502014WMM0003C

BID SCHEDULE FORM

COL 1 SEQ. NO.	COL 2 ITEM NUMBER and DESCRIPTION	COL 3 ENGINEER'S ESTIMATE OF QUANTITY	COL 4 CONV. UNIT	COL 5 UNIT PRICE (IN FIGURES)		COL 6 EXTENDED AMOUNT (IN FIGURES)	
				DOLLARS	CENTS	DOLLARS	CENTS
049	54.21PC PORTLAND CEMENT (TYPE V) - INJECTION GROUTING	100.00	BAGS				
050	54.31SR SHOTCRETE FOR REPAIR WORK	500.00	C.F.				
051	6.02 AAN UNCLASSIFIED EXCAVATION	7,545.00	C.Y.				
052	6.06 GS RESET GRANITE SLAB SIDEWALK (ON MORTAR SETTING BED)	100.00	S.Y.				
053	6.23 AB REMOVE EXISTING FIRE ALARM POST	1.00	EACH				
054	6.23 BA FURNISH AND INSTALL FIRE ALARM POST AND SUBBASE IN ACCORDANCE WITH F.D. STD. DWG. #141	1.00	EACH				

9/5/2014 12:00 AM

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

PROJECT ID: MED598B

CONTRACT PIN: 8502014WWM0003C

BID SCHEDULE FORM

COL 1 SEQ. NO.	COL 2 ITEM NUMBER AND DESCRIPTION	COL 3 QTY (NEED) OR UNIT PRICE	COL 4 UNIT L.F. EACH L.F. EACH SETS S.F.	COL 5 CONTRACT UNIT PRICE (L.F. RES)	COL 6 TOTAL AMOUNT
055	6.23 BD FURNISH AND INSTALL 4-PAIR FIRE ALARM CABLE	110.00	L.F.		
056	6.23 BFC FURNISH AND INSTALL FIRE DEPARTMENT 12 WIRE TERMINAL BOX AND TERMINATE FIRE ALARM CABLES	1.00	EACH		
057	6.23 BGSE FURNISH AND INSTALL 4" P.V.C. CONDUIT, SCHEDULE 40, U.L. 651 (WITH PAVEMENT EXCAVATION)	25.00	L.F.		
058	6.23 BHE FURNISH AND INSTALL 4" 90-DEGREE P.V.C. WIDE BEND, SCHEDULE 40, U.L. 651 (WITH PAVEMENT EXCAVATION) IN ACCORDANCE WITH F.D. STD. DWG. #141 OR #145AA	1.00	EACH		
059	6.23 BP FURNISH AND INSTALL FIRE ALARM PEDESTAL BUMPERS (2 REQUIRED PER SET) IN ACCORDANCE WITH F.D. STD. DWG. #168	1.00	SETS		
060	6.25 RS TEMPORARY SIGNS	3,290.00	S.F.		

9/5/2014 12:00 AM

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

PROJECT ID: MED598B

CONTRACT PIN: 8502014WM0003C

BID SCHEDULE FORM

CONTRACT NO.	ITEM NUMBER AND DESCRIPTION	ENGINEER'S ESTIMATE QUANTITY	UNIT	COE'S UNIT PRICE (FIGURES) DOLLARS	EXTENDING AMOUNT (FIGURES) DOLLARS
061	6.26 TIMBER CURB	10,980.00	L.F.		
062	6.28 AA LIGHTED TIMBER BARRICADES	1,520.00	L.F.		
063	6.28 ME LIGHTED TIMBER FENCING FOR USE IN LOWER MANHATTAN PROJECTS	1,030.00	L.F.		
064	6.29 TTM TEMPORARY TUBULAR MARKERS	315.00	EACH		
065	6.34 ACT TEMPORARY CHAIN LINK FENCE, 6'-0" HIGH	13,420.00	L.F.		
066	6.34 ACTP TEMPORARY CHAIN LINK FENCE, 6'-0" HIGH (WITH TOP AND BOTTOM RAILS AND POSTS MOUNTED ON STEEL PLATES)	13,420.00	L.F.		

9/5/2014 12:00 AM

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

PROJECT ID: MED598B

CONTRACT PIN: 8502014WWM0003C

BID SCHEDULE FORM

ITEM NO.	ITEM DESCRIPTION	ESTIMATE QUANTITY	UNIT	COL 5 UNIT PRICE (INCLUDES) T.D.S. FACTS	COL 6 EXEMPT FROM T.D.S. FACTS
067	6.40 DC ENGINEER'S FIELD OFFICE WITH CONFERENCE ROOM	42.00	MONTH		
068	6.44 THERMOPLASTIC REFLECTORIZED PAVEMENT MARKINGS (4" WIDE)	7,925.00	L.F.		
069	6.49 TEMPORARY PAVEMENT MARKINGS (4" WIDE)	15,850.00	L.F.		
070	6.50 CLEANING OF DRAINAGE STRUCTURES	10.00	EACH		
071	6.52 CG CROSSING GUARD	6,695.00	P/HR		
072	6.53 REMOVE EXISTING LANE MARKINGS (4" WIDE)	15,850.00	L.F.		

BID SCHEDULE FORM

COL 1 ITEM NO	COL 2 ITEM NUMBER and DESCRIPTION	COL 3 ENGINEER'S ESTIMATE OF QUANTITY	COL 4 UNIT	COL 5 UNIT PRICE (IN FIGURES) DOLLARS	COL 6 EXTENDED AMOUNT (IN FIGURES) DOLLARS
073	6.59 P TEMPORARY CONCRETE BARRIER	5,400.00	L.F.		
074	6.59 PF TEMPORARY CONCRETE BARRIER WITH FENCE	5,400.00	L.F.		
075	6.84 B LOLLIPOP TYPE BUS STOP SIGNS PRICE BID SHALL BE FOR THE FIXED SUM OF \$ 3,500.00	1.00	F.S.	3,500 00	3,500 00
076	6.85 A TRAFFIC ENFORCEMENT AGENTS PRICE BID SHALL BE FOR THE FIXED SUM OF \$ 6,326,027.55	1.00	F.S.	6,326,028 55	6,326,028 55
077	6.87 PLASTIC BARRELS	1,940.00	EACH		

BID SCHEDULE FORM

078	6.91 REFLECTIVE CRACKING MEMBRANE (18" WIDE)	14,800.00	L.F.		
079	6.97 A EXTRA-HIGH-EARLY STRENGTH CONCRETE	200.00	C.Y.		
080	60.11R520 FURNISHING AND DELIVERING 20-INCH DUCTILE IRON RESTRAINED JOINT PIPE (CLASS 55)	3,039.00	L.F.		
081	60.11R524 FURNISHING AND DELIVERING 24-INCH DUCTILE IRON RESTRAINED JOINT PIPE (CLASS 55)	58.00	L.F.		
082	60.11R536 FURNISHING AND DELIVERING 36-INCH DUCTILE IRON RESTRAINED JOINT PIPE (CLASS 55)	45.00	L.F.		
083	60.11R606 FURNISHING AND DELIVERING 6-INCH DUCTILE IRON RESTRAINED JOINT PIPE (CLASS 56)	700.00	L.F.		

BID SCHEDULE FORM

SECTION	ITEM NUMBER AND DESCRIPTION	COL. 3 ENGINEER'S ESTIMATE OF QUANTITY	UNIT	COL. 5 UNIT PRICE (IN FIGURES) DOLLARS	COL. 6 TOTAL AMOUNT (IN FIGURES) DOLLARS
084	60.11R612 FURNISHING AND DELIVERING 12-INCH DUCTILE IRON RESTRAINED JOINT PIPE (CLASS 56)	3,687.00	L.F.		
085	60.12D06 LAYING 6-INCH DUCTILE IRON PIPE AND FITTINGS	875.00	L.F.		
086	60.12D12 LAYING 12-INCH DUCTILE IRON PIPE AND FITTINGS	3,798.00	L.F.		
087	60.12D20 LAYING 20-INCH DUCTILE IRON PIPE AND FITTINGS	3,155.00	L.F.		
088	60.12D24 LAYING 24-INCH DUCTILE IRON PIPE AND FITTINGS	65.00	L.F.		
089	60.12D36 LAYING 36-INCH DUCTILE IRON PIPE AND FITTINGS	65.00	L.F.		

9/5/2014 12:00 AM

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

PROJECT ID: MED598B

CONTRACT PIN: 8502014WWM0003C

BID SCHEDULE FORM

SEQ. NO.	DESCRIPTION	QTY	UNIT	COL 5 UNIT PRICE	COL 6 TOTAL AMOUNT
090	60.13M0A24 FURNISHING AND DELIVERING DUCTILE IRON MECHANICAL JOINT 24-INCH DIAMETER AND SMALLER FITTINGS, INCLUDING WEDGE TYPE RETAINER GLANDS	61.00	TONS		
091	60.13M5R36 FURNISHING AND DELIVERING 36-INCH DUCTILE IRON MECHANICAL JOINT REDUCERS (CLASS 55)	3.00	EACH		
092	60.13M5S36 FURNISHING AND DELIVERING 36-INCH DUCTILE IRON MECHANICAL JOINT SLEEVES (CLASS 55)	1.00	EACH		
093	60.18BJC20EL FURNISHING, DELIVERING AND INSTALLING BELL JOINT CLAMPS, COMPLETE FOR 20-INCH PIPE AND LESS	8.00	EACH		
094	60.21SP3T36 FURNISHING, DELIVERING AND LAYING 36-INCH STRAIGHT STEEL PIPE, 3/8-INCH WALL THICKNESS	1,138.00	L.F.		
095	60.21SP4T48 FURNISHING, DELIVERING AND LAYING 48-INCH STRAIGHT STEEL PIPE, 1/2-INCH WALL THICKNESS	2,337.00	L.F.		

9/5/2014 12:00 AM

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

PROJECT ID: MED598B

CONTRACT PIN: 8502014WM0003C

BID SCHEDULE FORM

SEQ. NO.	ITEM NUMBER and DESCRIPTION	ESTIMATE QUANTITY	UNIT	UNIT PRICE (IN FIGURES)	EXTENDED AMOUNT (IN FIGURES)	CTS
096	60.22BR3T36 FURNISHING, DELIVERING AND LAYING 36-INCH STEEL BENDS AND REDUCERS, 3/8-INCH WALL THICKNESS	183.00	L.F.			
097	60.22BR4T48 FURNISHING, DELIVERING AND LAYING 48-INCH STEEL BENDS AND REDUCERS, 1/2-INCH WALL THICKNESS	279.00	L.F.			
098	60.23ST36T36 FURNISHING, DELIVERING AND INSTALLING 36-INCH X 36-INCH STEEL TEE	2.00	EACH			
099	60.23ST36T48 FURNISHING, DELIVERING AND INSTALLING 48-INCH X 36-INCH STEEL TEE	2.00	EACH			
100	60.23ST48T48 FURNISHING, DELIVERING AND INSTALLING 48-INCH X 48-INCH STEEL TEE	3.00	EACH			
101	60.24SB48 FURNISHING, DELIVERING AND INSTALLING 48-INCH DIAMETER STEEL BULKHEAD	1.00	EACH			

9/5/2014 12:00 AM

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

PROJECT ID: MED598B

CONTRACT PIN: 8502014WWM0003C

BID SCHEDULE FORM

SEQ. NO.	ITEM NUMBER AND DESCRIPTION	ENGINEERS ESTIMATE OF QUANTITY	UNIT	PRICE	AMOUNT	UNIT PRICE	AMOUNT
102	60.25PSO FURNISHING, DELIVERING AND INSTALLING PLATE STEEL OUTLETS ON STEEL PIPE, ACCESS MANHOLE OUTLETS WITH COVERS, AND NUTS AND BOLTS COMPLETE	14,030.00	LBS.				
103	60.27RSC36 FURNISHING, DELIVERING AND INSTALLING 36-INCH DIAMETER BOLTED, SPLIT SLEEVE-TYPE RESTRAINED COUPLING	2.00	EACH				
104	60.27RSC48 FURNISHING, DELIVERING AND INSTALLING 48-INCH DIAMETER BOLTED, SPLIT SLEEVE-TYPE RESTRAINED COUPLING	2.00	EACH				
105	60.29CP FURNISHING, INSTALLING AND TESTING CORROSION CONTROL AND/OR CATHODIC PROTECTION SYSTEM	1.00	L.S.				
106	61.11DFM06 FURNISHING AND DELIVERING 6-INCH FLANGED-MECHANICAL JOINT DUCTILE IRON GATE VALVE COMPLETE WITH WEDGE TYPE RETAINER GLAND	12.00	EACH				

