



**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

LAW

VOLUME 1 OF 3

BID BOOKLET

FOR FURNISHING ALL LABOR AND MATERIALS NECESSARY AND REQUIRED FOR:

PROJECT ID: PDWTC2013

WORLD TRADE CENTER CAMPUS SECURITY PLAN

**WASHINGTON STREET FROM BARCLAY STREET TO VESEY STREET
TRINITY PLACE FROM LIBERTY STREET TO THAMES STREET
WEST BROADWAY FROM VESEY STREET TO BARCLAY STREET
AND
CHURCH STREET FROM VESEY STREET TO BARCLAY STREET**

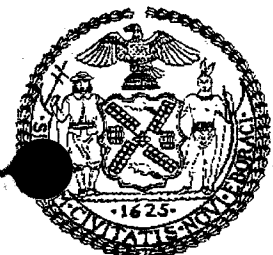
**INCLUDING SEWER, WATER MAIN, STREET LIGHTING,
AND TRAFFIC SIGNAL WORK**

Together With All Work Incidental Thereto

**BOROUGH OF MANHATTAN
CITY OF NEW YORK**

FOR THE DEPARTMENT OF TRANSPORTATION
PREPARED BY
AECOM USA, INC.

MAY 23, 2013



4-004





NEW YORK CITY DEPARTMENT OF
DESIGN + CONSTRUCTION

DAVID J. BURNEY, FAIA
Commissioner

CAROL DIAGOSTINO
Agency Chief
Contracting Officer

September 03, 2013

CERTIFIED MAIL - RETURN RECEIPT REQUEST

Tully Construction Co., Inc.
127-50 Northern Blvd.
Flushing, NY 11368

RE: FMS ID: PDWTC2013
E-PIN: 85012B0056
DDC PIN: 8502013HW0072C
World Trade Center Campus Security Plan-
Washington Street from Barclay Street to Vesey
Street, etc. – Borough of Manhattan
NOTICE OF AWARD

Dear Contractor:

You are hereby awarded the above referenced contract based upon your bid price in the amount of \$18,016,831.40 submitted at the bid opening on August 23, 2013. 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.







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,

Carol DiAgostino



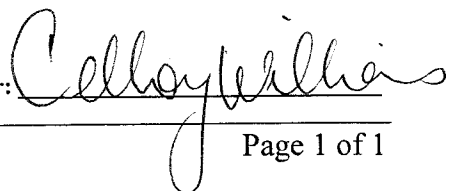


Bid Tab

Description	WORLD TRADE CENTER CAMPUS SECURITY PLAN WASHINGTON ST. FROM BARCLAY ST. TO VESEY ST., ETC.- BOROUGH OF MANHATTAN		
Bid Date	8/23/2013	FMS ID	PDWTC2013
Estimated Cost	\$18,999,645.00	DEP Supervised	No
Bid Security	2% of Total Bib Price	PLA	No
Time Allowed	545 CCD	Contract Manager	Giovanni Matos
Addendum	9	Project Manager	Dave, Gaurang
PIN	8502013HW0072C	E-PIN	85014B0009
Selective Bidding	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Consultant	Aecom USA, Inc.

Bid Rank	Vendor	Bid Amount	Security Type
1	TULLY CONSTRUCTION CO. INC.	\$18,016,831.40	Bond
2	OLIVEIRA CONTRACTING, INC.	\$18,173,688.00	Bond
3	PAUL J. SCARIANO INC.	\$18,638,675.00	Bond
4	EIC ASSOCIATES, INC.	\$19,748,430.60	Bond
5	RESTANI CONSTRUCTION CORP.	\$20,181,720.38	Bond
6	GATEWAY INDUSTRIES, INC.	\$21,882,299.66	Bond
7	DIFAZIO INDUSTRIES, INC.	\$24,949,441.41	Bond
8	PERFETTO CONTRACTING CO. INC.	\$26,993,764.00	Bond
9	PADILLA CONSTRUCTION SERVICES, INC	\$27,495,049.00	Bond
10	NAVILLUS TILE INC. D/B/A NAVILLUS CONTRACTING	\$27,650,000.00	Bond
11	TRITON STRUCTURAL CONCRETE, INC.	\$33,834,443.33	Bond

Recorder: Phyllis Lopez - ext. 1283

Approver: 

Bid Tab
Pin: 8502013HW0072C

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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: PDWTC2013

WORLD TRADE CENTER CAMPUS SECURITY PLAN

**WASHINGTON STREET FROM BARCLAY STREET TO VESEY STREET
TRINITY PLACE FROM LIBERTY STREET TO THAMES STREET
WEST BROADWAY FROM VESEY STREET TO BARCLAY STREET
AND**

CHURCH STREET FROM VESEY STREET TO BARCLAY STREET

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

Together With All Work Incidental Thereto

**BOROUGH OF MANHATTAN
CITY OF NEW YORK**

Name of Bidder: Tully Construction Co. Inc.

Date of Bid Opening: August 23, 2013

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

Place of Business of Bidder: 127-50 Northern Blvd, Flushing, NY 11368

Bidder's Telephone Number: 718 446 7000 Fax Number: 718 446 6072

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 New York

Name and Home Address of President: Peter K. Tully - 37A Frost Creek Drive
Lathrop, NY 11560

Name and Home Address of Secretary: Kenneth W. Tully - 207 Lenox Ct. Farmingdale,
NY 11735

Name and Home Address of Treasurer: James M. Tully - 7536 West Shore Road
Port Washington, NY 11050

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

BID FORM

PROJECT ID. PDWTC2013

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)

\$ 18,016,831.40

8/23/13
P. 8

BIDDER'S SIGNATURE AND AFFIDAVIT

M/WBE UTILIZATION PLAN: By signing its bid in the space below, 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 ("Section 6-129"), 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.

Bidder: Jully Construction Co. Inc

By: _____

(Signature of Partner or corporate officer) Peter K. Jully - President

Kenneth W. Jully - Secretary
Secretary of Corporate Bidder

Attest:
(Corporate Seal)

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 Queens ss:

_____ being duly sworn says:

I am the President of the above named corporation whose name is subscribed to and which executed the foregoing bid. I reside at 37A Frost Creek Drive, Lathropstown, NY 11560
I have knowledge of the several matters therein stated, and they are in all respects true.

(Signature of Corporate Officer who signed the Bid)

Peter K. Jolly - President

Subscribed and sworn to before me this
16 day of August, 2013

Despina Philips
Notary Public

DESPINA PHILIPS
Notary Public, State of New York
No. 01PH5003152
Qualified in Queens County
Commission Expires Oct. 19, 2014

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 this 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:

(NO TEXT ON THIS PAGE)

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: Tully Construction Co. Inc
Address: 12750 Northern Blvd
City Flushing State NY Zip Code 11368

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

11-2493726

By: _____
Signature Peter K-Tully

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)

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) or with a prefix "NYCT", "NYPD", "HW", and "E" excluding items beginning with the number "8.01", shall comply with the requirements of the corresponding numerical or alpha-numerical Sections of either the NYCDOT Standard Highway Specifications as amended by Addendum No. 1 or the additional specifications contain in Addendum No. 3, 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. 4, 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. 52.21D10) 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. 60.12DMM06) shall comply with the requirements of the New York City Department of Environmental Protection (NYCDEP) Standard Water Main Specifications dated August 1, 2009, and as amended by Addendum No. 2, herein Volume 3 of 3.

Items listed in the Bid Schedule which have two (2) digits beginning with the number "7" followed by a decimal (e.g. 70.61RE), shall comply with the requirements of the New York City Department of Environmental Protection (NYCDEP) Standard Sewer Specifications, dated August 1, 2009, or the NYCDEP Standard Water Main Specifications, dated August 1, 2009, as applicable, and 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-21.09.07) 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, less the prefix, except for Item No. "SL-ADNY-S" which shall comply with the requirements of Section SL-ADNY-S in Addendum No. 1, herein Volume 3 of 3.

Items listed in this Bid Schedule beginning with the prefix "T-" (e.g. T-2.7) are Traffic Items, less the prefix, 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.

Project ID. PDWTC2013

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Ver 5.00.01



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

Contract PIN 8502013HW0072C

Project ID PDWTC2013

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 several classes of work 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 5 shall be the product of the Estimated Quantity in Column 2 times the Unit Price Bid in Column 4.
 - (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 - 69 [REVISION # 3]



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BID PAGES



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

Contract PIN 8502013HW0072C
Project ID PDWTC2013

COL. 1 ITEM NUMBER (SEQUENCE NO.)	COL. 2 ENGINEER'S ESTIMATE OF QUANTITIES	COL. 3 CLASSIFICATIONS	COL. 4 UNIT PRICES (IN FIGURES)		COL. 5 EXTENDED AMOUNTS (IN FIGURES)	
			DOLLARS	CTS	DOLLARS	CTS
4.02 AF-R (001)	1,210.0 S.Y.	ASPHALTIC CONCRETE WEARING COURSE, 2" THICK	\$ 20.00		\$ 24,200.00	
4.02 AG (002)	1,032.0 S.Y.	ASPHALTIC CONCRETE WEARING COURSE, 3" THICK	\$ 25.00		\$ 25,800.00	
4.02 CB (003)	3,091.0 TONS	ASPHALTIC CONCRETE MIXTURE	\$ 100.00		\$ 309,100.00	
4.04 H (004)	194.0 C.Y.	CONCRETE BASE FOR PAVEMENT, VARIABLE THICKNESS FOR TRENCH RESTORATION, (HIGH-EARLY STRENGTH)	\$ 500.00		\$ 97,000.00	



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BID PAGES



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

Contract PIN 8502013HW0072C
Project ID PDWTC2013

COL. 1 ITEM NUMBER (SEQUENCE NO.)	COL. 2 ENGINEER'S ESTIMATE OF QUANTITIES	COL. 3 CLASSIFICATIONS	COL. 4 UNIT PRICES (IN FIGURES)		COL. 5 EXTENDED AMOUNTS (IN FIGURES)	
			DOLLARS	CTS	DOLLARS	CTS
4.04 HD (005)	253.0 C.Y.	CONCRETE BASE FOR PAVEMENT, 9" THICK (HIGH-EARLY STRENGTH)	\$ 260 00		\$ 65,780 00	
4.06 (006)	475.0 C.Y.	CONCRETE IN STRUCTURES, CLASS A-40	\$ 600 00		\$ 285,000 00	
4.07 CB (007)	887.0 L.F.	NEW GRANITE CURB, STRAIGHT	\$ 115 00		\$ 102,005 00	
4.07 CC (008)	113.0 L.F.	NEW GRANITE CURB, CORNER	\$ 220 00		\$ 24,860 00	



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BID PAGES



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

Contract PIN 8502013HW0072C
Project ID PDWTC2013

COL. 1 ITEM NUMBER (SEQUENCE NO.)	COL. 2 ENGINEER'S ESTIMATE OF QUANTITIES	COL. 3 CLASSIFICATIONS	COL. 4 UNIT PRICES (IN FIGURES)		COL. 5 EXTENDED AMOUNTS (IN FIGURES)	
			DOLLARS	CTS	DOLLARS	CTS
4.09 AE (009)	87.0 L.F.	STRAIGHT STEEL FACED CONCRETE CURB (21" DEEP)	\$ 73.00		\$ 6,351.00	
4.09 CE (010)	97.0 L.F.	CORNER STEEL FACED CONCRETE CURB (21" DEEP)	\$ 103.00		\$ 9,991.00	
4.11 CA (011)	450.0 C.Y.	FILL, PLACE MEASUREMENT	\$ 56.00		\$ 25,200.00	
4.13 AAS (012)	437.0 S.F.	4" CONCRETE SIDEWALK (UNPIGMENTED)	\$ 16.00		\$ 6,992.00	



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BID PAGES



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

Contract PIN 8502013HW0072C
Project ID PDWFC2013

COL. 1 ITEM NUMBER (SEQUENCE NO.)	COL. 2 ENGINEER'S ESTIMATE OF QUANTITIES	COL. 3 CLASSIFICATIONS	COL. 4 UNIT PRICES (IN FIGURES)		COL. 5 EXTENDED AMOUNTS (IN FIGURES)	
			DOLLARS	CTS	DOLLARS	CTS
4.13 CABS (013)	13,222.0 S.F.	4" CONCRETE SIDEWALK (PIGMENTED) (SAW CUT TYPE JOINTS)	\$ 18.00		\$ 237,996.00	
4.13 CBBS (014)	513.0 S.F.	7" CONCRETE SIDEWALK (PIGMENTED) (SAW CUT TYPE JOINTS)	\$ 20.00		\$ 10,260.00	
4.13 DE (015)	133.0 S.F.	EMBEDDED PREFORMED DETECTABLE WARNING UNITS	\$ 18.00		\$ 2,394.00	
4.14 (016)	30,009.0 LBS.	STEEL REINFORCEMENT BARS	\$ 6.00		\$ 180,054.00	



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BID PAGES



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

Contract PIN
Project ID

8502013HW0072C
PDWTC2013

COL. 1 ITEM NUMBER (SEQUENCE NO.)	COL. 2 ENGINEER'S ESTIMATE OF QUANTITIES	COL. 3 CLASSIFICATIONS	COL. 4 UNIT PRICES (IN FIGURES)		COL. 5 EXTENDED AMOUNTS (IN FIGURES)	
			DOLLARS	CTS	DOLLARS	CTS
50.41C6C16 (017)	79.0 L.F.	16" D.I.P. CLASS 56 COMBINED SEWER, ON CONCRETE CRADLE	\$ 1,150.00		\$ 90,850.00	
50.41M6T08 (018)	726.0 L.F.	8" D.I.P. CLASS 56 STORM SEWER, ENCASED IN CRUSHED STONE	\$ 475.00		\$ 344,850.00	
51.21C000000C (019)	6.0 EACH	CLEANOUT MANHOLE	\$ 7,100.00		\$ 42,600.00	
51.21S0A3000V (020)	2.0 EACH	STANDARD SHALLOW MANHOLE TYPE A-3	\$ 9,000.00		\$ 18,000.00	



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BID PAGES



NEW YORK CITY DEPARTMENT OF DESIGN AND CONSTRUCTION
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COL. 1 ITEM NUMBER (SEQUENCE NO.)	COL. 2 ENGINEER'S ESTIMATE OF QUANTITIES	COL. 3 CLASSIFICATIONS	COL. 4 UNIT PRICES (IN FIGURES)		COL. 5 EXTENDED AMOUNTS (IN FIGURES)	
			DOLLARS	CTS	DOLLARS	CTS
51.41P000 (021)	1.0 EACH	SPECIAL CATCH BASIN	\$ 7,000.00		\$ 7,000.00	
51.41S001 (022)	7.0 EACH	STANDARD CATCH BASIN, TYPE 1	\$ 7,000.00		\$ 49,000.00	
51.41W000 (023)	6.0 EACH	SHALLOW CATCH BASIN	\$ 6,500.00		\$ 39,000.00	
51.42B1W (024)	1.0 EACH	INCREMENTAL COST OF TYPE 3 CATCH BASIN WITH CURB PIECE IN LIEU OF TYPE 1 CATCH BASIN	\$ 3,000.00		\$ 3,000.00	



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BID PAGES



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

Contract PIN 8502013HW0072C
Project ID PDWTC2013

COL. 1 ITEM NUMBER (SEQUENCE NO.)	COL. 2 ENGINEER'S ESTIMATE OF QUANTITIES	COL. 3 CLASSIFICATIONS	COL. 4 UNIT PRICES (IN FIGURES)		COL. 5 EXTENDED AMOUNTS (IN FIGURES)	
			DOLLARS	CTS	DOLLARS	CTS
52.11D12 (025)	436.0 L.F.	12" DUCTILE IRON PIPE BASIN CONNECTION	\$ 350.00		\$ 152,600.00	
52.21D08 (026)	19.0 V.F.	8" DUCTILE IRON PIPE RISER FOR HOUSE CONNECTION	\$ 150.00		\$ 2,850.00	
52.21D10 (027)	19.0 V.F.	10" DUCTILE IRON PIPE RISER FOR HOUSE CONNECTION	\$ 160.00		\$ 3,040.00	
52.31D06C16 (028)	1.0 EACH	6" DUCTILE IRON PIPE SPUR FOR HOUSE CONNECTION ON 16" D.I.P. COMBINED SEWER	\$ 1,300.00		\$ 1,300.00	



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			DOLLARS	CTS	DOLLARS	CTS
52.31D08C16 (029)	1.0 EACH	8" DUCTILE IRON PIPE SPUR FOR HOUSE CONNECTION ON 16" D.I.P. COMBINED SEWER	\$ 1,500.00		\$ 1,500.00	
52.31D10C16 (030)	1.0 EACH	10" DUCTILE IRON PIPE SPUR FOR HOUSE CONNECTION ON 16" D.I.P. COMBINED SEWER	\$ 2,900.00		\$ 2,900.00	
53.11DR (031)	158.0 L.F.	TELEVISION INSPECTION AND DIGITAL AUDIO-VISUAL RECORDING OF SEWERS	\$ 10.00		\$ 1,580.00	
6.02 AAN (032)	1,595.0 C.Y.	UNCLASSIFIED EXCAVATION	\$ 80.00		\$ 127,600.00	



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			DOLLARS	CTS	DOLLARS	CTS
6.02 XHEC (033)	326.0 C.Y.	INCREMENTAL COST FOR MODIFYING WORK METHODS NEAR (WITHIN 3 FEET OF) TRANSIT FACILITIES AND BUILDING VAULTS	\$ 95.00		\$ 30,970.00	
6.02 XSCW (034)	310.0 C.Y.	INCREMENTAL COST FOR USING SPECIAL CARE WORK METHODS NEAR (FROM 3 FEET TO 50 FEET) TRANSIT FACILITIES	\$ 80.00		\$ 24,800.00	
6.06 ADA (035)	140.0 S.Y.	FURNISHING AND INSTALLING ADA COMPLIANT GRANITE BLOCK SIDEWALK	\$ 360.00		\$ 50,400.00	
6.18 PIF (036)	251.0 L.F.	PEDESTRIAN INTERDICTION FENCING	\$ 250.00		\$ 62,750.00	



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			DOLLARS	CTS	DOLLARS	CTS
6.22 F (037)	4,400.0 LBS.	ADDITIONAL HARDWARE	\$ 1.00		\$ 4,400.00	
6.23 BA (038)	1.0 EACH	FURNISH AND INSTALL FIRE ALARM POST AND SUBBASE IN ACCORDANCE WITH F.D. STD. DWG. #141	\$ 3,000.00		\$ 3,000.00	
6.23 BD (039)	24.0 L.F.	FURNISH AND INSTALL 4-PAIR FIRE ALARM CABLE	\$ 5.00		\$ 120.00	
6.23 BFC (040)	1.0 EACH	FURNISH AND INSTALL FIRE DEPARTMENT 12 WIRE TERMINAL BOX AND TERMINATE FIRE ALARM CABLES	\$ 1,600.00		\$ 1,600.00	



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			DOLLARS	CTS	DOLLARS	CTS
6.23 BHE (041)	1.0 EACH	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	\$ 100	00	\$ 100	00
6.23 BP (042)	1.0 SETS	FURNISH AND INSTALL FIRE ALARM PEDESTAL BUMPERS (2 REQUIRED PER SET) IN ACCORDANCE WITH F.D. STD. DWG. #168	\$ 875	00	\$ 875	00
6.25 RS (043)	455.0 S.F.	TEMPORARY SIGNS	\$ 45	00	\$ 20,475	00
6.26 (044)	1,353.0 L.F.	TIMBER CURB	\$ 14	00	\$ 18,942	00



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			DOLLARS	CTS	DOLLARS	CTS
6.28 AA (045)	430.0 L.F.	LIGHTED TIMBER BARRICADES	\$ 14 00		\$ 6,020 00	
6.28 ME (046)	968.0 L.F.	LIGHTED TIMBER FENCING FOR USE IN LOWER MANHATTAN PROJECTS	\$ 14 00		\$ 13,552 00	
6.34 ACTP (047)	968.0 L.F.	TEMPORARY CHAIN LINK FENCE, 6'-0" HIGH (WITH TOP AND BOTTOM RAILS AND POSTS MOUNTED ON STEEL PLATES)	\$ 9 00		\$ 8,712 00	
6.36 DR (048)	5.0 C.Y.	STRUCTURAL REPAIR AND ADJUSTMENT OF UTILITY STRUCTURES	\$ 1,750 00		\$ 8,750 00	



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			DOLLARS	CTS	DOLLARS	CTS
6.40 D (049)	24.0 MONTH	ENGINEER'S FIELD OFFICE (TYPE D)	\$ 18,000	00	\$ 432,000	00
6.43 (050)	2,700.0 SETS	PHOTOGRAPHS	\$ 17	00	\$ 45,900	00
6.44 (051)	48,860.0 L.F.	THERMOPLASTIC REFLECTORIZED PAVEMENT MARKINGS (4" WIDE)	\$ 1	00	\$ 48,860	00
6.49 (052)	1,694.0 L.F.	TEMPORARY PAVEMENT MARKINGS (4" WIDE)	\$ 0	70	\$ 1,185	80



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			DOLLARS	CTS	DOLLARS	CTS
6.50 (053)	33.0 EACH	CLEANING OF DRAINAGE STRUCTURES	\$ 350 00		\$ 11,550 00	
6.52 (054)	30,512.0 P/HR	UNIFORMED FULL-TIME FLAGPERSON	\$ 40 00		\$ 1,220,480 00	
6.53 (055)	1,694.0 L.F.	REMOVE EXISTING LANE MARKINGS (4" WIDE)	\$ 0 40		\$ 677 60	
6.55 (056)	1,597.0 L.F.	SAWCUTTING EXISTING PAVEMENT	\$ 3 50		\$ 5,589 50	



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			DOLLARS	CTS	DOLLARS	CTS
6.59 P (057)	61.0 L.F.	TEMPORARY CONCRETE BARRIER	\$ 175.00		\$ 10,675.00	
6.59 REM (058)	1.0 L.S.	REMOVAL OF EXISTING GUARD BOOTHS, OPERABLE BARRIERS, CONCRETE PLANTERS, CONCRETE BARRIER SECTIONS, BOLLADS, AND CONCRETE BLOCKS	\$ 50,000.00		\$ 50,000.00	
6.75 (059)	91.0 C.Y.	GRINDING EXISTING ASPHALTIC CONCRETE WEARING COURSE	\$ 250.00		\$ 22,750.00	
6.79 AG (060)	605.0 L.F.	4" DUCTILE IRON PIPE CONNECTION	\$ 265.00		\$ 160,325.00	



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			DOLLARS	CTS	DOLLARS	CTS
6.82 A (061)	301.0 S.F.	REMOVING EXISTING TRAFFIC AND STREET NAME SIGNS	\$ 1 50		\$ 451 50	
6.82 B (062)	327.0 L.F.	REMOVING EXISTING TRAFFIC AND STREET NAME SIGN POSTS	\$ 4 50		\$ 1,471 50	
6.83 AA (063)	55.0 S.F.	FURNISHING NEW NON-REFLECTORIZED TRAFFIC SIGNS	\$ 12 00		\$ 660 00	
6.83 AB (064)	145.0 L.F.	FURNISHING NEW TRAFFIC SIGN POSTS	\$ 5 00		\$ 725 00	



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			DOLLARS	CTS	DOLLARS	CTS
6.83 AR (065)	350.0 S.F.	FURNISHING NEW REFLECTORIZED TRAFFIC SIGNS	\$ 20.00		\$ 7,000.00	
6.83 BA (066)	405.0 S.F.	INSTALLING TRAFFIC SIGNS	\$ 12.00		\$ 4,860.00	
6.83 BB (067)	145.0 L.F.	INSTALLING TRAFFIC SIGN POSTS	\$ 12.00		\$ 1,740.00	
6.85 A (068)	1.0 F.S.	TRAFFIC ENFORCEMENT AGENTS PRICE BID SHALL BE FOR THE FIXED SUM OF \$ 2,429,489.00	\$ 2,429,489.00		\$ 2,429,489.00	



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			DOLLARS	CTS	DOLLARS	CTS
6.86 AA (069)	10.0 S.F.	FURNISHING NEW STREET NAME SIGNS	\$ 28 00		\$ 280 00	
6.86 AB (070)	68.0 L.F.	FURNISHING NEW STREET NAME SIGN POSTS	\$ 10 00		\$ 680 00	
6.86 BA (071)	10.0 S.F.	INSTALLING STREET NAME SIGNS	\$ 16 00		\$ 160 00	
6.86 BB (072)	68.0 L.F.	INSTALLING STREET NAME SIGN POSTS	\$ 12 00		\$ 816 00	



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			DOLLARS	CTS	DOLLARS	CTS
6.87 (073)	171.0 EACH	PLASTIC BARRELS	\$ 23.00		\$ 3,933.00	
6.91 (074)	4,237.0 L.F.	REFLECTIVE CRACKING MEMBRANE (18" WIDE)	\$ 1.00		\$ 4,237.00	
6.99 (075)	1.0 L.S.	AUDIO AND VIDEO DOCUMENTATION SURVEY	\$ 15,000.00		\$ 15,000.00	
60.11R520 (076)	328.0 L.F.	FURNISHING AND DELIVERING 20-INCH DUCTILE IRON RESTRAINED JOINT PIPE (CLASS 55)	\$ 195.00		\$ 63,960.00	



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			DOLLARS	CTS	DOLLARS	CTS
60.11R606 (077)	108.0 L.F.	FURNISHING AND DELIVERING 6-INCH DUCTILE IRON RESTRAINED JOINT PIPE (CLASS 56)	\$ 48 00		\$ 5,184 00	
60.11R612 (078)	160.0 L.F.	FURNISHING AND DELIVERING 12-INCH DUCTILE IRON RESTRAINED JOINT PIPE (CLASS 56)	\$ 98 00		\$ 15,680 00	
60.12D06 (079)	132.0 L.F.	LAYING 6-INCH DUCTILE IRON PIPE AND FITTINGS	\$ 200 00		\$ 26,400 00	
60.12D12 (080)	204.0 L.F.	LAYING 12-INCH DUCTILE IRON PIPE AND FITTINGS	\$ 190 00		\$ 38,760 00	



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			DOLLARS	CTS	DOLLARS	CTS
60.12D20 (081)	407.0 L.F.	LAYING 20-INCH DUCTILE IRON PIPE AND FITTINGS	\$ 250.00		\$ 101,750.00	
60.13MOA24 (082)	7.0 TONS	FURNISHING AND DELIVERING DUCTILE IRON MECHANICAL JOINT 24-INCH DIAMETER AND SMALLER FITTINGS, INCLUDING WEDGE TYPE RETAINER GLANDS	\$ 8,500.00		\$ 59,500.00	
60.19TLS12E (083)	1.0 EACH	FURNISHING, DELIVERING AND INSTALLING TEMPORARY LINE STOPS ON EXISTING 12-INCH WATER MAINS	\$ 30,000.00		\$ 30,000.00	
60.19TLS20E (084)	1.0 EACH	FURNISHING, DELIVERING AND INSTALLING TEMPORARY LINE STOPS ON EXISTING 20-INCH WATER MAINS	\$ 50,000.00		\$ 50,000.00	



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			DOLLARS	CTS	DOLLARS	CTS
61.11DMM06 (085)	6.0 EACH	FURNISHING AND DELIVERING 6-INCH MECHANICAL JOINT DUCTILE IRON GATE VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	\$ 1,100.00		\$ 6,600.00	
61.11DMM12 (086)	1.0 EACH	FURNISHING AND DELIVERING 12-INCH MECHANICAL JOINT DUCTILE IRON GATE VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	\$ 10,000.00		\$ 10,000.00	
61.11DMM20 (087)	1.0 EACH	FURNISHING AND DELIVERING 20-INCH MECHANICAL JOINT DUCTILE IRON GATE VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	\$ 30,000.00		\$ 30,000.00	
61.11TWC06 (088)	4.0 EACH	FURNISHING AND DELIVERING 6-INCH WET CONNECTION TAPPING VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	\$ 1,100.00		\$ 4,400.00	



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			DOLLARS	CTS	DOLLARS	CTS
61.11TWC08 (089)	4.0 EACH	FURNISHING AND DELIVERING 8-INCH WET CONNECTION TAPPING VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	\$ 1,600.00		\$ 6,400.00	
61.11TWC10 (090)	4.0 EACH	FURNISHING AND DELIVERING 10-INCH WET CONNECTION TAPPING VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	\$ 2,150.00		\$ 8,600.00	
61.11TWC12 (091)	4.0 EACH	FURNISHING AND DELIVERING 12-INCH WET CONNECTION TAPPING VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	\$ 3,000.00		\$ 12,000.00	
61.12DMM06 (092)	6.0 EACH	SETTING 6-INCH MECHANICAL JOINT DUCTILE IRON GATE VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	\$ 375.00		\$ 2,250.00	



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			DOLLARS	CTS	DOLLARS	CTS
61.12DMM12 (093)	1.0 EACH	SETTING 12-INCH MECHANICAL JOINT DUCTILE IRON GATE VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	\$ 500 00		\$ 500 00	
61.12DMM20 (094)	1.0 EACH	SETTING 20-INCH MECHANICAL JOINT DUCTILE IRON GATE VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	\$ 750 00		\$ 750 00	
61.12TWC06 (095)	4.0 EACH	SETTING 6-INCH WET CONNECTION TAPPING VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	\$ 375 00		\$ 1,500 00	
61.12TWC08 (096)	4.0 EACH	SETTING 8-INCH WET CONNECTION TAPPING VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	\$ 375 00		\$ 1,500 00	



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			DOLLARS	CTS	DOLLARS	CTS
61.12TWC10 (097)	4.0 EACH	SETTING 10-INCH WET CONNECTION TAPPING VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	\$ 545.00		\$ 2,180.00	
61.12TWC12 (098)	4.0 EACH	SETTING 12-INCH WET CONNECTION TAPPING VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	\$ 545.00		\$ 2,180.00	
62.11SD (099)	4.0 EACH	FURNISHING AND DELIVERING HYDRANTS	\$ 5,000.00		\$ 20,000.00	
62.12SG (100)	4.0 EACH	SETTING HYDRANTS COMPLETE WITH WEDGE TYPE RETAINER GLANDS	\$ 3,000.00		\$ 12,000.00	



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			DOLLARS	CTS	DOLLARS	CTS
62.13RH (101)	3.0 EACH	REMOVING HYDRANTS	\$ 700.00		\$ 2,100.00	
62.14FS (102)	10.0 EACH	FURNISHING, DELIVERING AND INSTALLING HYDRANT FENDERS	\$ 330.00		\$ 3,300.00	
63.11VC (103)	8.0 TONS	FURNISHING AND DELIVERING VARIOUS CASTINGS	\$ 1,475.00		\$ 11,800.00	
64.11EL (104)	7.0 EACH	WITHDRAWING AND REPLACING HOUSE SERVICES USING 1-1/2-INCH OR LARGER SCREW TAPS	\$ 625.00		\$ 4,375.00	



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			DOLLARS	CTS	DOLLARS	CTS
64.11ST (105)	7.0 EACH	WITHDRAWING AND REPLACING HOUSE SERVICES USING SMALLER THAN 1-1/2-INCH SCREW TAPS	\$ 400.00		\$ 2,800.00	
64.12COEG (106)	22.0 L.F.	CUTTING AND OFFSETTING HOUSE SERVICE WATER CONNECTIONS (EQUAL TO OR GREATER THAN 3-INCH DIAMETER)	\$ 65.00		\$ 1,430.00	
64.12COLT (107)	22.0 L.F.	CUTTING AND OFFSETTING HOUSE SERVICE WATER CONNECTIONS (LESS THAN 3-INCH DIAMETER)	\$ 70.00		\$ 1,540.00	
64.12ESEG (108)	22.0 L.F.	EXTENDING HOUSE SERVICE WATER CONNECTIONS (EQUAL TO OR GREATER THAN 3-INCH DIAMETER)	\$ 120.00		\$ 2,640.00	