9/5/2014 12:00 AM

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

PROJECT ID: MED598B

CONTRACT PIN: 8502014WWM0003C

BID SCHEDULE FORM

COL. 1 SEQ. NO.	COL. 2 ITEM NUMBER AND DESCRIPTION	COL. 3 ENGINEER'S ESTIMATE OF QUANTITY	COL. 4 UNIT	COL. 5 UNITS IN F.P.R.S. (IF APPLICABLE)	COL. 6 DOLLARS (IF APPLICABLE)
107	61.11DFM12 FURNISHING AND DELIVERING 12-INCH FLANGED-MECHANICAL JOINT DUCTILE IRON GATE VALVE COMPLETE WITH WEDGE TYPE RETAINER GLAND	1.00	EACH		
108	61.11DFM20 FURNISHING AND DELIVERING 20-INCH FLANGED-MECHANICAL JOINT DUCTILE IRON GATE VALVE COMPLETE WITH WEDGE TYPE RETAINER GLAND	4.00	EACH		
109	61.11DMM06 FURNISHING AND DELIVERING 6-INCH MECHANICAL JOINT DUCTILE IRON GATE VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	29.00	EACH		
110	61.11DMM12 FURNISHING AND DELIVERING 12-INCH MECHANICAL JOINT DUCTILE IRON GATE VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	22.00	EACH		
111	61.11DMM20 FURNISHING AND DELIVERING 20-INCH MECHANICAL JOINT DUCTILE IRON GATE VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	14.00	EACH		

9/5/2014 12:00 AM

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

PROJECT ID: MED598B

CONTRACT PIN: 8502014WM0003C

BID SCHEDULE FORM

SECTION	ITEM NUMBER AND DESCRIPTION	COL 2 QUANTITY	COL 3 UNIT PRICE	COL 4 TOTAL PRICE	COL 5 EXCLUDED AMOUNT	COL 6 NET AMOUNT
		QUANTITY	UNIT PRICE	TOTAL PRICE	EXCLUDED AMOUNT	NET AMOUNT
			DOLLARS	DOLLARS	DOLLARS	DOLLARS
112	61.11TWC03 FURNISHING AND DELIVERING 3-INCH WET CONNECTION TAPPING VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	6.00	EACH			
113	61.11TWC04 FURNISHING AND DELIVERING 4-INCH WET CONNECTION TAPPING VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	6.00	EACH			
114	61.11TWC06 FURNISHING AND DELIVERING 6-INCH WET CONNECTION TAPPING VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	4.00	EACH			
115	61.11TWC08 FURNISHING AND DELIVERING 8-INCH WET CONNECTION TAPPING VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	4.00	EACH			
116	61.12DFM06 SETTING 6-INCH FLANGED-MECHANICAL JOINT DUCTILE IRON GATE VALVE COMPLETE WITH WEDGE TYPE RETAINER GLAND	12.00	EACH			
117	61.12DFM12 SETTING 12-INCH FLANGED-MECHANICAL JOINT DUCTILE IRON GATE VALVE COMPLETE WITH WEDGE TYPE RETAINER GLAND	1.00	EACH			

9/5/2014 12:00 AM

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

PROJECT ID: MED598B

CONTRACT PIN: 8502014WMM0003C

BID SCHEDULE FORM

COL 1 SEQ	COL 2 ITEM NUMBER	COL 3 ENGINEER'S ESTIMATE OF QUANTITY	COL 4 UNIT	COL 5 UNIT PRICE (IN FIGURES) DOLLARS	COL 6 EXTENDED AMOUNT (IN FIGURES) DOLLARS
118	61.12DFM20 SETTING 20-INCH FLANGED-MECHANICAL JOINT DUCTILE IRON GATE VALVE COMPLETE WITH WEDGE TYPE RETAINER GLAND	4.00	EACH		
119	61.12DMM06 SETTING 6-INCH MECHANICAL JOINT DUCTILE IRON GATE VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	29.00	EACH		
120	61.12DMM12 SETTING 12-INCH MECHANICAL JOINT DUCTILE IRON GATE VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	22.00	EACH		
121	61.12DMM20 SETTING 20-INCH MECHANICAL JOINT DUCTILE IRON GATE VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	14.00	EACH		
122	61.12TWC03 SETTING 3-INCH WET CONNECTION TAPPING VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	6.00	EACH		
123	61.12TWC04 SETTING 4-INCH WET CONNECTION TAPPING VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	6.00	EACH		

9/5/2014 12:00 AM

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

PROJECT ID: MED598B

CONTRACT PIN: 8502014WM0003C

BID SCHEDULE FORM

DEL	ITEM NUMBER	DESCRIPTION	ESTIMATE	UNIT	QUANTITY	UNIT PRICE	EXTENSION AMOUNT
124	61.12TWC06	SETTING 6-INCH WET CONNECTION TAPPING VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	4.00	EACH			
125	61.12TWC08	SETTING 8-INCH WET CONNECTION TAPPING VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	4.00	EACH			
126	61.21BVB36	FURNISHING, DELIVERING AND INSTALLING 36-INCH BUTTERFLY VALVE WITH BY-PASS ARRANGEMENT AND OUTLET, COMPLETE	2.00	EACH			
127	61.21BVB48	FURNISHING, DELIVERING AND INSTALLING 48-INCH BUTTERFLY VALVE WITH BY-PASS ARRANGEMENT AND OUTLET, COMPLETE	3.00	EACH			
128	61.21EJB48	FURNISHING, DELIVERING AND INSTALLING 48-INCH EXPANSION JOINT FOR BUTTERFLY VALVE INCLUDING 6-INCH BY-PASS OUTLET	1.00	EACH			
129	62.11SD	FURNISHING AND DELIVERING HYDRANTS	35.00	EACH			

9/5/2014 12:00 AM

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

PROJECT ID: MED598B

CONTRACT PIN: 8502014VWM0003C

BID SCHEDULE FORM

COL 1 ITEM NUMBER	COL 2 DESCRIPTION	COL 3 ENGINEERS ESTIMATE QUANTITY	COL 4 UNIT	COL 5 UNIT PRICE (IN FIGURES) DOLLARS	COL 6 EXTENSION AMOUNT (IN FIGURES) DOLLARS
130	62.12SG SETTING HYDRANTS COMPLETE WITH WEDGE TYPE RETAINER GLANDS	35.00	EACH		
131	62.13RH REMOVING HYDRANTS	26.00	EACH		
132	62.14FS FURNISHING, DELIVERING AND INSTALLING HYDRANT FENDERS	84.00	EACH		
133	63.11MH FURNISHING, DELIVERING AND INSTALLING 36-INCH CAST IRON MANHOLE HEADS AND COVERS	12.00	TONS		
134	63.11MS FURNISHING, DELIVERING AND INSTALLING MANHOLE STEPS TYPE PS2-PF	362.00	EACH		
135	63.11VC FURNISHING AND DELIVERING VARIOUS CASTINGS	70.00	TONS		

9/5/2014 12:00 AM

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

PROJECT ID: MED598B

CONTRACT PIN: 8502014WM0003C

BID SCHEDULE FORM

SEQ. NO.	ITEM NUMBER AND DESCRIPTION	COLLECTIVE ENGINEER ESTIMATE OF QUANTITY	UNIT	PRICE	UNIT PRICE	AMOUNT
136	64.11EL WITHDRAWING AND REPLACING HOUSE SERVICES USING 1-1/2-INCH OR LARGER SCREW TAPS	5.00	EACH			
137	64.11ST WITHDRAWING AND REPLACING HOUSE SERVICES USING SMALLER THAN 1-1/2-INCH SCREW TAPS	3.00	EACH			
138	64.12COEG CUTTING AND OFFSETTING HOUSE SERVICE WATER CONNECTIONS (EQUAL TO OR GREATER THAN 3-INCH DIAMETER)	90.00	L.F.			
139	64.12COLT CUTTING AND OFFSETTING HOUSE SERVICE WATER CONNECTIONS (LESS THAN 3-INCH DIAMETER)	40.00	L.F.			
140	64.12ESEG EXTENDING HOUSE SERVICE WATER CONNECTIONS (EQUAL TO OR GREATER THAN 3-INCH DIAMETER)	90.00	L.F.			
141	64.12ESLT EXTENDING HOUSE SERVICE WATER CONNECTIONS (LESS THAN 3-INCH DIAMETER)	40.00	L.F.			

9/5/2014 12:00 AM

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

PROJECT ID: MED598B

CONTRACT PIN: 8502014WWM0003C

BID SCHEDULE FORM

SEQ. NO.	ITEM NUMBER AND DESCRIPTION	COL. 2 ENGINEER'S ESTIMATE OF QUANTITY	UNIT	COL. 3 UNIT PRICE (IN FIGURES)		COL. 4 EXTENDED AMOUNT (IN FIGURES)	
				DOLLARS	CTS.	DOLLARS	CTS.
142	64.13WC12 FURNISHING, DELIVERING AND INSTALLING WET CONNECTION SLEEVE ON 12-INCH WATER MAIN PIPE WITH VARIOUS OUTLETS	12.00	EACH				
143	64.13WC20 FURNISHING, DELIVERING AND INSTALLING WET CONNECTION SLEEVE ON 20-INCH WATER MAIN PIPE WITH VARIOUS OUTLETS	8.00	EACH				
144	65.11BR FURNISHING, DELIVERING AND INSTALLING BANDS, RODS, WASHERS, ETC., COMPLETE, FOR RESTRAINING JOINTS	4,691.00	LBS.				
145	65.21PS FURNISHING AND PLACING POLYETHYLENE SLEEVE Unit price bid shall not be less than: \$ 0.50	7,797.00	L.F.				
146	65.31FF FURNISHING, DELIVERING AND PLACING FILTER FABRIC Unit price bid shall not be less than: \$ 0.10	199,294.00	S.F.				
147	65.41PS06 FURNISHING, DELIVERING AND INSTALLING 6-INCH PIPE-TO-WALL PENETRATION SEAL, INCLUDING STEEL SLEEVE AND ANCHOR/WATER STOP PLATE	10.00	EACH				

9/5/2014 12:00 AM

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

PROJECT ID: MED598B

CONTRACT PIN: 8502014WM0003C

BID SCHEDULE FORM

ITEM NUMBER	DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	TOTAL AMOUNT
148	65.41PS12 FURNISHING, DELIVERING AND INSTALLING 12-INCH PIPE-TO-WALL PENETRATION SEAL, INCLUDING STEEL SLEEVE AND ANCHOR/WATER STOP PLATE	EACH	2.00		
149	65.41PS20 FURNISHING, DELIVERING AND INSTALLING 20-INCH PIPE-TO-WALL PENETRATION SEAL, INCLUDING STEEL SLEEVE AND ANCHOR/WATER STOP PLATE	EACH	8.00		
150	65.41PS36 FURNISHING, DELIVERING AND INSTALLING 36-INCH PIPE-TO-WALL PENETRATION SEAL, INCLUDING STEEL SLEEVE AND ANCHOR/WATER STOP PLATE	EACH	12.00		
151	65.41PS48 FURNISHING, DELIVERING AND INSTALLING 48-INCH PIPE-TO-WALL PENETRATION SEAL, INCLUDING STEEL SLEEVE AND ANCHOR/WATER STOP PLATE	EACH	16.00		
152	65.51PC FURNISHING AND PLACING CAST-IN-PLACE CONCRETE CLASS 40 AND PRECAST CONCRETE CLASS 50	C.Y.	445.00		

9/5/2014 12:00 AM

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

PROJECT ID: MED598B

CONTRACT PIN: 8502014WWM0003C

BID SCHEDULE FORM

SEQ. NO.	ITEM NUMBER & DESCRIPTION	ENGINEERS ESTIMATE	COL. 4 UNIT	COL. 5 UNIT PRICE IN FIGURES DOLLARS	COL. 6 UNIT PRICE IN FIGURES DOLLARS	COL. 7 UNIT PRICE IN FIGURES DOLLARS
153	65.61SS FURNISHING, DELIVERING AND PLACING STRUCTURAL REINFORCING AND MISCELLANEOUS STEEL	66,930.00	LBS.			
154	65.71SG FURNISHING, DELIVERING AND PLACING SCREENED GRAVEL OR SCREENED BROKEN STONE BEDDING	3,630.00	C.Y.			
155	67.11AA12 INCREMENTAL COST FOR ASBESTOS ABATEMENT WORK PERFORMED ON EXISTING 12-INCH DIAMETER STEEL PIPE WATER MAIN TO BE REMOVED, COMPLETE	200.00	L.F.			
156	67.11AA48 INCREMENTAL COST FOR ASBESTOS ABATEMENT WORK PERFORMED ON EXISTING 48-INCH DIAMETER STEEL PIPE WATER MAIN TO BE REMOVED, COMPLETE	300.00	L.F.			
157	7.13 B MAINTENANCE OF SITE Unit price bid shall not be less than: \$ 15,000.00	36.00	MONTH			

9/5/2014 12:00 AM

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

PROJECT ID: MED598B

CONTRACT PIN: 8502014WMM0003C

BID SCHEDULE FORM

COL 1 SEQ. NO.	COL 2 ITEM NUMBER	COL 3 DESCRIPTION	COL 4 ENGINEERS ESTIMATE OF QUANTITY	COL 5 UNIT	COL 6 NET PRICE (UNIT PRICE) IN FIGURES	COL 7 TOTAL DOLLARS
158	7.19	LOAD TRANSFER JOINT	57.00	L.F.		
159	7.30 A	REMOVAL OF TRACK	110.00	C.Y.		
160	7.36	PEDESTRIAN STEEL BARRICADES	1,600.00	L.F.		
161	7.88 AA	RODENT INFESTATION SURVEY AND MONITORING Unit price bid shall not be less than: \$ 1,750.00	1.00	L.S.		
162	7.88 AB	RODENT BAIT STATIONS Unit price bid shall not be less than: \$ 60.00	280.00	EACH		
163	7.88 AC	BAITING OF RODENT BAIT STATIONS Unit price bid shall not be less than: \$ 8.50	280.00	EACH		

9/5/2014 12:00 AM

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

PROJECT ID: MED598B

CONTRACT PIN: 8502014VWM0003C

BID SCHEDULE FORM

COL 1 SEQ. NO.	COL 2 ITEM NUMBER AND DESCRIPTION	COL 3 CONSTRUCTION ENGINEERS ESTIMATE OF QUANTITY	COL 4 UNIT	COL 5 UNIT PRICE (IN FIGURES) DOLLARS	COL 6 UNIT PRICE (IN FIGURES) DOLLARS	COL 7 UNIT PRICE (IN FIGURES) DOLLARS
164	7.88 AD WATERBUG BAIT APPLICATIONS Unit price bid shall not be less than: \$ 65.00	252.00	BLOCK			
165	70.12AN CONTINUOUS FLIGHT AUGER (CFA) PILES	1,400.00	V.F.			
166	70.12AT CONTINUOUS FLIGHT AUGER (CFA) PILES, LOAD TEST	1.00	EACH			
167	70.21DK DECKING	1,200.00	S.Y.			
168	70.31FN FENCING Unit price bid shall not be less than: \$ 2.00	10,980.00	L.F.			

BID SCHEDULE FORM

SEQ. NO.	DESCRIPTION	ESTIMATED QUANTITY	UNIT	UNIT PRICE	TOTAL PRICE
169	70.41M007540001 SHORING, BRACING, UNDERPINNING, SUPPORTING, PROTECTING AND MAINTAINING OF BUILDING AT MANHATTAN BLOCK NO. 754, LOT NO. 1 - TWELVE (12) STORY HIGH RISE, RESIDENTIAL (363 WEST 30TH STREET)	1.00	L.S.		
170	70.51EO EXCAVATION OF BOULDERS IN OPEN CUT Unit price bid shall not be less than: \$ 75.00	160.00	C.Y.		
171	70.61RE ROCK EXCAVATION	1,305.00	C.Y.		
172	70.71SB STONE BALLAST Unit price bid shall not be less than: \$ 15.00	105.00	C.Y.		
173	70.81CB CLEAN BACKFILL Unit price bid shall not be less than: \$ 15.00	9,019.00	C.Y.		

BID SCHEDULE FORM

COL 1 ITEM NO.	COL 2 ITEM NUMBER and DESCRIPTION	COL 3 ENGINEER'S QUANTITY	COL 4 UNIT	COL 5 UNIT PRICE (IN FIGURES) DOLLARS	COL 6 EXTENDED AMOUNT (IN FIGURES) DOLLARS
174	70.91SW12 FURNISHING AND PLACING SHEETING AND BRACING IN TRENCH FOR WATER MAIN PIPE 12-INCH IN DIAMETER AND LESS	4,130.00	S.F.		
175	70.91SW20 FURNISHING AND PLACING SHEETING AND BRACING IN TRENCH FOR WATER MAIN PIPE 20-INCH IN DIAMETER	2,710.00	S.F.		
176	72.11HF HYDRAULIC FILL FOR ABANDONED SEWERS AND WATER MAINS	150.00	C.Y.		
177	73.11AB ADDITIONAL BRICK MASONRY Unit price bid shall not be less than: \$ 62.50	47.00	C.Y.		
178	73.21AC ADDITIONAL CONCRETE Unit price bid shall not be less than: \$ 75.00	195.00	C.Y.		
179	73.31AE0 ADDITIONAL EARTH EXCAVATION INCLUDING TEST PITS (ALL DEPTHS) Unit price bid shall not be less than: \$ 22.50	485.00	C.Y.		

9/5/2014 12:00 AM

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

PROJECT ID: MED598B

CONTRACT PIN: 8502014WM0003C

BID SCHEDULE FORM

SECTION	DESCRIPTION	ESTIMATE	UNIT	UNIT PRICES	EXTRACTED AMOUNT
				(C.Y.S.)	(C.Y.S.)
				DOLLARS	DOLLARS
180	73.41AG ADDITIONAL SELECT GRANULAR BACKFILL Unit price bid shall not be less than: \$ 15.00	1,015.00	C.Y.		
181	73.51AS ADDITIONAL STEEL REINFORCING BARS Unit price bid shall not be less than: \$ 1.00	6,500.00	LBS.		
182	76.11CR CONSTRUCTION REPORT	1.00	L.S.		
183	76.21MR MONITORING AND POST-CONSTRUCTION REPORT	1.00	L.S.		
184	8.01 C1 HANDLING, TRANSPORTING AND DISPOSAL OF NON-HAZARDOUS CONTAMINATED SOIL	18,000.00	TONS		
185	8.01 C2 SAMPLING AND TESTING OF CONTAMINATED/POTENTIALLY HAZARDOUS SOIL FOR DISPOSAL PURPOSES	10.00	SETS		

9/5/2014 12:00 AM

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

PROJECT ID: MED598B

CONTRACT PIN: 8502014WWM0003C

BID SCHEDULE FORM

ITEM NUMBER and DESCRIPTION	GOVT ENGINEERS ESTIMATE QUANTITY	UNIT	COL 3 UNIT PRICE (IN FIGURES) DOLLARS	COL 6 EXTENDED AMOUNT (IN FIGURES) DOLLARS	CTS
186 8.01 H HANDLING, TRANSPORTING AND DISPOSAL OF HAZARDOUS SOIL	380.00	TONS			
187 8.01 S HEALTH AND SAFETY	1.00	L.S.			
188 8.01 W1 REMOVAL, TREATMENT, AND DISCHARGE/DISPOSAL OF CONTAMINATED WATER	30.00	DAY			
189 8.01 W2 SAMPLING AND TESTING OF WATER	2.00	SETS			
190 8.08 VARIABLE MESSAGE BOARD	4.00	EACH			

9/5/2014 12:00 AM

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

PROJECT ID: MED598B

CONTRACT PIN: 85D2014WMM0003C

BID SCHEDULE FORM

SEQ. NO.	ITEM NUMBER AND DESCRIPTION	CONTRACT ENGINEER'S UNIT	UNIT	UNIT PRICE (IN FIGURES)	EXTENDED AMOUNT (IN FIGURES) DOLLARS
191	9.04 HW ALLOWANCE FOR ANTI-FREEZE ADDITIVE IN CONCRETE PRICE BID SHALL BE FOR THE FIXED SUM OF \$ 25,000.00	1.00	F.S.	25,000 00	25,000 00
192	9.06 HW ALLOWANCE FOR DECORATIVE MESH FABRIC PRICE BID SHALL BE FOR THE FIXED SUM OF \$ 115,500.00	1.00	F.S.	115,500 00	115,500 00
193	9.99 FLASHING ARROW BOARD	8.00	EACH		
194	HW-900 ALLOWANCE FOR MAXIMUM INCENTIVE FOR EARLY COMPLETION PRICE BID SHALL BE FOR THE FIXED SUM OF \$ 1,000,000.00	1.00	F.S.	1,000,000 00	1,000,000 00

9/5/2014 12:00 AM

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

PROJECT ID: MED598B

CONTRACT PIN: 8502014WWM0003C

BID SCHEDULE FORM

COL SEQ. NO.	ITEM NUMBER AND DESCRIPTION	ENGINEER'S ESTIMATE QUANTITY	UNIT	INVOICE (FIGURES) DOLLARS	EXTENDED AMOUNT (IN FIGURES) DOLLARS	CTS
195	HW-900H ALLOWANCE FOR CITY WORK ACCELERATION PRICE BID SHALL BE FOR THE FIXED SUM OF \$ 200,000.00	1.00	F.S.	200,000.00	200,000.00	00
196	SL-20.02.02 FURNISH AND INSTALL STANDARD TYPE ANCHOR BOLT FOUNDATION, AS PER DRAWING E-3788	10.00	EACH			
197	SL-20.02.18 FURNISH AND INSTALL STANDARD TYPE ANCHOR BOLT FOUNDATION AS PER DRAWING J-3788A FOR INSTALLING TYPE 30' DAVIT LAMPOST	3.00	EACH			
198	SL-21.03.02 FURNISH AND INSTALL TYPE 2S, 4S, 6S, 8S OR 12S LAMPOST WITH TRANSFORMER BASE	10.00	EACH			
199	SL-21.04.32 FURNISH AND INSTALL TYPE "GRAND CENTRAL" LAMPOST WITH OCTAGONAL TRANSFORMER BASE.	3.00	EACH			

9/5/2014 12:00 AM

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

PROJECT ID: MED598B

CONTRACT PIN: 8502014WM0003C

BID SCHEDULE FORM

LINE NO.	DESCRIPTION	QTY	UNIT	EST. PRICE	EXTENDED AMOUNT
200	SL-21.09.05 REMOVE STANDARD FABRICATED STEEL, SPUN ALUMINUM NO. 10, ETC. WITH ARM(S), LUMINAIRE(S), CONTROL(S) WITH ALL ATTACHMENTS, IF ANY.	10.00	EACH		
201	SL-21.09.06 REMOVE ORNAMENTAL LAMPPOST (TYPE "BC", "M", "F", "5TH AVENUE", "LYRE" GRAND CENTRAL) ON FOUNDATION, WITH ALL ATTACHMENTS, IF ANY. REMOVE PORTION OF FOUNDATION.	3.00	EACH		
202	SL-21.09.08 REMOVE ALL STREET LIGHTING EQUIPMENT FROM TYPE "M-2" TRAFFIC POST (ARM(S), PHOTOELECTRIC CONTROLLER, LUMINAIRE(S), SHAFT EXTENSION, WIRING, ETC.)	2.00	EACH		
203	SL-22.03.18 FURNISH AND INSTALL TYPE COBRA HEAD LUMINAIRE WITH 150 WATT HPS WITH SOLID STATE BALLAST AND STRAY VOLTAGE INDICATOR FOR 100 VOLT LAMP.	12.00	EACH		
204	SL-22.06.15 FURNISH AND INSTALL 250 WATT METAL-HALIDE "GRAND CENTRAL" LUMINAIRE AND PHOTOELECTRIC CONTROL RECEPTACLE.	6.00	EACH		