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			DOLLARS	CTS	DOLLARS	CTS
64.12ESLT (109)	22.0 L.F.	EXTENDING HOUSE SERVICE WATER CONNECTIONS (LESS THAN 3-INCH DIAMETER)	\$ 130.00		\$ 2,860.00	
64.13WC20 (110)	4.0 EACH	FURNISHING, DELIVERING AND INSTALLING WET CONNECTION SLEEVE ON 20-INCH WATER MAIN PIPE WITH VARIOUS OUTLETS	\$ 4,000.00		\$ 16,000.00	
65.11BR (111)	273.0 LBS.	FURNISHING, DELIVERING AND INSTALLING BANDS, RODS, WASHERS, ETC., COMPLETE, FOR RESTRAINING JOINTS	\$ 5.50		\$ 1,501.50	
65.21PS (112)	22.0 L.F.	FURNISHING AND PLACING POLYETHYLENE SLEEVE Unit price bid shall not be less than: \$ 0.50	\$ 0.50		\$ 11.00	



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			DOLLARS	CTS	DOLLARS	CTS
65.31FF (113)	22.0 S.F.	FURNISHING, DELIVERING AND PLACING FILTER FABRIC Unit price bid shall not be less than: \$ 0.10	\$ 0 10		\$ 2 20	
65.71SG (114)	44.0 C.Y.	FURNISHING, DELIVERING AND PLACING SCREENED GRAVEL OR SCREENED BROKEN STONE BEDDING	\$ 50 00		\$ 2,200 00	
7.07 RBRT (115)	2.0 EACH	REMOVE, STORE AND REINSTALL BICYCLE RACKS	\$ 200 00		\$ 400 00	
7.07 WTC1 (116)	70.0 EACH	BOLLARD TYPE A- FIXED, FURNISH AND INSTALL STEEL BOLLARDS	\$ 10,000 00		\$ 700,000 00	



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			DOLLARS	CTS	DOLLARS	CTS
7.07 WTC2 (117)	22.0 EACH	BOLLARD TYPE B- 6" FIXED, FURNISH AND INSTALL STEEL BOLLARDS	\$ 10,000.00		\$ 220,000.00	
7.07 WTC3 (118)	65.0 EACH	BOLLARD TYPE C- FIXED, FURNISH AND INSTALL STEEL BOLLARDS	\$ 9,000.00		\$ 585,000.00	
7.12 A (119)	4.0 EACH	PROCTOR ANALYSIS	\$ 600.00		\$ 2,400.00	
7.12 B (120)	13.0 EACH	IN-PLACE SOIL DENSITY TEST	\$ 550.00		\$ 7,150.00	



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			DOLLARS	CTS	DOLLARS	CTS
7.13 B (121)	18.0 MONTH	MAINTENANCE OF SITE Unit price bid shall not be less than: \$ 8,600.00	\$ 8,600.00		\$ 154,800.00	
7.30 A (122)	2,800.0 C.Y.	REMOVAL OF TRACK	\$ 50.00		\$ 140,000.00	
7.31 A (123)	380.0 C.Y.	DEMOLITION OF ROADWAY VAULTS	\$ 50.00		\$ 19,000.00	
7.31 B (124)	65.0 C.Y.	DEMOLITION OF TROLLEY TRACK TRUSS BLOCKS	\$ 100.00		\$ 6,500.00	



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			DOLLARS	CTS	DOLLARS	CTS
7.36 (125)	200.0 L.F.	PEDESTRIAN STEEL BARRICADES	\$ 25.00		\$ 5,000.00	
7.88 AA (126)	1.0 L.S.	RODENT INFESTATION SURVEY AND MONITORING Unit price bid shall not be less than: \$ 2,500.00	\$ 2,500.00		\$ 2,500.00	
7.88 AB (127)	252.0 EACH	RODENT BAIT STATIONS Unit price bid shall not be less than: \$ 62.00	\$ 62.00		\$ 15,624.00	
7.88 AC (128)	252.0 EACH	BAITING OF RODENT BAIT STATIONS Unit price bid shall not be less than: \$ 11.00	\$ 11.00		\$ 2,772.00	



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			DOLLARS	CTS	DOLLARS	CTS
7.88 AD (129)	144.0 BLOCK	WATERBUG BAIT APPLICATIONS Unit price bid shall not be less than: \$ 66.00	\$ 66.00		\$ 9,504.00	
70.31FN (130)	609.0 L.F.	FENCING Unit price bid shall not be less than: \$ 2.50	\$ 2.50		\$ 1,522.50 1,552.50	50 PT 8/27/13
70.51EO (131)	24.0 C.Y.	EXCAVATION OF BOULDERS IN OPEN CUT Unit price bid shall not be less than: \$ 47.50	\$ 47.50		\$ 1,140.00	
70.61RE (132)	24.0 C.Y.	ROCK EXCAVATION	\$ 520.00		\$ 12,480.00	



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			DOLLARS	CTS	DOLLARS	CTS
7.88 AD (129)	144.0 BLOCK	WATERBUG BAIT APPLICATIONS Unit price bid shall not be less than: \$ 66.00	\$ 66.00		\$ 9,504.00	
70.31FN (130)	609.0 L.F.	FENCING Unit price bid shall not be less than: \$ 2.50	\$ 2.50		\$ 1,552.50	
70.51EO (131)	24.0 C.Y.	EXCAVATION OF BOULDERS IN OPEN CUT Unit price bid shall not be less than: \$ 47.50	\$ 47.50		\$ 1,140.00	
70.61RE (132)	24.0 C.Y.	ROCK EXCAVATION	\$ 520.00		\$ 12,480.00	



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			DOLLARS	CTS	DOLLARS	CTS
70.61RR (133)	5.0 C.Y.	ROCK EXCAVATION WITHIN RAILROAD INFLUENCE AS PER RAILROAD GUIDELINES	\$ 900.00		\$ 4,500.00	
70.71SB (134)	24.0 C.Y.	STONE BALLAST Unit price bid shall not be less than: \$ 20.00	\$ 20.00		\$ 480.00	
70.81CB (135)	194.0 C.Y.	CLEAN BACKFILL Unit price bid shall not be less than: \$ 12.50	\$ 12.50		\$ 2,425.00	
70.91SW12 (136)	2,787.0 S.F.	FURNISHING AND PLACING SHEETING AND BRACING IN TRENCH FOR WATER MAIN PIPE 12-INCH IN DIAMETER AND LESS	\$ 1.00		\$ 2,787.00	



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			DOLLARS	CTS	DOLLARS	CTS
70.91SW20 (137)	3,993.0 S.F.	FURNISHING AND PLACING SHEETING AND BRACING IN TRENCH FOR WATER MAIN PIPE 20-INCH IN DIAMETER	\$ 1 00		\$ 3,993.00	
73.11AB (138)	48.0 C.Y.	ADDITIONAL BRICK MASONRY Unit price bid shall not be less than: \$ 44.00	\$ 44 00		\$ 2,112.00	
73.21AC (139)	97.0 C.Y.	ADDITIONAL CONCRETE Unit price bid shall not be less than: \$ 47.50	\$ 47 50		\$ 4,607.50	
73.31AE0 (140)	968.0 C.Y.	ADDITIONAL EARTH EXCAVATION INCLUDING TEST PITS (ALL DEPTHS) Unit price bid shall not be less than: \$ 28.50	\$ 28 50		\$ 27,588.00	



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			DOLLARS	CTS	DOLLARS	CTS
73.41AG (141)	968.0 C.Y.	ADDITIONAL SELECT GRANULAR BACKFILL Unit price bid shall not be less than: \$ 10.50	\$ 10.50		\$ 10,164.00	
73.51AS (142)	605.0 LBS.	ADDITIONAL STEEL REINFORCING BARS Unit price bid shall not be less than: \$ 1.00	\$ 1.00		\$ 605.00	
8.01 C1 (143)	3,000.0 TONS	HANDLING, TRANSPORTING AND DISPOSAL OF NON-HAZARDOUS CONTAMINATED SOIL	\$ 40.00		\$ 120,000.00	
8.01 C2 (144)	10.0 SETS	SAMPLING AND TESTING OF CONTAMINATED/POTENTIALLY HAZARDOUS SOIL FOR DISPOSAL PURPOSES	\$ 1,500.00		\$ 15,000.00	



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			DOLLARS	CTS	DOLLARS	CTS
8.01 H (145)	100.0 TONS	HANDLING, TRANSPORTING AND DISPOSAL OF HAZARDOUS SOIL	\$ 110.00		\$ 11,000.00	
8.01 S (146)	1.0 L.S.	HEALTH AND SAFETY	\$ 5,000.00		\$ 5,000.00	
8.01 W1 (147)	21.0 DAY	REMOVAL, TREATMENT, AND DISCHARGE/DISPOSAL OF CONTAMINATED WATER	\$ 1,000.00		\$ 21,000.00	
8.01 W2 (148)	2.0 SETS	SAMPLING AND TESTING OF WATER	\$ 1,500.00		\$ 3,000.00	



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			DOLLARS	CTS	DOLLARS	CTS
8.02 A (149)	968.0 S.F.	SPECIAL CARE EXCAVATION AND RESTORATION FOR SIDEWALK WORK	\$ 6.00		\$ 5,808.00	
8.02 B (150)	97.0 L.F.	SPECIAL CARE EXCAVATION AND RESTORATION FOR CURB WORK	\$ 15.00		\$ 1,455.00	
9.00 C (151)	121.0 C.F.	EXPLORATORY TEST PITS	\$ 12.00		\$ 1,452.00	
9.06 HW (152)	1.0 F.S.	ALLOWANCE FOR DECORATIVE MESH FABRIC PRICE BID SHALL BE FOR THE FIXED SUM OF \$ 50,000.00	\$ 50,000.00		\$ 50,000.00	



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			DOLLARS	CTS	DOLLARS	CTS
9.60 GB-C (153)	4.0 EACH	CREDENTIALING GUARD BOOTH	\$ 20,000.00		\$ 80,000.00	
9.60 GB-E (154)	1.0 EACH	EXIT GUARD BOOTH	\$ 20,000.00		\$ 20,000.00	
9.60 GB-I (155)	3.0 EACH	INSPECTION GUARD BOOTH	\$ 20,000.00		\$ 60,000.00	
9.99 (156)	3.0 EACH	FLASHING ARROW BOARD	\$ 20,000.00		\$ 60,000.00	



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			DOLLARS	CTS	DOLLARS	CTS
E 260519 AA (157)	222.0 L.F.	LOW-VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES (NO. 4/0 AWG WIRE)	\$ 10	00	\$ 2,220	00
E 260519 B (158)	1,888.0 L.F.	LOW-VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES (NO. 2 AWG WIRE)	\$ 4	50	\$ 8,496	00
E 260519 BA (159)	242.0 L.F.	LOW-VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES (NO. 1/0 AWG WIRE)	\$ 6	00	\$ 1,452	00
E 260519 C (160)	4,657.0 L.F.	LOW-VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES (NO. 4 AWG WIRE)	\$ 3	30	\$ 15,368	10



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			DOLLARS	CTS	DOLLARS	CTS
E 260519 D (161)	3,190.0 L.F.	LOW-VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES (NO. 6 AWG WIRE)	\$ 2.50		\$ 7,975.00	
E 260519 E (162)	2,947.0 L.F.	LOW-VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES (NO. 8 AWG WIRE)	\$ 2.00		\$ 5,894.00	
E 260519 F (163)	3,051.0 L.F.	LOW-VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES (NO. 12 AWG WIRE)	\$ 1.30		\$ 3,966.30	
E 260519 G (164)	6,103.0 L.F.	LOW-VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES (NO. 10 AWG WIRE)	\$ 1.50		\$ 9,154.50	



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			DOLLARS	CTS	DOLLARS	CTS
E 260519 H (165)	4,649.0 L.F.	LOW-VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES (2#16 TYPE 4ABS6195), 110 kHz	\$ <u>2</u>	<u>20</u>	\$ <u>10,227</u>	<u>80</u>
E 260519 H3-4P (166)	2,371.0 L.F.	LOW-VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES (3-4 PAIR # 18 TWISTED PAIR), 110 kHz	\$ <u>5</u>	<u>30</u>	\$ <u>12,566</u>	<u>30</u>
E 260519 H3C (167)	3,093.0 L.F.	LOW-VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES (3 CORE YY# 18), 110 kHz	\$ <u>2</u>	-	\$ <u>6,186</u>	-
E 260519 H4C (168)	1,484.0 L.F.	LOW-VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES (4 CORE YY# 18), 110 kHz	\$ <u>2</u>	<u>20</u>	\$ <u>3,264</u>	<u>80</u>



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			DOLLARS	CTS	DOLLARS	CTS
E 260519 H5C (169)	242.0 L.F.	LOW-VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES (5 CORE YY# 18), 110 kHz	\$ 3	-	\$ 726	-
E 260526 A (170)	484.0 L.F.	GROUNDING CONDUCTORS	\$ 3	50	\$ 1,694	-
E 260526 B (171)	79.0 EACH	GROUNDING PLATES	\$ 1,000	-	\$ 79,000	-
E 260529 (172)	440.0 EACH	HANGERS AND SUPPORTS FOR ELECTRICAL SYSTEMS	\$ 10	-	\$ 4,400	-



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			DOLLARS	CTS	DOLLARS	CTS
E 260533 D (173)	22.0 EACH	BOXES FOR ELECTRICAL SYSTEMS	\$ 3,000	-	\$ 66,000	-
E 260533 A1.0 (174)	5,356.0 L.F.	METAL CONDUIT AND TUBING (1" GALVANIZED RIGID STEEL CONDUIT)	\$ 15	-	\$ 80,340	-
E 260533 A1.25 (175)	798.0 L.F.	METAL CONDUIT AND TUBING (1-1/4" GALVANIZED RIGID STEEL CONDUIT)	\$ 41	-	\$ 32,718	-
E 260533 A1.5 (176)	1,170.0 L.F.	METAL CONDUIT AND TUBING (1-1/2" GALVANIZED RIGID STEEL CONDUIT)	\$ 49	-	\$ 57,330	-



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			DOLLARS	CTS	DOLLARS	CTS
E 260533 AC2.0 (177)	5,057.0 L.F.	METAL CONDUIT AND TUBING (2" GALVANIZED RIGID STEEL CONDUIT)	\$ 50	-	\$ 252,850	-
E 260533 AC2.5 (178)	1,004.0 L.F.	METAL CONDUIT AND TUBING (2-1/2" GALVANIZED RIGID STEEL CONDUIT)	\$ 60	-	\$ 60,240	-
E 260533 AC3.0 (179)	2,933.0 L.F.	METAL CONDUIT AND TUBING (3" GALVANIZED RIGID STEEL CONDUIT)	\$ 63	-	\$ 184,779	-
E 260533 AF4.0 (180)	333.0 L.F.	METAL CONDUIT AND TUBING (4" GALVANIZED RIGID STEEL CONDUIT)	\$ 80	-	\$ 26,640	-



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			DOLLARS	CTS	DOLLARS	CTS
E 260533 CD (181)	4.0 EACH	CON EDISON PROPERTY LINE SPLICE BOX	\$ 4,500	-	\$ 18,000	-
E 260533 M1 (182)	968.0 L.F.	FURNISH AND INSTALL 1" P.V.C. CONDUITS, SCHEDULE 80, U.L. 651 IN ONE TRENCH - WITH PAVEMENT EXCAVATION	\$ 25	-	\$ 24,200	-
E 260533 M2 (183)	968.0 L.F.	FURNISH AND INSTALL 2" P.V.C. CONDUITS, SCHEDULE 80, U.L. 651 IN ONE TRENCH - WITH PAVEMENT EXCAVATION	\$ 26	-	\$ 25,168	-
E 260533 M2.5 (184)	968.0 L.F.	FURNISH AND INSTALL 2- 1/2" P.V.C. CONDUITS, SCHEDULE 80, U.L. 651 IN ONE TRENCH - WITH PAVEMENT EXCAVATION	\$ 30	-	\$ 29,040	-



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			DOLLARS	CTS	DOLLARS	CTS
E 260533 M4 (185)	484.0 L.F.	FURNISH AND INSTALL 4" P.V.C. CONDUITS, SCHEDULE 80, U.L. 651 IN ONE TRENCH - WITH PAVEMENT EXCAVATION	\$ 32	-	\$ 15,488	-
E 262726 AA (186)	89.0 EACH	POWER RECEPTACLE (NEMA 4X)	\$ 2,000	.00	\$ 178,000	.00
E 263213 A (187)	2.0 EACH	ENGINE GENERATOR, 40 KW	\$ 60,000	.00	\$ 120,000	.00
E 263213 B (188)	2.0 EACH	ENGINE GENERATOR, 60 KW	\$ 65,000	.00	\$ 130,000	.00



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			DOLLARS	CTS	DOLLARS	CTS
E 263353 A (189)	7.0 EACH	15 kVA UPS	\$ 20,000.00		\$ 140,000.00	
E 263353 B (190)	10.0 EACH	5 kVA UPS	\$ 20,000.00		\$ 200,000.00	
HW-900H-R (191)	1.0 L.S.	ALLOWANCE FOR CITY WORK ACCELERATION Unit price bid shall not be greater than: \$ 1,500,000.00	\$ 1,500,000.00		\$ 1,500,000.00	
HW-908-ME (192)	1.0 F.S.	ALLOWANCE FOR EXTRA WORK DUE TO OFFICE OF THE MEDICAL EXAMINER DISCOVERIES PRICE BID SHALL BE FOR THE FIXED SUM OF \$ 100,000.00	\$ 100,000.00		\$ 100,000.00	



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Contract PIN 8502013HW0072C
Project ID PDWTC2013

COL. 1 ITEM NUMBER (SEQUENCE NO.)	COL. 2 ENGINEER'S ESTIMATE OF QUANTITIES	COL. 3 CLASSIFICATIONS	COL. 4 UNIT PRICES (IN FIGURES)		COL. 5 EXTENDED AMOUNTS (IN FIGURES)	
			DOLLARS	CTS	DOLLARS	CTS
HW-913 (193)	1.0 F.S.	ALLOWANCE FOR EXTRA WORK DUE TO INTERIM SECURITY PRICE BID SHALL BE FOR THE FIXED SUM OF \$ 500,000.00	\$ 500,000	00	\$ 500,000	00
NYCT-7A.1 (194)	550.0 S.F.	MEMBRANE WATERPROOFING	\$ 10	-	\$ 5,500	-
NYCT-7A.2 (195)	550.0 S.F.	WATERPROOFING PROTECTION BOARD	\$ 4	-	\$ 2,200	-
NYPD-3 (196)	968.0 L.F.	INSTALL FIBER OPTIC CABLE INTO NEW LATERALS	\$ 4	50	\$ 4,356	-



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			DOLLARS	CTS	DOLLARS	CTS
NYPD-ATCDN (197)	1.0 L.S.	ACCEPTANCE TESTING OF COMMUNICATIONS DATA NETWORKING EQUIPMENT, CLOSED CIRCUIT TELEVISION CAMERAS AND LICENSE PLATE RECOGNITION SYSTEMS	\$ 50,000	00	\$ 50,000	00
NYPD-CAM1 (198)	15.0 EACH	FURNISH AND INSTALL COMPLETE DOME CCTV CAMERA SYSTEM ON UTILITY POLE	\$ 8,000	00	\$ 120,000	00
NYPD-CAM2 (199)	8.0 EACH	FURNISH AND INSTALL OPTICAL INTERFACE AND MEDIA CONVERTER AT GUARD BOOTH	\$ 2,500	00	\$ 20,000	00
NYPD-CCI (200)	12.0 EACH	CONTROL CABINET INSTALLATION	\$ 5,400	00	\$ 64,800	00



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			DOLLARS	CTS	DOLLARS	CTS
NYPD-CCTVE (201)	24.0 EACH	CCTV EQUIPMENT ENCLOSURE	\$ 8,000	.00	\$ 192,000	.00
NYPD-DNE1 (202)	8.0 EACH	ETHERNET SWITCH	\$ 25,000	.00	\$ 200,000	.00
NYPD-DNE2 (203)	8.0 EACH	FIREWALL	\$ 27,000	.00	\$ 216,000	.00
NYPD-F12 (204)	914.0 L.F.	FURNISH 12 STRAND FIBER (RIBBON/SINGLE)	\$	1.90	\$ 1,736	.60



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			DOLLARS	CTS	DOLLARS	CTS
NYPD-F6 (205)	968.0 L.F.	FURNISH 6 STRAND FIBER (RIBBON/SINGLE)	\$ 1	30	\$ 1,258	40
NYPD-FCU (206)	11.0 EACH	FIELD CONTROL UNIT	\$ 45,000	00	\$ 495,000	00
NYPD-HH (207)	387.0 L.F.	HYDRAULIC HOSE	\$ 200	00	\$ 77,400	00
NYPD-LPR (208)	28.0 EACH	LPR DUAL CAMERA UNIT	\$ 25,000	00	\$ 700,000	00



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			DOLLARS	CTS	DOLLARS	CTS
NYPD-LVD (209)	26.0 EACH	FURNISH AND INSTALL LOOP VEHICLE DETECTOR, 110 KHZ	\$ 1,400.00		\$ 36,400.00	
NYPD-PP1 (210)	9.0 EACH	FIBER OPTIC PATCH PANEL, IN BOOTH	\$ 4,800.00		\$ 43,200.00	
NYPD-PP2 (211)	9.0 EACH	FIBER OPTIC PATCH PANEL, IN ENCLOSURE	\$ 3,200.00		\$ 28,800.00	
NYPD-SGP1 (212)	20.0 EACH	FURNISH AND INSTALL STOP/GO SIGNAL POLE	\$ 10,000.00		\$ 200,000.00	



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			DOLLARS	CTS	DOLLARS	CTS
NYPD-STO (213)	18.0 MONTH	STORAGE FACILITY	\$ 7,000 -		\$ 126,000 -	
NYPD-VADI (214)	36.0 EACH	VEHICLE ARREST DEVICE INSTALLATION	\$ 4,000 -		\$ 144,000 -	
NYPD-VS (215)	8.0 EACH	VIDEO SERVER	\$ 23,000.00		\$ 184,000.00	
NYPD-VSCI (216)	24.0 EACH	VEHICLE SCALE INSTALLATION	\$ 7,000 -		\$ 168,000 -	



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			DOLLARS	CTS	DOLLARS	CTS
SL-20.02.02S (217)	13.0 EACH	FURNISH AND INSTALL STANDARD TYPE ANCHOR BOLT FOUNDATION FOR INSTALLING TYPE "S" POLE.	\$ 1,350	00	\$ 17,550	00
SL-20.02.05 (218)	7.0 EACH	REMOVE LAMPOST. REMOVE FOUNDATION (STANDARD, SPIDER, ETC.). FURNISH AND INSTALL NEW FOUNDATION, (E-3788 OR J-5253). RE-INSTALL LAMPOST OR NEW LAMPOST WITH ALL ATTACHMENTS.	\$ 3,900	00	\$ 27,300	00
SL-20.08.01 (219)	3.0 EACH	REMOVE STANDARD TYPE ANCHOR BOLT CONCRETE FOUNDATION	\$ 400	00	\$ 1,200 800	00 00
SL-20.08.02 (220)	2.0 EACH	REMOVE FOUNDATION OTHER THAN STANDARD TYPE.	\$ 400 2,000	00 00	\$ 800 2,000	00 00



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			DOLLARS	CTS	DOLLARS	CTS
SL-21.03.04 (221)	1.0 EACH	INSTALL FABRICATED STEEL LAMPPOST WITH VARIOUS SIZE ARM(S) WITHOUT TRANSFORMER BASE.	\$ 2,000	00	\$ 2,000	00
SL-21.09.07 (222)	2.0 EACH	REMOVE ORNAMENTAL LAMPPOST (TYPE "BC", "M", "F", "5TH AVENUE, "LYRE") WITH GROUND PIECE, WITH ALL ATTACHMENTS, IF ANY.	\$ 450	00	\$ 900	00
SL-21.10.04 (223)	3.0 EACH	REMOVE SPUN ALUMINUM LAMPPOST WITH VARIOUS SIZE ARM(S) WITH TRANSFORMER BASE ON HIGHWAYS	\$ 350	00	\$ 1,050	00
SL-26.01.01 (224)	11.0 EACH	FURNISH AND INSTALL, OR FURNISH AND REPLACE A PLUG-IN SOLID STATE PHOTOELECTRIC CONTROL	\$ 50	00	\$ 550	00



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			DOLLARS	CTS	DOLLARS	CTS
SL-28.01.01 (225)	28.0 EACH	FURNISH AND INSTALL COPPER WELD GROUND ROD AND CLAMP, AS PER DRAWING H-5019	\$ 1,000.00		\$ 28,000.00	
SL-33.01.05 (226)	73.0 L.F.	FURNISH AND INSTALL NO. 4/0 AWG XLP COPPER CABLE OR EQUAL IN CONDUIT	\$ 13.00		\$ 949.00	
SL-37.05.11 (227)	13.0 EACH	FURNISH AND INSTALL TYPE 3624 ROADWAY CONCRETE BOX WITH CAST IRON FRAME AND COVER WITH TAMPER PROOF BOLTS AS PER DWG J-3179B.	\$ 5,000.00		\$ 65,000.00	
SL-ADNY-S (228)	13.0 EACH	FURNISH AND INSTALL TYPE "S" LAMPOST, SHAFT/ARM ASSEMBLY WITH 250 W CLEAR METAL HALIDE LAMP AND PHOTO ELECTRIC CONTROL	\$ 10,000.00		\$ 130,000.00	



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			DOLLARS	CTS	DOLLARS	CTS
T-1.1 (229)	2.0 EACH	INSTALL TYPE "S" OR "T" FOUNDATION	\$ 1,800.00		\$ 3,600.00	
T-1.2 (230)	1.0 EACH	INSTALL TYPE "F-1" FOUNDATION	\$ 1,800.00		\$ 1,800.00	
T-1.23 (231)	2.0 EACH	REMOVE STREET LIGHT FOUNDATION	\$ 400.00		\$ 800.00	
T-1.3 (232)	2.0 EACH	INSTALL TYPE "M2-5S" FOUNDATION	\$ 2,300.00		\$ 4,600.00	



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			DOLLARS	CTS	DOLLARS	CTS
T-2.10 (233)	7.0 EACH	INSTALL MAST ARM ON ANY OTHER TYPE EXISTING POST	\$ 1,200	00	\$ 8,400	00
T-2.31 (234)	1.0 EACH	REMOVE STREET LIGHT ARM AND POST, AND RESTORE AREA TO MATCH EXISTING	\$ 400	00	\$ 400	00
T-2.32 (235)	1.0 EACH	INSTALL STREET LIGHT LUMINAIRE SUPPORT ARM ON "M-2" POST	400	00	400	00
			700	00	700	00
				(P)		(P)
T-2.7 (236)	1.0 EACH	INSTALL SHAFT ON "M-2" POST	700	00	700	00
			58	00	406	00
				(P)		(P)



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			DOLLARS	CTS	DOLLARS	CTS
T-20020 (237)	7.0 EACH	a) FURNISH 3/4" ANCHOR BOLT ASSEMBLIES FOR S-1 (EACH) (3 REQUIRED PER POST)	\$ 58	00	\$ 406	00
T-20021 (238)	4.0 EACH	b) FURNISH 1" ANCHOR BOLT ASSEMBLIES FOR F-1 (EACH) (4 REQUIRED PER POST)	\$ 90	00	\$ 360	00
T-20160 (239)	1.0 EACH	FURNISH 20 FOOT SIGNAL MAST ARM POLE ASSEMBLY TYPE "M-2"	\$ 2,800	00	\$ 2,800	00
T-20220 (240)	9.0 EACH	c) FURNISH 1-1/4" ANCHOR BOLT ASSEMBLIES FOR M-2 (EACH) (4 REQUIRED PER POST)	\$ 160	00	\$ 1,440	00



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			DOLLARS	CTS	DOLLARS	CTS
T-3.21 (241)	2.0 EACH	REMOVE PEDESTRIAN SIGNAL OR SIGN UNIT OR OTHER ILLUMINATED SIGNS FROM ANY POST	\$ 300	.00	\$ 600	.00
T-3.6 (242)	2.0 EACH	INSTALL PEDESTRIAN SIGNAL ON ANY TYPE POST	\$ 350	.00	\$ 700	.00
T-31210 (243)	1.0 EACH	h) "HUB" ASSEMBLY *ASSEMBLY IS EQUAL TO ONE PAIR	\$ 20	.00	\$ 20	.00
T-31351 (244)	1.0 EACH	g) "VB-2P" ASSEMBLY *ASSEMBLY IS EQUAL TO ONE PAIR	\$ 160	.00	\$ 160	.00



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			DOLLARS	CTS	DOLLARS	CTS
T-4.4 (245)	1.0 EACH	INSTALL CONTROL BOX ON ANY POST	\$ 1,300	00	\$ 1,300	00
T-4.7 (246)	1.0 EACH	INSTALL CONTROLLER IN ANY CONTROL BOX	\$ 600	00	\$ 600	00
T-4.8 (247)	1.0 EACH	REMOVE ONE CONTROL BOX AND CONTROLLER FROM ANY POST OR SUPPORT	\$ 600	00	\$ 600	00
T-5.1 (248)	56.0 L.F.	FURNISH AND INSTALL 2" RIGID UNDERGROUND CONDUIT IN UNPAVED ROADWAY	\$ 55	00	\$ 3,080	00



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			DOLLARS	CTS	DOLLARS	CTS
T-5.2 (249)	333.0 L.F.	FURNISH AND INSTALL 2" RIGID UNDERGROUND CONDUIT IN PAVED ROADWAY	\$ 70.00		\$ 23,310.00	
T-5.32 (250)	333.0 L.F.	RESTORING PERMANENT ROADWAY (INCLUDING SAWCUT)	\$ 46.00		\$ 15,318.00	
T-5.7 (251)	11.0 L.F.	FURNISH AND INSTALL ADDITIONAL 2" RIGID UNDERGROUND CONDUIT	\$ 31.00		\$ 341.00	
T-60000B (252)	400.0 L.F.	FURNISH 2 c # 10B (BREAKDOWN = 2#10 WITH 3RD WIRE FOR GROUNDING).	\$ 1.70		\$ 680.00	



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			DOLLARS	CTS	DOLLARS	CTS
T-60040 (253)	200.0 L.F.	c) 7 CONDUCTOR, 14 A.W.G.	\$ 1	35	\$ 270	00
T-60190 (254)	500.0 L.F.	e) 13 CONDUCTOR, 14 A.W.G.	\$ 2	25	\$ 1,125	00
T-8.10 (255)	1.0 EACH	RELOCATE CONCRETE PYLON WITH POST	\$ 650	00	\$ 650	00
T-8.8 (256)	1.0 EACH	INSTALL CONCRETE PYLON	\$ 650	00	\$ 650	00



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			DOLLARS	CTS	DOLLARS	CTS
T-8.9 (257)	1.0 EACH	REMOVE CONCRETE PYLON	\$ 650	.00	\$ 650	.00
T-81000 (258)	1.0 EACH	FURNISH CONCRETE PYLON	\$ 700	.00	\$ 700	.00



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			DOLLARS	CTS	DOLLARS	CTS
			SUB-TOTAL:		\$ 17,346,831	40
6.39 A (259)	1.0 LUMP SUM	MOBILIZATION PRICE BID SHALL NOT EXCEED 4% OF THE ABOVE SUB-TOTAL PRICE.			\$ 670,000	00
			TOTAL BID PRICE:		18,016,831 18,016	40

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.

PT



BID BOND 1
FORM OF BID BOND

KNOW ALL MEN BY THESE PRESENTS. That we, _____
Tully Construction Co., Inc.
127-50 Northern Boulevard, Flushing, New York 11368

hereinafter referred to as the "Principal", and _____
Federal Insurance Company
15 Mountain View Road, Warren, New Jersey 07059

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 Attached Bid

(\$ --- 10% ---), 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 Project ID: PDWTC2013,

World Trade Center Campus Security Plan, Washington Street from Barclay Street to Vesey Street, Trinity Place from Liberty Street to Thames Street, West Broadway from Vesey Street to Barclay Street and Church Street from Vesey Street to Barclay Street, Including Sewer, Water Main, Street Lighting, and Traffic Signal Work, 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.



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 23^d day of August, 2013.

(Seal)

Tully Construction Co., Inc _____ (L.S.)

Principal

By: _____

Peter K. Tully, President

(Seal)

Federal Insurance Company _____

Surety

By: _____

Timothy M. Tyrrell, Attorney-in-Fact



BID BOND 3

ACKNOWLEDGMENT OF PRINCIPAL, IF A CORPORATION

State of New York County of Queens ss:
On this 23rd day of August, 2013, before me personally came
Peter K. Tully to me known, who, being by me duly sworn, did depose and say
that he resides at Lattingtown, New York
that he is the President of Tully Construction Co., Inc.
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.

CAROL R. GORDON
Notary Public, State of New York
No. 01GO4680187
Qualified in Queens County
Commission Expires April 30, 2014
Carol R. Gordon
Notary Public, Queens County
Comm. Exp.

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


CAROL R. OGDEN
Notary Public for New York
125 E. 42nd Street
New York, N.Y. 10017
Commission Expires April 22, 89

**Federal Insurance Company
Warren, NJ 07059**

SURETY COMPANY'S ACKNOWLEDGMENT

State of New York,
County of Albany} ^{ss.}

On this 23rd day of August, 2013, before me personally appeared Timothy M. Tyrrell; to me known, who, being by me duly sworn, did depose and say: That he/she resides in Albany, New York; that he/she is Attorney-in-Fact of Federal Insurance Company, the corporation described in and which executed the within instrument; that he/she knows the corporate seal of said Company; that the seal affixed to said instrument is such corporate seal; and that he/she signed said instrument as Attorney-in-Fact by authority of the Board of Directors of said Company; and affiant did further depose and say that the Superintendent of Insurance of the State of New York has, pursuant to Chapter 882 of the Laws of the State of New York for the year 1939, constituting chapter 28 of the Consolidating Laws of the State of New York as the Insurance Law as amended, issued to Federal Insurance Company his/her certificate that said Company is qualified to become and be accepted as surety or guarantor on all bonds, undertakings, recognizances, guaranties, and other obligations required or permitted by law; and that such certificate has not been revoked.



Notary Public
Rensselaer County
Comm. Exp. 12/18/2014



FEDERAL INSURANCE COMPANY

STATEMENT OF ASSETS, LIABILITIES AND SURPLUS TO POLICYHOLDERS

Statutory Basis

DECEMBER 31, 2012

(in thousands of dollars)

<u>ASSETS</u>		<u>LIABILITIES AND SURPLUS TO POLICYHOLDERS</u>	
Cash and Short Term Investments.....	\$ 402,323	Outstanding Losses and Loss Expenses.....	\$ 12,627,388
United States Government, State and Municipal Bonds.....	9,901,519	Unearned Premiums.....	3,416,163
Other Bonds.....	4,595,536	Ceded Reinsurance Premiums Payable.....	364,197
Stocks.....	811,166	Provision for Reinsurance.....	62,250
Other Invested Assets.....	<u>1,681,828</u>	Other Liabilities.....	<u>935,654</u>
TOTAL INVESTMENTS.....	<u>17,392,372</u>	TOTAL LIABILITIES.....	<u>17,405,652</u>
Investments in Affiliates:		Capital Stock.....	20,980
Chubb Investment Holdings, Inc.....	3,352,969	Paid-In Surplus.....	3,106,809
Pacific Indemnity Company.....	2,496,198	Unassigned Funds.....	<u>10,713,227</u>
Chubb Insurance Investment Holdings Ltd....	1,228,075		
Executive Risk Indemnity Inc.....	1,100,637		
CC Canada Holdings Ltd.....	758,892		
Chubb Insurance Company of Australia Limited	517,597	SURPLUS TO POLICYHOLDERS.....	<u>13,841,016</u>
Great Northern Insurance Company.....	438,592		
Chubb European Investment Holdings SLP..	265,490		
Vigilant Insurance Company.....	246,766		
Other Affiliates.....	429,458		
Premiums Receivable.....	1,494,693		
Other Assets.....	<u>1,524,929</u>		
TOTAL ADMITTED ASSETS.....	<u>\$ 31,246,668</u>	TOTAL LIABILITIES AND SURPLUS TO POLICYHOLDERS.....	<u>\$ 31,246,668</u>

Investments are valued in accordance with requirements of the National Association of Insurance Commissioners.
Investments with a carrying value of \$430,688,714 are deposited with government authorities as required by law.

State, County & City of New York, — ss:

Yvonne Baker, Assistant Secretary _____ of the Federal Insurance Company

being duly sworn, deposes and says that the foregoing Statement of Assets, Liabilities and Surplus to Policyholders of said Federal Insurance Company on December 31, 2012 is true and correct and is a true abstract of the Annual Statement of said Company as filed with the Secretary of the Treasury of the United States for the 12 months ending December 31, 2012.

Subscribed and sworn to before me
this March 31, 2013.

Dorothy Baker

Notary Public

DOROTHY M. BAKER
Notary Public, State of New York
No. 31-4904994
Qualified in New York County
Commission Expires Sept. 14, 2013

Yvonne Baker

Assistant Secretary





**Chubb
Surety**

**POWER
OF
ATTORNEY**

**Federal Insurance Company
Vigilant Insurance Company
Pacific Indemnity Company**

**Attn: Surety Department
15 Mountain View Road
Warren, NJ 07059**

Know All by These Presents, That **FEDERAL INSURANCE COMPANY**, an Indiana corporation, **VIGILANT INSURANCE COMPANY**, a New York corporation, and **PACIFIC INDEMNITY COMPANY**, a Wisconsin corporation, do each hereby constitute and appoint **Eric J. Canterbury, Patrick J. Clyne, Charles C. Leach, Thomas R. Tyrrell and Timothy M. Tyrrell of Albany, New York**

each as their true and lawful Attorney-in-Fact to execute under such designation in their names and to affix their corporate seals to and deliver for and on their behalf as surety thereon or otherwise, bonds and undertakings and other writings obligatory in the nature thereof (other than bail bonds) given or executed in the course of business, and any instruments amending or altering the same, and consents to the modification or alteration of any instrument referred to in said bonds or obligations.

In Witness Whereof, said **FEDERAL INSURANCE COMPANY, VIGILANT INSURANCE COMPANY, and PACIFIC INDEMNITY COMPANY** have each executed and attested these presents and affixed their corporate seals on this **8th day of October, 2012**.

Kenneth C. Wendel, Assistant Secretary

David B. Norris, Jr., Vice President

STATE OF NEW JERSEY
County of Somerset

ss.

On this **8th** day of **October, 2012** before me, a Notary Public of New Jersey, personally came Kenneth C. Wendel, to me known to be Assistant Secretary of **FEDERAL INSURANCE COMPANY, VIGILANT INSURANCE COMPANY, and PACIFIC INDEMNITY COMPANY**, the companies which executed the foregoing Power of Attorney, and the said Kenneth C. Wendel, being by me duly sworn, did depose and say that he is Assistant Secretary of **FEDERAL INSURANCE COMPANY, VIGILANT INSURANCE COMPANY, and PACIFIC INDEMNITY COMPANY** and knows the corporate seals thereof, that the seals affixed to the foregoing Power of Attorney are such corporate seals and were thereto affixed by authority of the By-Laws of said Companies; and that he signed said Power of Attorney as Assistant Secretary of said Companies by like authority; and that he is acquainted with David B. Norris, Jr., and knows him to be Vice President of said Companies; and that the signature of David B. Norris, Jr., subscribed to said Power of Attorney is in the genuine handwriting of David B. Norris, Jr., and was thereto subscribed by authority of said By-Laws and in deponent's presence.

Notarial Seal



**KATHERINE J. ADELAAR
NOTARY PUBLIC OF NEW JERSEY
No. 2316685
Commission Expires July 16, 2014**

Notary Public

CERTIFICATION

Extract from the By-Laws of **FEDERAL INSURANCE COMPANY, VIGILANT INSURANCE COMPANY, and PACIFIC INDEMNITY COMPANY**:

"All powers of attorney for and on behalf of the Company may and shall be executed in the name and on behalf of the Company, either by the Chairman or the President or a Vice President or an Assistant Vice President, jointly with the Secretary or an Assistant Secretary, under their respective designations. The signature of such officers may be engraved, printed or lithographed. The signature of each of the following officers: Chairman, President, any Vice President, any Assistant Vice President, any Secretary, any Assistant Secretary and the seal of the Company may be affixed by facsimile to any power of attorney or to any certificate relating thereto appointing Assistant Secretaries or Attorneys-in-Fact for purposes only of executing and attesting bonds and undertakings and other writings obligatory in the nature thereof, and any such power of attorney or certificate bearing such facsimile signature or facsimile seal shall be valid and binding upon the Company and any such power so executed and certified by such facsimile signature and facsimile seal shall be valid and binding upon the Company with respect to any bond or undertaking to which it is attached."

I, Kenneth C. Wendel, Assistant Secretary of **FEDERAL INSURANCE COMPANY, VIGILANT INSURANCE COMPANY, and PACIFIC INDEMNITY COMPANY** (the "Companies") do hereby certify that

- (i) the foregoing extract of the By-Laws of the Companies is true and correct,
- (ii) the Companies are duly licensed and authorized to transact surety business in all 50 of the United States of America and the District of Columbia and are authorized by the U.S. Treasury Department; further, Federal and Vigilant are licensed in Puerto Rico and the U.S. Virgin Islands, and Federal is licensed in American Samoa, Guam, and each of the Provinces of Canada except Prince Edward Island; and
- (iii) the foregoing Power of Attorney is true, correct and in full force and effect.

Given under my hand and seals of said Companies at Warren, NJ this 23rd day of August, 2013



Kenneth C. Wendel, Assistant Secretary

IN THE EVENT YOU WISH TO NOTIFY US OF A CLAIM, VERIFY THE AUTHENTICITY OF THIS BOND OR NOTIFY US OF ANY OTHER MATTER, PLEASE CONTACT US AT ADDRESS LISTED ABOVE, OR BY Telephone (908) 903- 3493 Fax (908) 903- 3656
e-mail: surety@chubb.com



SPECIAL NOTICE TO BIDDERS

The New York City Department of Small Business Services (SBS), in conjunction with the New York Business Development Corporation (NYBDC), have established a **NYC Construction Loan** pilot program to provide prime contractors and subcontractors financing for mobilization costs on certain City construction projects.

Under this initiative, loans are available for early stage mobilization needs such as insurance, labor, supplies and equipment. Bidders are strongly encouraged to visit "Growing Your Business" at www.nyc.gov/nycbusiness to learn more about the loan or contact constructionloan@sbs.nyc.gov / (212) 513-6444 to obtain details and to determine preliminary eligibility.

A successful loan applicant will be required to make an assignment of its contract (or subcontract) payments to the lender NYBDC until the loan is repaid. If the loan is to a subcontractor, a prime contractor must honor the terms of such an assignment.

A prime contractor may not discriminate against a subcontractor or potential subcontractor by reason of the subcontractor's participation, or nonparticipation, in the NYC Construction Loan program.

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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: PDWTC2013

WORLD TRADE CENTER CAMPUS SECURITY PLAN

**WASHINGTON STREET FROM BARCLAY STREET TO VESEY STREET
TRINITY PLACE FROM LIBERTY STREET TO THAMES STREET
WEST BROADWAY FROM VESEY STREET TO BARCLAY STREET
AND
CHURCH STREET FROM VESEY STREET TO BARCLAY STREET**

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

Together With All Work Incidental Thereto

**BOROUGH OF MANHATTAN
CITY OF NEW YORK**

(NO TEXT ON THIS PAGE)

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

BID BOOKLET

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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 applies to this contract. Such requirements are set forth on pages 3 through 4 of this Bid Booklet.

SPECIAL NOTICE TO BIDDERS
SPECIAL EXPERIENCE REQUIREMENTS (Revised 07/2013 for PDWTC2013)

(A) **EXPERIENCE REQUIREMENTS FOR THE BIDDER**: The Contractor, by the nature of the scope of work, will furnish, install, and integrate the following elements:

- General infrastructure including sidewalks, roadway, and underground utilities
- Electrical Power
- Guard Booth Security and Communications Infrastructure Support
- Guard Booth Systems Interfaces
- CCTV Surveillance
- Data Networking Equipment
- Active and passive Vehicle Arrest Devices
- Personnel Occupancy Vehicle (POV) Scales
- Pedestrian Interdiction Fencing
- Vehicle Interdiction Bollards
- License Plate Reader (LPR) Systems
- Fiber Optic Communications

Based on the foregoing, submittal of qualifications is requested from the bidder. The bidder shall provide information that is concise, easily understandable, and verifiable for the following:

- A. Bidder's management and supervisory personnel
 1. Name and assigned responsibility
 2. Background
 3. Years of experience
- B. Bidder's quality assurance organization
 1. Person in charge, name and background
 2. Personnel on staff
 3. Past record
- C. Bidder's safety organization
 1. Person in charge, name and background
 2. Personnel on staff
 3. Past record
- D. Bidder's equipment that he/she owns or otherwise has immediate availability of for doing the work for which the proposal is made.
- E. To demonstrate the bidder's experience and capabilities, the bidder shall be required to provide the following information for the four (4) categories of work listed below for at least one (1) project that represents the bidder's experience which is similar in scope and types. The bidder shall have successfully completed in a timely fashion at least 50% of the submitted project within the last five (5) consecutive years prior to the bid opening and not be in default of the contract. In the event that the work in any of the four (4) categories of work below is proposed to be done by a subcontractor, the Contractor will be required to present its subcontractor's experience at the pre-award meeting. Award of the contract will be subject to the approval by the Department of the experience of the Contractor and/or subcontractor. In the event that the subcontractor is disapproved the Contractor will have five (5) working days to submit a substitute subcontractor for approval. In the event the substitute subcontractor is disapproved, the Contractor will be deemed non-responsive. The Contractor shall submit at the time of bid:
 - Contract name and number;
 - Location, supervising agency or authority with contact name and telephone number;
 - List of CCTV, LPR, Fiber Optic and network components installed;

- Dollar value of project;
- Duration, planned and actual, of the project;
- Scope of Work;
- Work categories performed either as prime contractor or subcontractor:
 1. Installation of water mains and sewers;
 2. Street reconstruction – all types of roadways, curbing, paving materials, traffic planning, etc.;
 3. Infrastructure (utility) expertise – locating and protecting utilities, maintaining services during construction operations;
 4. Security and Network Integrator work:

The Network Integrator entity shall have been in business for a minimum of ten (10) years and shall have performed network integration for the last three (3) consecutive years. Work experience shall include the successful installation of at least one (1) other data networks systems of complexity similar to that of the Work to be performed under this Contract;

The Network Integrator shall submit credentials demonstrating the integrator's qualifications. Qualifications shall include management, administration, configuration, and testing of Ethernet switches. Configuration shall include Resilient Packet Ring (RPR), Internet Group Management Protocol (IGMP), Multicasting, Shared Packet Ring (SPR) and Resilient Ethernet Protocol (REP);

The Data Network equipment installer shall have received extensive Manufacturer's training and be certified and factory authorized in the installation of all backbone communications system equipment. Certifications shall have been maintained and up to date;

The lead individual performing the network administration functions shall be Cisco Certified Network Professional (CCNP) accredited. All network administration staff shall be at a minimum accredited with Cisco Certified Network Associate (CCNA) certification. Additionally, at least one System Administrator staff individual assigned to the Work of this Contract shall be Microsoft Certified Systems Engineer (MCSE) accredited;

The lead individual performing the network maintenance functions shall be Cisco Certified Network Professional (CCNP) accredited. All network maintenance staff shall be at a minimum accredited with Cisco Certified Network Associate (CCNA) certification and shall have experience working with Cisco equipment of the type being installed under this Contract. They shall further have training and experience working with Ethernet and fiber optic cabling. Additionally, at least one Network Maintenance staff individual assigned to the Work of this Contract shall be accredited with Microsoft Certified Systems Engineer (MCSE) certification;

The Network Integrator shall have a fully operational quality assurance and quality control program in place and shall comply with ISO 9001 standards.

The requirements set forth below under Article (B) apply to this contract where indicated by a blackened box (■) or by X in a □ to left.

- (B) **EXPERIENCE REQUIREMENTS FOR INSTALLER OF TRUNK WATER MAIN:** The special experience requirements set forth below apply to the contractor who will install the Trunk Water Main. 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) The contractor who will install the Trunk Water Main 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.
- (C) **SUBMISSION REQUIREMENTS:** For each project submitted to meet the experience requirements set forth above, the bidder must complete and submit the Qualification Form set forth in the Bid Booklet. Separate Qualification Forms shall be provided for bidder and the contractor who will install the Trunk Water Main.
- (D) **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.
- (1) 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 months or more from the inception of the bidding entity.
- (2) 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.
- (E) **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.
- (F) **COMPLIANCE:** Compliance with the experience requirements set forth herein will be determined solely by the City, prior to an award of contract. The bidder is advised that failure to meet the above described experience will result in the rejection of the bid as non-responsive.

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: _____

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ATTACHMENT 1 - BID INFORMATION

PROJECT ID: PDWTC2013

PIN: 8502013HW0072C

Description and Location of Work:

WORLD TRADE CENTER CAMPUS SECURITY PLAN
WASHINGTON STREET FROM BARCLAY STREET TO VESEY STREET
TRINITY PLACE FROM LIBERTY STREET TO THAMES STREET
WEST BROADWAY FROM VESEY STREET TO BARCLAY STREET
AND
CHURCH STREET FROM VESEY STREET TO BARCLAY STREET
INCLUDING SEWER, WATER MAIN, STREET LIGHTING,
AND TRAFFIC SIGNAL WORK

Together With All Work Incidental Thereto

BOROUGH OF MANHATTAN
CITY OF NEW YORK

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 **AUGUST 16, 2013**

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 **AUGUST 16, 2013**

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

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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) or with a prefix "NYCT", "NYPD", "HW", and "E" excluding items beginning with the number "8.01", shall comply with the requirements of the corresponding numerical or alpha-numerical Sections of either the NYCDOT Standard Highway Specifications as amended by Addendum No. 1 or the additional specifications contain in Addendum No. 3, 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. 4, 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. 52.21D10) 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.

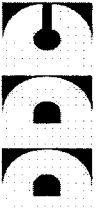
Items listed in this Bid Schedule which have two (2) digits beginning with the number "6" followed by a decimal (e.g. 60.12DMM06) shall comply with the requirements of the New York City Department of Environmental Protection (NYCDEP) Standard Water Main Specifications dated August 1, 2009, and as amended by Addendum No. 2, herein Volume 3 of 3.

Items listed in the Bid Schedule which have two (2) digits beginning with the number "7" followed by a decimal (e.g. 70.61RE), shall comply with the requirements of the New York City Department of Environmental Protection (NYCDEP) Standard Sewer Specifications, dated August 1, 2009, or the NYCDEP Standard Water Main Specifications, dated August 1, 2009, as applicable, and 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-21.09.07) 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, less the prefix, except for Item No. "SL-ADNY-S" which shall comply with the requirements of Section SL-ADNY-S in Addendum No. 1, herein Volume 3 of 3.

Items listed in this Bid Schedule beginning with the prefix "T-" (e.g. T-2.7) are Traffic Items, less the prefix, 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.

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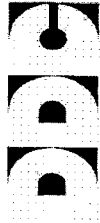
Contract PIN 8502013HW0072C
Project ID PDWTC2013

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

07/23/2013
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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 several classes of work 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 5 shall be the product of the Estimated Quantity in Column 2 times the Unit Price Bid in Column 4.
- (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 - 67



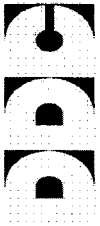
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BID PAGES

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

Contract PIN 8502013HW0072C
Project ID PDWTC2013

COL. 1 ITEM NUMBER (SEQUENCE NO.)	COL. 2 ENGINEER'S ESTIMATE OF QUANTITIES	COL. 3 CLASSIFICATIONS	COL. 4 UNIT PRICES (IN FIGURES)		COL. 5 EXTENDED AMOUNTS (IN FIGURES)
			DOLLARS	CTS	
4.02 AF-R (001)	1,210.0 S.Y.	ASPHALTIC CONCRETE WEARING COURSE, 2" THICK	\$ _____	_____ CTS	\$ _____
4.02 AG (002)	1,841.0 S.Y.	ASPHALTIC CONCRETE WEARING COURSE, 3" THICK	\$ _____	_____ CTS	\$ _____
4.02 CB (003)	3,091.0 TONS	ASPHALTIC CONCRETE MIXTURE	\$ _____	_____ CTS	\$ _____
4.04 H (004)	194.0 C.Y.	CONCRETE BASE FOR PAVEMENT, VARIABLE THICKNESS FOR TRENCH RESTORATION, (HIGH-EARLY STRENGTH)	\$ _____	_____ CTS	\$ _____

07/23/2013
4:30PM
BID PAGES



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

Contract PIN 8502013HW0072C
Project ID PDWTC2013

COL. 1 ITEM NUMBER (SEQUENCE NO.)	COL. 2 ENGINEER'S ESTIMATE OF QUANTITIES	COL. 3 CLASSIFICATIONS	COL. 4 UNIT PRICES (IN FIGURES)		COL. 5 EXTENDED AMOUNTS (IN FIGURES)	
			DOLLARS	CTS	DOLLARS	CTS
4.04 HD (005)	412.0 C.Y.	CONCRETE BASE FOR PAVEMENT, 9" THICK (HIGH-EARLY STRENGTH)	\$	—	\$	—
4.06 (006)	475.0 C.Y.	CONCRETE IN STRUCTURES, CLASS A-40	\$	—	\$	—
4.07 CB (007)	887.0 L.F.	NEW GRANITE CURB, STRAIGHT	\$	—	\$	—
4.07 CC (008)	113.0 L.F.	NEW GRANITE CURB, CORNER	\$	—	\$	—

07/23/2013
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BID PAGES

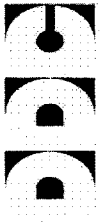


NEW YORK CITY DEPARTMENT OF DESIGN AND CONSTRUCTION
DIVISION OF INFRASTRUCTURE - BUREAU OF DESIGN

Contract PIN 8502013HW0072C
Project ID PDWTC2013

COL. 1 ITEM NUMBER (SEQUENCE NO.)	COL. 2 ENGINEER'S ESTIMATE OF QUANTITIES	COL. 3 CLASSIFICATIONS	COL. 4 UNIT PRICES (IN FIGURES)		COL. 5 EXTENDED AMOUNTS (IN FIGURES)
			DOLLARS	CTS	
4.09 AE (009)	87.0 L.F.	STRAIGHT STEEL FACED CONCRETE CURB (21" DEEP)	\$ _____	_____ CTS	\$ _____
4.09 CE (010)	97.0 L.F.	CORNER STEEL FACED CONCRETE CURB (21" DEEP)	\$ _____	_____ CTS	\$ _____
4.11 CA (011)	1,208.0 C.Y.	FILL, PLACE MEASUREMENT	\$ _____	_____ CTS	\$ _____
4.13 AAS (012)	437.0 S.F.	4" CONCRETE SIDEWALK (UNPIGMENTED)	\$ _____	_____ CTS	\$ _____

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			DOLLARS	CTS	
4.13 CABS (013)	13,222.0 S.F.	4" CONCRETE SIDEWALK (PIGMENTED) (SAW CUT TYPE JOINTS)	\$		\$
4.13 CBBS (014)	513.0 S.F.	7" CONCRETE SIDEWALK (PIGMENTED) (SAW CUT TYPE JOINTS)	\$		\$
4.13 DE (015)	133.0 S.F.	EMBEDDED PREFORMED DETECTABLE WARNING UNITS	\$		\$
4.14 (016)	30,009.0 LBS.	STEEL REINFORCEMENT BARS	\$		\$

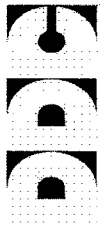
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			DOLLARS	CTS	DOLLARS
50.41C6C16 (017)	79.0 L.F.	16" D.I.P. CLASS 56 COMBINED SEWER, ON CONCRETE CRADLE	\$ _____	_____	\$ _____
50.41M6T08 (018)	726.0 L.F.	8" D.I.P. CLASS 56 STORM SEWER, ENCASED IN CRUSHED STONE	\$ _____	_____	\$ _____
51.21C000000C (019)	6.0 EACH	CLEANOUT MANHOLE	\$ _____	_____	\$ _____
51.21S0A3000V (020)	2.0 EACH	STANDARD SHALLOW MANHOLE TYPE A-3	\$ _____	_____	\$ _____



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			DOLLARS	CTS	
51.41P000 (021)	1.0 EACH	SPECIAL CATCH BASIN	\$ _____	_____ CTS	\$ _____
51.41S001 (022)	6.0 EACH	STANDARD CATCH BASIN, TYPE 1	\$ _____	_____ CTS	\$ _____
51.41W000 (023)	4.0 EACH	SHALLOW CATCH BASIN	\$ _____	_____ CTS	\$ _____
52.11D12 (024)	411.0 I.F.	12" DUCTILE IRON PIPE BASIN CONNECTION	\$ _____	_____ CTS	\$ _____

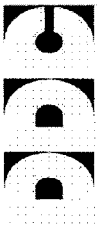


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			DOLLARS	CTS	
52.21D08 (025)	19.0 V.F.	8" DUCTILE IRON PIPE RISER FOR HOUSE CONNECTION	\$	—	\$
52.21D10 (026)	19.0 V.F.	10" DUCTILE IRON PIPE RISER FOR HOUSE CONNECTION	\$	—	\$
52.31D06C16 (027)	1.0 EACH	6" DUCTILE IRON PIPE SPUR FOR HOUSE CONNECTION ON 16" D.I.P. COMBINED SEWER	\$	—	\$
52.31D08C16 (028)	1.0 EACH	8" DUCTILE IRON PIPE SPUR FOR HOUSE CONNECTION ON 16" D.I.P. COMBINED SEWER	\$	—	\$



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			DOLLARS	CTS	
52.31D10C16 (029)	1.0 EACH	10" DUCTILE IRON PIPE SPUR FOR HOUSE CONNECTION ON 16" D.I.P. COMBINED SEWER	\$ _____	_____ CTS	\$ _____
53.11DR (030)	158.0 L.F.	TELEVISION INSPECTION AND DIGITAL AUDIO-VISUAL RECORDING OF SEWERS	\$ _____	_____ CTS	\$ _____
6.02 AAN (031)	1,895.0 C.Y.	UNCLASSIFIED EXCAVATION	\$ _____	_____ CTS	\$ _____
6.02 XHEC (032)	562.0 C.Y.	INCREMENTAL COST FOR MODIFYING WORK METHODS NEAR (WITHIN 3 FEET OF) TRANSIT FACILITIES AND BUILDING VAULTS	\$ _____	_____ CTS	\$ _____

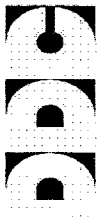


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			DOLLARS	CTS	
6.02 XSCW (033)	553.0 C.Y.	INCREMENTAL COST FOR USING SPECIAL CARE WORK METHODS NEAR (FROM 3 FEET TO 50 FEET) TRANSIT FACILITIES	\$ _____	_____	\$ _____
6.06 AC (034)	140.0 S.Y.	GRANITE BLOCK SIDEWALK (SAND AND GROUTED JOINTS) (FURNISH BLOCK)	\$ _____	_____	\$ _____
6.18 PIF (035)	251.0 L.F.	PEDESTRIAN INTERDICTION FENCING	\$ _____	_____	\$ _____
6.22 F (036)	4,400.0 LBS.	ADDITIONAL HARDWARE	\$ _____	_____	\$ _____

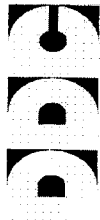


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			DOLLARS	CTS	DOLLARS	CTS
6.23 BA (037)	1.0 EACH	FURNISH AND INSTALL FIRE ALARM POST AND SUBBASE IN ACCORDANCE WITH F.D. STD. DWG. #141	\$ _____	_____	\$ _____	_____
6.23 BD (038)	24.0 L.F.	FURNISH AND INSTALL 4-PAIR FIRE ALARM CABLE	\$ _____	_____	\$ _____	_____
6.23 BEC (039)	1.0 EACH	FURNISH AND INSTALL FIRE DEPARTMENT 12 WIRE TERMINAL BOX AND TERMINATE FIRE ALARM CABLES	\$ _____	_____	\$ _____	_____
6.23 BHE (040)	1.0 EACH	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	\$ _____	_____	\$ _____	_____



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			DOLLARS	CTS	
6.23 BP (041)	1.0 SETS	FURNISH AND INSTALL FIRE ALARM PEDESTAL BUMPERS (2 REQUIRED PER SET) IN ACCORDANCE WITH F.D. STD. DWG. #168	\$ _____	_____	\$ _____
6.25 RS (042)	455.0 S.F.	TEMPORARY SIGNS	\$ _____	_____	\$ _____
6.26 (043)	1,353.0 L.F.	TIMBER CURB	\$ _____	_____	\$ _____
6.28 AA (044)	430.0 L.F.	LIGHTED TIMBER BARRICADES	\$ _____	_____	\$ _____

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			DOLLARS	CTS	
6.28 ME (045)	968.0 L.F.	LIGHTED TIMBER FENCING FOR USE IN LOWER MANHATTAN PROJECTS	\$ _____	_____ CTS	\$ _____
6.34 ACTP (046)	968.0 L.F.	TEMPORARY CHAIN LINK FENCE, 6'-0" HIGH (WITH TOP AND BOTTOM RAILS AND POSTS MOUNTED ON STEEL PLATES)	\$ _____	_____ CTS	\$ _____
6.36 DR (047)	5.0 C.Y.	STRUCTURAL REPAIR AND ADJUSTMENT OF UTILITY STRUCTURES	\$ _____	_____ CTS	\$ _____
6.40 D (048)	24.0 MONTH	ENGINEER'S FIELD OFFICE (TYPE D)	\$ _____	_____ CTS	\$ _____

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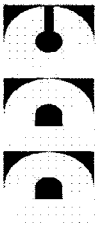
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			DOLLARS	CTS	
6.43 (049)	2,700.0 SETS	PHOTOGRAPHS	\$ _____	_____	\$ _____
6.44 (050)	48,860.0 L.F.	THERMOPLASTIC REFLECTORIZED PAVEMENT MARKINGS (4" WIDE)	\$ _____	_____	\$ _____
6.49 (051)	1,694.0 L.F.	TEMPORARY PAVEMENT MARKINGS (4" WIDE)	\$ _____	_____	\$ _____
6.50 (052)	33.0 EACH	CLEANING OF DRAINAGE STRUCTURES	\$ _____	_____	\$ _____



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			DOLLARS	CTS	
6.52 (053)	30,512.0 P/HR	UNIFORMED FULL-TIME FLAGPERSON	\$ _____	_____ CTS	\$ _____
6.53 (054)	1,694.0 L.F.	REMOVE EXISTING LANE MARKINGS (4" WIDE)	\$ _____	_____ CTS	\$ _____
6.55 (055)	8,341.0 L.F.	SAWCUTTING EXISTING PAVEMENT	\$ _____	_____ CTS	\$ _____
6.59 P (056)	61.0 L.F.	TEMPORARY CONCRETE BARRIER	\$ _____	_____ CTS	\$ _____



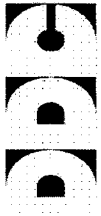
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			DOLLARS	CTS	DOLLARS	CTS
6.59 REM (057)	1.0 L.S.	REMOVAL OF EXISTING GUARD BOOTHS, OPERABLE BARRIERS, CONCRETE PLANTERS, CONCRETE BARRIER SECTIONS, BOLLARDS, AND CONCRETE BLOCKS	\$ _____	_____	\$ _____	_____
6.75 (058)	91.0 C.Y.	GRINDING EXISTING ASPHALTIC CONCRETE WEARING COURSE	\$ _____	_____	\$ _____	_____
6.79 AG (059)	605.0 L.F.	4" DUCTILE IRON PIPE CONNECTION	\$ _____	_____	\$ _____	_____
6.82 A (060)	301.0 S.F.	REMOVING EXISTING TRAFFIC AND STREET NAME SIGNS	\$ _____	_____	\$ _____	_____