9/5/2014 12:00 AM

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

PROJECT ID: MED598B

CONTRACT PIN: 8502014WWM0003C

BID SCHEDULE FORM

COL 1 ITEM NUMBER	COL 2 DESCRIPTION	COL 3 ENGINEER'S ESTIMATE OF QUANTITY	COL 4 UNIT	COL 5 UNIFORM PRICE (IN FIGURES) DOLLARS	COL 6 EXTENDED AMOUNT (IN FIGURES) DOLLARS
205	SL-24.02.02 FURNISH AND INSTALL FABRICATED STEEL 8 FT. ARM ON LAMPPOST OR "M-2" TRAFFIC POLE SHAFT EXTENSION.	2.00	EACH		
206	SL-24.02.16 FURNISH AND INSTALL FABRICATED STEEL 6 FT. SHAFT EXTENSION (SINGLE ARM) FOR "M-2" TRAFFIC POST AS PER DWGS H-5159 OR H-5255.	2.00	EACH		
207	SL-26.01.01 FURNISH AND INSTALL, OR FURNISH AND REPLACE A PLUG-IN SOLID STATE PHOTOELECTRIC CONTROL	15.00	EACH		
208	SL-26.06.02 FURNISH AND INSTALL LED FIRE ALARM LUMINAIRES.	2.00	EACH		
209	SL-29.01.01 FURNISH, INSTALL, MAINTAIN AND REMOVE EQUIPMENT FOR TEMPORARY LIGHTING (PYLON), AS PER DRAWINGS F-5005 AND F-5005A	15.00	EACH		

BID SCHEDULE FORM

COL	ITEM NO.	DESCRIPTION	QTY	UNIT	EST. PRICE	EXTENDED AMOUNT
210	SL-31.01.06	PAINT A STANDARD STREET LIGHT LAMPPOST WITH INSULATED "SUPERHTHANE" PAINT APR. 7" HIGH.	10.00	EACH		
211	SL-33.02.02	FURNISH AND INSTALL NO. 6 AWG XLP COPPER CABLE OR EQUAL FOR OVERHEAD INSTALLATION	4,000.00	L.F.		
212	T-1.1	INSTALL TYPE "S" OR "T" FOUNDATION	1.00	EACH		
213	T-1.18	REMOVE TYPE "A", "B", "S" OR "T" SERIES FOUNDATION	1.00	EACH		
214	T-1.2	INSTALL TYPE "F-1" FOUNDATION	1.00	EACH		
215	T-1.20	REMOVE TYPE "M" SERIES FOUNDATION	2.00	EACH		

BID SCHEDULE FORM

COL. 1 SEQ. NO.	COL. 2 ITEM DESCRIPTION	COL. 3 ENGINEER'S ESTIMATE OF QUANTITY	COL. 4 UNIT	COL. 5 UNIT PRICE (IN FIGURES) DOLLARS	COL. 6 TENDER'S UNIT PRICE (IN FIGURES) DOLLARS	COL. 7 CTS	COL. 8 DOLLARS	COL. 9 CTS
216	T-1.23 REMOVE STREET LIGHT FOUNDATION	1.00	EACH					
217	T-1.29 RAISE OR LOWER FOUNDATION TO GRADE	1.00	EACH					
218	T-1.3 INSTALL TYPE "M2-SS" FOUNDATION	2.00	EACH					
219	T-2.1 INSTALL TYPE "S-1" OR "T-1" SERIES POST	1.00	EACH					
220	T-2.16 FURNISH, INSTALL, MAINTAIN AND REMOVE TEMPORARY POST OR PYLON WITH SIGNALS	1.00	EACH					
221	T-2.22 REMOVE TYPE "S-1" OR "T-1" SERIES POST	1.00	EACH					

BID SCHEDULE FORM

COL 1 SEQ. NO.	COL 2 ITEM NUMBER AND DESCRIPTION	COL 3 QUANTITY	COL 4 UNIT	COL 5 UNIT PRICE	COL 6 EXTENDED AMOUNT (IN FIGURES)	COL 7 CIS
222	T-2.24 REMOVE TYPE "M" SERIES POST	2.00	EACH			
223	T-2.27 REMOVE ANY OTHER TYPE POST	1.00	EACH			
224	T-2.4 INSTALL TYPE "M-2" POST	2.00	EACH			
225	T-20020 a) FURNISH 3/4" ANCHOR BOLT ASSEMBLIES FOR S-1 (EACH) (3 REQUIRED PER POST)	3.00	EACH			
226	T-20021 b) FURNISH 1" ANCHOR BOLT ASSEMBLIES FOR F-1 (EACH) (4 REQUIRED PER POST)	4.00	EACH			
227	T-20220 c) FURNISH 1-1/4" ANCHOR BOLT ASSEMBLIES FOR M-2 (EACH) (4 REQUIRED PER POST)	8.00	EACH			

BID SCHEDULE FORM

COL 1 SEQ. NO.	COL 2 ITEM NUMBER and DESCRIPTION	COL 3 ENGINEERS ESTIMATE OF QUANTITY	COL 4 UNIT	COL 5 UNIT PRICE (IN FIGURES) DOLLARS	COL 6 EXTENDED AMOUNT (IN FIGURES) DOLLARS	COL 7 CTS
228	T-3.1 INSTALL "ONE-WAY" SIGNAL UNIT ON MAST ARM OR TOP OF TRAFFIC POST	4.00	EACH			
229	T-3.18 REMOVE SIGNAL HEAD FROM ANY TYPE POST	2.00	EACH			
230	T-3.2 INSTALL "ONE-WAY" SIGNAL UNIT ON THE SHAFT OF ANY POST	1.00	EACH			
231	T-3.21 REMOVE PEDESTRIAN SIGNAL OR SIGN UNIT OR OTHER ILLUMINATED SIGNS FROM ANY POST	6.00	EACH			
232	T-3.6 INSTALL PEDESTRIAN SIGNAL ON ANY TYPE POST	6.00	EACH			
233	T-31200 e) "VB" ASSEMBLY *ASSEMBLY IS EQUAL TO ONE PAIR	1.00	EACH			

9/5/2014 12:00 AM

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

PROJECT ID: MED598B

CONTRACT PIN: 8502014WWM0003C

BID SCHEDULE FORM

COL NO	DESCRIPTION	UNIT	QUANTITY	PRICE	TOTAL PRICE
234	T-31210 h) "HUB" ASSEMBLY *ASSEMBLY IS EQUAL TO ONE PAIR	EACH	4.00		
235	T-31215 b) "2MS"	EACH	2.00		
236	T-31340 f) "VB-P" ASSEMBLY *ASSEMBLY IS EQUAL TO ONE PAIR	EACH	2.00		
237	T-31351 g) "VB-2P" ASSEMBLY *ASSEMBLY IS EQUAL TO ONE PAIR	EACH	2.00		
238	T-5.1 FURNISH AND INSTALL 2" RIGID UNDERGROUND CONDUIT IN UNPAVED ROADWAY	L.F.	200.00		
239	T-5.2 FURNISH AND INSTALL 2" RIGID UNDERGROUND CONDUIT IN PAVED ROADWAY	L.F.	700.00		

9/5/2014 12:00 AM

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

PROJECT ID: MED598B

CONTRACT PIN: 8502014VWM0003C

BID SCHEDULE FORM

COL NO	COL 1 ITEM NUMBER and DESCRIPTION	COL 2 ENGINEERS ESTIMATE OF QUANTITY	COL 3 UNIT	COL 4 UNIT PRICE (IN DOLLARS)	COL 5 EXTENDED AMOUNT (IN FIGURES)	COL 6 TOTAL (IN FIGURES)
240	T-5.32 RESTORING PERMANENT ROADWAY (INCLUDING SAWCUT)	700.00	L.F.			
241	T-6.10 REMOVE CABLE (INCLUDES OVERHEAD)	2,500.00	L.F.			
242	T-6.2 INSTALL MULTIPLE CABLE (INCLUDES OVERHEAD)	2,500.00	L.F.			
243	T-60000B FURNISH 2 c # 10B (BREAKDOWN = 2#10 WITH 3RD WIRE FOR GROUNDING).	2,000.00	L.F.			
244	T-60040 c) 7 CONDUCTOR, 14 A.W.G.	1,000.00	L.F.			
245	T-60190 e) 13 CONDUCTOR, 14 A.W.G.	2,500.00	L.F.			

9/5/2014 12:00 AM

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

PROJECT ID: MED598B
CONTRACT PIN: 8502014WMM0003C

BID SCHEDULE FORM

COL 1 SEQUENCE	COL 2 REMARKS / DESCRIPTION	COL 3 ENGINEERS QUANTITY	COL 4 UNIT	COL 5 UNIT PRICE (IN FIGURES)	COL 6 TOTAL AMOUNT (IN FIGURES) DOLLARS
246	T-8.8 INSTALL CONCRETE PYLON	3.00	EACH		
247	T-8.9 REMOVE CONCRETE PYLON	3.00	EACH		
248	T-81000 FURNISH CONCRETE PYLON	3.00	EACH		
249	UTL-6.01.1 GAS MAIN CROSSING SEWER UP TO 24" IN DIAMETER (\$6.01) Unit price bid shall not be less than: \$ 1,040.00	2.00	EACH		
250	UTL-6.01.11 GAS MAIN CROSSING WATER MAIN 36" THRU 42" IN DIAMETER (\$6.01) Unit price bid shall not be less than: \$ 685.00	5.00	EACH		
251	UTL-6.01.12 GAS MAIN CROSSING WATER MAIN 48" THRU 54" IN DIAMETER (\$6.01) Unit price bid shall not be less than: \$ 810.00	5.00	EACH		

BID SCHEDULE FORM

COL. 1 SEQ. NO.	COL. 2 ITEM NUMBER and DESCRIPTION	COL. 3 ENGINEER'S ESTIMATE OF QUANTITY	COL. 4 UNIT	COL. 5 UNIT PRICE (IN FIGURES) DOLLARS	COL. 6 EXTENDED AMOUNT (IN FIGURES) DOLLARS
252	UTL-6.01.4 GAS MAIN CROSSING SEWER 48" THRU 54" IN DIAMETER (S6.01) Unit price bid shall not be less than: \$ 2,120.00	1.00	EACH		
253	UTL-6.01.8 GAS SERVICES CROSSING TRENCHES AND/OR EXCAVATIONS (S6.01) Unit price bid shall not be less than: \$ 465.00	5.00	EACH		
254	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	17.00	EACH		
255	UTL-6.03 REMOVAL OF ABANDONED GAS FACILITIES. ALL SIZES. (S6.03) Unit price bid shall not be less than: \$ 15.00	1,500.00	L.F.		
256	UTL-6.03.1A REMOVAL OF ABANDONED GAS FACILITIES WITH POSSIBLE COAL TAR WRAP. ALL SIZES. (S6.03) Unit price bid shall not be less than: \$ 25.00	200.00	L.F.		
257	UTL-6.04 ADJUST HARDWARE TO GRADE USING SPACER RINGS/ADAPTORS. (STREET REPAIRING.) (S6.04) Unit price bid shall not be less than: \$ 35.00	20.00	EACH		