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			DOLLARS	CTS	
6.82 B (061)	327.0 L.F.	REMOVING EXISTING TRAFFIC AND STREET NAME SIGN POSTS	\$ _____	_____	\$ _____
6.83 AA (062)	55.0 S.F.	FURNISHING NEW NON-REFLECTORIZED TRAFFIC SIGNS	\$ _____	_____	\$ _____
6.83 AB (063)	145.0 L.F.	FURNISHING NEW TRAFFIC SIGN POSTS	\$ _____	_____	\$ _____
6.83 AR (064)	350.0 S.F.	FURNISHING NEW REFLECTORIZED TRAFFIC SIGNS	\$ _____	_____	\$ _____



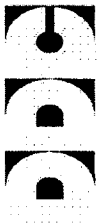
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			DOLLARS	CTS	DOLLARS	CTS
6.83 BA (065)	405.0 S.F.	INSTALLING TRAFFIC SIGNS	\$		\$	
6.83 BB (066)	145.0 L.F.	INSTALLING TRAFFIC SIGN POSTS	\$		\$	
6.85 A (067)	1.0 F.S.	TRAFFIC ENFORCEMENT AGENTS PRICE BID SHALL BE FOR THE FIXED SUM OF \$ 2,429,489.00	\$	2,429,489.00	\$	2,429,489.00
6.86 AA (068)	10.0 S.F.	FURNISHING NEW STREET NAME SIGNS	\$		\$	

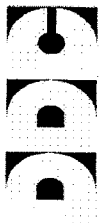
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			DOLLARS	CTS	DOLLARS	CTS
6.86 AB (069)	68.0 L.F.	FURNISHING NEW STREET NAME SIGN POSTS	\$ _____	_____ CTS	\$ _____	_____ CTS
6.86 BA (070)	10.0 S.F.	INSTALLING STREET NAME SIGNS	\$ _____	_____ CTS	\$ _____	_____ CTS
6.86 BB (071)	68.0 L.F.	INSTALLING STREET NAME SIGN POSTS	\$ _____	_____ CTS	\$ _____	_____ CTS
6.87 (072)	171.0 EACH	PLASTIC BARRELS	\$ _____	_____ CTS	\$ _____	_____ CTS



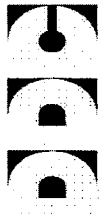
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			DOLLARS	CTS	
6.91 (073)	4,237.0 L.F.	REFLECTIVE CRACKING MEMBRANE (18" WIDE)	\$ _____	_____	\$ _____
6.99 (074)	1.0 L.S.	AUDIO AND VIDEO DOCUMENTATION SURVEY	\$ _____	_____	\$ _____
60.11R520 (075)	328.0 L.F.	FURNISHING AND DELIVERING 20-INCH DUCTILE IRON RESTRAINED JOINT PIPE (CLASS 55)	\$ _____	_____	\$ _____
60.11R606 (076)	108.0 L.F.	FURNISHING AND DELIVERING 6-INCH DUCTILE IRON RESTRAINED JOINT PIPE (CLASS 56)	\$ _____	_____	\$ _____

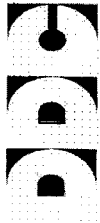
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			DOLLARS	CTS	
60.11R612 (077)	160.0 L.F.	FURNISHING AND DELIVERING 12-INCH DUCTILE IRON RESTRAINED JOINT PIPE (CLASS 56)	\$ _____	_____	\$ _____
60.12D06 (078)	132.0 L.F.	LAYING 6-INCH DUCTILE IRON PIPE AND FITTINGS	\$ _____	_____	\$ _____
60.12D12 (079)	204.0 L.F.	LAYING 12-INCH DUCTILE IRON PIPE AND FITTINGS	\$ _____	_____	\$ _____
60.12D20 (080)	407.0 L.F.	LAYING 20-INCH DUCTILE IRON PIPE AND FITTINGS	\$ _____	_____	\$ _____

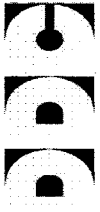


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			DOLLARS	CTS	DOLLARS	CTS
60.13M0A24 (081)	7.0 TONS	FURNISHING AND DELIVERING DUCTILE IRON MECHANICAL JOINT 24-INCH DIAMETER AND SMALLER FITTINGS, INCLUDING WEDGE TYPE RETAINER GLANDS	\$ _____	_____	\$ _____	_____
60.19T1S12E (082)	1.0 EACH	FURNISHING, DELIVERING AND INSTALLING TEMPORARY LINE STOPS ON EXISTING 12-INCH WATER MAINS	\$ _____	_____	\$ _____	_____
60.19T1S20E (083)	1.0 EACH	FURNISHING, DELIVERING AND INSTALLING TEMPORARY LINE STOPS ON EXISTING 20-INCH WATER MAINS	\$ _____	_____	\$ _____	_____
61.11DMM06 (084)	6.0 EACH	FURNISHING AND DELIVERING 6-INCH MECHANICAL JOINT DUCTILE IRON GATE VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	\$ _____	_____	\$ _____	_____



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			DOLLARS	CTS	
61.11DMM12 (085)	1.0 EACH	FURNISHING AND DELIVERING 12-INCH MECHANICAL JOINT DUCTILE IRON GATE VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	\$ _____	_____ CTS	\$ _____
61.11DMM20 (086)	1.0 EACH	FURNISHING AND DELIVERING 20-INCH MECHANICAL JOINT DUCTILE IRON GATE VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	\$ _____	_____ CTS	\$ _____
61.11TWC06 (087)	4.0 EACH	FURNISHING AND DELIVERING 6-INCH WET CONNECTION TAPPING VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	\$ _____	_____ CTS	\$ _____
61.11TWC08 (088)	4.0 EACH	FURNISHING AND DELIVERING 8-INCH WET CONNECTION TAPPING VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	\$ _____	_____ CTS	\$ _____



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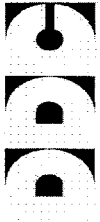
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			DOLLARS	CTS	
61.11TWC10 (089)	4.0 EACH	FURNISHING AND DELIVERING 10-INCH WET CONNECTION TAPPING VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	\$ _____	_____	\$ _____
61.11TWC12 (090)	4.0 EACH	FURNISHING AND DELIVERING 12-INCH WET CONNECTION TAPPING VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	\$ _____	_____	\$ _____
61.12DMM06 (091)	6.0 EACH	SETTING 6-INCH MECHANICAL JOINT DUCTILE IRON GATE VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	\$ _____	_____	\$ _____
61.12DMM12 (092)	1.0 EACH	SETTING 12-INCH MECHANICAL JOINT DUCTILE IRON GATE VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	\$ _____	_____	\$ _____



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			DOLLARS	CTS	
61.12DMM20 (093)	1.0 EACH	SETTING 20-INCH MECHANICAL JOINT DUCTILE IRON GATE VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	\$ _____	_____	\$ _____
61.12TWC06 (094)	4.0 EACH	SETTING 6-INCH WET CONNECTION TAPPING VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	\$ _____	_____	\$ _____
61.12TWC08 (095)	4.0 EACH	SETTING 8-INCH WET CONNECTION TAPPING VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	\$ _____	_____	\$ _____
61.12TWC10 (096)	4.0 EACH	SETTING 10-INCH WET CONNECTION TAPPING VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	\$ _____	_____	\$ _____



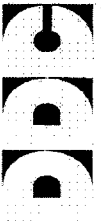
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			DOLLARS	CTS	DOLLARS	CTS
61.12TWC12 (097)	4.0 EACH	SETTING 12-INCH WET CONNECTION TAPPING VALVE COMPLETE WITH WEDGE TYPE RETAINER GLANDS	\$ _____	_____	\$ _____	_____
62.11SD (098)	4.0 EACH	FURNISHING AND DELIVERING HYDRANTS	\$ _____	_____	\$ _____	_____
62.12SG (099)	4.0 EACH	SETTING HYDRANTS COMPLETE WITH WEDGE TYPE RETAINER GLANDS	\$ _____	_____	\$ _____	_____
62.13RH (100)	3.0 EACH	REMOVING HYDRANTS	\$ _____	_____	\$ _____	_____

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			DOLLARS	CTS	
62.14FS (101)	10.0 EACH	FURNISHING, DELIVERING AND INSTALLING HYDRANT FENDERS	\$ _____	_____	\$ _____
63.11VC (102)	8.0 TONS	FURNISHING AND DELIVERING VARIOUS CASTINGS	\$ _____	_____	\$ _____
64.11EL (103)	7.0 EACH	WITHDRAWING AND REPLACING HOUSE SERVICES USING 1-1/2-INCH OR LARGER SCREW TAPS	\$ _____	_____	\$ _____
64.11ST (104)	7.0 EACH	WITHDRAWING AND REPLACING HOUSE SERVICES USING SMALLER THAN 1-1/2-INCH SCREW TAPS	\$ _____	_____	\$ _____

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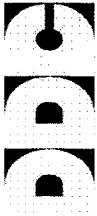
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			DOLLARS	CTS	
64.12COEG (105)	22.0 L.F.	CUTTING AND OFFSETTING HOUSE SERVICE WATER CONNECTIONS (EQUAL TO OR GREATER THAN 3-INCH DIAMETER)	\$ _____	_____ CTS	\$ _____
64.12COLT (106)	22.0 L.F.	CUTTING AND OFFSETTING HOUSE SERVICE WATER CONNECTIONS (LESS THAN 3-INCH DIAMETER)	\$ _____	_____ CTS	\$ _____
64.12SEEG (107)	22.0 L.F.	EXTENDING HOUSE SERVICE WATER CONNECTIONS (EQUAL TO OR GREATER THAN 3-INCH DIAMETER)	\$ _____	_____ CTS	\$ _____
64.12ESLT (108)	22.0 L.F.	EXTENDING HOUSE SERVICE WATER CONNECTIONS (LESS THAN 3-INCH DIAMETER)	\$ _____	_____ CTS	\$ _____



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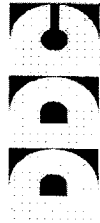
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			DOLLARS	CTS	
64.13WC20 (109)	4.0 EACH	FURNISHING, DELIVERING AND INSTALLING WET CONNECTION SLEEVE ON 20-INCH WATER MAIN PIPE WITH VARIOUS OUTLETS	\$		\$
65.11BR (110)	273.0 LBS.	FURNISHING, DELIVERING AND INSTALLING BANDS, RODS, WASHERS, ETC., COMPLETE, FOR RESTRAINING JOINTS	\$		\$
65.21PS (111)	22.0 L.F.	FURNISHING AND PLACING POLYETHYLENE SLEEVE Unit price bid shall not be less than: \$ 0.50	\$		\$
65.31FF (112)	22.0 S.F.	FURNISHING, DELIVERING AND PLACING FILTER FABRIC Unit price bid shall not be less than: \$ 0.10	\$		\$

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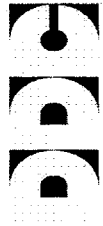
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			DOLLARS	CTS	
65.71SG (113)	44.0 C.Y.	FURNISHING, DELIVERING AND PLACING SCREENED GRAVEL OR SCREENED BROKEN STONE BEDDING	\$ _____	_____	\$ _____
7.07 RBRT (114)	2.0 EACH	REMOVE, STORE AND REINSTALL BICYCLE RACKS	\$ _____	_____	\$ _____
7.07 WTC1 (115)	77.0 EACH	BOLLARD TYPE A- FIXED, FURNISH AND INSTALL STEEL BOLLARDS	\$ _____	_____	\$ _____
7.07 WTC2 (116)	12.0 EACH	BOLLARD TYPE B- 6" FIXED, FURNISH AND INSTALL STEEL BOLLARDS	\$ _____	_____	\$ _____

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			DOLLARS	CTS	
7.07 WTC3 (117)	98.0 EACH	BOLLARD TYPE C- FIXED, FURNISH AND INSTALL STEEL BOLLARDS	\$ _____	_____	\$ _____
7.12 A (118)	4.0 EACH	PROCTOR ANALYSIS	\$ _____	_____	\$ _____
7.12 B (119)	13.0 EACH	IN-PLACE SOIL DENSITY TEST	\$ _____	_____	\$ _____
7.13 B (120)	18.0 MONTH	MAINTENANCE OF SITE Unit price bid shall not be less than: \$ 8,600.00	\$ _____	_____	\$ _____

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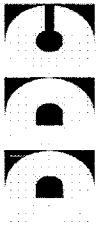
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			DOLLARS	CTS	
7.30 A (121)	2,800.0 C.Y.	REMOVAL OF TRACK	\$ _____	_____	\$ _____
7.31 A (122)	380.0 C.Y.	DEMOLITION OF ROADWAY VAULTS	\$ _____	_____	\$ _____
7.31 B (123)	65.0 C.Y.	DEMOLITION OF TROLLEY TRACK TRUSS BLOCKS	\$ _____	_____	\$ _____
7.36 (124)	200.0 L.F.	PEDESTRIAN STEEL BARRICADES	\$ _____	_____	\$ _____

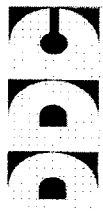
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			DOLLARS	CTS	
7.88 AA (125)	1.0 L.S.	RODENT INFESTATION SURVEY AND MONITORING Unit price bid shall not be less than: \$ 2,500.00	\$ _____	_____	\$ _____
7.88 AB (126)	252.0 EACH	RODENT BAIT STATIONS Unit price bid shall not be less than: \$ 62.00	\$ _____	_____	\$ _____
7.88 AC (127)	252.0 EACH	BAITING OF RODENT BAIT STATIONS Unit price bid shall not be less than: \$ 11.00	\$ _____	_____	\$ _____
7.88 AD (128)	144.0 BLOCK	WATERBUG BAIT APPLICATIONS Unit price bid shall not be less than: \$ 66.00	\$ _____	_____	\$ _____



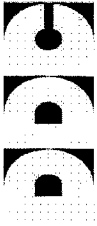
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			DOLLARS	CTS	
70.31FN (129)	609.0 L.F.	FENCING Unit price bid shall not be less than: \$ 2.50	\$ _____	_____	\$ _____
70.51EO (130)	24.0 C.Y.	EXCAVATION OF BOULDERS IN OPEN CUT Unit price bid shall not be less than: \$ 47.50	\$ _____	_____	\$ _____
70.61RE (131)	24.0 C.Y.	ROCK EXCAVATION	\$ _____	_____	\$ _____
70.61RR (132)	5.0 C.Y.	ROCK EXCAVATION WITHIN RAILROAD INFLUENCE AS PER RAILROAD GUIDELINES	\$ _____	_____	\$ _____

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			DOLLARS	CTS	
70.71SB (133)	24.0 C.Y.	STONE BALLAST Unit price bid shall not be less than: \$ 20.00	\$ _____	_____ CTS	\$ _____
70.81CB (134)	194.0 C.Y.	CLEAN BACKFILL Unit price bid shall not be less than: \$ 12.50	\$ _____	_____ CTS	\$ _____
70.91SW12 (135)	2,787.0 S.F.	FURNISHING AND PLACING SHEETING AND BRACING IN TRENCH FOR WATER MAIN PIPE 12-INCH IN DIAMETER AND LESS	\$ _____	_____ CTS	\$ _____
70.91SW20 (136)	3,993.0 S.F.	FURNISHING AND PLACING SHEETING AND BRACING IN TRENCH FOR WATER MAIN PIPE 20-INCH IN DIAMETER	\$ _____	_____ CTS	\$ _____



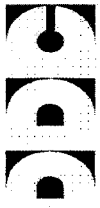
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			DOLLARS	CTS	
73.11AB (137)	48.0 C.Y.	ADDITIONAL BRICK MASONRY Unit price bid shall not be less than: \$ 44.00	\$ _____	_____	\$ _____
73.21AC (138)	97.0 C.Y.	ADDITIONAL CONCRETE Unit price bid shall not be less than: \$ 47.50	\$ _____	_____	\$ _____
73.31AE0 (139)	968.0 C.Y.	ADDITIONAL EARTH EXCAVATION INCLUDING TEST PITS (ALL DEPTHS) Unit price bid shall not be less than: \$ 28.50	\$ _____	_____	\$ _____
73.41AG (140)	968.0 C.Y.	ADDITIONAL SELECT GRANULAR BACKFILL Unit price bid shall not be less than: \$ 10.50	\$ _____	_____	\$ _____

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			DOLLARS	CTS	
73.51AS (141)	605.0 LBS.	ADDITIONAL STEEL REINFORCING BARS Unit price bid shall not be less than: \$ 1.00	\$ _____	_____	\$ _____
8.01 C1 (142)	3,000.0 TONS	HANDLING, TRANSPORTING AND DISPOSAL OF NON-HAZARDOUS CONTAMINATED SOIL	\$ _____	_____	\$ _____
8.01 C2 (143)	10.0 SETS	SAMPLING AND TESTING OF CONTAMINATED/POTENTIALLY HAZARDOUS SOIL FOR DISPOSAL PURPOSES	\$ _____	_____	\$ _____
8.01 H (144)	100.0 TONS	HANDLING, TRANSPORTING AND DISPOSAL OF HAZARDOUS SOIL	\$ _____	_____	\$ _____

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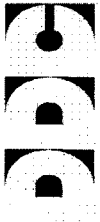


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			DOLLARS	CTS	DOLLARS	CTS
8.01 S (145)	1.0 L.S.	HEALTH AND SAFETY	\$ _____	_____ CTS	\$ _____	_____ CTS
8.01 W1 (146)	21.0 DAY	REMOVAL, TREATMENT, AND DISCHARGE/DISPOSAL OF CONTAMINATED WATER	\$ _____	_____ CTS	\$ _____	_____ CTS
8.01 W2 (147)	2.0 SETS	SAMPLING AND TESTING OF WATER	\$ _____	_____ CTS	\$ _____	_____ CTS
8.02 A (148)	10,484.0 S.F.	SPECIAL CARE EXCAVATION AND RESTORATION FOR SIDEWALK WORK	\$ _____	_____ CTS	\$ _____	_____ CTS

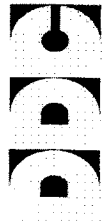
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			DOLLARS	CTS	
8.02 B (149)	1,414.0 L.F.	SPECIAL CARE EXCAVATION AND RESTORATION FOR CURB WORK	\$ _____	_____	\$ _____
9.00 C (150)	121.0 C.F.	EXPLORATORY TEST PITS	\$ _____	_____	\$ _____
9.06 HW (151)	1.0 F.S.	ALLOWANCE FOR DECORATIVE MESH FABRIC PRICE BID SHALL BE FOR THE FIXED SUM OF \$ 50,000.00	\$ 50,000.00	_____	\$ 50,000.00
9.60 GB-C (152)	4.0 EACH	CREDENTIALING GUARD BOOTH	\$ _____	_____	\$ _____



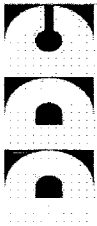
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			DOLLARS	CTS	DOLLARS
9.60 GB-E (153)	1.0 EACH	EXIT GUARD BOOTH	\$ _____	_____	\$ _____
9.60 GB-I (154)	3.0 EACH	INSPECTION GUARD BOOTH	\$ _____	_____	\$ _____
9.99 (155)	3.0 EACH	FLASHING ARROW BOARD	\$ _____	_____	\$ _____
E 260519 AA (156)	222.0 L.F.	LOW-VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES (NO. 4/0 AWG WIRE)	\$ _____	_____	\$ _____

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			DOLLARS	CTS	
E 260519 B (157)	1,888.0 L.F.	LOW-VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES (NO. 2 AWG WIRE)	\$ _____	_____ CTS	\$ _____
E 260519 BA (158)	242.0 L.F.	LOW-VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES (NO. 1/0 AWG WIRE)	\$ _____	_____ CTS	\$ _____
E 260519 C (159)	4,657.0 L.F.	LOW-VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES (NO. 4 AWG WIRE)	\$ _____	_____ CTS	\$ _____
E 260519 D (160)	3,190.0 L.F.	LOW-VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES (NO. 6 AWG WIRE)	\$ _____	_____ CTS	\$ _____

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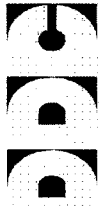
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			DOLLARS	CTS	
E 260519 E (161)	2,947.0 L.F.	LOW-VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES (NO. 8 AWG WIRE)	\$ _____	_____	\$ _____
E 260519 F (162)	3,051.0 L.F.	LOW-VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES (NO. 12 AWG WIRE)	\$ _____	_____	\$ _____
E 260519 G (163)	6,103.0 L.F.	LOW-VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES (NO. 10 AWG WIRE)	\$ _____	_____	\$ _____
E 260519 H (164)	4,649.0 L.F.	LOW-VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES (2#16 TYPE 4BSS6195), 110 KHZ	\$ _____	_____	\$ _____

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			DOLLARS	CTS	
E 260519 H3-4P (165)	2,371.0 L.F.	LOW-VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES (3-4 PAIR # 18 TWISTED PAIR), 110 kHz	\$ _____	_____ CTS	\$ _____
E 260519 H3C (166)	3,093.0 L.F.	LOW-VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES (3 CORE YY# 18), 110 kHz	\$ _____	_____ CTS	\$ _____
E 260519 H4C (167)	1,484.0 L.F.	LOW-VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES (4 CORE YY# 18), 110 kHz	\$ _____	_____ CTS	\$ _____
E 260519 H5C (168)	242.0 L.F.	LOW-VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES (5 CORE YY# 18), 110 kHz	\$ _____	_____ CTS	\$ _____

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			DOLLARS	CTS	
E 260526 A (169)	484.0 L.F.	GROUNDING CONDUCTORS	\$ _____	_____	\$ _____
E 260526 B (170)	79.0 EACH	GROUNDING PLATES	\$ _____	_____	\$ _____
E 260529 (171)	440.0 EACH	HANGERS AND SUPPORTS FOR ELECTRICAL SYSTEMS	\$ _____	_____	\$ _____
E 260533 D (172)	22.0 EACH	BOXES FOR ELECTRICAL SYSTEMS	\$ _____	_____	\$ _____

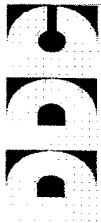


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COL. 1 ITEM NUMBER (SEQUENCE NO.)	COL. 2 ENGINEER'S ESTIMATE OF QUANTITIES	COL. 3 CLASSIFICATIONS	COL. 4 UNIT PRICES (IN FIGURES)		COL. 5 EXTENDED AMOUNTS (IN FIGURES)
			DOLLARS	CTS	
E 260533 A1.0 (173)	5,356.0 L.F.	METAL CONDUIT AND TUBING (1" GALVANIZED RIGID STEEL CONDUIT)	\$	—	\$
E 260533 A1.25 (174)	798.0 L.F.	METAL CONDUIT AND TUBING (1-1/4" GALVANIZED RIGID STEEL CONDUIT)	\$	—	\$
E 260533 A1.5 (175)	1,170.0 L.F.	METAL CONDUIT AND TUBING (1-1/2" GALVANIZED RIGID STEEL CONDUIT)	\$	—	\$
E 260533 AC2.0 (176)	5,057.0 L.F.	METAL CONDUIT AND TUBING (2" GALVANIZED RIGID STEEL CONDUIT)	\$	—	\$



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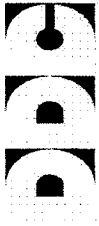
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			DOLLARS	CTS	
E 260533 AC2.5 (177)	1,004.0 L.F.	METAL CONDUIT AND TUBING (2-1/2" GALVANIZED RIGID STEEL CONDUIT)	\$	—	\$
E 260533 AC3.0 (178)	2,933.0 L.F.	METAL CONDUIT AND TUBING (3" GALVANIZED RIGID STEEL CONDUIT)	\$	—	\$
E 260533 AF4.0 (179)	333.0 L.F.	METAL CONDUIT AND TUBING (4" GALVANIZED RIGID STEEL CONDUIT)	\$	—	\$
E 260533 CD (180)	4.0 EACH	CON EDISON PROPERTY LINE SPLICE BOX	\$	—	\$

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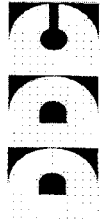
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			DOLLARS	CTS	DOLLARS	CTS
E 260533 M1 (181)	968.0 L.F.	FURNISH AND INSTALL 1" P.V.C. CONDUITS, SCHEDULE 80, U.L. 651 IN ONE TRENCH - WITH PAVEMENT EXCAVATION	\$ _____	_____	\$ _____	_____
E 260533 M2 (182)	968.0 L.F.	FURNISH AND INSTALL 2" P.V.C. CONDUITS, SCHEDULE 80, U.L. 651 IN ONE TRENCH - WITH PAVEMENT EXCAVATION	\$ _____	_____	\$ _____	_____
E 260533 M2.5 (183)	968.0 L.F.	FURNISH AND INSTALL 2- 1/2" P.V.C. CONDUITS, SCHEDULE 80, U.L. 651 IN ONE TRENCH - WITH PAVEMENT EXCAVATION	\$ _____	_____	\$ _____	_____
E 260533 M4 (184)	484.0 L.F.	FURNISH AND INSTALL 4" P.V.C. CONDUITS, SCHEDULE 80, U.L. 651 IN ONE TRENCH - WITH PAVEMENT EXCAVATION	\$ _____	_____	\$ _____	_____



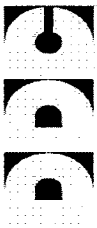
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			DOLLARS	CTS	DOLLARS
E 262726 AA (185)	89.0 EACH	POWER RECEPTACLE (NEMA 4X)	\$ _____	_____ CTS	\$ _____
E 263213 A (186)	2.0 EACH	ENGINE GENERATOR, 40 KW	\$ _____	_____ CTS	\$ _____
E 263213 B (187)	2.0 EACH	ENGINE GENERATOR, 60 KW	\$ _____	_____ CTS	\$ _____
E 263353 A (188)	7.0 EACH	15 KVA UPS	\$ _____	_____ CTS	\$ _____

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			DOLLARS	CTS	DOLLARS	CTS
E 263353 B (189)	10.0 EACH	5 KVA UPS	\$		\$	
HW-900H (190)	1.0 F.S.	ALLOWANCE FOR CITY WORK ACCELERATION PRICE BID SHALL BE FOR THE FIXED SUM OF \$ 500,000.00	\$	500,000.00	\$	500,000.00
HW-908-ME (191)	1.0 F.S.	ALLOWANCE FOR EXTRA WORK DUE TO OFFICE OF THE MEDICAL EXAMINER DISCOVERIES PRICE BID SHALL BE FOR THE FIXED SUM OF \$ 100,000.00	\$	100,000.00	\$	100,000.00
HW-913 (192)	1.0 F.S.	ALLOWANCE FOR EXTRA WORK DUE TO INTERIM SECURITY PRICE BID SHALL BE FOR THE FIXED SUM OF \$ 500,000.00	\$	500,000.00	\$	500,000.00



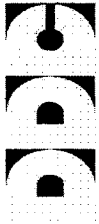
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			DOLLARS	CTS	
NYCT-7A.1 (193)	550.0 S.F.	MEMBRANE WATERPROOFING	\$ _____	_____ CTS	\$ _____
NYCT-7A.2 (194)	550.0 S.F.	WATERPROOFING PROTECTION BOARD	\$ _____	_____ CTS	\$ _____
NYPD-3 (195)	968.0 L.F.	INSTALL FIBER OPTIC CABLE INTO NEW LATERALS	\$ _____	_____ CTS	\$ _____
NYPD-ATCDN (196)	1.0 L.S.	ACCEPTANCE TESTING OF COMMUNICATIONS DATA NETWORKING EQUIPMENT, CLOSED CIRCUIT TELEVISION CAMERAS AND LICENSE PLATE RECOGNITION SYSTEMS	\$ _____	_____ CTS	\$ _____

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			DOLLARS	CTS	
NYPD-CAM1 (197)	15.0 EACH	FURNISH AND INSTALL COMPLETE DOME CCTV CAMERA SYSTEM ON UTILITY POLE	\$ _____	_____	\$ _____
NYPD-CAM2 (198)	8.0 EACH	FURNISH AND INSTALL OPTICAL INTERFACE AND MEDIA CONVERTER AT GUARD BOOTH	\$ _____	_____	\$ _____
NYPD-CCI (199)	12.0 EACH	CONTROL CABINET INSTALLATION	\$ _____	_____	\$ _____
NYPD-CCTVE (200)	24.0 EACH	CCTV EQUIPMENT ENCLOSURE	\$ _____	_____	\$ _____



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			DOLLARS	CTS	DOLLARS
NYPD-DNE1 (201)	8.0 EACH	ETHERNET SWITCH	\$ _____	_____ CTS	\$ _____
NYPD-DNE2 (202)	8.0 EACH	FIREWALL	\$ _____	_____ CTS	\$ _____
NYPD-F12 (203)	914.0 L.F.	FURNISH 12 STRAND FIBER (RIBBON/SINGLE)	\$ _____	_____ CTS	\$ _____
NYPD-F6 (204)	968.0 L.F.	FURNISH 6 STRAND FIBER (RIBBON/SINGLE)	\$ _____	_____ CTS	\$ _____

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			DOLLARS	CTS	
NYPD-FCU (205)	9.0 EACH	FIELD CONTROL UNIT	\$ _____	_____ CTS	\$ _____
NYPD-HH (206)	387.0 L.F.	HYDRAULIC HOSE	\$ _____	_____ CTS	\$ _____
NYPD-LPR (207)	28.0 EACH	LPR DUAL CAMERA UNIT	\$ _____	_____ CTS	\$ _____
NYPD-PP1 (208)	9.0 EACH	FIBER OPTIC PATCH PANEL, IN BOOTH	\$ _____	_____ CTS	\$ _____

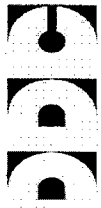
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			DOLLARS	CTS	DOLLARS
NYPD-PP2 (209)	9.0 EACH	FIBER OPTIC PATCH PANEL, IN ENCLOSURE	\$ _____	_____ CTS	\$ _____
NYPD-SGP1 (210)	16.0 EACH	FURNISH AND INSTALL STOP/GO SIGNAL POLE	\$ _____	_____ CTS	\$ _____
NYPD-STO (211)	18.0 MONTH	STORAGE FACILITY	\$ _____	_____ CTS	\$ _____
NYPD-VADI (212)	34.0 EACH	VEHICLE ARREST DEVICE INSTALLATION	\$ _____	_____ CTS	\$ _____



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			DOLLARS	CTS	
NYPD-VS (213)	8.0 EACH	VIDEO SERVER	\$ _____	_____ CTS	\$ _____
NYPD-VSCI (214)	22.0 EACH	VEHICLE SCALE INSTALLATION	\$ _____	_____ CTS	\$ _____
SL-20.02.02S (215)	13.0 EACH	FURNISH AND INSTALL STANDARD TYPE ANCHOR BOLT FOUNDATION FOR INSTALLING TYPE "S" POLE.	\$ _____	_____ CTS	\$ _____
SL-20.02.05 (216)	7.0 EACH	REMOVE LAMPPOST. REMOVE FOUNDATION (STANDARD, SPIDER, ETC.). FURNISH AND INSTALL NEW FOUNDATION, (E-3788 OR J-5253). RE-INSTALL LAMPPOST OR NEW LAMPPOST WITH ALL ATTACHMENTS.	\$ _____	_____ CTS	\$ _____



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			DOLLARS	CTS	
SL-20.08.01 (217)	3.0 EACH	REMOVE STANDARD TYPE ANCHOR BOLT CONCRETE FOUNDATION	\$ _____	_____ CTS	\$ _____
SL-20.08.02 (218)	2.0 EACH	REMOVE FOUNDATION OTHER THAN STANDARD TYPE.	\$ _____	_____ CTS	\$ _____
SL-21.03.04 (219)	1.0 EACH	INSTALL FABRICATED STEEL LAMPOST WITH VARIOUS SIZE ARM(S) WITHOUT TRANSFORMER BASE.	\$ _____	_____ CTS	\$ _____
SL-21.09.07 (220)	2.0 EACH	REMOVE ORNAMENTAL LAMPOST (TYPE "BC", "M", "F", "5TH AVENUE, "LYRE") WITH GROUND PIECE, WITH ALL ATTACHMENTS, IF ANY.	\$ _____	_____ CTS	\$ _____

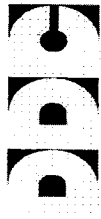
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			DOLLARS	CTS	DOLLARS	CTS
SL-21.10.04 (221)	3.0 EACH	REMOVE SPUN ALUMINUM LAMPPOST WITH VARIOUS SIZE ARM(S) WITH TRANSFORMER BASE ON HIGHWAYS	\$ _____	_____	\$ _____	_____
SL-26.01.01 (222)	11.0 EACH	FURNISH AND INSTALL, OR FURNISH AND REPLACE A PLUG-IN SOLID STATE PHOTOELECTRIC CONTROL	\$ _____	_____	\$ _____	_____
SL-28.01.01 (223)	28.0 EACH	FURNISH AND INSTALL COPPER WELD GROUND ROD AND CLAMP, AS PER DRAWING H-5019	\$ _____	_____	\$ _____	_____
SL-33.01.05 (224)	73.0 L.F.	FURNISH AND INSTALL NO. 4/0 AWG XLP COPPER CABLE OR EQUAL IN CONDUIT	\$ _____	_____	\$ _____	_____

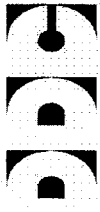


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			DOLLARS	CTS	DOLLARS	CTS
SL-37.05.11 (225)	13.0 EACH	FURNISH AND INSTALL TYPE 3624 ROADWAY CONCRETE BOX WITH CAST IRON FRAME AND COVER WITH TAMPER PROOF BOLTS AS PER DWG J-3179B.	\$ _____	_____	\$ _____	_____
SL-ADNY-S (226)	13.0 EACH	FURNISH AND INSTALL TYPE "S" LAMPOST, SHAFT/ARM ASSEMBLY WITH 250 W CLEAR METAL HALIDE LAMP AND PHOTO ELECTRIC CONTROL	\$ _____	_____	\$ _____	_____
T-1.1 (227)	2.0 EACH	INSTALL TYPE "S" OR "T" FOUNDATION	\$ _____	_____	\$ _____	_____
T-1.2 (228)	1.0 EACH	INSTALL TYPE "F-1" FOUNDATION	\$ _____	_____	\$ _____	_____

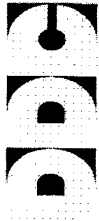


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			DOLLARS	CTS	
T-1.23 (229)	2.0 EACH	REMOVE STREET LIGHT FOUNDATION	\$ _____	_____	\$ _____
T-1.3 (230)	2.0 EACH	INSTALL TYPE "M2-5S" FOUNDATION	\$ _____	_____	\$ _____
T-2.10 (231)	7.0 EACH	INSTALL MAST ARM ON ANY OTHER TYPE EXISTING POST	\$ _____	_____	\$ _____
T-2.31 (232)	1.0 EACH	REMOVE STREET LIGHT ARM AND POST, AND RESTORE AREA TO MATCH EXISTING	\$ _____	_____	\$ _____

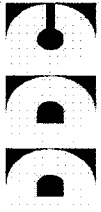


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			DOLLARS	CTS	
T-2.32 (233)	1.0 EACH	INSTALL STREET LIGHT LUMINAIRE SUPPORT ARM ON "M-2" POST	\$		\$
T-2.7 (234)	1.0 EACH	INSTALL SHAFT ON "M-2" POST	\$		\$
T-20020 (235)	7.0 EACH	a) FURNISH 3/4" ANCHOR BOLT ASSEMBLIES FOR S-1 (EACH) (3 REQUIRED PER POST)	\$		\$
T-20021 (236)	4.0 EACH	b) FURNISH 1" ANCHOR BOLT ASSEMBLIES FOR F-1 (EACH) (4 REQUIRED PER POST)	\$		\$



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			DOLLARS	CTS	DOLLARS	CTS
T-20160 (237)	1.0 EACH	FURNISH 20 FOOT SIGNAL MAST ARM POLE ASSEMBLY TYPE "M-2"	\$ _____	_____	\$ _____	_____
T-20220 (238)	9.0 EACH	C) FURNISH 1-1/4" ANCHOR BOLT ASSEMBLIES FOR M-2 (EACH) (4 REQUIRED PER POST)	\$ _____	_____	\$ _____	_____
T-3.21 (239)	2.0 EACH	REMOVE PEDESTRIAN SIGNAL OR SIGN UNIT OR OTHER ILLUMINATED SIGNS FROM ANY POST	\$ _____	_____	\$ _____	_____
T-3.6 (240)	2.0 EACH	INSTALL PEDESTRIAN SIGNAL ON ANY TYPE POST	\$ _____	_____	\$ _____	_____



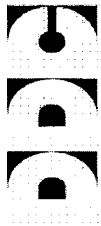
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			DOLLARS	CTS	
T-31210 (241)	1.0 EACH	h) "HUB" ASSEMBLY *ASSEMBLY IS EQUAL TO ONE PAIR	\$ _____	_____ CTS	\$ _____
T-31351 (242)	1.0 EACH	g) "VB-2P" ASSEMBLY *ASSEMBLY IS EQUAL TO ONE PAIR	\$ _____	_____ CTS	\$ _____
T-5.1 (243)	56.0 L.F.	FURNISH AND INSTALL 2" RIGID UNDERGROUND CONDUIT IN UNPAVED ROADWAY	\$ _____	_____ CTS	\$ _____
T-5.2 (244)	333.0 L.F.	FURNISH AND INSTALL 2" RIGID UNDERGROUND CONDUIT IN PAVED ROADWAY	\$ _____	_____ CTS	\$ _____

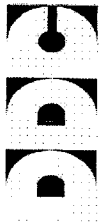
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			DOLLARS	CTS	DOLLARS	CTS
T-5.32 (245)	333.0 L.F.	RESTORING PERMANENT ROADWAY (INCLUDING SAWCUT)	\$ _____	_____	\$ _____	_____
T-5.7 (246)	11.0 L.F.	FURNISH AND INSTALL ADDITIONAL 2" RIGID UNDERGROUND CONDUIT	\$ _____	_____	\$ _____	_____
T-72181 (247)	24.0 EACH	FURNISH LOOP VEHICLE DETECTOR, 110 KHZ	\$ _____	_____	\$ _____	_____
T-8.10 (248)	1.0 EACH	RELOCATE CONCRETE PYLON WITH POST	\$ _____	_____	\$ _____	_____



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			DOLLARS	CTS	DOLLARS	CTS
T-8.8 (249)	1.0 EACH	INSTALL CONCRETE PYLON	\$ _____	_____	\$ _____	_____
T-8.9 (250)	1.0 EACH	REMOVE CONCRETE PYLON	\$ _____	_____	\$ _____	_____
T-81000 (251)	1.0 EACH	FURNISH CONCRETE PYLON	\$ _____	_____	\$ _____	_____



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4:30PM
BID PAGES

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

Contract PIN 8502013HW0072C
Project ID PDWTC2013

COL. 1 ITEM NUMBER (SEQUENCE NO.)	COL. 2 ENGINEER'S ESTIMATE OF QUANTITIES	COL. 3 CLASSIFICATIONS	COL. 4 UNIT PRICES (IN FIGURES)		COL. 5 EXTENDED AMOUNTS (IN FIGURES)	
			DOLLARS	CTS	DOLLARS	CTS
SUB-TOTAL:					\$	
6.39 A (252)	1.0 LUMP SUM	MOBILIZATION PRICE BID SHALL NOT EXCEED 4% OF THE ABOVE SUB-TOTAL PRICE.			\$	
TOTAL BID PRICE:					\$	

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

(NO TEXT ON THIS PAGE)

**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: PDWTC2013

WORLD TRADE CENTER CAMPUS SECURITY PLAN

**WASHINGTON STREET FROM BARCLAY STREET TO VESEY STREET
TRINITY PLACE FROM LIBERTY STREET TO THAMES STREET
WEST BROADWAY FROM VESEY STREET TO BARCLAY STREET
AND
CHURCH STREET FROM VESEY STREET TO BARCLAY STREET**

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

Together With All Work Incidental Thereto

**BOROUGH OF MANHATTAN
CITY OF NEW YORK**

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 this 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:

(NO TEXT ON THIS PAGE)

BID FORM

PROJECT ID. PDWTC2013

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

M/WBE UTILIZATION PLAN: By signing its bid in the space below, 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 ("Section 6-129"), 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.

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 Corporate Officer 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 #: 85014B0009

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 # 85014B0009 FMS Project ID#: PDWTC2013
 Project Title/ Agency PIN # WORLD TRADE CENTER CAMPUS SECURITY PLAN / 8502013HW0072C
 Bid/Proposal Response Date AUGUST 16, 2013
 Contracting Agency Department of Design and Construction
 Agency Address 30-30 Thomson Ave. City Long Island City State NY Zip Code 11101
 Contact Person Jessica Lavides Title MWBE Liaison & Compliance Analyst
 Telephone # (718) 391-1065 Email LavidesJe@ddc.nyc.gov

Project Description (attach additional pages if necessary)

WORLD TRADE CENTER CAMPUS SECURITY PLAN
WASHINGTON STREET FROM BARCLAY STREET TO VESEY STREET
TRINITY PLACE FROM LIBERTY STREET TO THAMES STREET
WEST BROADWAY FROM VESEY STREET TO BARCLAY STREET
AND
CHURCH STREET FROM VESEY STREET TO BARCLAY STREET
INCLUDING SEWER, WATER MAIN, STREET LIGHTING,
AND TRAFFIC SIGNAL 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	5 %
OR	
Black American	UNSPECIFIED %
Hispanic American	UNSPECIFIED %
Asian American	UNSPECIFIED %
Women	UNSPECIFIED %
Total Participation Goals	5 %

Line 1

Tax ID #: _____

APT E-
PIN #: _____

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 1)		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

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.

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

✓ Scopes of Subcontract Work

Tax ID #: _____

APT E-
PIN #: _____

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 CHIEF CONTRACTING OFFICER APPROVAL
 Signature: _____ Date: _____

CITY CHIEF PROCUREMENT OFFICER APPROVAL
 Signature: _____ Date: _____

Waiver Determination
 Full Waiver Approved
 Waiver Denied
 Partial Waiver Approved
 Revised Participation Goal: _____ %

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.

APPRENTICESHIP PROGRAM QUESTIONNAIRE

PROJECT ID: PDWTC2013

The bidder must submit a completed and signed Apprenticeship Program Questionnaire.

Name of Bidder: _____

1. Does the bidder have an Apprenticeship Program appropriate for the type and scope of work to be performed?
[Note: Participation may be by either direct sponsorship or through collective bargaining agreement(s).]

_____ YES _____ NO

2. Has the bidder's Apprenticeship Program been registered with, and approved by, the New York State Commissioner of Labor?

_____ YES _____ NO

3. Has the bidder's Apprenticeship Program had three years of successful experience in providing career opportunities?

_____ YES _____ NO

If the answer to Question #3 is "Yes", the bidder shall, in the space below, provide information regarding the experience the Apprenticeship Program has had in providing career opportunities. The bidder may attach additional pages if necessary.

Bidder: _____

By: _____ Title: _____
(Signature of Partner or Corporate Officer)

Date: _____

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

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</u> RATE	<u>INTERSTATE</u> RATE
_____	_____	_____
_____	_____	_____
_____	_____	_____

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:

_____ Contractor has received a willful violation issued by OSHA or New York City Department of Buildings (NYCDOB) within the last three years.

_____ 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.

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

Project ID. _____

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)

_____ Contractor previously audited by the DDC Office of Site Safety.

DDC Project Number(s): _____

_____ Accident on previous DDC Project(s).

_____ 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].

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: PDWTC2013 _____

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
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 Waiver

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" waiver.

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 4 – 8: Please provide the required contact information for your company. All contracts must have a designated Equal Employment Officer.

Question 9: If you are a subcontractor, you must state the name of the contractor for whom you are providing the construction services.

Question 10: Please provide the number of permanent employees in your company.

Question 11a-h: 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 12 – 14: 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 15: 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 16: 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 17a – 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. 18a, 18b, etc.)

Questions 18a – h: Inquires about the manner/methods by which you comply with the requirements of the Immigration Reform and Control Act of 1986 (IRCA).

Question 19: Inquires into where and how I-9 forms are maintained and stored.

Questions 20a – 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 21: Indicate the existence and location of all statements of your firm's Equal Employment Opportunity policy and attach a copy of each statement.

Question 22: Submit any current Affirmative Action Plan(s) created pursuant to Executive Order 11246.

Question 23: 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 24: 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 25: 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 26: 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 27: 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.

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
- 2a. If you are certified as an **MBE, WBE, or LBE**, 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

PART I: CONTRACTOR/SUBCONTRACTOR INFORMATION

5. _____
Employer Identification Number or Federal Tax I.D./ _____ Email Address
6. _____
Company Name
7. _____
Company Address and Zip Code
8. _____
Chief Operating Officer Telephone Number
9. _____
Designated Equal Opportunity Compliance Officer Telephone Number
(If same as Item #7, write "same")
10. _____
Name of Prime Contractor and Contact Person
(If same as Item #5, write "same")
11. Number of employees in your company: _____

12. Contract information:

(a) _____ (b) _____
Contracting Agency (City Agency) Contract Amount

(d) _____ (e) _____
Procurement Identification Number (PIN) Contract Registration Number (CT#)

(f) _____ (g) _____
Projected Commencement Date Projected Completion Date

(h) Description and location of proposed contract:

13. 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.

14. 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.

15. 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: _____

16. 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.

17. 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

18. 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?

19. 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___ |

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

21. 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.

22. 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.

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

___ Minorities and Women

___ Individuals with handicaps

___ Other. Please specify _____

24. 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.

25. 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.

26. 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.

27. 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).

28. 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

CONSTRUCTION EMPLOYMENT REPORT

GENERAL INFORMATION

1. Your contractual relationship in this contract is: Prime contractor ___ Subcontractor X
- 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
- 2a. If you are certified as an **MBE, WBE, or LBE**, 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 ___

PART I: CONTRACTOR/SUBCONTRACTOR INFORMATION

5. _____
Employer Identification Number or Federal Tax I.D./ _____ Email Address
6. _____
Company Name
7. _____
Company Address and Zip Code
8. _____
Chief Operating Officer Telephone Number
9. _____
Designated Equal Opportunity Compliance Officer Telephone Number
(If same as Item #7, write "same")
10. _____
Name of Prime Contractor and Contact Person
(If same as Item #5, write "same")
11. Number of employees in your company: _____

12. Contract information:

(a) _____ (b) _____
Contracting Agency (City Agency) Contract Amount

(d) _____ (e) _____
Procurement Identification Number (PIN) Contract Registration Number (CT#)

(f) _____ (g) _____
Projected Commencement Date Projected Completion Date

(h) Description and location of proposed contract:

13. 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.

14. 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.

15. 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: _____

16. 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.

17. 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

18. 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?

19. 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___ |

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

21. 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.

22. 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.

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___ Minorities and Women

___ Individuals with handicaps

___ Other. Please specify _____

24. 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.

25. 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.

26. 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.

27. 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).

28. 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

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

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 ___

If you are certified as an MBE, WBE, LBE 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

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: _____

Procurement Identification Number (PIN)
(City contracts only)

Contract Registration Number (CT#)
(City contracts only)

Block and Lot Number
(ICIP projects only)

ICIP Application Number
(ICIP projects only)

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 _____

(NO TEXT ON THIS PAGE)

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

1. Do you plan to subcontractor 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)	(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		T								

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):

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

FORM B: PROJECTED WORKFORCE

Trade: _____

MALES

FEMALES

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): _____

	(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.	
	White Non-Hisp.	Black Non-Hisp.	Hisp.	Asian	Native Amer.	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																				

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) 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		T								

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):

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: _____

	(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)?

(NO TEXT ON THIS PAGE)





NEW YORK CITY DEPARTMENT OF
DESIGN + CONSTRUCTION

INFRASTRUCTURE DIVISION
BUREAU OF DESIGN

VOLUME 1 OF 3

PROJECT ID: PDWTC2013

WORLD TRADE CENTER CAMPUS SECURITY PLAN

WASHINGTON STREET FROM BARCLAY STREET TO VESEY STREET
TRINITY PLACE FROM LIBERTY STREET TO THAMES STREET
WEST BROADWAY FROM VESEY STREET TO BARCLAY STREET
AND
CHURCH STREET FROM VESEY STREET TO BARCLAY STREET

INCLUDING SEWER, WATER MAIN, STREET LIGHTING,
AND TRAFFIC SIGNAL 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

LAW

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: PDWTC2013

WORLD TRADE CENTER CAMPUS SECURITY PLAN

**WASHINGTON STREET FROM BARCLAY STREET TO VESEY STREET
TRINITY PLACE FROM LIBERTY STREET TO THAMES STREET
WEST BROADWAY FROM VESEY STREET TO BARCLAY STREET
AND
CHURCH STREET FROM VESEY STREET TO BARCLAY STREET**

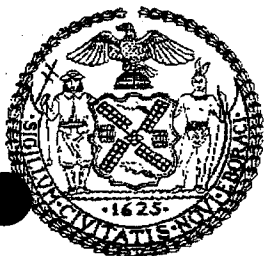
**INCLUDING SEWER, WATER MAIN, STREET LIGHTING,
AND TRAFFIC SIGNAL WORK**

Together With All Work Incidental Thereto

**BOROUGH OF MANHATTAN
CITY OF NEW YORK**

FOR THE DEPARTMENT OF TRANSPORTATION
PREPARED BY
AECOM USA, INC.

MAY 23, 2013



4-004



Performance Bond #2 (Pages 84 to 87): 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, Tully Construction Co., Inc., 127-50 Northern Blvd., Flushing, New York 11368

hereinafter referred to as the "Principal,"

and, Federal Insurance Company, 15 Mountain View Road, Warren, New Jersey 07059

and Liberty Mutual Insurance Company, 175 Berkeley Street, Boston, Massachusetts 02117

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 Eighteen Million Sixteen Thousand Eight Hundred Thirty-One and 40/100

(\$18,016,831.40) 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.

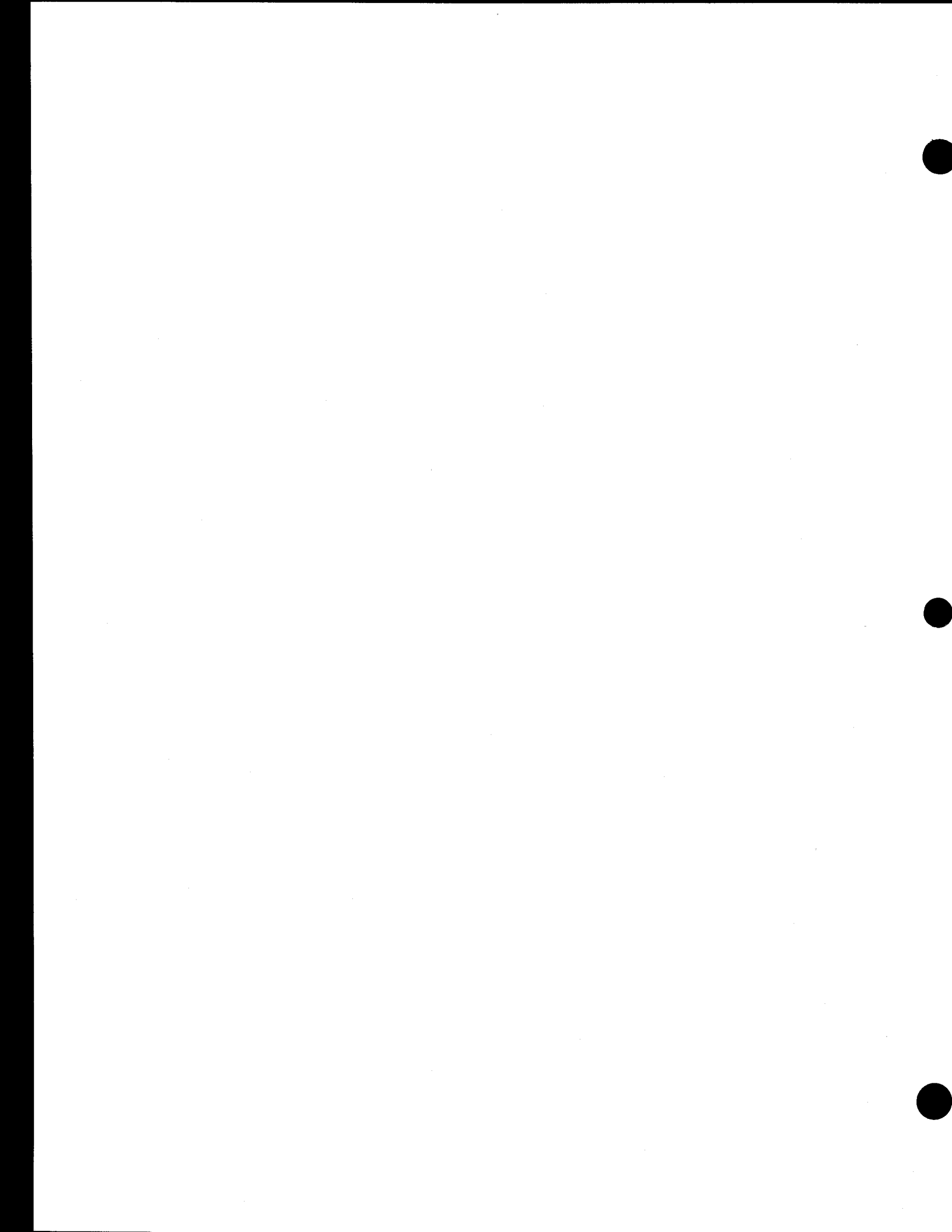
WHEREAS, the Principal is about to enter, or has entered, into a Contract in writing with the City for

Project ID: PWWTC2013, World Trade Center Campus Security Plan, Washington Street from

Barclay Street to Vesey Street, 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



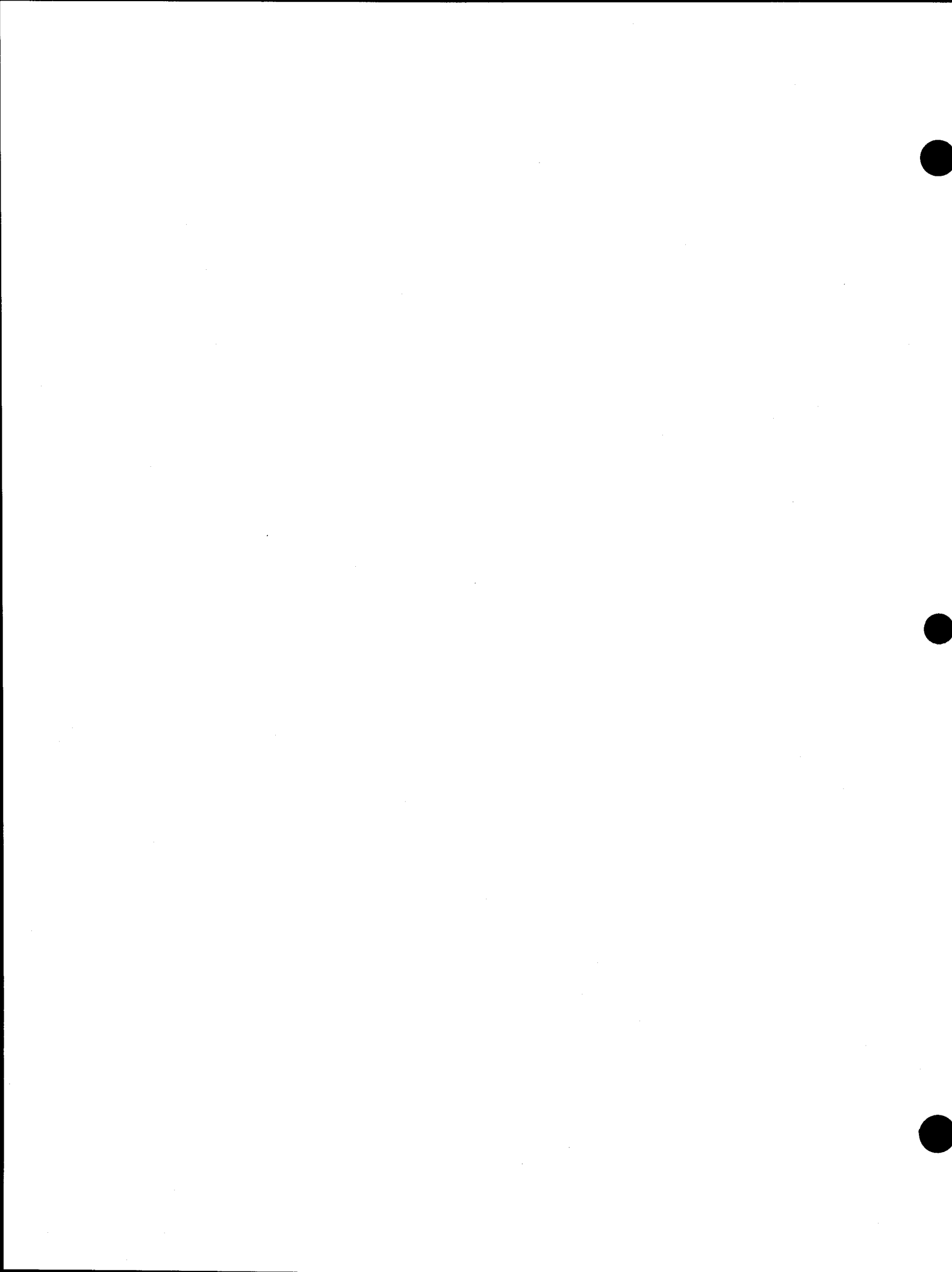
Performance Bond #2 (Pages 84 to 87): Use if the total contract price is more than \$5 Million.

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 84 to 87): 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

_____ 3rd day of _____ September _____ 20 13 _____

(Seal) _____
Tully Construction Co., Inc. (L.S.)
Principal

(Seal) By: _____
Peter K. Tully, President
Surety

(Seal) By: Federal Insurance Company

Timothy M. Tyrrell Surety Attorney-In-Fact

(Seal) By: Liberty Mutual Insurance Company

Timothy M. Tyrrell Surety Attorney-In-Fact

(Seal) By: _____

Surety

(Seal) By: _____

Surety

By: _____

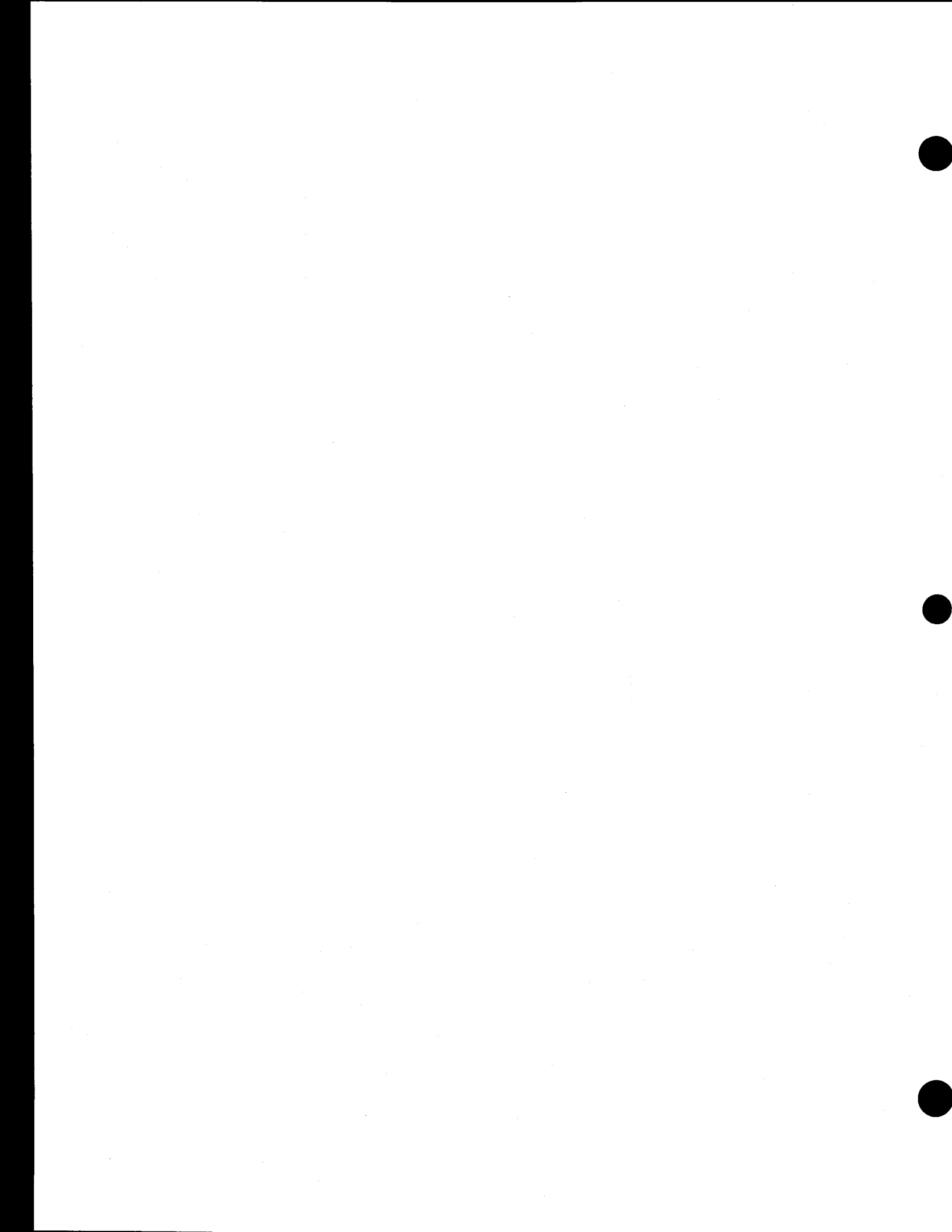
Bond Premium Rate \$7.15/M

Bond Premium Cost \$128,658.00

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 84 to 87): Use if the total contract price is more than \$5 Million.