9/5/2014 12:00 AM

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

PROJECT ID: MED598B

CONTRACT PIN: 8502014WWM0003C

BID SCHEDULE FORM

COL 1 SEQ NO	COL 2 ITEM NUMBER	COL 3 DESCRIPTION	COL 4 UNIT	COL 5 QUANTITY	COL 6 UNIT PRICE	COL 7 TOTAL PRICE
258	UTL-6.05	ADJUST HARDWARE TO GRADE BY RESETTING. (ROAD RECONSTRUCTION.) (\$6.05) Unit price bid shall not be less than: \$ 65.00	EACH	20.00		
259	UTL-6.06	SPECIAL CARE EXCAVATION AND BACKFILLING (\$6.06) Unit price bid shall not be less than: \$ 180.00	C.Y.	500.00		
260	UTL-6.07	TEST PITS FOR GAS FACILITIES (\$6.07) Unit price bid shall not be less than: \$ 100.00	C.Y.	100.00		
261	UTL-6.09	TRENCH EXCAVATION AND BACKFILL FOR GAS MAINS AND SERVICES. GAS INSTALLED BY OTHERS. Unit price bid shall not be less than: \$ 190.00	C.Y.	1,970.00		
262	UTL-GCS-2WS	GAS INTERFERENCES AND ACCOMMODATIONS PRICE BID SHALL BE FOR THE FIXED SUM OF \$ 100,000.00	F.S.	1.00	100,000.00	100,000.00

9/5/2014 12:00 AM

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

PROJECT ID: MED598B

CONTRACT PIN: 8502014WWM0003C

BID SCHEDULE FORM

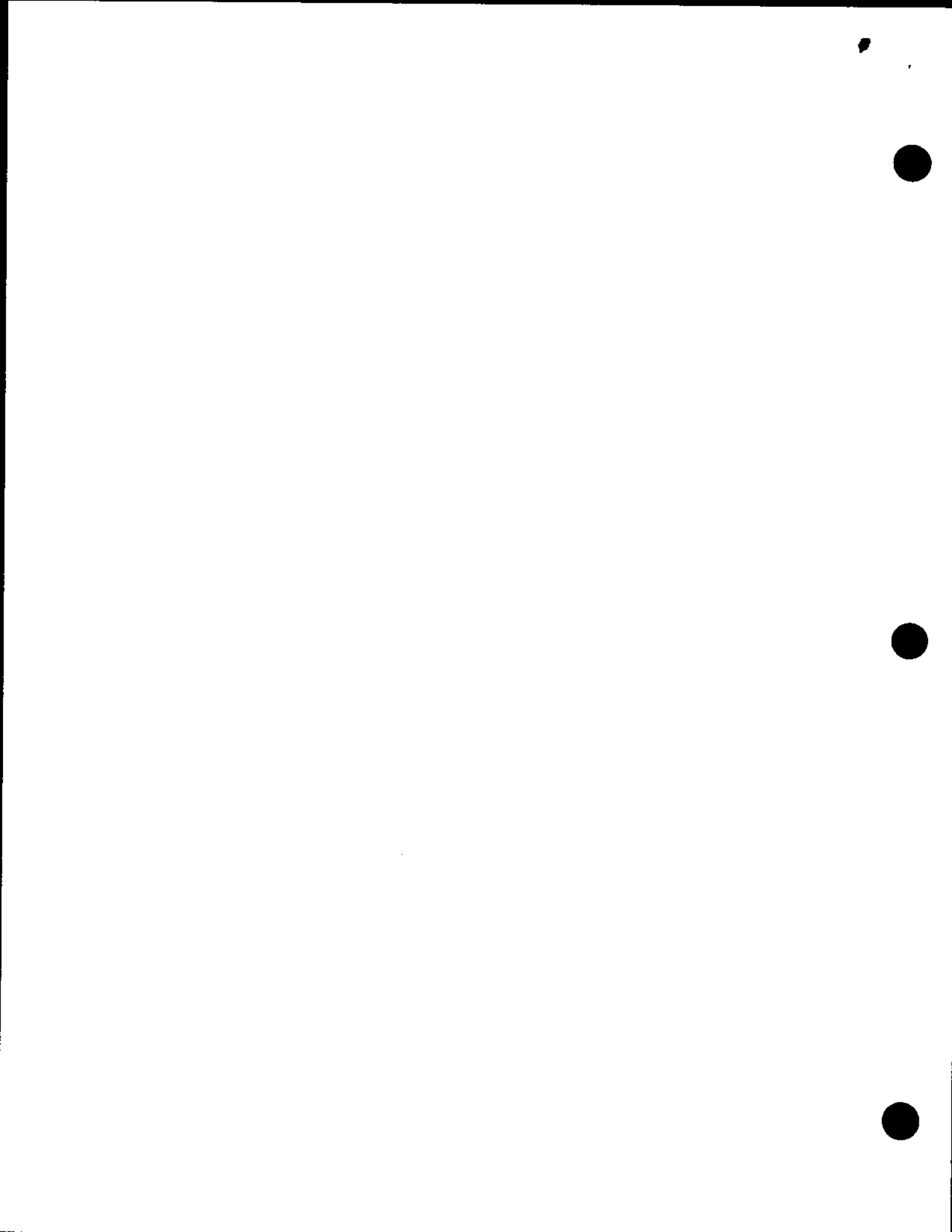
COL 1 SEQ. NO.	COL 2 ITEM NUMBER and DESCRIPTION	COL 3 ENGINEERS ESTIMATE OF QUANTITY	COL 4 UNIT PRICE (IN FIGURES)	COL 5 DOLLARS	COL 6 CENTS
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SUB-TOTAL: \$ _____

263	6.39 A MOBILIZATION BID PRICE OF MOBILIZATION SHALL NOT EXCEED 4% OF THE ABOVE SUB-TOTAL PRICE.	1.00	L.S.		
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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.



ATTACH TO CONTRACT DOCUMENTS

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

PROJECT ID: MED598B

**TRUNK WATER MAINS IN WEST 30TH STREET BETWEEN 10TH AVENUE AND 9TH AVENUE, ETC.,
TO CONNECT SHAFT 26B TO THE DISTRIBUTION SYSTEM**

INCLUDING SEWER, WATER MAIN, STREET LIGHTING AND TRAFFIC WORK

**Together With All Work Incidental Thereto
BOROUGH OF MANHATTAN**

ADDENDUM NO. 8

DATED: September 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.

(1) In response to questions from Contractors, the answers to the questions are the following:

Question No. 1: No equipment supplier currently has an MTBM large enough to install the 90" diameter RCP for this project.

Answer to Question No. 1: To our knowledge, suppliers are available for MTBM equipment with extension kit and rock cutter wheel that would be large enough to install the 90" diameter RCP sewer.

Question No. 2: Will DDC allow a smaller diameter reinforced concrete pipe (RCP) to be used in lieu of the specified 90" diameter RCP?

Answer to Question No. 2: DDC will not allow a smaller diameter reinforced concrete pipe (RCP) to be used in lieu of the specified 90" diameter RCP

Question No. 3: Will the DDC allow the use of a conventional rock boring machine?

Answer to Question No. 3: The Contractor is advised to refer to Bid and Contract Documents, VOLUME 3 OF 3, Addendum No. 2, page A2-41, Section 5.05B.2.

(2) In reference to Addendum No. 7, dated September 5, 2014, questions were raised about the answers submitted in Addendum No. 7 from a Contractor. See the following responses:

Answer to Question No. 2: Any rock core and soil samples that were not destroyed for testing can be made available for review at the Contractor's office. The Contractor is Aquifer Drilling & Testing Inc. located at 75 East 2nd Street, Mineola NY, 11501. To set up an appointment for review, you may call (516) 616-6026.

Request: Our request for an appointment was answered with a requirement that "All viewings have to be arranged through our client."



Answer: An appointment may be arranged at the Department of Design and Construction (DDC) by contacting Ms. Soad Makar at 718-391-3445 or Mr. Hua Yu at 718-391-2209.

Answer to Question No. 4: The Contractor is notified that the rock testing lab data is available for review at the offices of the Department of Design and Construction (DDC) located at 30-30 Thomson Avenue, 3rd Floor, Long Island City, NY 11101. Contact Ms. Soad Makar at 718-391-3445 or Mr. Hua Yu at 718-391-2209 to set up an appointment for review.

Request: Please make the rock testing data or the report(s) which contain the rock testing data available for possession by the Contractor in either electronic or paper format. Alternatively, please make such available for reproduction by the Contractor. Providing a responsible estimate of the cost to construct the rock tunnel section of this project will require significant time and effort reviewing the data. In addition, 3rd parties such as tunnel machine and cutter manufacturers cannot be reasonably expected to travel from various parts of the world to review data and assess the suitability of their equipment for this project.

Answer: Please see attached summary of test results for compressive strength, tensile strength and abrasivity consisting of eight (8) pages.

The Contractor is notified that additional data such as rock testing lab data or reports are available for review at the offices of the Department of Design and Construction (DDC) located at 30-30 Thomson Avenue 3rd Floor, Long Island City, New York. Please contact Ms. Soad Makar at 718-391-3445 (cubicle 438) or Mr. Hu Yua at 718-391-2209 to set up an appointment for review.

Answer to Question No. 5: The record drawings for the existing 9'-3" circular concrete combined sewer which runs parallel to the proposed 90" sewer alignment doesn't show the method used to construct the existing sewer.

Request: Please make the record drawings available for review.

Answer: The record drawings for the existing 9'-3" circular concrete combined sewer which runs parallel to proposed 90" sewer alignment are available for review at the offices of the Department of Design and Construction (DDC) located at 30-30 Thomson Avenue 3rd Floor, Long Island City, New York. Please contact Ms. Soad Makar at 718-391-3445 (cubicle 438) or Mr. Hu Yua at 718-391-2209 to set up an appointment for review.

By signing in the space provided below, the bidder acknowledges receipt of the two (2) pages of this Addendum plus eight (8) sheets of attachment.

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



**GURDIP SAINI, P.E.
Assistant Commissioner/Design**

Name of Bidder

By: _____

FMS ID: MED-5988

SES-3828E

Project Name: Trunk Water Main in West 30th Street Phase II

SUMMARY OF ROCK TESTING

Boring ID	Run	Depth (ft)	Bulk Density (lb/ft ³)	Test Type	Splitting Tensile Strength (psi) (ASTM D 3967) (I)	Compressive Strength (psi) (ASTM D 7012 Method C)	CERCHAR Index for natural surface	Punch Penetration Peak Slope (kips/in)
B-1	R-4	21.89-21.97		BR	1,090			
B-1	R-4	21.98-22.35	164	UC		24,545		
B-1	R-4	22.36-22.44		PP				143
B-1	R-4	22.63-22.71		BR	1,200			
B-1	R-4	22.72-22.80		BR	1,000			
B-1	R-4	22.81-22.89		BR	1,400			
B-1	R-4	22.90-22.98		BR	1,290			
B-1	R-4	22.99-23.07		BR	1,480			
B-1	R-4	23.08-23.16		BR	1,260			
B-1	R-4	23.17-23.25		BR	1,290			
B-1	R-4	23.26-23.34		BR	1,310			
B-1	R-4	23.35-23.43		BR	1,280			
B-1	R-5	25.10-25.47	193	UC		12,611		
B-1	R-5	25.57-25.65		PP				143
B-1	R-5	26.09-26.17		BR	1,370			
B-1	R-5	26.18-26.26		BR	1,200			
B-1	R-5	26.27-26.35		BR	1,200			
B-1	R-5	26.36-26.44		BR	1,290			
B-1	R-5	26.45-26.53		BR	1,190			
B-1	R-5	26.54-26.62		BR	1,100			
B-1	R-5	26.63-26.71		BR	1,200			
B-1	R-5	26.72-26.80		BR	1,280			
B-1	R-5	26.81-26.89		BR	1,130			
B-1	R-5	26.90-26.98		BR	963			
B-1	R-6	32.63-32.71		BR	1,120			
B-1	R-6	32.72-32.80		BR	1,230			
B-1	R-6	32.81-32.89		BR	1,270			
B-1	R-6	32.90-32.98		BR	1,120			
B-1	R-6	32.99-33.07		BR	1,180			
B-1	R-6	33.08-33.16		BR	1,350			
B-1	R-6	33.17-33.25		BR	1,250			
B-1	R-6	33.26-33.34		BR	1,460			
B-1	R-6	33.35-33.43		BR	1,080			