PERFORMANCE BOND #2 (Page 4)

ACKNOWLEDGMENT OF PRINCIPAL IF A CORPORATION

State of New York County of Queens ss:

On this 3rd day of September, 20 13 before me personally came Peter K. Tully, to me known, who, being by me duly sworn did depose and say that he resides at Lattingtown, New York

_____ ; that he/she 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.

Carol R. Gordon
Notary Public or Commissioner of Deeds.
County of Queens
Comm Exp: _____

CAROL R. GORDON
Notary Public, State of New York
No. 01GO4680187
Qualified in Queens County
Commission Expires April 30, 2014

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:

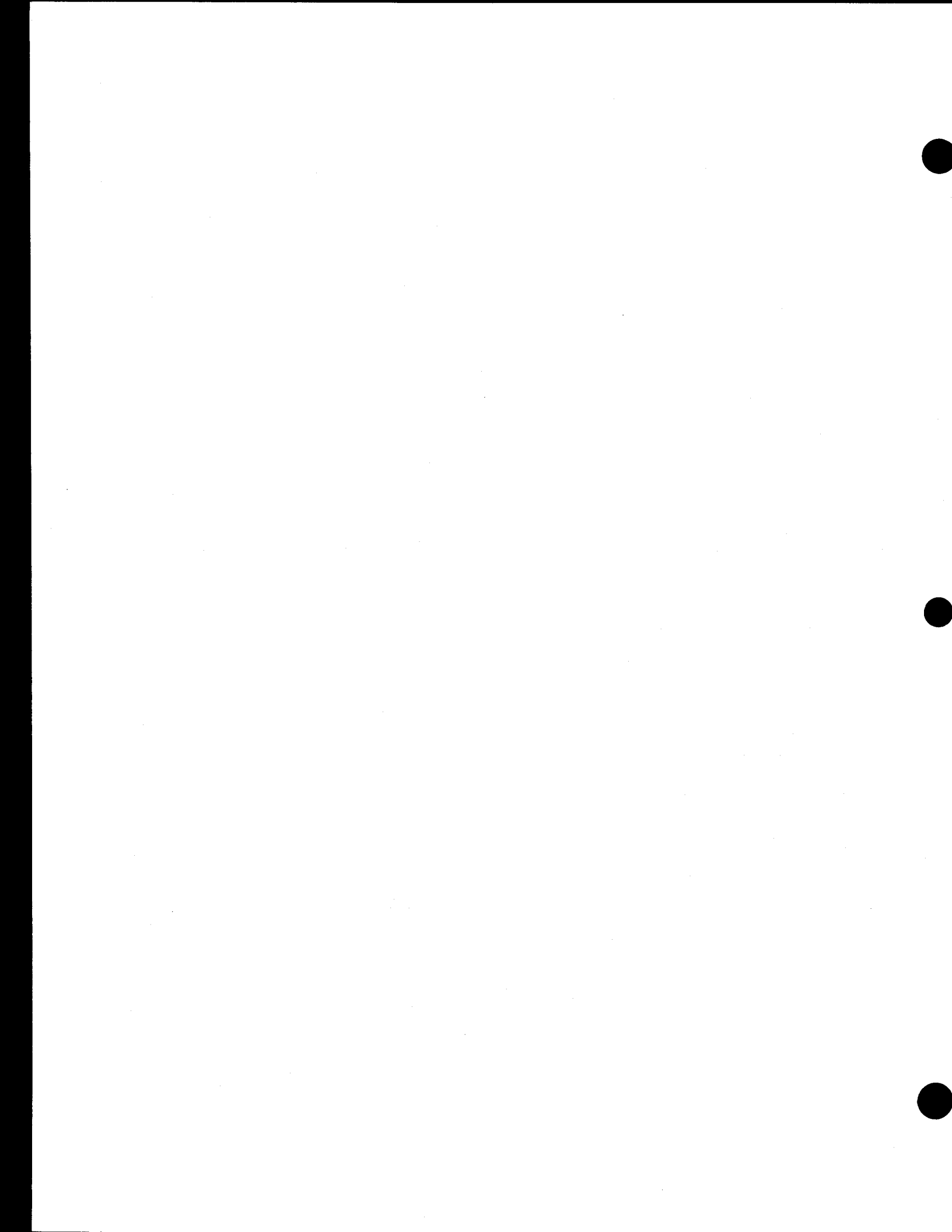
On this _____ day of _____, 20 _____ before me personally came _____, to me known, who, being by me duly sworn did depose and say that he/she resides at _____

_____ , 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.

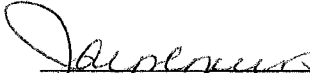


**Federal Insurance Company
Warren, NJ 07059**

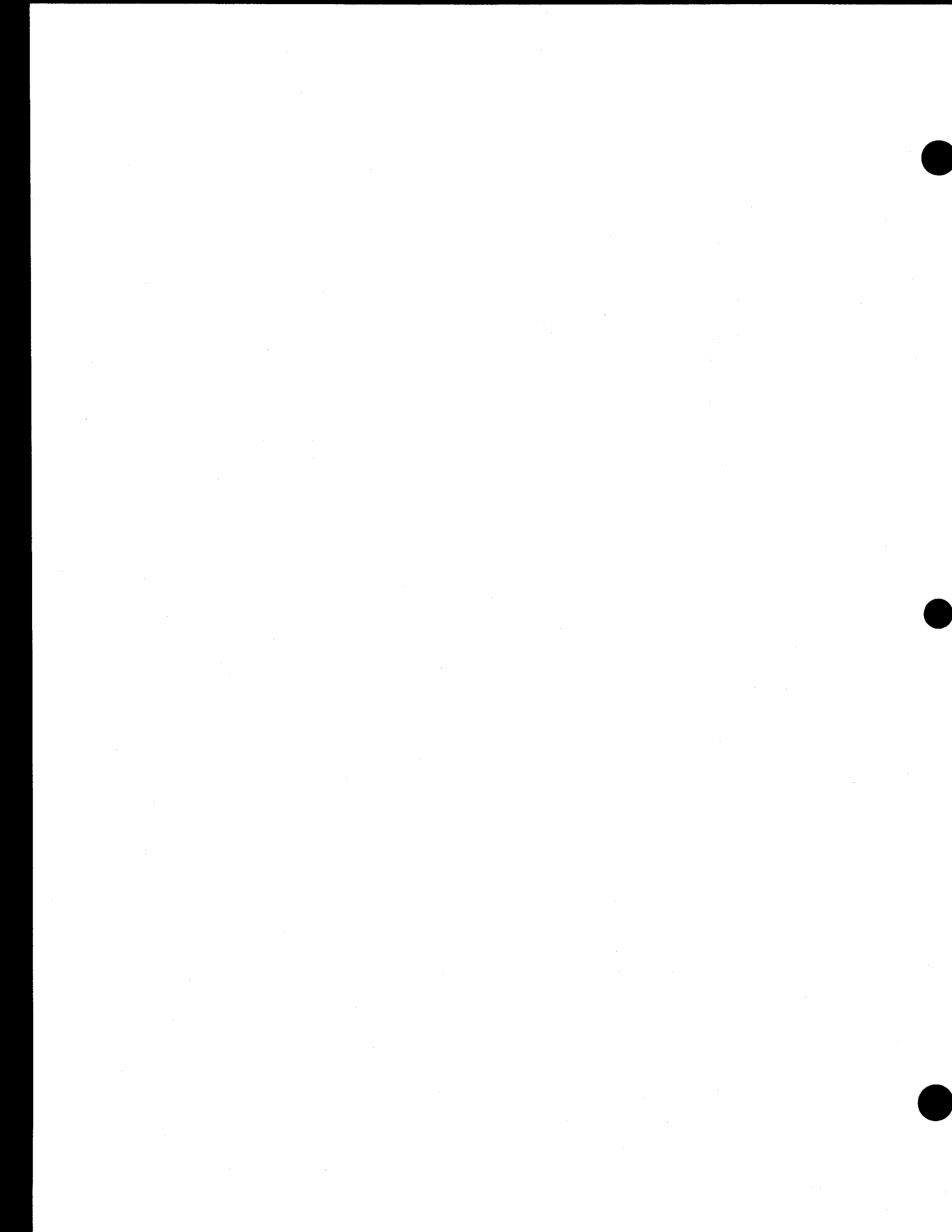
SURETY COMPANY'S ACKNOWLEDGMENT

State of New York,
County of Albany; ss.

On this 3rd day of September, 2013, before me personally appeared Timothy M. Tyrrell; to me known, who, being by me duly sworn, did depose and say: That he/she resides in Albany, New York; that he/she is Attorney-in-Fact of Federal Insurance Company, the corporation described in and which executed the within instrument; that he/she knows the corporate seal of said Company; that the seal affixed to said instrument is such corporate seal; and that he/she signed said instrument as Attorney-in-Fact by authority of the Board of Directors of said Company; and affiant did further depose and say that the Superintendent of Insurance of the State of New York has, pursuant to Chapter 882 of the Laws of the State of New York for the year 1939, constituting chapter 28 of the Consolidating Laws of the State of New York as the Insurance Law as amended, issued to Federal Insurance Company his/her certificate that said Company is qualified to become and be accepted as surety or guarantor on all bonds, undertakings, recognizances, guaranties, and other obligations required or permitted by law; and that such certificate has not been revoked.



Rensselaer County
Comm. Exp. 12/18/2014



FEDERAL INSURANCE COMPANY

STATEMENT OF ASSETS, LIABILITIES AND SURPLUS TO POLICYHOLDERS

Statutory Basis

DECEMBER 31, 2012

(in thousands of dollars)

<u>ASSETS</u>		<u>LIABILITIES AND SURPLUS TO POLICYHOLDERS</u>	
Cash and Short Term Investments.....	\$ 402,323	Outstanding Losses and Loss Expenses	\$ 12,627,388
United States Government, State and Municipal Bonds	9,901,519	Unearned Premiums.....	3,416,163
Other Bonds.....	4,595,536	Ceded Reinsurance Premiums Payable.....	364,197
Stocks	811,166	Provision for Reinsurance	62,250
Other Invested Assets.....	1,681,828	Other Liabilities.....	935,654
TOTAL INVESTMENTS	17,392,372	TOTAL LIABILITIES	17,405,652
Investments in Affiliates:		Capital Stock.....	20,980
Chubb Investment Holdings, Inc.	3,352,969	Paid-In Surplus.....	3,108,809
Pacific Indemnity Company.....	2,496,198	Unassigned Funds	10,713,227
Chubb Insurance Investment Holdings Ltd....	1,228,075		
Executive Risk Indemnity Inc.....	1,100,637	 	
CC Canada Holdings Ltd.....	758,892	SURPLUS TO POLICYHOLDERS.....	13,841,016
Chubb Insurance Company of Australia Limited	517,597		
Great Northern Insurance Company	438,592		
Chubb European Investment Holdings SLP ..	265,490		
Vigilant Insurance Company.....	246,766		
Other Affiliates	429,458		
Premiums Receivable	1,494,693		
Other Assets	1,524,929		
TOTAL ADMITTED ASSETS	\$ 31,246,668	TOTAL LIABILITIES AND SURPLUS TO POLICYHOLDERS.....	\$ 31,246,668

Investments are valued in accordance with requirements of the National Association of Insurance Commissioners.
Investments with a carrying value of \$430,688,714 are deposited with government authorities as required by law.

State, County & City of New York, — ss:

Yvonne Baker, Assistant Secretary _____ of the Federal Insurance Company

being duly sworn, deposes and says that the foregoing Statement of Assets, Liabilities and Surplus to Policyholders of said Federal Insurance Company on December 31, 2012 is true and correct and is a true abstract of the Annual Statement of said Company as filed with the Secretary of the Treasury of the United States for the 12 months ending December 31, 2012.

Subscribed and sworn to before me
this March 31, 2013.

Dorothy Baker

Notary Public

DOROTHY M. BAKER
Notary Public, State of New York
No. 31-4904994
Qualified in New York County
Commission Expires Sept. 14, 2013

Yvonne Baker

Assistant Secretary





Chubb
Surety

POWER
OF
ATTORNEY

Federal Insurance Company
Vigilant Insurance Company
Pacific Indemnity Company

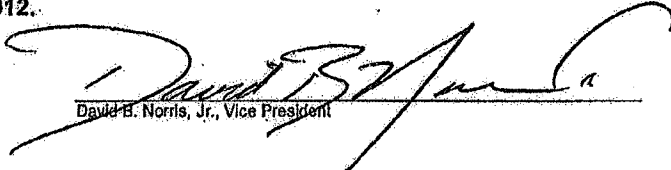
Attn: Surety Department
15 Mountain View Road
Warren, NJ 07059

Know All by These Presents, That FEDERAL INSURANCE COMPANY, an Indiana corporation, VIGILANT INSURANCE COMPANY, a New York corporation, and PACIFIC INDEMNITY COMPANY, a Wisconsin corporation, do each hereby constitute and appoint Eric J. Canterbury, Patrick J. Glyne, Charles C. Leach, Thomas R. Tyrrell and Timothy M. Tyrrell of Albany, New York

each as their true and lawful Attorney-in-Fact to execute under such designation in their names and to affix their corporate seals to and deliver for and on their behalf as surety thereon or otherwise, bonds and undertakings and other writings obligatory in the nature thereof (other than bail bonds) given or executed in the course of business, and any instruments amending or altering the same, and consents to the modification or alteration of any instrument referred to in said bonds or obligations.

In Witness Whereof, said FEDERAL INSURANCE COMPANY, VIGILANT INSURANCE COMPANY, and PACIFIC INDEMNITY COMPANY have each executed and attested these presents and affixed their corporate seals on this 8th day of October, 2012.


Kenneth C. Wendel, Assistant Secretary


David B. Norris, Jr., Vice President

STATE OF NEW JERSEY

ss.

County of Somerset

On this 8th day of October, 2012 before me, a Notary Public of New Jersey, personally came Kenneth C. Wendel, to me known to be Assistant Secretary of FEDERAL INSURANCE COMPANY, VIGILANT INSURANCE COMPANY, and PACIFIC INDEMNITY COMPANY, the companies which executed the foregoing Power of Attorney, and the said Kenneth C. Wendel, being by me duly sworn, did depose and say that he is Assistant Secretary of FEDERAL INSURANCE COMPANY, VIGILANT INSURANCE COMPANY, and PACIFIC INDEMNITY COMPANY and knows the corporate seals thereof, that the seals affixed to the foregoing Power of Attorney are such corporate seals and were thereto affixed by authority of the By-Laws of said Companies; and that he signed said Power of Attorney as Assistant Secretary of said Companies by like authority; and that he is acquainted with David B. Norris, Jr., and knows him to be Vice President of said Companies; and that the signature of David B. Norris, Jr., subscribed to said Power of Attorney is in the genuine handwriting of David B. Norris, Jr., and was thereto subscribed by authority of said By-Laws and in deponent's presence.

Notarial Seal



KATHERINE J. ADELAAR
NOTARY PUBLIC OF NEW JERSEY
No. 2316685
Commission Expires July 16, 2014


Notary Public

CERTIFICATION

Extract from the By-Laws of FEDERAL INSURANCE COMPANY, VIGILANT INSURANCE COMPANY, and PACIFIC INDEMNITY COMPANY:

"All powers of attorney for and on behalf of the Company may and shall be executed in the name and on behalf of the Company, either by the Chairman or the President or a Vice President or an Assistant Vice President, jointly with the Secretary or an Assistant Secretary, under their respective designations. The signature of such officers may be engraved, printed or lithographed. The signature of each of the following officers: Chairman, President, any Vice President, any Assistant Vice President, any Secretary, any Assistant Secretary and the seal of the Company may be affixed by facsimile to any power of attorney or to any certificate relating thereto appointing Assistant Secretaries or Attorneys-in-Fact for purposes only of executing and attesting bonds and undertakings and other writings obligatory in the nature thereof, and any such power of attorney or certificate bearing such facsimile signature or facsimile seal shall be valid and binding upon the Company and any such power so executed and certified by such facsimile signature and facsimile seal shall be valid and binding upon the Company with respect to any bond or undertaking to which it is attached."

I, Kenneth C. Wendel, Assistant Secretary of FEDERAL INSURANCE COMPANY, VIGILANT INSURANCE COMPANY, and PACIFIC INDEMNITY COMPANY (the "Companies") do hereby certify that

- (i) the foregoing extract of the By-Laws of the Companies is true and correct,
- (ii) the Companies are duly licensed and authorized to transact surety business in all 50 of the United States of America and the District of Columbia and are authorized by the U.S. Treasury Department; further, Federal and Vigilant are licensed in Puerto Rico and the U.S. Virgin Islands, and Federal is licensed in American Samoa, Guam, and each of the Provinces of Canada except Prince Edward Island; and
- (iii) the foregoing Power of Attorney is true, correct and in full force and effect.

Given under my hand and seals of said Companies at Warren, NJ this 3rd day of September, 2013




Kenneth C. Wendel, Assistant Secretary

IN THE EVENT YOU WISH TO NOTIFY US OF A CLAIM, VERIFY THE AUTHENTICITY OF THIS BOND OR NOTIFY US OF ANY OTHER MATTER, PLEASE CONTACT US AT ADDRESS LISTED ABOVE, OR BY Telephone (908) 903-3493 Fax (908) 903-3656 e-mail: surety@chubb.com

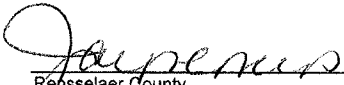


Liberty Mutual Insurance Company
Boston, MA 02117

SURETY COMPANY'S ACKNOWLEDGMENT

State of New York,
County of Albany} ss.

On this 3rd day of September, 2013, before me personally appeared Timothy M. Tyrrell; to me known, who, being by me duly sworn, did depose and say: That he/she resides in Albany, New York; that he is Attorney-in-Fact of Liberty Mutual Insurance Company, the corporation described in and which executed the within instrument; that he/she knows the corporate seal of said Company; that the seal affixed to said instrument is such corporate seal; and that he/she signed said instrument as Attorney-in-Fact by authority of the Board of Directors of said Company; and affiant did further depose and say that the Superintendent of Insurance of the State of New York has, pursuant to Chapter 882 of the Laws of the State of New York for the year 1939, constituting chapter 28 of the Consolidating Laws of the State of New York as the Insurance Law as amended, issued to Liberty Mutual Insurance Company his/her certificate that said Company is qualified to become and be accepted as surety or guarantor on all bonds, undertakings, recognizes, guaranties, and other obligations required or permitted by law; and that such certificate has not been revoked.



Notary Public
Rensselaer County
Comm. Exp. 12/18/2014





LIBERTY MUTUAL INSURANCE COMPANY
FINANCIAL STATEMENT — DECEMBER 31, 2012

Assets	Liabilities
Cash and Bank Deposits \$ 903,711,694	Unearned Premiums \$4,205,141,671
*Bonds — U.S Government 1,166,929,471	Reserve for Claims and Claims Expense 17,056,420,207
*Other Bonds 11,415,194,219	Funds Held Under Reinsurance Treaties 1,315,062,091
*Stocks 8,104,853,899	Reserve for Dividends to Policyholders 2,455,411
Real Estate 255,967,320	Additional Statutory Reserve 49,768,998
Agents' Balances or Uncollected Premiums 3,482,069,753	Reserve for Commissions, Taxes and
Accrued Interest and Rents 144,016,763	Other Liabilities <u>3,066,051,537</u>
Other Admitted Assets <u>14,732,623,458</u>	Total \$25,694,899,915
 	Special Surplus Funds \$604,621,497
Total Admitted Assets <u>\$40,205,366,577</u>	Capital Stock 10,000,000
	Paid in Surplus 7,899,471,886
	Unassigned Surplus 5,996,373,279
	Surplus to Policyholders <u>14,510,466,662</u>
	Total Liabilities and Surplus <u>\$40,205,366,577</u>



* Bonds are stated at amortized or investment value; Stocks at Association Market Values.
The foregoing financial information is taken from Liberty Mutual Insurance Company's financial statement filed with the state of Massachusetts Department of Insurance.

I, TIM MIKOLAJEWSKI, Assistant Secretary of Liberty Mutual Insurance Company, do hereby certify that the foregoing is a true, and correct statement of the Assets and Liabilities of said Corporation, as of December 31, 2012, to the best of my knowledge and belief.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the seal of said Corporation at Seattle, Washington, this 25th day of March, 2013.

T. Mikolajewski

Assistant Secretary



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

Certificate No. 5643908

American Fire and Casualty Company
The Ohio Casualty Insurance Company
West American Insurance Company

Liberty Mutual Insurance Company
Peerless Insurance Company

POWER OF ATTORNEY

KNOWN ALL PERSONS BY THESE PRESENTS: That American Fire & Casualty Company and The Ohio Casualty Insurance Company are corporations duly organized under the laws of the State of Ohio; that Liberty Mutual Insurance Company is a corporation duly organized under the laws of the State of Massachusetts; that Peerless Insurance Company is a corporation duly organized under the laws of the State of New Hampshire; and West American Insurance Company is a corporation duly organized under the laws of the State of Indiana (herein collectively called the "Companies"), pursuant to and by authority herein set forth, does hereby name, constitute and appoint, Charles C. Leach; Eric J. Canterbury; John Zimmermann; Patrick J. Clyne; Thomas B. Tyrrell; Timothy M. Tyrrell

all of the city of Albany, state of NY each individually if there be more than one named, its true and lawful attorney-in-fact to make, execute, seal, acknowledge and deliver, for and on its behalf as surety and as its act and deed, any and all undertakings, bonds, recognizances and other surety obligations, in pursuance of these presents and shall be as binding upon the Companies as if they have been duly signed by the president and attested by the secretary of the Companies in their own proper persons.

IN WITNESS WHEREOF, this Power of Attorney has been subscribed by an authorized officer or official of the Companies and the corporate seals of the Companies have been affixed thereto this 7th day of November, 2012.



American Fire and Casualty Company
The Ohio Casualty Insurance Company
Liberty Mutual Insurance Company
Peerless Insurance Company
West American Insurance Company

By: Gregory W. Davenport
Gregory W. Davenport, Assistant Secretary

STATE OF WASHINGTON ss.
COUNTY OF KING

On this 7th day of November, 2012, before me personally appeared Gregory W. Davenport, who acknowledged himself to be the Assistant Secretary of American Fire and Casualty Company, Liberty Mutual Insurance Company, The Ohio Casualty Company, Peerless Insurance Company and West American Insurance Company, and that he, as such, being authorized so to do, execute the foregoing instrument for the purposes therein contained by signing on behalf of the corporations by himself as a duly authorized officer.

IN WITNESS WHEREOF, I have hereunto subscribed my name and affixed my notarial seal at Seattle, Washington, on the day and year first above written:

By: KD Riley
KD Riley, Notary Public

This Power of Attorney is made and executed pursuant to and by authority of the following By-laws and Authorizations of American Fire and Casualty Company, The Ohio Casualty Insurance Company, Liberty Mutual Insurance Company, West American Insurance Company and Peerless Insurance Company, which resolutions are now in full force and effect reading as follows:

ARTICLE IV - OFFICERS - Section 12, Power of Attorney. Any officer or other official of the Corporation authorized for that purpose in writing by the Chairman or the President, and subject to such limitation as the Chairman or the President may prescribe, shall appoint such attorneys-in-fact, as may be necessary to act in behalf of the Corporation to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations. Such attorneys-in-fact, subject to the limitations set forth in their respective powers of attorney, shall have full power to bind the Corporation by their signature and execution of any such instruments and to attach thereto the seal of the Corporation. When so executed, such instruments shall be as binding as if signed by the President and attested to by the Secretary. Any power or authority granted to any representative or attorney-in-fact under the provisions of this article may be revoked at any time by the Board, the Chairman, the President or by the officer or officers granting such power or authority.

ARTICLE XIII - Execution of Contracts - SECTION 5, Surety Bonds and Undertakings. Any officer of the Company authorized for that purpose in writing by the chairman or the president, and subject to such limitations as the chairman or the president may prescribe, shall appoint such attorneys-in-fact, as may be necessary to act in behalf of the Company to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations. Such attorneys-in-fact subject to the limitations set forth in their respective powers of attorney, shall have full power to bind the Company by their signature and execution of any such instruments and to attach thereto the seal of the Company. When so executed such instruments shall be as binding as if signed by the president and attested by the secretary.

Certificate of Designation - The President of the Company, acting pursuant to the Bylaws of the Company, authorizes Gregory W. Davenport, Assistant Secretary to appoint such attorney-in-fact as may be necessary to act on behalf of the Company to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations.

Authorization - By unanimous consent of the Company's Board of Directors, the Company consents that facsimile or mechanically reproduced signature of any assistant secretary of the Company, wherever appearing upon a certified copy of any power of attorney issued by the Company in connection with surety bonds, shall be valid and binding upon the Company with the same force and effect as though manually affixed.

I, David M. Carey, the undersigned, Assistant Secretary, of American Fire and Casualty Company, The Ohio Casualty Insurance Company, Liberty Mutual Insurance Company, West American Insurance Company and Peerless Insurance Company do hereby certify that the original power of attorney of which the foregoing is a full, true and correct copy of the Power of Attorney executed by said Companies, is in full force and effect and has not been revoked.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the seals of said Companies this 3rd day of September, 2013.



By: David M. Carey
David M. Carey, Assistant Secretary

Not valid for mortgage, note, letter of credit, bank deposit, currency rate, interest rate or residual value guarantees.

To confirm the validity of this Power of Attorney call 1-610-832-8240 between 9:00 am and 4:30 pm EST on any business day.



Payment Bond (Pages 88 to 91): 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, _____

Tully Construction Co., Inc., 127-50 Northern Blvd., Flushing, New York 11368

hereinafter referred to as the "Principal", and _____

Federal Insurance Company, 15 Mountain View Road, Warren, New Jersey 07059

and Liberty Mutual Insurance Company, 175 Berkeley Street, Boston, Massachusetts 02117

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

Eighteen Million Sixteen Thousand Eight Hundred Thirty-One and 40/100

(\$18,016,831.40) 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

Project ID: PWWTC2013, World Trade Center Campus Security Plan, Washington Street from
Barclay Street to Vesey Street, 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 88 to 91): 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.

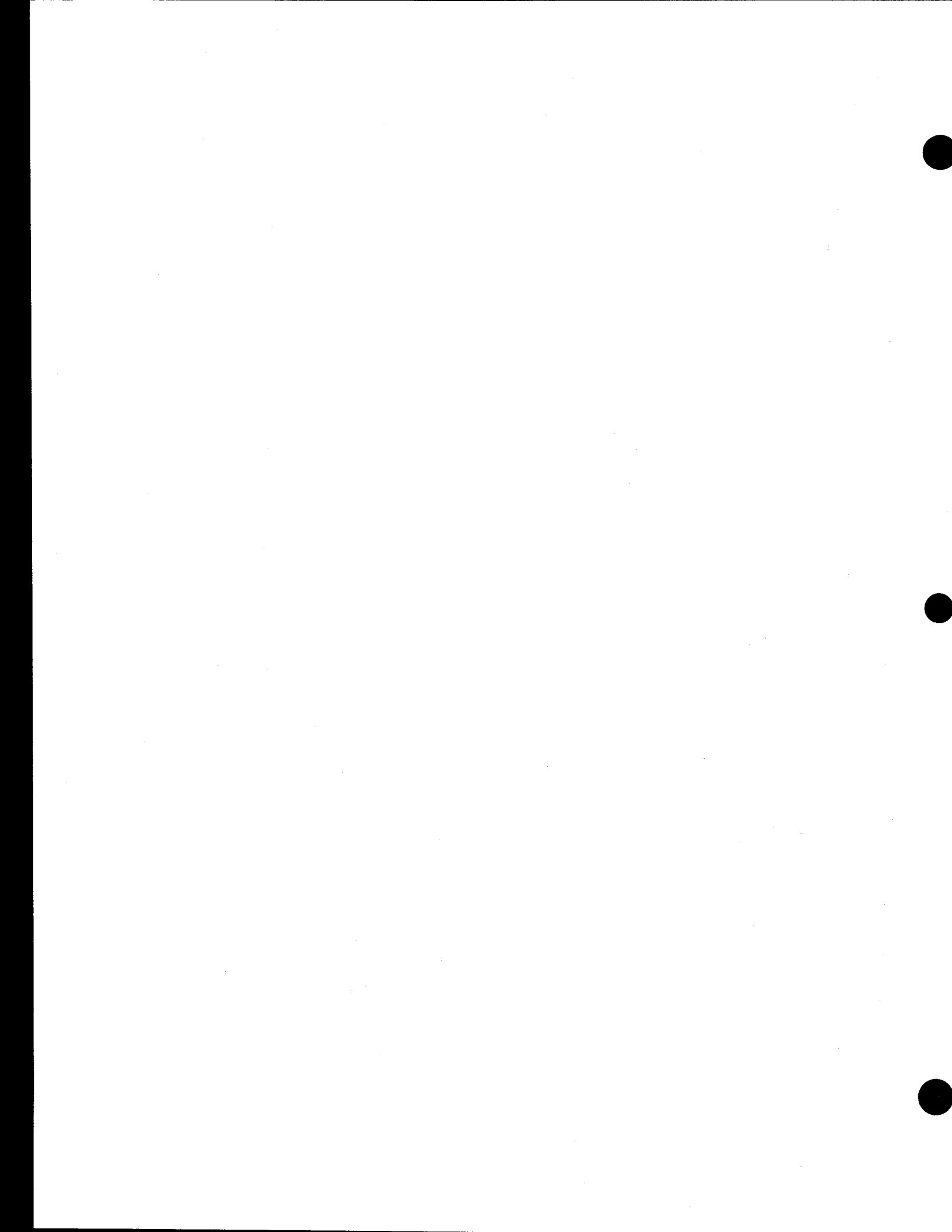
(c) The Principal and Surety (Sureties) agree that neither of them will hold the City liable for any judgment for costs of otherwise, obtained by either or both of them against a laborer or materialman in a suit brought by either a laborer or materialman under this bond for moneys allegedly due for performing 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 placed 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 88 to 91): 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 3rd day of September, 2013.

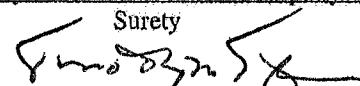
(Seal) Tully Construction Co., Inc. (L.S.)
Principal

By: 
Peter K. Tully, President

(Seal) Federal Insurance Company
Surety

By: 
Timothy M. Tyrrell, Attorney-In-Fact

(Seal) Liberty Mutual Insurance Company
Surety

By: 
Timothy M. Tyrrell, Attorney-In-Fact

(Seal) _____
Surety

By: _____

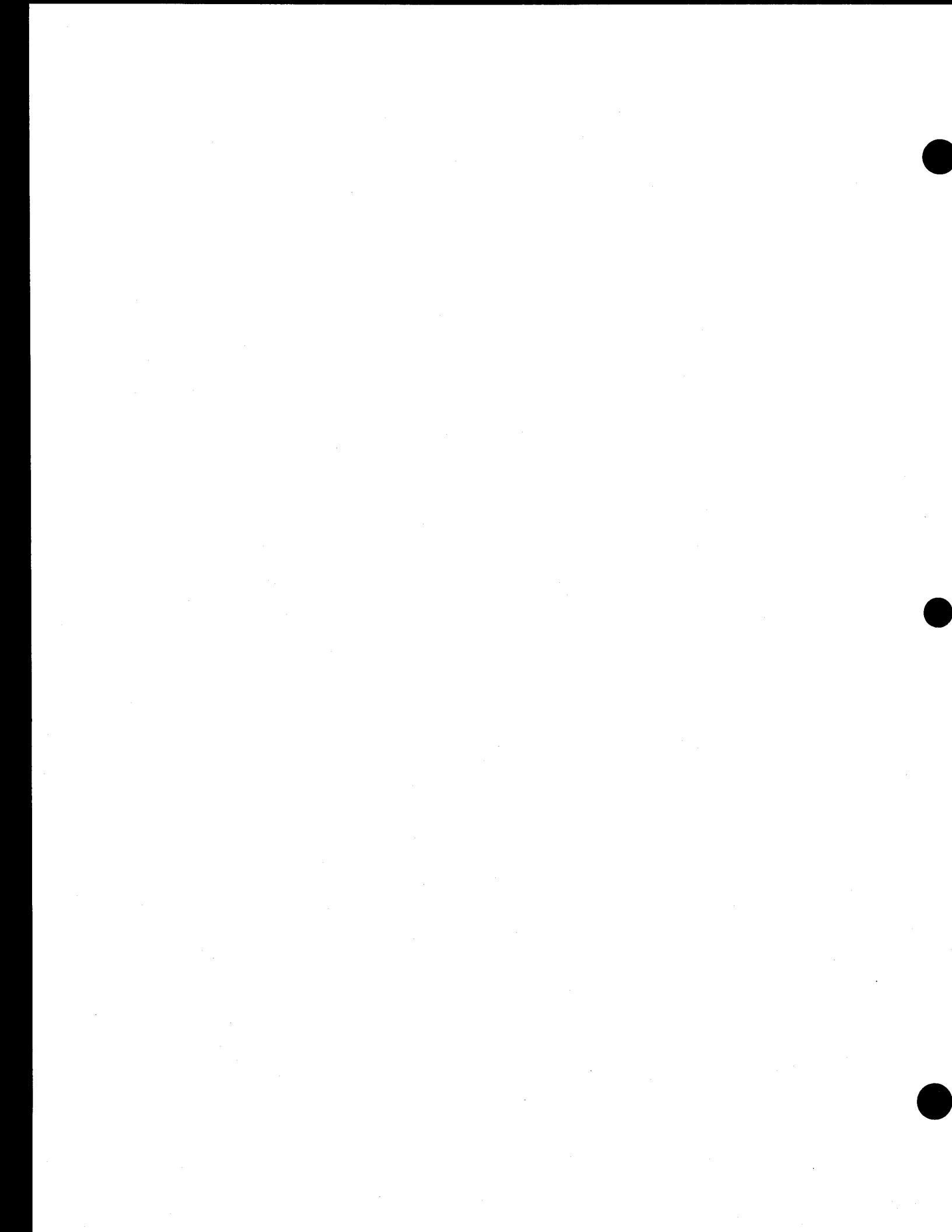
(Seal) _____
Surety

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.



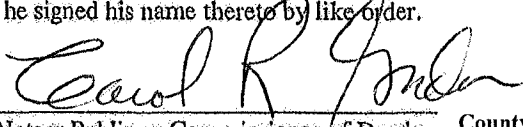
Payment Bond (Pages 88 to 91): Use for any contract for which a Payment Bond is required.

PAYMENT BOND (Page 4)

ACKNOWLEDGMENT OF PRINCIPAL, IF A CORPORATION

State of New York County of Queens ss:

On this 3rd day of September, 2013, before me personally came Peter K. Tully to me known, who, being by me duly sworn did depose and say that he resides at Lattintown, New York 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.