FMS ID: MED-598B

SES-3828E

Project Name: Trunk Water Main in West 30th Street Phase II

SUMMARY OF ROCK TESTING

Boring ID	Run	Depth (ft)	Bulk Density (lb/ft ³)	Test Type	Splitting Tensile Strength (psi) (ASTM D 3967) (1)	Compressive Strength (psi) (ASTM D 7012 Method C)	CERCHAR Index for natural surface	Punch Penetration Peak Slope (kips/in)
B-1	R-6	33.44-33.52		BR	1,070			
B-1	R-6	33.62-33.70		PP				123
B-1	R-6	34.17-34.54	195	UC		10,575		
B-1	R-7	35.07-35.15		BR	705			
B-1	R-7	35.16-35.24		BR	1,310			
B-1	R-7	35.25-35.33		BR	757			
B-1	R-7	35.34-35.42		BR	926			
B-1	R-7	35.43-35.51		BR	1,200			
B-1	R-7	35.52-35.60		BR	1,200			
B-1	R-7	35.61-35.69		BR	1,070			
B-1	R-7	35.70-35.78		BR	1,060			
B-1	R-7	35.79-35.87		BR	1,150			
B-1	R-7	35.88-35.96		BR	1,100			
B-1	R-7	36.06-36.14		PP				148
B-1	R-7	36.15-36.52	187	UC		7,170		
B-3	R-3	20.23-20.60	192	UC		15,113		
B-3	R-3	20.61-20.69		PP				137
B-3	R-3	22.03-22.11		BR	2,000			
B-3	R-3	22.12-22.20		BR	2,060			
B-3	R-3	22.21-22.29		BR	1,870			
B-3	R-3	22.30-22.38		BR	1,910			
B-3	R-3	22.39-22.47		BR	1,850			
B-3	R-3	22.48-22.56		BR	1,630			
B-3	R-3	22.57-22.65		BR	2,130			
B-3	R-3	22.66-22.74		BR	1,940			
B-3	R-3	22.75-22.83		BR	1,410			
B-3	R-3	22.84-22.92		BR	1,880			
B-3	R-4	28.46-28.54		C			4.54	
B-3	R-4	24.35-24.72	191	UC		20,881		
B-3	R-4	27.56-27.64		BR	2,080			
B-3	R-4	27.65-27.73		BR	1,970			
B-3	R-4	27.74-27.82		BR	1,610			
B-3	R-4	27.83-27.91		BR	1,790			

FMS ID: MED-598B

SES-3828E

Project Name: Trunk Water Main in West 30th Street Phase II

SUMMARY OF ROCK TESTING

Boring ID	Run	Depth (ft)	Bulk Density (lb/ft ³)	Test Type	Splitting Tensile Strength (psi) (ASTM D 3967) (1)	Compressive Strength (psi) (ASTM D 7012 Method C)	CERCHAR Index for natural surface	Punch Penetration Peak Slope (kips/in)
B-3	R-4	27.92-28.00		BR	1,790			
B-3	R-4	28.01-28.09		BR	1,490			
B-3	R-4	28.10-28.18		BR	1,980			
B-3	R-4	28.19-28.27		BR	1,760			
B-3	R-4	28.28-28.36		BR	1,710			
B-3	R-4	28.37-28.45		BR	2,090			
B-3	R-4	28.55-28.63		PP				277
B-3	R-5	31.12-31.49	171	UC		5,234		
B-3	R-5	32.25-32.33		BR	637			
B-3	R-5	32.34-32.42		BR	797			
B-3	R-5	32.43-32.51		BR	623			
B-3	R-5	32.52-32.60		BR	782			
B-3	R-5	32.61-32.69		BR	828			
B-3	R-5	32.70-32.78		BR	940			
B-3	R-5	32.79-32.87		BR	788			
B-3	R-5	32.88-32.96		BR	784			
B-3	R-5	32.97-33.05		BR	939			
B-3	R-5	33.06-33.14		BR	665			
B-3	R-5	33.15-33.23		C			4.31	
B-3	R-5	33.24-33.32		PP				94
B-3	R-6	36.27-36.35		C			3.20	
B-3	R-6	36.36 - 36.44		BR	761			
B-3	R-6	36.45- 36.53		BR	713			
B-3	R-6	36.54 - 36.62		BR	904			
B-3	R-6	36.63 - 36.71		BR	860			
B-3	R-6	36.85-37.22	171	UC		6,025		
B-3	R-6	37.36 - 37.44		BR	963			
B-3	R-6	37.45 - 37.53		BR	814			
B-3	R-6	37.54 - 37.62		BR	963			
B-3	R-6	37.63 - 37.71		BR	914			
B-3	R-6	37.72 - 37.80		BR	683			
B-3	R-6	37.81 - 37.89		BR	845			
B-3	R-6	37.90-37.98		PP				92

FMS ID: MED-598B

SES-3828E

Project Name: Trunk Water Main in West 30th Street Phase II

SUMMARY OF ROCK TESTING

Boring ID	Run	Depth (ft)	Bulk Density (lb/ft ³)	Test Type	Splitting Tensile Strength (psi) (ASTM D 3967) (1)	Compressive Strength (psi) (ASTM D 7012 Method C)	CERCHAR Index for natural surface	Punch Penetration Peak Slope (klps/in)
B-6	R-2	17.54-17.62		BR	881			
B-6	R-2	17.63-17.71		BR	1,290			
B-6	R-2	17.72-17.80		PP				154
B-6	R-2	17.93-18.01		BR	918			
B-6	R-2	18.02-18.10		BR	1,310			
B-6	R-2	18.11-18.19		BR	1,140			
B-6	R-2	18.29-18.37		BR	1,070			
B-6	R-2	18.38-18.75	170	UC		3,626		
B-6	R-3	21.11-21.19		BR	778			
B-6	R-3	21.20-21.29		BR	908			
B-6	R-3	21.30-21.39		BR	1,020			
B-6	R-3	21.40-21.49		BR	1,010			
B-6	R-3	21.50-21.59		BR	1,110			
B-6	R-3	21.60-21.69		BR	990			
B-6	R-3	21.70-21.79		BR	1,260			
B-6	R-3	21.80-21.89		BR	897			
B-6	R-3	21.90-21.99		BR	1,160			
B-6	R-3	22.05-22.42	172	UC		3,831		
B-6	R-3	22.53-22.62		C			4.16	
B-6	R-3	22.56-22.64		BR	886			
B-6	R-3	22.63-22.75		PP				118
B-6	R-4	25.36-25.44		BR	512			
B-6	R-4	25.45-25.53		BR	312			
B-6	R-4	25.54-25.62		BR	273			
B-6	R-4	25.63-25.71		BR	529			
B-6	R-4	25.80-25.88		PP				34
B-6	R-4	25.89-25.97		BR	286			
B-6	R-4	26.07-26.15		BR	485			
B-6	R-4	27.23-27.31		BR	916			
B-6	R-4	27.32-27.40		BR	742			
B-6	R-4	27.41-27.49		BR	484			
B-6	R-4	27.50-27.87	172	UC		1,295		
B-6	R-4	27.88-27.96		BR	473			

SUMMARY OF ROCK TESTING

Boring ID	Run	Depth (ft)	Bulk Density (lb/ft ³)	Test Type	Splitting Tensile Strength (psi) (ASTM D 3967) (1)	Compressive Strength (psi) (ASTM D 7012 Method C)	CERCHAR Index for natural surface	Punch Penetration Peak Slope (kips/in)
B-6	R-5	31.70-31.78		C			3.39	
B-6	R-5	31.79-31.87		BR	649			
B-6	R-5	31.88-31.96		BR	513			
B-6	R-5	31.97-32.05		BR	691			
B-6	R-5	32.06-32.14		BR	610			
B-6	R-5	32.10-32.47	174	UC		1,346		
B-6	R-5	33.60-33.68		BR	358			
B-6	R-5	33.69-33.77		BR	506			
B-6	R-5	33.78-33.86		BR	431			
B-6	R-5	33.87-33.95		BR	940			
B-6	R-5	33.96-34.04		BR	1,100			
B-6	R-5	34.05-34.13		BR	802			
B-6	R-5	34.14-34.22		PP				55
B-6	R-2	18.20-18.28		C			4.50	
B-6	R-4	25.98-26.06		C			3.42	
B-9	R-1	10.04-10.10		BR	345			
B-9	R-1	10.11-10.17		BR	438			
B-9	R-1	10.18-10.24		BR	466			
B-9	R-1	10.25-10.31		BR	434			
B-9	R-1	10.32-10.38		BR	694			
B-9	R-1	10.39-10.45		BR	680			
B-9	R-1	10.46-10.52		BR	513			
B-9	R-1	10.53-10.59		C			3.60	
B-9	R-1	10.60-10.66		BR	834			
B-9	R-1	10.67-10.73		PP				54
B-9	R-1	13.10-13.47	169	UC		5,382		
B-9	R-1	13.48-13.54		BR	879			
B-9	R-1	13.55-13.61		BR	814			
B-9	R-2	15.06-15.16		BR	552			
B-9	R-2	18.25-18.34		BR	1,150			
B-9	R-2	18.35-18.44		BR	1,330			
B-9	R-2	18.45-18.54		BR	1,390			
B-9	R-2	18.55-18.64		BR	982			

FMS ID: MED-5988

SES-3828E

Project Name: Trunk Water Main in West 30th Street Phase II

SUMMARY OF ROCK TESTING

Boring ID	Run	Depth (ft)	Bulk Density (lb/ft ³)	Test Type	Splitting Tensile Strength (psi) (ASTM D 3967) (1)	Compressive Strength (psi) (ASTM D 7012 Method C)	CERCHAR Index for natural surface	Punch Penetration Peak Slope (kips/in)
B-9	R-2	18.65-18.74		BR	928			
B-9	R-2	18.75-18.84		BR	1,220			
B-9	R-2	18.85-18.94		BR	1,330			
B-9	R-2	18.95-19.04		BR	1,210			
B-9	R-2	19.05-19.14		BR	1,160			
B-9	R-2	19.28-19.40		PP				253
B-9	R-2	19.38-19.75	163	UC		22,513		
B-9	R-2	19.41-19.50		C			4.91	
B-9	R-3	20.12-20.20		BR	1,060			
B-9	R-3	20.21-20.29		BR	1,450			
B-9	R-3	20.30-20.38		BR	1,410			
B-9	R-3	20.39-20.47		BR	1,310			
B-9	R-3	20.48-20.85	164	UC		22,053		
B-9	R-3	20.86-20.94		BR	1,210			
B-9	R-3	20.95-21.03		BR	996			
B-9	R-3	21.04-21.12		BR	1,120			
B-9	R-3	21.13-21.21		BR	1,180			
B-9	R-3	21.36-21.44		BR	1,180			
B-9	R-3	21.45-21.53		BR	1,380			
B-9	R-3	21.63-21.71		PP				161
B-9	R-3	21.54-21.62		C			5.21	
B-9	R-4	26.00-26.08		PP				219
B-9	R-4	26.09-26.17		BR	1,310			
B-9	R-4	26.18-26.26		BR	1,310			
B-9	R-4	26.27-26.35		BR	1,230			
B-9	R-4	26.36-26.44		BR	1,460			
B-9	R-4	27.78-27.86		C			4.51	
B-9	R-4	27.87-27.95		BR	1,170			
B-9	R-4	27.96-28.04		BR	1,110			
B-9	R-4	28.05-28.13		BR	1,210			
B-9	R-4	28.14-28.51	163	UC		21,236		
B-9	R-4	28.52-28.60		BR	1,250			
B-9	R-4	28.61-28.69		BR	1,290			

FMS ID: MED-598B

SES-3828E

Project Name: Trunk Water Main in West 30th Street Phase II

SUMMARY OF ROCK TESTING

Boring ID	Run	Depth (ft)	Bulk Density (lb/ft ³)	Test Type	Splitting Tensile Strength (psi) (ASTM D 3967) (1)	Compressive Strength (psi) (ASTM D 7012 Method C)	CERCHAR Index for natural surface	Punch Penetration Peak Slope (kips/in)
B-9	R-4	28.70-28.78		BR	1,010			
B-12	R-1	13.02-13.39	163	UC		16,963		
B-12	R-1	13.40-13.46		BR	1,300			
B-12	R-1	13.47-13.53		BR	1,400			
B-12	R-1	13.54-13.60		BR	850			
B-12	R-1	13.61-13.67		BR	1,080			
B-12	R-1	13.77-13.83		BR	1,080			
B-12	R-1	13.84-13.90		BR	611			
B-12	R-1	13.91-13.97		BR	713			
B-12	R-1	13.98-14.04		BR	688			
B-12	R-1	14.05-14.11		BR	910			
B-12	R-1	14.54-14.60		BR	647			
B-12	R-1	14.95-15.03		C			2.89	
B-12	R-1	15.04-15.12		PP				120
B-12	R-2	18.30-18.38		C			2.30	
B-12	R-2	18.39-18.47		PP				93
B-12	R-2	18.65-18.73		BR	752			
B-12	R-2	18.74-18.82		BR	1,080			
B-12	R-2	18.83-18.91		BR	693			
B-12	R-2	18.92-19.00		BR	687			
B-12	R-2	19.01-19.09		BR	992			
B-12	R-2	19.10-19.18		BR	979			
B-12	R-2	19.19-19.27		BR	980			
B-12	R-2	19.28-19.36		BR	1,020			
B-12	R-2	19.37-19.45		BR	946			
B-12	R-2	19.46-19.54		BR	898			
B-12	R-2	19.71-20.08	168	UC		8,832		
B-12	R-3	24.79-24.87		BR	868			
B-12	R-3	24.88-24.96		BR	1,210			
B-12	R-3	24.97-25.05		BR	1,610			
B-12	R-3	25.06-25.14		BR	1,290			
B-12	R-3	25.15-25.23		BR	1,290			
B-12	R-3	25.24-25.32		BR	1,580			

FMS ID: MED-598B

SES-3828E

Project Name: Trunk Water Main in West 30th Street Phase II

SUMMARY OF ROCK TESTING

Boring ID	Run	Depth (ft)	Bulk Density (lb/ft ³)	Test Type	Splitting Tensile Strength (psi) (ASTM D 3967) (1)	Compressive Strength (psi) (ASTM D 7012 Method C)	CERCHAR Index for natural surface	Punch Penetration Peak Slope (kips/in)
B-12	R-3	25.33-25.41		BR	1,600			
B-12	R-3	25.42-25.50		BR	1,600			
B-12	R-3	25.51-25.59		BR	1,480			
B-12	R-3	25.60-25.68		BR	1,790			
B-12	R-3	25.69-25.77		C			4.91	
B-12	R-3	25.78-26.15	165	UC		27,914		
B-12	R-3	26.16-26.24		PP				232

Notes:

(1) For Splitting Tensile Strength Tests, looking from the end surface of sample, the lab oriented bedding or foliation so that it was perpendicular to the force applied by the compression machine.



ATTACH TO CONTRACT DOCUMENTS

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

PROJECT ID: MED598B

TRUNK WATER MAINS IN WEST 30TH STREET BETWEEN 10TH AVENUE AND 9TH AVENUE, ETC.,
TO CONNECT SHAFT 26B TO THE DISTRIBUTION SYSTEM

INCLUDING SEWER, WATER MAIN, STREET LIGHTING AND TRAFFIC WORK

Together With All Work Incidental Thereto
BOROUGH OF MANHATTAN

ADDENDUM NO. 9

DATED: September 29, 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) Refer to the Bid and Contract Documents, VOLUME 1 OF 3, Page A-1, Attachment 1 - Bid Information;
Change the dates shown for Submission of Bids To: and for Bid Opening: from "September 30, 2014" to read "October 16, 2014."
- (2) Refer to the Bid and Contract Documents, VOLUME 1 OF 3, Page 13, Schedule B - M/WBE;
Change the dates shown for Bid/Proposal Response Date: from "September 30, 2014" to read "October 16, 2014."

Note:

- (3) The Contractor's attention is called upon Item No. 70.41M007540001 "SHORING, BRACING, UNDERPINNING, SUPPORTING, PROTECTING AND MAINTAINING OF BUILDING AT MANHATTAN BLOCK NO. 754 LOT NO. 1 - TWELVE (12) STORY HIGH RISE, RESIDENTIAL 363 WEST 30TH STREET". Item No. 70.41M007540001 was included in revised Bid Schedule issued in Addendum No. 7 (dated September 5, 2014). See page B-33 (REVISION # 1), Sequence No. 169.
- (4) The Contractor's attention is called upon that existing United States Postal Service (USPS) structures fall within the project limits. See Addendum No. 2, NOTICE TO BIDDER, page A2-4, paragraph (19).

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

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

Purnima Sharma
for GURDIP SAINI, P.E.
Assistant Commissioner/Design

Name of Bidder

By: _____

ATTACH TO CONTRACT DOCUMENTS

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

PROJECT ID: MED598B

TRUNK WATER MAINS IN WEST 30TH STREET BETWEEN 10TH AVENUE AND 9TH AVENUE, ETC.,
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INCLUDING SEWER, WATER MAIN, STREET LIGHTING AND TRAFFIC WORK

Together With All Work Incidental Thereto
BOROUGH OF MANHATTAN

ADDENDUM NO. 10

DATED: October 9, 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) **Refer** to Contract Drawings, Sheet No. 2 of 16, GENERAL NOTES, Note No. W13

Delete Note No. W13 in its entirety;

Substitute with the following:

"THE CONTRACTOR SHALL SUBMIT FOR REVIEW SHEETING AND BRACING DESIGN, PREPARED BY A PROFESSIONAL ENGINEER, LICENSED IN THE STATE OF NEW YORK AT NO ADDITIONAL COST TO THE CITY. WHERE SHEETING IS TO BE PLACED IN THE VICINITY OF TRANSIT AUTHORITY/LIRR FACILITIES, IT SHALL BE DESIGNED AND PLACED ACCORDING TO THE T.A./LIRR REQUIREMENTS. DRAWINGS AND CONSTRUCTION PROCEDURES INCLUDING AUGERING OF SOLDIER BEAMS, IF REQUIRED, SHALL BE SUBMITTED TO THE ENGINEER AND TRANSIT AUTHORITY FOR APPROVAL BEFORE CONSTRUCTION. NO EXTRA PAYMENT WILL BE MADE TO THE CONTRACTOR FOR ANY ADDITIONAL COSTS NEEDED TO COMPLY WITH T.A. / LIRR REQUIREMENTS BUT COSTS WILL BE DEEMED TO BE INCLUDED IN THE PRICES BID FOR LAYING WATER MAINS".

- (2) **Refer** to Contract Drawings, Sheet No. 6 of 16, NOTES, first paragraph (located directly under "SECTION A-A");

Delete this note in its entirety;

Substitute with the following:

"THE CONTRACTOR SHALL UTILIZE SPECIALLY DESIGNED TIGHT SHEETING WHERE REQUIRED. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR APPROVAL AS PER THE DDC STANDARD SPECIFICATIONS. NO SEPARATE PAYMENT SHALL BE MADE, ALL PAYMENT SHALL BE DEEMED INCLUDED IN THE PRICES BID FOR LAYING WATER MAINS".

- (3) In response to a question from a Contractor, the answer to the question is the following:

Question: "Refer to section 6.52CG, Crossing Guard – Is there a prevailing wage rate for employees being paid for under this item? If there is, please specify rate".

Answer to Question: The New York City Comptroller has not established a prevailing wage rate for this title or function.

By signing in the space provided below, the bidder acknowledges receipt of the two (2) pages of this Addendum.

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

for Purnema Sharma

GURDIP SAINI, P.E.
Assistant Commissioner/Design

Name of Bidder

By: _____





ATTACH TO CONTRACT DOCUMENTS

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

PROJECT ID: MED598B

TRUNK WATER MAINS IN WEST 30TH STREET BETWEEN 10TH AVENUE AND 9TH AVENUE, ETC.,
TO CONNECT SHAFT 26B TO THE DISTRIBUTION SYSTEM

INCLUDING SEWER, WATER MAIN, STREET LIGHTING AND TRAFFIC WORK

Together With All Work Incidental Thereto
BOROUGH OF MANHATTAN

ADDENDUM NO. 10

DATED: October 9, 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) Refer to Contract Drawings, Sheet No. 2 of 16, GENERAL NOTES, Note No. W13

Delete Note No. W13 in its entirety;

Substitute with the following:

"THE CONTRACTOR SHALL SUBMIT FOR REVIEW SHEETING AND BRACING DESIGN, PREPARED BY A PROFESSIONAL ENGINEER, LICENSED IN THE STATE OF NEW YORK AT NO ADDITIONAL COST TO THE CITY. WHERE SHEETING IS TO BE PLACED IN THE VICINITY OF TRANSIT AUTHORITY/LIRR FACILITIES, IT SHALL BE DESIGNED AND PLACED ACCORDING TO THE T.A./LIRR REQUIREMENTS. DRAWINGS AND CONSTRUCTION PROCEDURES INCLUDING AUGERING OF SOLDIER BEAMS, IF REQUIRED, SHALL BE SUBMITTED TO THE ENGINEER AND TRANSIT AUTHORITY FOR APPROVAL BEFORE CONSTRUCTION. NO EXTRA PAYMENT WILL BE MADE TO THE CONTRACTOR FOR ANY ADDITIONAL COSTS NEEDED TO COMPLY WITH T.A. / LIRR REQUIREMENTS BUT COSTS WILL BE DEEMED TO BE INCLUDED IN THE PRICES BID FOR LAYING WATER MAINS".

- (2) Refer to Contract Drawings, Sheet No. 6 of 16, NOTES, first paragraph (located directly under "SECTION A-A");

Delete this note in its entirety;

Substitute with the following:

"THE CONTRACTOR SHALL UTILIZE SPECIALLY DESIGNED TIGHT SHEETING WHERE REQUIRED. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR APPROVAL AS PER THE DDC STANDARD SPECIFICATIONS. NO SEPARATE PAYMENT SHALL BE MADE, ALL PAYMENT SHALL BE DEEMED INCLUDED IN THE PRICES BID FOR LAYING WATER MAINS".

- (3) In response to a question from a Contractor, the answer to the question is the following:

Question: "Refer to section 6.52CG, Crossing Guard – Is there a prevailing wage rate for employees being paid for under this item? If there is, please specify rate".

Answer to Question: The New York City Comptroller has not established a prevailing wage rate for this title or function.