Notary Public or Commissioner of Deeds County of Queens
Comm Exp: CAROL R. GORDON
Notary Public, State of New York
No. 01GO4680187
Qualified in Queens County
Commission Expires April 30, 2014

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

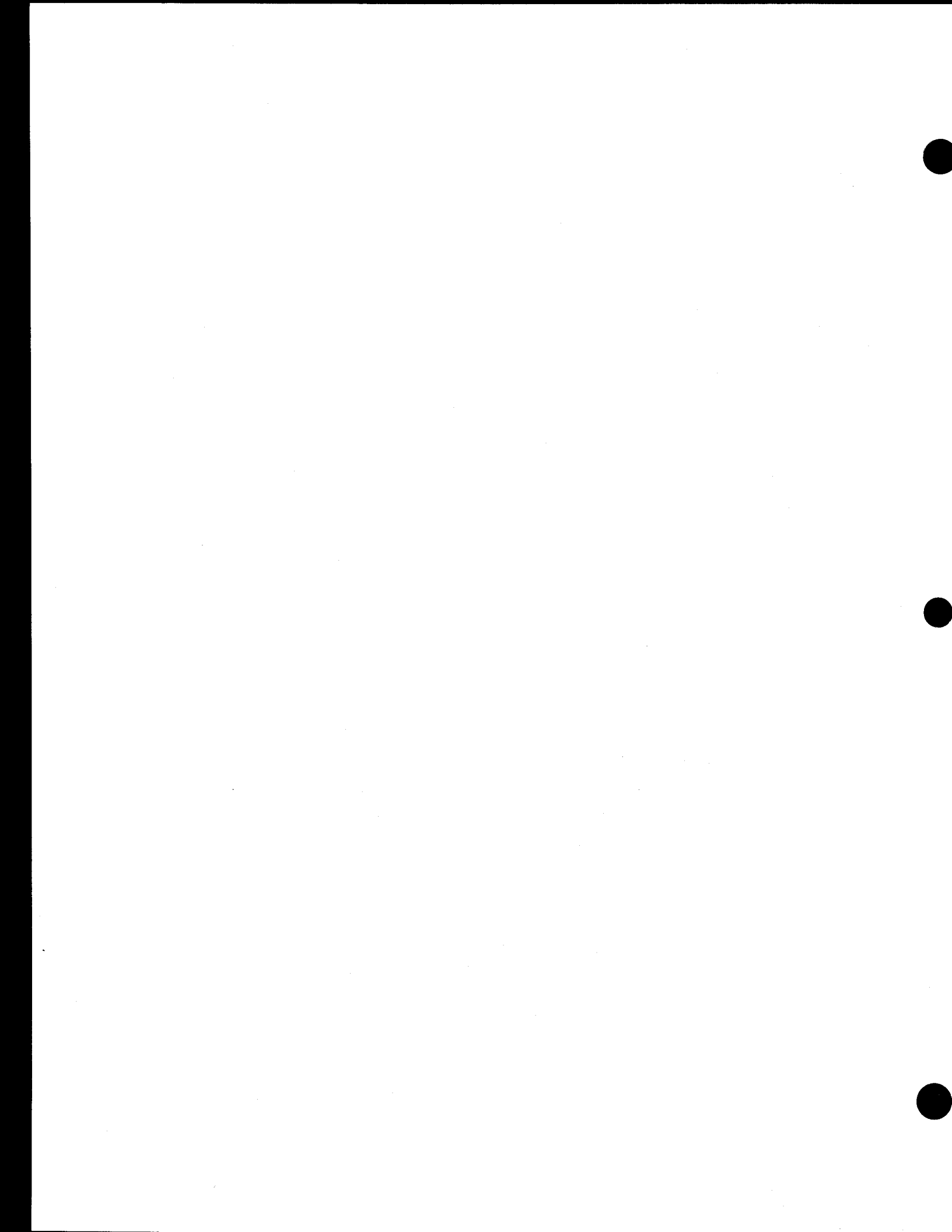
State of _____ County of _____ ss:

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.

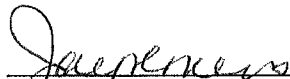


**Federal Insurance Company
Warren, NJ 07059**

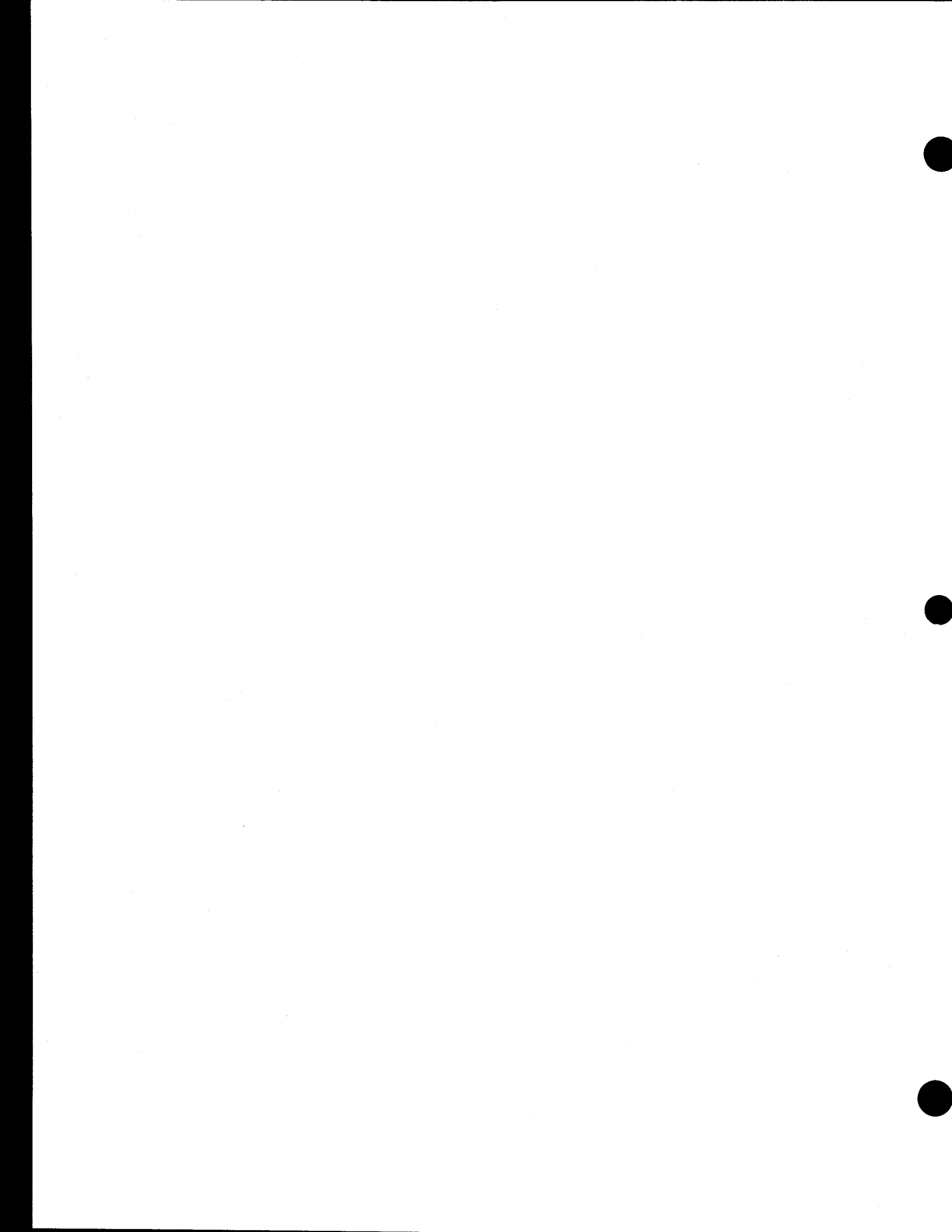
SURETY COMPANY'S ACKNOWLEDGMENT

State of New York,
County of Albany} 65.

On this 3rd day of September, 2013, before me personally appeared Timothy M. Tyrrell; to me known, who, being by me duly sworn, did depose and say: That he/she resides in Albany, New York; that he/she is Attorney-in-Fact of Federal Insurance Company, the corporation described in and which executed the within instrument; that he/she knows the corporate seal of said Company; that the seal affixed to said instrument is such corporate seal; and that he/she signed said instrument as Attorney-in-Fact by authority of the Board of Directors of said Company; and affiant did further depose and say that the Superintendent of Insurance of the State of New York has, pursuant to Chapter 882 of the Laws of the State of New York for the year 1939, constituting chapter 28 of the Consolidating Laws of the State of New York as the Insurance Law as amended, issued to Federal Insurance Company his/her certificate that said Company is qualified to become and be accepted as surety or guarantor on all bonds, undertakings, recognizances, guaranties, and other obligations required or permitted by law; and that such certificate has not been revoked.



Josephine
Rensselaer County
Comm. Exp. 12/18/2014



FEDERAL INSURANCE COMPANY

STATEMENT OF ASSETS, LIABILITIES AND SURPLUS TO POLICYHOLDERS

Statutory Basis

DECEMBER 31, 2012

(In thousands of dollars)

ASSETS	LIABILITIES AND SURPLUS TO POLICYHOLDERS
Cash and Short Term Investments..... \$ 402,323	Outstanding Losses and Loss Expenses..... \$ 12,627,388
United States Government, State and Municipal Bonds..... 9,901,519	Unearned Premiums..... 3,416,163
Other Bonds..... 4,595,536	Ceded Reinsurance Premiums Payable..... 364,197
Stocks..... 811,166	Provision for Reinsurance..... 62,250
Other Invested Assets..... 1,681,828	Other Liabilities..... 935,654
TOTAL INVESTMENTS..... 17,392,372	TOTAL LIABILITIES..... 17,405,652
Investments in Affiliates:	Capital Stock..... 20,980
Chubb Investment Holdings, Inc. 3,352,969	Paid-In Surplus..... 3,106,809
Pacific Indemnity Company..... 2,496,198	Unassigned Funds..... 10,713,227
Chubb Insurance Investment Holdings Ltd.... 1,228,075	
Executive Risk Indemnity Inc..... 1,100,637	SURPLUS TO POLICYHOLDERS..... 13,841,016
CC Canada Holdings Ltd..... 758,892	
Chubb Insurance Company of Australia Limited 517,597	
Great Northern Insurance Company..... 438,592	
Chubb European Investment Holdings SLP.. 265,490	
Vigilant Insurance Company..... 246,766	
Other Affiliates..... 429,458	
Premiums Receivable..... 1,494,693	
Other Assets..... 1,524,929	
TOTAL ADMITTED ASSETS..... \$ 31,246,668	TOTAL LIABILITIES AND SURPLUS TO POLICYHOLDERS..... \$ 31,246,668

Investments are valued in accordance with requirements of the National Association of Insurance Commissioners.
Investments with a carrying value of \$430,688,714 are deposited with government authorities as required by law.

State, County & City of New York, — ss:

Yvonne Baker, Assistant Secretary _____ of the Federal Insurance Company

being duly sworn, deposes and says that the foregoing Statement of Assets, Liabilities and Surplus to Policyholders of said Federal Insurance Company on December 31, 2012 is true and correct and is a true abstract of the Annual Statement of said Company as filed with the Secretary of the Treasury of the United States for the 12 months ending December 31, 2012.

Subscribed and sworn to before me
this March 31, 2013.

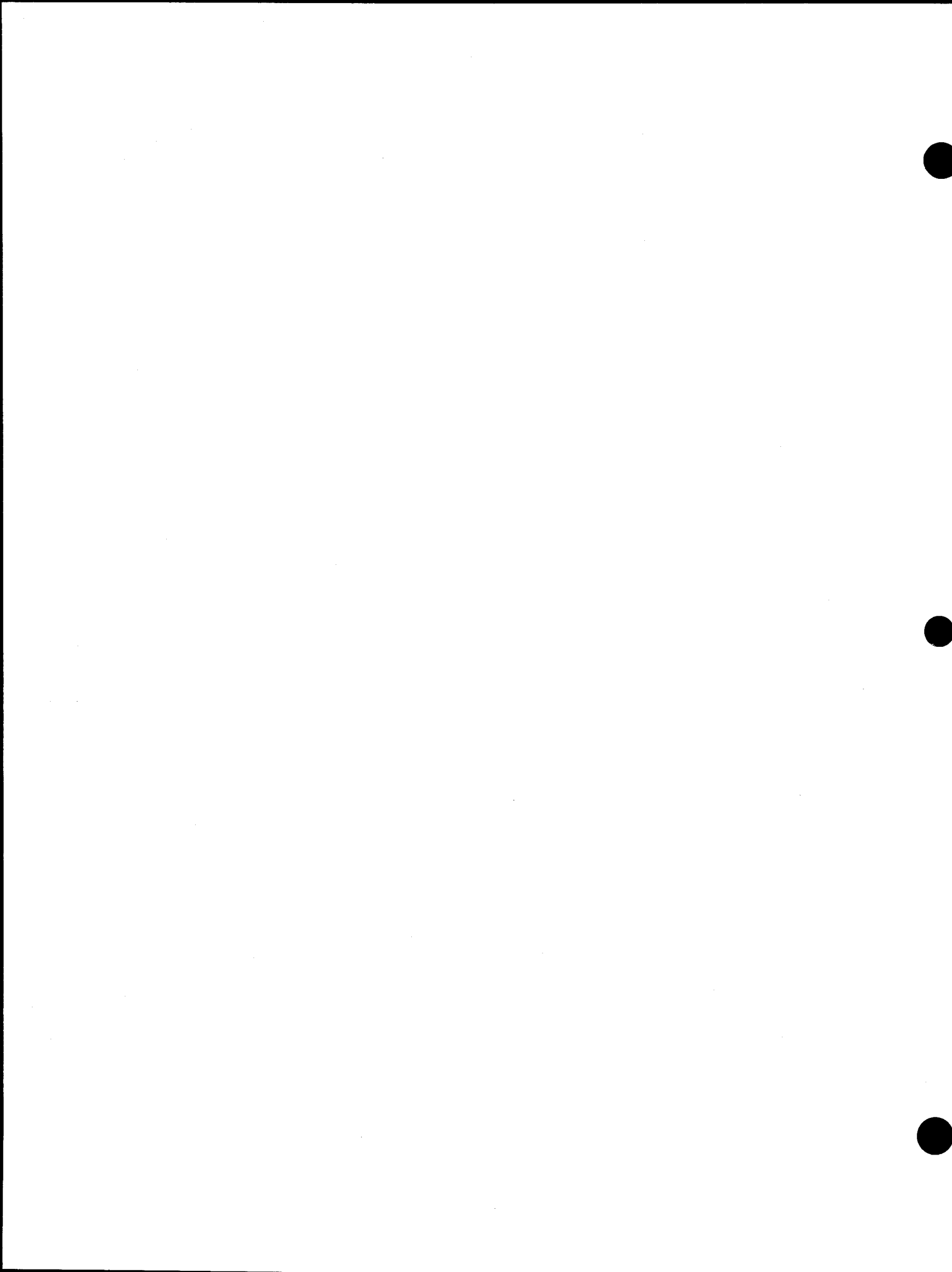
Dorothy Baker

Notary Public

DOROTHY M. BAKER
Notary Public, State of New York
No. 31-4904994
Qualified in New York County
Commission Expires Sept. 14, 2013

Yvonne Baker

Assistant Secretary





Chubb
Surety

POWER
OF
ATTORNEY

Federal Insurance Company
Vigilant Insurance Company
Pacific Indemnity Company

Attn: Surety Department
15 Mountain View Road
Warren, NJ 07059

Know All by These Presents, That FEDERAL INSURANCE COMPANY, an Indiana corporation, VIGILANT INSURANCE COMPANY, a New York corporation, and PACIFIC INDEMNITY COMPANY, a Wisconsin corporation, do each hereby constitute and appoint Eric J. Canterbury, Patrick J. Clyne, Charles C. Leach, Thomas R. Tyrrell and Timothy M. Tyrrell of Albany, New York-----

each as their true and lawful Attorney- In- Fact to execute under such designation in their names and to affix their corporate seals to and deliver for and on their behalf as surety thereon or otherwise, bonds and undertakings and other writings obligatory in the nature thereof (other than bail bonds) given or executed in the course of business, and any instruments amending or altering the same, and consents to the modification or alteration of any instrument referred to in said bonds or obligations.

In Witness Whereof, said FEDERAL INSURANCE COMPANY, VIGILANT INSURANCE COMPANY, and PACIFIC INDEMNITY COMPANY have each executed and attested these presents and affixed their corporate seals on this 8th day of October, 2012.

Kenneth C. Wendel, Assistant Secretary

David B. Norris, Jr., Vice President

STATE OF NEW JERSEY
County of Somerset ss.

On this 8th day of October, 2012 before me, a Notary Public of New Jersey, personally came Kenneth C. Wendel, to me known to be Assistant Secretary of FEDERAL INSURANCE COMPANY, VIGILANT INSURANCE COMPANY, and PACIFIC INDEMNITY COMPANY, the companies which executed the foregoing Power of Attorney, and the said Kenneth C. Wendel, being by me duly sworn, did depose and say that he is Assistant Secretary of FEDERAL INSURANCE COMPANY, VIGILANT INSURANCE COMPANY, and PACIFIC INDEMNITY COMPANY and knows the corporate seals thereof, that the seals affixed to the foregoing Power of Attorney are such corporate seals and were thereto affixed by authority of the By- Laws of said Companies; and that he signed said Power of Attorney as Assistant Secretary of said Companies by like authority; and that he is acquainted with David B. Norris, Jr., and knows him to be Vice President of said Companies; and that the signature of David B. Norris, Jr., subscribed to said Power of Attorney is in the genuine handwriting of David B. Norris, Jr., and was thereto subscribed by authority of said By- Laws and in deponent's presence.

Notarial Seal



KATHERINE J. ADELAAR
NOTARY PUBLIC OF NEW JERSEY
No. 2316685
Commission Expires July 16, 2014

Notary Public

CERTIFICATION

Extract from the By- Laws of FEDERAL INSURANCE COMPANY, VIGILANT INSURANCE COMPANY, and PACIFIC INDEMNITY COMPANY:

"All powers of attorney for and on behalf of the Company may and shall be executed in the name and on behalf of the Company, either by the Chairman or the President or a Vice President or an Assistant Vice President, jointly with the Secretary or an Assistant Secretary, under their respective designations. The signature of such officers may be engraved, printed or lithographed. The signature of each of the following officers: Chairman, President, any Vice President, any Assistant Vice President, any Secretary, any Assistant Secretary and the seal of the Company may be affixed by facsimile to any power of attorney or to any certificate relating thereto appointing Assistant Secretaries or Attorneys- In- Fact for purposes only of executing and attesting bonds and undertakings and other writings obligatory in the nature thereof, and any such power of attorney or certificate bearing such facsimile signature or facsimile seal shall be valid and binding upon the Company and any such power so executed and certified by such facsimile signature and facsimile seal shall be valid and binding upon the Company with respect to any bond or undertaking to which it is attached."

I, Kenneth C. Wendel, Assistant Secretary of FEDERAL INSURANCE COMPANY, VIGILANT INSURANCE COMPANY, and PACIFIC INDEMNITY COMPANY (the "Companies") do hereby certify that

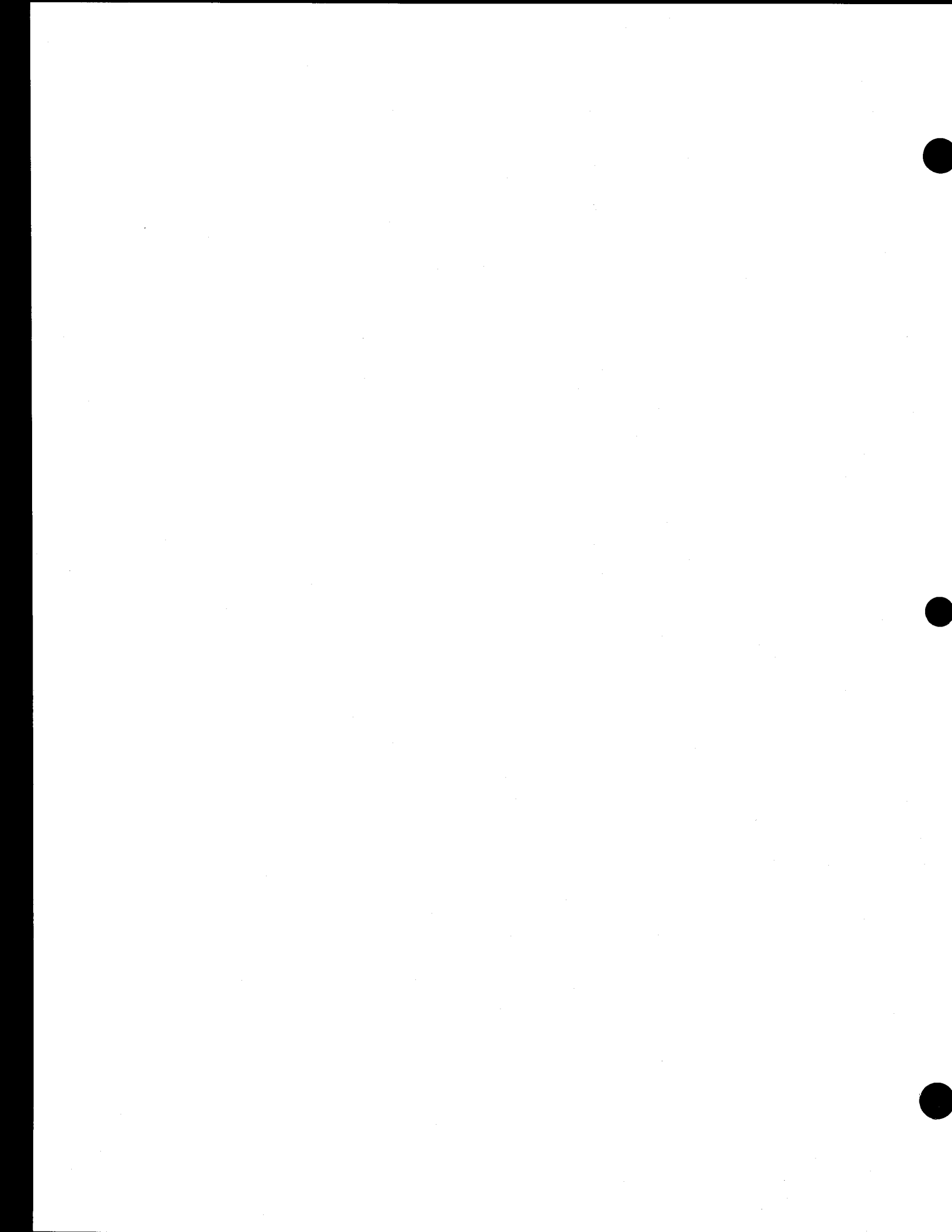
- (i) the foregoing extract of the By- Laws of the Companies is true and correct,
- (ii) the Companies are duly licensed and authorized to transact surety business in all 50 of the United States of America and the District of Columbia and are authorized by the U.S. Treasury Department; further, Federal and Vigilant are licensed in Puerto Rico and the U.S. Virgin Islands, and Federal is licensed in American Samoa, Guam, and each of the Provinces of Canada except Prince Edward Island; and
- (iii) the foregoing Power of Attorney is true, correct and in full force and effect.

Given under my hand and seals of said Companies at Warren, NJ this 3rd day of September, 2013



Kenneth C. Wendel, Assistant Secretary

IN THE EVENT YOU WISH TO NOTIFY US OF A CLAIM, VERIFY THE AUTHENTICITY OF THIS BOND OR NOTIFY US OF ANY OTHER MATTER, PLEASE CONTACT US AT ADDRESS LISTED ABOVE, OR BY Telephone (908) 903- 3493 Fax (908) 903- 3656 e-mail: surety@chubb.com




**Liberty Mutual Insurance Company
Boston, MA 02117**

SURETY COMPANY'S ACKNOWLEDGMENT

State of New York,
County of Albany, ss.

On this 3rd day of September, 2013, before me personally appeared Timothy M. Tyrrell; to me known, who, being by me duly sworn, did depose and say: That he/she resides in Albany, New York; that he is Attorney-in-Fact of Liberty Mutual Insurance Company, the corporation described in and which executed the within instrument; that he/she knows the corporate seal of said Company; that the seal affixed to said instrument is such corporate seal; and that he/she signed said instrument as Attorney-in-Fact by authority of the Board of Directors of said Company; and affiant did further depose and say that the Superintendent of Insurance of the State of New York has, pursuant to Chapter 882 of the Laws of the State of New York for the year 1939, constituting chapter 28 of the Consolidating Laws of the State of New York as the Insurance Law as amended, issued to Liberty Mutual Insurance Company his/her certificate that said Company is qualified to become and be accepted as surety or guarantor on all bonds, undertakings, recognitions, guaranties, and other obligations required or permitted by law; and that such certificate has not been revoked.



Rensselaer County
Comm. Exp. 12/18/2014





LIBERTY MUTUAL INSURANCE COMPANY
FINANCIAL STATEMENT — DECEMBER 31, 2012

Assets	Liabilities
Cash and Bank Deposits \$ 903,711,694	Unearned Premiums* \$4,205,141,671
*Bonds — U.S Government 1,166,929,471	Reserve for Claims and Claims Expense..... 17,056,420,207
*Other Bonds 11,415,194,219	Funds Held Under Reinsurance Treaties..... 1,315,062,091
*Stocks..... 8,104,853,899	Reserve for Dividends to Policyholders 2,455,411
Real Estate 255,967,320	Additional Statutory Reserve 49,768,998
Agents' Balances or Uncollected Premiums 3,482,069,753	Reserve for Commissions, Taxes and
Accrued Interest and Rents 144,016,763	Other Liabilities <u>3,066,051,537</u>
Other Admitted Assets <u>14,732,623,458</u>	Total.....\$25,694,899,915
 	Special Surplus Funds \$604,621,497
Total Admitted Assets.....<u>\$40,205,366,577</u>	Capital Stock..... 10,000,000
	Paid in Surplus..... 7,899,471,886
	Unassigned Surplus..... 5,996,373,279
	Surplus to Policyholders<u>14,510,466,662</u>
	Total Liabilities and Surplus<u>\$40,205,366,577</u>



* Bonds are stated at amortized or investment value; Stocks at Association Market Values.
The foregoing financial information is taken from Liberty Mutual Insurance Company's financial statement filed with the state of Massachusetts Department of Insurance.

I, TIM MIKOLAJEWSKI, Assistant Secretary of Liberty Mutual Insurance Company, do hereby certify that the foregoing is a true, and correct statement of the Assets and Liabilities of said Corporation, as of December 31, 2012, to the best of my knowledge and belief.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the seal of said Corporation at Seattle, Washington, this 25th day of March, 2013.

T. Mikolajewski

Assistant Secretary



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

Certificate No. 5643907

American Fire and Casualty Company
The Ohio Casualty Insurance Company
West American Insurance Company

Liberty Mutual Insurance Company
Peerless Insurance Company

POWER OF ATTORNEY

KNOWN ALL PERSONS BY THESE PRESENTS: That American Fire & Casualty Company and The Ohio Casualty Insurance Company are corporations duly organized under the laws of the State of Ohio, that Liberty Mutual Insurance Company is a corporation duly organized under the laws of the State of Massachusetts, that Peerless Insurance Company is a corporation duly organized under the laws of the State of New Hampshire, and West American Insurance Company is a corporation duly organized under the laws of the State of Indiana (herein collectively called the "Companies"); pursuant to and by authority herein set forth, does hereby name, constitute and appoint, Charles C. Leach; Eric J. Canterbury; John Zimmermann; Patrick J. Clyne; Thomas R. Tyrrell; Timothy M. Tyrrell

all of the city of Albany, state of NY each individually if there be more than one named, its true and lawful attorney-in-fact to make, execute, seal, acknowledge and deliver, for and on its behalf as surety and as its act and deed, any and all undertakings, bonds, recognizances and other surety obligations, in pursuance of these presents and shall be as binding upon the Companies as if they have been duly signed by the president and attested by the secretary of the Companies in their own proper persons.

IN WITNESS WHEREOF, this Power of Attorney has been subscribed by an authorized officer or official of the Companies and the corporate seals of the Companies have been affixed thereto this 7th day of November, 2012.



American Fire and Casualty Company
The Ohio Casualty Insurance Company
Liberty Mutual Insurance Company
Peerless Insurance Company
West American Insurance Company

By: Gregory W. Davenport
Gregory W. Davenport, Assistant Secretary

STATE OF WASHINGTON ss:
COUNTY OF KING

On this 7th day of November, 2012, before me personally appeared Gregory W. Davenport, who acknowledged himself to be the Assistant Secretary of American Fire and Casualty Company, Liberty Mutual Insurance Company, The Ohio Casualty Company, Peerless Insurance Company and West American Insurance Company, and that he, as such, being authorized so to do, execute the foregoing instrument for the purposes therein contained by signing on behalf of the corporations by himself as a duly authorized officer.

IN WITNESS WHEREOF, I have hereunto subscribed my name and affixed my notarial seal at Seattle, Washington, on the day and year first above written.

By: KD Riley
KD Riley, Notary Public

This Power of Attorney is made and executed pursuant to and by authority of the following By-laws and Authorizations of American Fire and Casualty Company, The Ohio Casualty Insurance Company, Liberty Mutual Insurance Company, West American Insurance Company and Peerless Insurance Company, which resolutions are now in full force and effect reading as follows:

ARTICLE IV - OFFICERS - Section 12. Power of Attorney. Any officer or other official of the Corporation authorized for that purpose in writing by the Chairman or the President, and subject to such limitation as the Chairman or the President may prescribe, shall appoint such attorneys-in-fact, as may be necessary to act in behalf of the Corporation to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations. Such attorneys-in-fact, subject to the limitations set forth in their respective powers of attorney, shall have full power to bind the Corporation by their signature and execution of any such instruments and to attach thereto the seal of the Corporation. When so executed, such instruments shall be as binding as if signed by the President and attested to by the Secretary. Any power or authority granted to any representative or attorney-in-fact under the provisions of this article may be revoked at any time by the Board, the Chairman, the President or by the officer or officers granting such power or authority.

ARTICLE XIII - Execution of Contracts - SECTION 5. Surety Bonds and Undertakings. Any officer of the Company authorized for that purpose in writing by the chairman or the president, and subject to such limitations as the chairman or the president may prescribe, shall appoint such attorneys-in-fact, as may be necessary to act in behalf of the Company to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations. Such attorneys-in-fact subject to the limitations set forth in their respective powers of attorney, shall have full power to bind the Company by their signature and execution of any such instruments and to attach thereto the seal of the Company. When so executed such instruments shall be as binding as if signed by the president and attested by the secretary.

Certificate of Designation - The President of the Company, acting pursuant to the Bylaws of the Company, authorizes Gregory W. Davenport, Assistant Secretary to appoint such attorney-in-fact as may be necessary to act on behalf of the Company to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations.

Authorization - By unanimous consent of the Company's Board of Directors, the Company consents that facsimile or mechanically reproduced signature of any assistant secretary of the Company, wherever appearing upon a certified copy of any power of attorney issued by the Company in connection with surety bonds, shall be valid and binding upon the Company with the same force and effect as though manually affixed.

I, David M. Carey, the undersigned, Assistant Secretary, of American Fire and Casualty Company, The Ohio Casualty Insurance Company, Liberty Mutual Insurance Company, West American Insurance Company and Peerless Insurance Company do hereby certify that the original power of attorney of which the foregoing is a full, true and correct copy of the Power of Attorney executed by said Companies, is in full force and effect and has not been revoked.