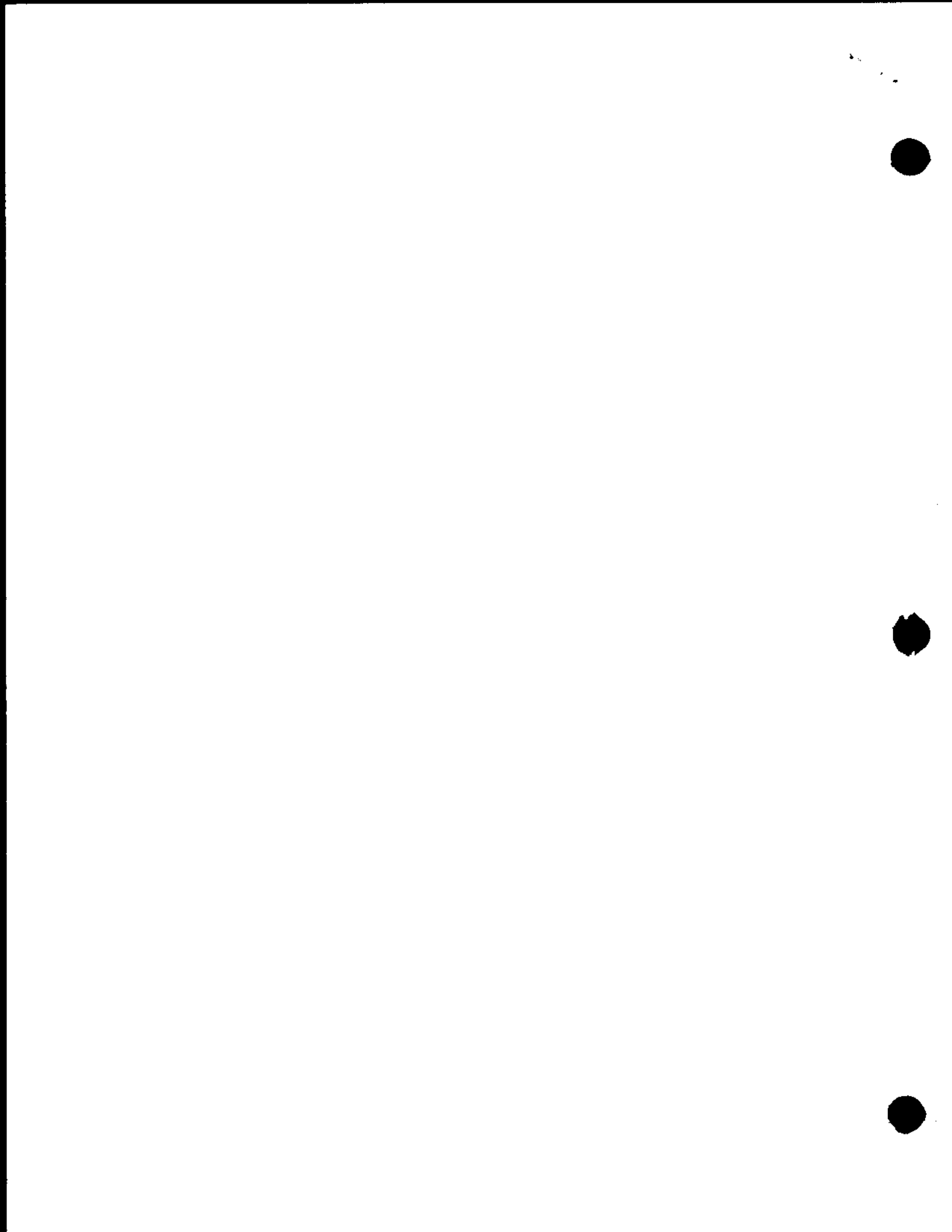
By signing in the space provided below, the bidder acknowledges receipt of the two (2) pages of this Addendum.

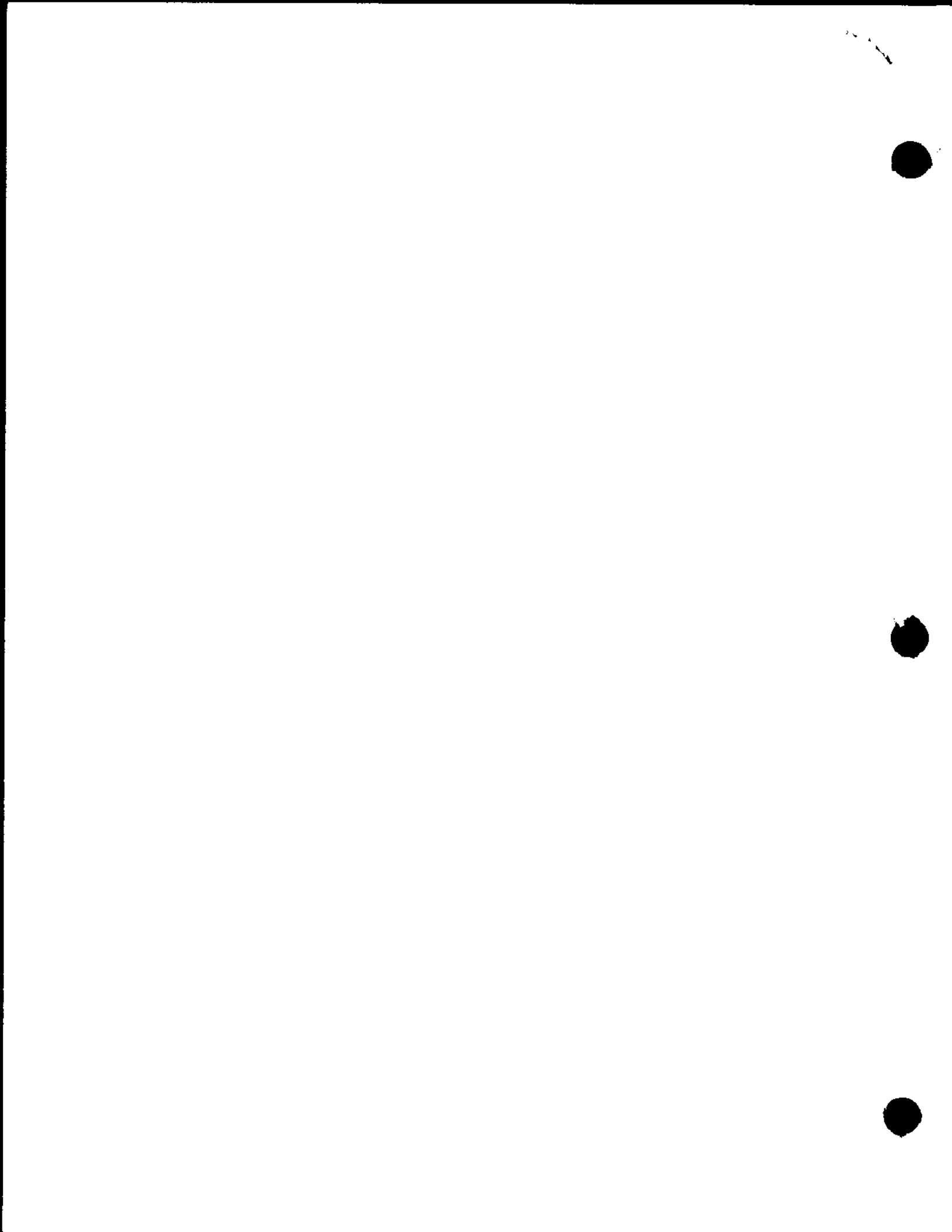
THIS ADDENDUM MUST BE SIGNED BY ALL BIDDERS AND ATTACHED TO THEIR BIDS.

for Purnema Sharma
GURDIP SAINI, P.E.
Assistant Commissioner/Design

Name of Bidder

By: _____





ATTACH TO CONTRACT DOCUMENTS

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

PROJECT ID: MED598B

TRUNK WATER MAINS IN WEST 30TH STREET BETWEEN 10TH AVENUE AND 9TH AVENUE, ETC.,
TO CONNECT SHAFT 26B TO THE DISTRIBUTION SYSTEM

INCLUDING SEWER, WATER MAIN, STREET LIGHTING AND TRAFFIC WORK

Together With All Work Incidental Thereto
BOROUGH OF MANHATTAN

ADDENDUM NO. 11

DATED: October 15, 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) Refer to the Bid and Contract Documents, VOLUME 1 OF 3, Page A-1, Attachment 1 - Bid Information;
Change the dates shown for Submission of Bids To: and for Bid Opening: from "October 16, 2014" to read "October 17, 2014."
- (2) Refer to the Bid and Contract Documents, VOLUME 1 OF 3, Page 13, Schedule B - MWBE;
Change the dates shown for Bid/Proposal Response Date: from "October 16, 2014" to read "October 17, 2014."

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

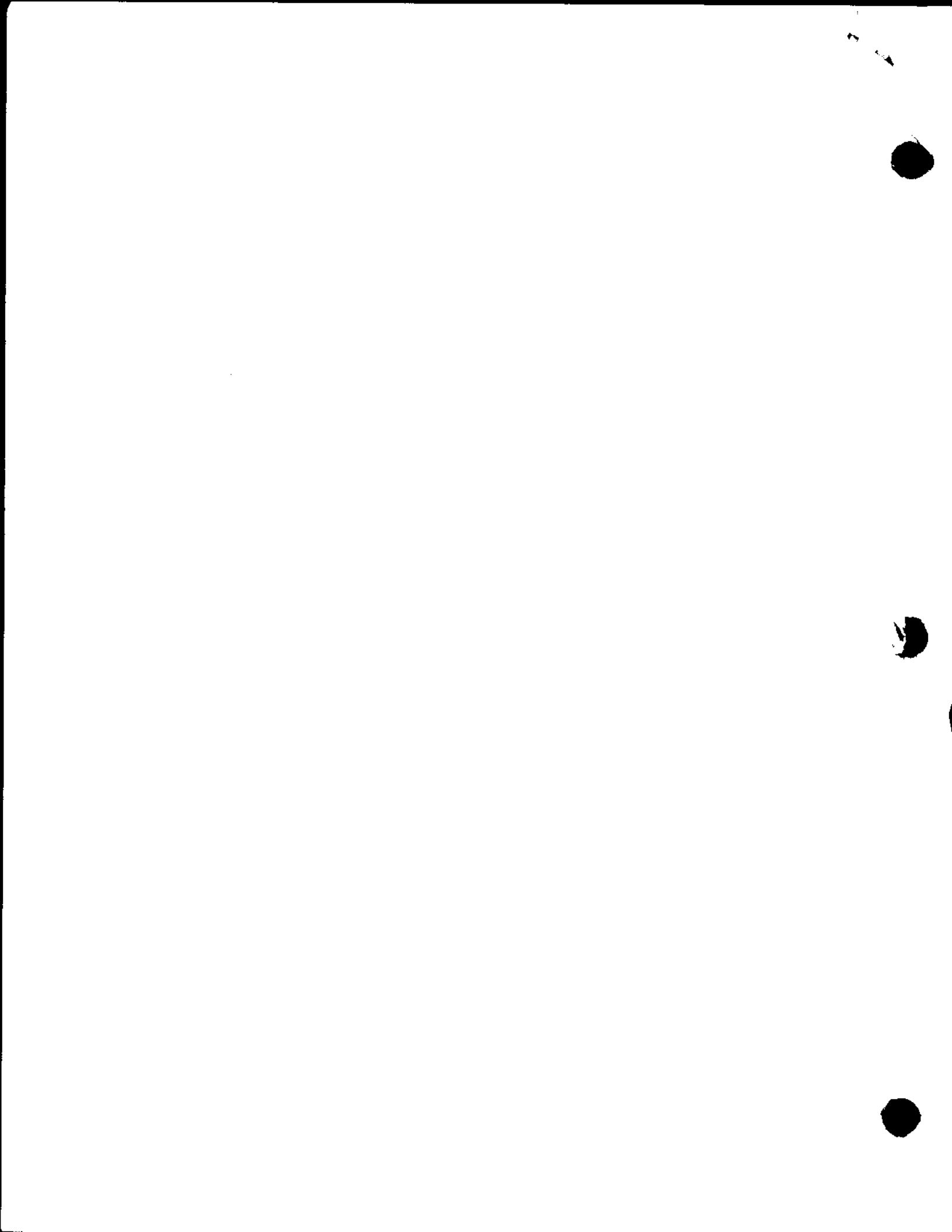
THIS ADDENDUM MUST BE SIGNED BY ALL BIDDERS
AND ATTACHED TO THEIR BIDS.

for Purnima Dheria
GURDIP SAINI, P.E.
Assistant Commissioner/Design

Name of Bidder

By: _____

SP
10/15/14







NEW YORK CITY DEPARTMENT OF
DESIGN + CONSTRUCTION

**INFRASTRUCTURE DIVISION
BUREAU OF DESIGN**

VOLUME 3 OF 3

PROJECT ID: MED598B

TRUNK WATER MAINS IN WEST 30TH STREET BETWEEN 10TH AVENUE AND 9TH
AVENUE, ETC., TO CONNECT SHAFT 26B TO THE DISTRIBUTION SYSTEM
INCLUDING SEWER, WATER MAIN, STREET LIGHTING AND TRAFFIC WORK

Together With All Work Incidental Thereto
BOROUGH OF MANHATTAN
CITY OF NEW YORK

Contractor

Dated _____, 20____