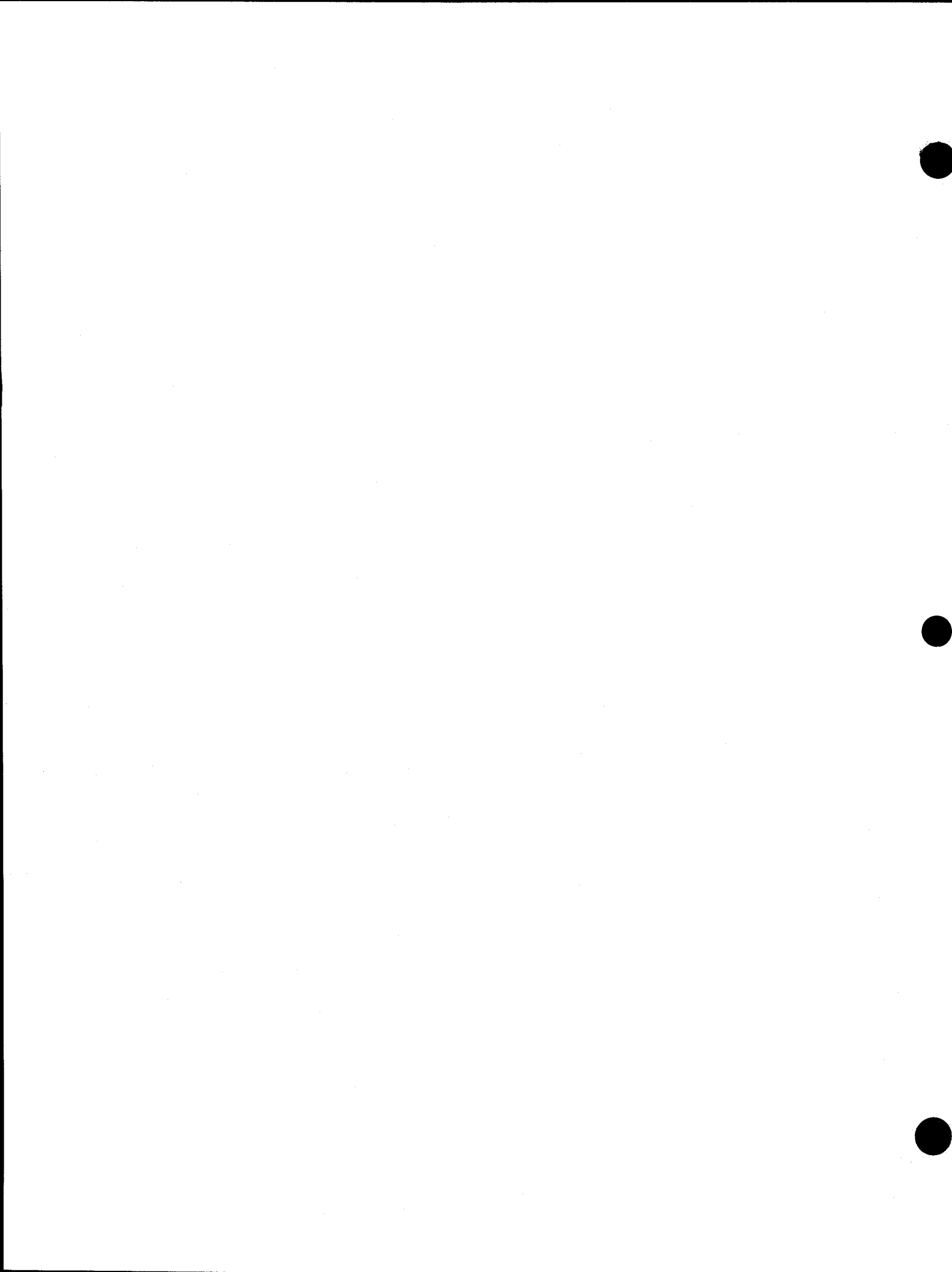
IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the seals of said Companies this 3rd day of September, 2013



By: David M. Carey
David M. Carey, Assistant Secretary

Not valid for mortgage, note, letter of credit, bank deposit, currency rate, interest rate or annual value guarantees.

To confirm the validity of this Power of Attorney call 1-610-832-8240 between 9:00 am and 4:30 pm EST on any business day.





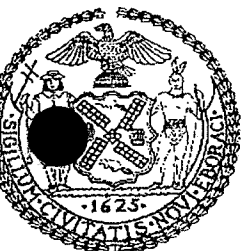
**THE CITY OF NEW YORK
DEPARTMENT OF DESIGN AND CONSTRUCTION
DIVISION OF INFRASTRUCTURE**

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:



FOR THE DEPARTMENT OF TRANSPORTATION
PREPARED BY
IN-HOUSE DESIGN

MARCH 3, 2010



Notice to Bidders:

In 2013 the City will be implementing a new web based subcontractor reporting system. Once this subcontractor reporting system is implemented, and Contractor receives notice of its implementation, Contractor will be required to list in the system all of the subcontractors that it knows it will use or is already using in the performance of this contract. For each subcontractor listed, Contractor will be required to provide the following information: maximum contract value, description of subcontractor work, start and end date of the subcontract and identification of the subcontractor's industry. Identification of subcontractors in the system along with the required information will be required in order to obtain subcontractor approval under [section 3.02 of Appendix A][Article 17 of the Standard Construction Contract] and PPB Rule § 4-13 for all subcontractors that have not been approved as of the implementation date. 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...

When the subcontractor reporting system is implemented, Contractor will receive a written notice from the City which will contain the information the Contractor will need to list its subcontractors and report payments. Contractor will not be required to comply with the requirements set forth herein until such notice is issued. Contractor will have 30 days from the date of the notice to list its current subcontractors for which it has already received Agency approval, if any. Thereafter, for those subcontractors that have not yet been approved by the Agency, subcontractors will have to be listed in the system in order to obtain the required Agency approval.

Failure of the Contractor to list a subcontractor and/or to report subcontractor payments in a timely fashion may result in the Agency declaring the Contractor in default of the Contract and may 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. For construction contracts, the provisions of Article 15 of the Standard Construction Contract shall govern the issue of liquidated damages.

Contractor hereby agrees to these provisions and acknowledges that they will become effective on the date set forth in the notice.

(NO TEXT ON THIS PAGE)

NOTICE TO BIDDERS, PROPOSERS, CONTRACTORS, AND RENEWAL CONTRACTORS

This contract includes a provision concerning the protection of employees for whistleblowing activity, pursuant to New York City Local Law Nos. 30-2012 and 33-2012, effective October 18, 2012 and September 18, 2012, respectively. The provisions apply to contracts with a value in excess of \$100,000.

Local Law No. 33-2012, the Whistleblower Protection Expansion Act ("WPEA"), prohibits a contractor or its subcontractor from taking an adverse personnel action against an employee or officer for whistleblower activity in connection with a City contract; requires that certain City contracts include a provision to that effect; and provides that a contractor or subcontractor may be subject to penalties and injunctive relief if a court finds that it retaliated in violation of the WPEA. The WPEA is codified at Section 12-113 of the New York City Administrative Code.

Local Law No. 30-2012 requires a contractor to prominently post information explaining how its employees can report allegations of fraud, false claims, criminality, or corruption in connection with a City contract to City officials and the rights and remedies afforded to employees for whistleblowing activity. Local Law No. 30-2012 is codified at Section 6-132 of the New York City Administrative Code.

WHISTLEBLOWER PROTECTION EXPANSION ACT RIDER

1. In accordance with Local Law Nos. 30-2012 and 33-2012, codified at sections 6-132 and 12-113 of the New York City Administrative Code, respectively,

- (a) 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 (i) the Commissioner of the Department of Investigation, (ii) a member of the New York City Council, the Public Advocate, or the Comptroller, or (iii) the City Chief Procurement Officer, ACCO, Agency head, or Commissioner.
- (b) If any of Contractor's officers or employees believes that he or she has been the subject of an adverse personnel action in violation of subparagraph (a) of paragraph 1 of this rider, he or she shall be entitled to bring a cause of action against Contractor to recover all relief necessary to make him or her whole. Such relief may include but is not limited to: (i) an injunction to restrain continued retaliation, (ii) reinstatement to the position such employee would have had but for the retaliation or to an equivalent position, (iii) reinstatement of full fringe benefits and seniority rights, (iv) payment of two times back pay, plus interest, and (v) compensation for any special damages sustained as a result of the retaliation, including litigation costs and reasonable attorney's fees.
- (c) 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:
 - (i) 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
 - (ii) the rights and remedies afforded to its employees under New York City 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.
- (d) For the purposes of this rider, "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.
- (e) This rider is applicable to all of Contractor's subcontractors having subcontracts with a value in excess of \$100,000; accordingly, Contractor shall include this rider in all subcontracts with a value a value in excess of \$100,000.

2. Paragraph 1 is not applicable to this Contract if it is valued at \$100,000 or less. Subparagraphs (a), (b), (d), and (e) of paragraph 1 are not applicable to this Contract if it was solicited pursuant to a finding of an emergency. Subparagraph (c) of paragraph 1 is neither applicable to this Contract if it was solicited prior to October 18, 2012 nor if it is a renewal of a contract executed prior to October 18, 2012.

NOTICE TO BIDDERS

Please be advised that the City of New York has revised the form of the performance bond that is required for City construction contracts that exceed \$5 million. The form of bond required for contracts that do not exceed \$5 million has not changed. The City's payment bond remains unchanged.

The bond form for contracts that do not exceed \$5 million has been approved by the U.S. Small Business Administration ("SBA") for participation in their Bond Guarantee Program. The SBA's Bond Guarantee Program enables eligible small businesses to obtain or increase bonding by having the SBA act as a partial guarantor of the contractor to the surety. For information concerning the SBA program, including current limits on what size contracts are eligible for participation in the program, go to www.sba.gov/osg. If you are interested in participating in this program, we suggest that you contact your broker or the SBA.

In order to maximize participation by small businesses in the SBA Guarantee Program, the City also encourages prime contractors who are awarded contracts greater than \$5 million to allow their subcontractors to use the SBA-approved form, particularly on contracts that are subject to Local Law 129 (the M/WBE program), if the prime contractor requires subcontractors to obtain performance bonds.

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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*

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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 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.

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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.

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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.

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- 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.

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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

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- 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.

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- 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

SEPTEMBER 2008

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**CITY OF NEW YORK
STANDARD CONSTRUCTION CONTRACT**

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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 content 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 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.

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 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.

2.1.4 "**City**" shall mean the City of New York.

2.1.5 "**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.

2.1.6 "**Commissioner**" shall mean the head of the Agency that has entered into this Contract, or his/her duly authorized representative.

2.1.7 "**Comptroller**" shall mean the Comptroller of the City of New York.

2.1.8 "**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.

2.1.9 "**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.

2.1.10 "**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.

2.1.11 "**Contractor**" shall mean the entity which executed this Contract, whether a corporation, firm, partnership, joint venture, individual, or any combination thereof, and it(s), 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.

2.1.12 "**Days**" shall mean calendar days, except where otherwise specified.

2.1.13 "**Engineer**" or "**Architect**" or "**Project Manager**" shall mean the person so designated in writing by the Commissioner to act as such in relation to this Contract, including a private Architect or Engineer or Project Manager, as the case may be.

2.1.14 "**Engineering Audit Officer**" (EAO) shall mean the person so designated by the Commissioner to perform responsible auditing functions hereunder.

2.1.15 "**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.

2.1.16 "**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.

2.1.17 "**Final Acceptance**" shall mean final written acceptance of all the Work by the Commissioner, a copy of which shall be sent to the Contractor.

2.1.18 "**Final Approved Punch List**" shall mean a list, approved in writing by the Engineer, specifying those items of Work to be completed by the Contractor after Substantial Completion and dates for the completion of each item of Work.

2.1.19 "**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.

2.1.20 "**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.

2.1.21 "**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.

2.1.22 "**Other Contractor(s)**" shall mean any Contractor (other than the entity which executed this Contract or its Subcontractors) who has a contract with the City for work on or adjacent to the building or site of the Work.

2.1.23 "**Payroll Taxes**" shall mean State Unemployment Insurance ("SUI"), Federal Unemployment Insurance (FUI) and payments pursuant to the Federal Insurance Contributions Act ("FICA").

2.1.24 "**Project**" shall mean the public improvement to which this Contract relates.

2.1.25 "**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.

2.1.26 "**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.

2.1.27 "**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.

2.1.28 "**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.

2.1.29 "**Specifications**" shall mean all of the directions, requirements and standards of performance applying to the Work as hereinafter detailed and designated under the Specifications.

2.1.30 "**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, at the site. Wherever the word Subcontractor appears, it shall also mean Sub-Subcontractor.

2.1.31 "**Substantial Completion**" shall mean the written determination by the Commissioner that the Work required under this Contract is substantially, but not entirely, complete.

2.1.32 "**Treasurer**" shall mean the Commissioner of the Department of Finance of the City of New York.

2.1.33. **"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 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 Department of Environmental Protection.

5.3.2 The Contractor agrees to comply with Section 24-219 of the Administrative Code of the City ("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 work 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 New York City Department of Environmental Protection. In addition, the Contractor's certified Construction Noise Mitigation Plan is subject inspection by the Department of Environmental Protection in accordance with 15 RCNY §28-101. No Contract work may take place at a worksite 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 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 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.

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 to fulfill the requirements of this Article 5.4.2, where the Commissioner of the New York 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 City agencies and Contractors. Any such determination shall expire after six months unless renewed.

5.4.2(c) Contractors shall not be required to comply with this Article 5.4.2 where the 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 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 is available. Any finding made pursuant to this subdivision shall expire after sixty days, at which time the requirements of this Article 5.4.2 shall be in full force and effect unless the 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 Agency issuing this solicitation.

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 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 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 calendar 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)(1) Where the 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 those paragraphs is unavailable for such vehicle, Contractor shall use whatever technology for reducing the emission of pollutants, if any, is available and appropriate for such vehicle.

5.4.3(d)(2) 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, 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)(3) In determining which technology to use for the purposes of Articles 5.4.3(d)(1) and 5.4.3(d)(2) above, 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)(4) Contractors 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 Agency issuing the solicitation. Any finding or waiver made or issued pursuant to Articles 5.4.3(d)(1) and 5.4.3(d)(2) above shall expire after one hundred eighty days, at which time the requirements of Article 5.4.3(a) shall be in full force and effect unless the 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. Contractors 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) 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 and ten thousand 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 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 Department the following information:

5.4.6(1) The total number of diesel-powered Nonroad Vehicles used to fulfill the requirements of this Public Works Contract;

5.4.6(2) The number of such Nonroad Vehicles that were powered by Ultra Low Sulfur Diesel Fuel;

5.4.6(3) 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(4) 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(5) The locations where such Nonroad Vehicles were used; and

5.4.6(6) 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.

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 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 of New York 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 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 terms shall not apply to horticultural maintenance vehicles used for landscaping purposes that are powered by a Nonroad Engine of sixty-five horsepower 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.

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 horsepower (HP) rating of 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.

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 the persons and 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 notify in writing the commercial general liability insurance carrier, and, where applicable, the worker's compensation and/or other insurance carrier, of any such loss, damage, injury, or accident, and any claim or suit arising therefrom, immediately, but not later than 20 days after such event. The **Contractor's** notice to the commercial general liability insurance carrier must expressly specify that "this notice is being given on behalf of the City of New York as Additional Insured as well as [the Contractor] as Named Insured." The **Contractor's** notice to the insurance carrier shall contain the following information: the name of the **Contractor**, the number of the **Contract**, the date of the occurrence, the location (street address and borough) of the occurrence, and the identity of the persons or things injured, damaged or lost.

7.3.2(a) At the time notice is provided to the insurance carrier(s), the **Contractor** shall provide copies of such notice to the **Comptroller** and the **Commissioner**. Notice to the **Comptroller** shall be sent to the Insurance Unit, NYC Comptroller's Office, 1 Centre Street – Room 1222, New York, New York, 10007. Notice to the **Commissioner** shall be sent to the address set forth in Schedule A of the General Conditions.

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 indemnify, defend and hold the **City**, its employees and agents (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 **Contractor** waives all rights against the **City** for any damages or losses for which either is covered under any insurance required under Article 22 (whether or not such insurance is actually procured) or any other insurance applicable to the operations of the **Contractor** and/or its **Subcontractors** in the performance of this **Contract**.

7.6 The provisions of this Article 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 **Work** on the date specified in a written notice signed by the **Commissioner**. The time for performance of the **Work** under the **Contract** shall be computed from the date specified in such written notice. **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 herein, 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 with this **Contract**, unless otherwise directed by the **Engineer**, shall submit to the **Engineer** a proposed progress schedule 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**; 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** 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 enable 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, 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 fully 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 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.

11.2 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**.

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** shall determine 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 (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 this **Contractor's** failure to comply with the **Engineer's** direction 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 **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 suit based upon such claim and if any judgment or claims (even if the allegations of the suit 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 and the **PPB Rules**.

13.2 Any extension of time may be granted only by the **Commissioner** 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 officers, 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 **Commissioner** 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 **Commissioner** 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 **Commissioner** or the Board on an application for an extension of time shall be binding and conclusive on the **Contractor**.

13.6 The granting of an application for an extension of time for causes of delay other than those herein referred to shall be entirely within the discretion of the **Commissioner** or the Board.

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 **Commissioner** of the condition which allegedly has caused or is causing the delay, and shall submit a written application to the **Commissioner** 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 bid amount;

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 **Commissioner** 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 **Commissioner** 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 **Commissioner** 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 **Commissioner**, 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 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, and agrees that all it may be entitled to on account of any such delay is an extension of time to complete performance of the **Work** as provided herein.

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 in Articles 14.2.1 and 14.2.2 have been met. The **Commissioner** will then issue a Certificate of **Substantial Completion**.

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 Punch List and Date for Final Acceptance: Following inspection of the Work, the Engineer shall furnish the Contractor a final punch list, specifying all items of Work to be completed. The Contractor shall then submit to the Engineer dates for the completion of each specified item of Work. 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, shall establish dates for the completion of each item of Work. The latest completion date specified shall be the date for Final Acceptance of the Work.

14.3 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.

14.4 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.

14.5 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.

14.6 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 complete the Work within the time fixed for such 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 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 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 apply to the Contractor if it 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 this article. In the event the **Commissioner** takes over, uses, occupies, or operates any part of the **Work**:

16.1.1 the **Commissioner** 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, 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 If an approved **Subcontractor** elects to subcontract any portion of its subcontract, the proposed subcontract shall be submitted in the same manner as directed above.

17.4 The **Commissioner** will notify the **Contractor** in writing whether the proposed **Subcontractor** is qualified or not qualified. If the proposed **Subcontractor** is not qualified, the **Contractor** may submit another proposed **Subcontractor** unless the **Contractor** decides to do the **Work**. No **Subcontractor** shall be permitted on the **Site** unless approved.

17.5 Before entering into any subcontract hereunder, the **Contractor** shall inform the **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**.

17.6 Documents given to a **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.

17.7 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.

17.8 The **Contractor** shall be responsible for ensuring that all **Subcontractors** performing **Work** at the **Site** have either their own insurance coverage or are covered by the **Contractor's** insurance as required by Article 22.

17.9 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:

17.9.1 **Payment to Subcontractors:** The agreement between the **Contractor** and its **Subcontractors** 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**.

17.9.2 **Prevailing Rate of Wages:** The agreement between the **Contractor** and its **Subcontractors** shall include the prevailing wage rates and supplemental benefits to be paid in accordance with Labor Law Section 220.

17.9.3 **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 its **Subcontractors** in excess of \$50,000 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.).

17.10 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 adjusted.

17.11 On **Contracts** where 100% 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.

17.12 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, or conveyance shall not be valid until filed in the office of the **Commissioner** and the **Treasurer**, 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 or conveyance, 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 GUARANTY

ARTICLE 19. SECURITY DEPOSIT

19.1 The bid deposit, if required, shall be retained by the **Comptroller** as security for the **Contractor's** faithful performance of the **Contract** and will be returned to the **Contractor** only after the sum retained under Article 21 equals the amount of the bid deposit, subject to the other provisions of this **Contract**. If performance and payment bonds are required, any bid security posted shall be returned within a reasonable time after posting of such bonds and execution of this **Contract** by the **City**. When no partial payments are provided, the bid deposit will be released when final payment is certified to the **Comptroller** for payment.

19.2 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**:

19.2.1 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

19.2.2 To indemnify the **City** against any and all claims.

ARTICLE 20. PAYMENT GUARANTEE

20.1 On **Contracts** where 100% performance bonds and payment bonds are executed, this article does not apply.

20.2 In the event the terms of this **Contract** do not require the **Contractor** to provide a payment bond, the **City** shall, in accordance with the terms of this article, guarantee payment of all lawful demands 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 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 this Article 20.3.

20.3.2 Nothing in this article 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**.

20.3.3 All demands made against the **City** pursuant to this article shall be made within four (4) months from the date payment is due on the invoice or invoices submitted by the beneficiary to the **Contractor** for labor or **Work** done or for materials or supplies delivered, or, if the demand is for wages, four (4) months from the date the wages were due to be paid to the beneficiary.

20.3.4 All demands made against the **City** by such beneficiary shall be presented to the **Engineer** along with all written documentation concerning the demand which the **Engineer** deems 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.

20.3.5 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.

20.3.6 The **City** will not initiate the payment process of this article or make payment on a demand where the beneficiary making the demand has filed a lien against the **Work** or otherwise sues the **City** prior to receiving a written notice from the **City** that it will not pay the demand.

20.3.7 No beneficiary shall be entitled to interest from the **City**, or to any other costs, including, but not limited to, attorney's fees.

20.4 Upon the receipt by the **City** of a demand pursuant to this article, 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.

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**.

20.4.2 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 lien has been filed, the terms and conditions set forth in Article 23 shall apply.

20.5 The provisions of this article 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, 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 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 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 his **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 to commence an action against the **City** on the payment guarantee provided by this article within the one year limitations period set forth in Section 137(4)(b).

ARTICLE 21. RETAINED PERCENTAGE

21.1 If this **Contract** requires 100% 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 100% performance and payment security and if the price for which this **Contract** was awarded does not exceed \$500,000, then as further security for the faithful performance of this **Contract**, the **Commissioner** shall deduct, and retain until the substantial completion of the **Work**, ten (10%) percent of the value of **Work** certified for payment in each partial payment voucher.

21.3 If this **Contract** does not require 100% performance and payment security and if the price for which this **Contract** was awarded exceeds \$500,000, 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: 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**), the **Contractor** shall effect 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 issued by companies that meet the standards of Article 22.2.1 and shall be primary (and non-contributing) to any insurance or self-insurance maintained by the **City**.

22.1.1 Commercial General Liability Insurance: The **Contractor** shall provide a Commercial General Liability Insurance policy covering the **Contractor** as Named Insured and the **City** as an Additional Insured. This policy shall protect the **City** and the **Contractor** from claims for property damage and/or bodily injury, including death, which may arise from any of the operations under this **Contract**. Coverage under this policy shall be at least as broad as that provided by ISO Form CG 0001 (10/01 ed.), must be "occurrence" based rather than "claims-made", and shall 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, Medical Payments, Independent Contractors, Personal Injury (Contractual Exclusion deleted), Explosion, Collapse and Underground Property, and Incidental Malpractice. If such insurance contains an aggregate limit, it shall apply separately to this **Project**.

22.1.1(a) Such Commercial General Liability Insurance shall name the **City**, together with its officials and employees, as an Additional Insured under this policy. Coverage for the **City** as Additional Insured shall specifically include the **City's** officials and employees, and shall be at least as broad as either Insurance Services Office ("ISO") Form CG 20 10 (07/04 ed.) or Form CG 20 33 (07/04 ed.) and shall provide completed operations coverage at least as broad as CG 20 37 (07/04 ed.).

22.1.1(b) If this **Contract** is equal to or greater than Ten Million Dollars (\$10,000,000.00), each Commercial General Liability Insurance policy provided shall contain each of the following endorsements:

22.1.1(b)(i) The Duties in the Event of Occurrence, Claim or Suit condition of the policy is amended per the following: If and insofar as knowledge of an "occurrence", "claim", or "suit" is relevant to the **City of New York** as Additional Insured under this policy, such knowledge by an agent, servant, official, or employee of the **City of New York** will not be considered knowledge on the part of the **City of New York** of the "occurrence", "claim", or "suit" unless the following position shall have received notice thereof from such agent, servant, official, or employee: Insurance Claims Specialist, Affirmative Litigation Division, New York City Law Department; and

22.1.1(b)(ii) Any notice, demand or other writing by or on behalf of the Named Insured to the Insurance Company shall also be deemed to be a notice, demand, or other writing on behalf of the **City** as Additional Insured. Any response by the Insurance Company to such notice, demand or other writing shall be addressed to Named Insured and to the **City** at the following addresses: Insurance Unit, NYC Comptroller's Office, 1 Centre Street – Room 1222, New York, N.Y. 10007; and Insurance Claims Specialist, Affirmative Litigation Division, New York City Law Department, 100 Church Street, New York, NY 10007.

22.1.2 Workers' Compensation Insurance and Disability Benefits Insurance: The **Contractor** shall provide, and ensure that each **Subcontractor** provides, Workers Compensation 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 qualifying for insurance pursuant to Article 22.1.4).

22.1.3 Employers' Liability Insurance: The **Contractor** shall provide, and ensure that each **Subcontractor** provides, Employers Liability Insurance affording compensation due to bodily injury by accident or disease sustained by any employee arising out of and in the course of his/her employment under this **Contract** (except for those qualifying for insurance pursuant to Article 22.1.4).

22.1.4 United States Longshoremen's and Harbor Workers Act and/or Jones Act Insurance: The **Contractor** shall provide, and ensure that each **Subcontractor** provides, 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**.

22.1.5 Builders' Risk Insurance: The **Contractor** shall provide a Builders' Risk Insurance policy covering all risks in completed value form. Such policy shall cover the total value of the **Work** performed in accordance with Schedule A, as well as the value of any equipment, supplies and/or material for the **Project** that may be in storage (on or off the **Site**) or in transit. The policy shall cover the cost of removing debris, including demolition as may be legally necessary by the operation of any law, ordinance or regulation, and for loss or damage to any owned, borrowed, leased or rented capital equipment, tools, including tools of their agents and employees, staging towers and forms, and property of the **City** held in their care, custody and/or control. Such policy shall name as insureds the **City**, the **Contractor**, and its **Subcontractors**. The Builders' Risk policy shall contain the following endorsements:

22.1.5(a) The **City** and the **Contractor** shall be named as loss payee for the **Work** in order of precedence, as their interest may appear; and

22.1.5(b) In the event the loss occurs at an occupied facility, the policy shall permit occupancy without the consent of the Insurance Company; and

22.1.5(c) In the event that the insurance policy has been issued by a mutual insurance company, the following language shall be included: "The **City** of New York is not liable for any premium or assessment under this policy of insurance. The First Named Insured is solely liable therefor."

22.1.6 Comprehensive Business Automobile Liability Insurance: The **Contractor** shall provide a Comprehensive Business Automobile Liability policy for liability arising out of any owned, non-owned, leased and hired vehicles to be used in connection with this **Contract**. Coverage should be at least as broad as ISO Form CA0001, ed. 10/01.

22.1.6(a) If autos 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.

22.1.7 Pollution/Environmental Liability Insurance: The **Contractor** shall provide Pollution/Environmental Liability Insurance covering bodily injury and property damage, including loss of use of damaged property or of property that has not been physically injured. 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, suit, or proceedings against the **City** arising from the operations under this **Contract**. Such insurance shall be in the **Contractor's** name and list the **City** as an Additional Insured. Coverage for the **City** as Additional Insured shall specifically include the **City's** officials and employees, and shall be at least as broad as provided to the **Contractor** for this **Project**.

22.1.7(a) If such coverage 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 years from the time the **Work** under this **Contract** is completed.

22.1.8 Marine Insurance:

22.1.8(a) Marine Protection and Indemnity Insurance: The **Contractor** shall provide a Marine Protection and Indemnity policy with coverage at least as broad as policy form SP-23. The policy shall provide coverage for the **Contractor** and for the **City** (together with its officials and employees) as Additional Insured for bodily injury and property damage arising from marine operations under this **Contract** including injury or death of crew members (if not fully provided through other insurance), damage to piers, wharves and other fixed or movable structures and loss of or damage to any other vessel or craft, or to property on such other vessel or craft, not caused by collision.

22.1.8(b) Ship Repairers Legal Liability Insurance: The **Contractor** shall provide a Ship Repairers Legal Liability Insurance policy covering all repair operations under this **Contract** at or in the vicinity of a designated approved port or yard under this **Contract**. The policy shall provide coverage from the point of acceptance of care custody and control of any **City** vessel. The policy shall provide Bailee Coverage for any **City** vessel in the **Contractor's** care, custody and control and coverage for damage to property of others caused by any **City** vessel in the **Contractor's** care custody and control.

22.1.8(c) Collision Liability/Towers Liability Insurance: The **Contractor** shall provide a Collision Liability/Towers Liability Insurance policy with coverage for the **Contractor** and for the **City** (together with its officials and employees) as Additional Insured at least as broad as the American Institute Tug Form (08/01/76) for all tugs used under this **Contract** and Collision Liability per American Institute Hull Clauses (6/2/77).

22.1.8(d) Marine Pollution Liability Insurance: The **Contractor** shall provide a Marine Pollution Liability Insurance policy covering itself as Named Insured and the **City** (together with its officials and employees) as Additional Insured for 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. Coverage under this policy shall be at least as broad as that provided by Water Quality Insurance Syndicate Form (09/98 ed.).

22.1.9 The **Contractor** shall provide such other types of insurance, at such minimum limits, as are specified in Schedule A of the General Conditions.

22.2 General Requirements for Insurance 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 AA, unless prior written approval is obtained from the Mayor's Office of Operations.

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 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 All required insurance policies, except for insurance required pursuant to Sections 22.1.2, 22.1.3, and 22.1.4, shall contain the following endorsement: "This policy may not be cancelled, terminated, modified or changed unless thirty (30) days prior written notice is sent by the Insurance Company to the Named Insured (or First Named Insured, as appropriate), the **Commissioner**, and to the **Comptroller**, attn: Office of Contract Administration, Municipal Building, Room 1005, New York, New York 10007."

22.3 Proof of Insurance:

22.3.1 Within ten (10) **Days** of award, the **Contractor** shall, for each policy required under this **Contract**, except for Workers Compensation Insurance and Disability Benefits Insurance and builders' risk insurance, file a Certificate of Insurance with the **Commissioner** pursuant to Article 22.6. For Workers' Compensation Insurance and Disability Benefits Insurance, the **Contractor** shall file proof of insurance in a form acceptable to the **Commissioner** within ten (10) **Days** of award. Accord forms are not acceptable proof of workers' compensation coverage. The Contractor must submit one of the following forms to the Department, or another form acceptable to the Department: C-105.2 -- Certificate of Workers' Compensation Insurance, or U-26.3 -- State Insurance Fund Certificate of Workers' Compensation Insurance. For builders' risk insurance, the **Contractor** shall file a Certificate of Insurance with the **Commissioner** at the direction of the **Commissioner** but in any event no later than ten (10) **Days** prior to commencement of the **Work**.

22.3.1(a) All Certificates of Insurance shall be in a form acceptable to the **City** and shall certify the issuance and effectiveness of the types of insurance specified in Schedule A, each with the specified minimum limits and evidence of the compliance with the Additional Insured or Named Insured provisions of Articles 22.1.1(a), 22.1.5, 22.1.7, and 22.1.8, as applicable. All Certificate(s) of Insurance shall be accompanied by either a duly executed "Certification by Broker" in the form contained in Part II of Schedule A or completed copies of all policies referenced in the Certificate of Insurance. In the absence of completed policies, binders are acceptable.

22.3.2 Certificates of Insurance confirming renewals of insurance shall be submitted to the **Commissioner** prior to the expiration date of coverage of policies required under this **Contract**. Such Certificates of Insurance shall comply with the requirements of Article 22.3.1(a) and, if applicable, Article 22.3.1(b).

22.3.3 The **Contractor** shall be obligated to provide the **City** with a copy of any policy required by this Article 22 upon the demand for such policy by the **Commissioner** or the New York City Law Department.

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 hereunder does not excuse the **Contractor** from securing a policy consistent with all provisions of this Article 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.

22.5 The **City** as Additional Insured or Loss Payee under **Subcontractors'** Insurance. The **Contractor** shall ensure that each **Subcontractor** name the **City** as Additional Insured or loss payee, as appropriate, under all policies covering **Work** performed by such **Subcontractor** under this **Contract**. The **City's** coverage as Additional Insured shall include the **City's** officials and employees and be at least as broad as that provided to the **Contractor**. The foregoing requirements shall not apply to insurance provided pursuant to Articles 22.1.2, 22.1.3, and 22.1.4.

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 If the **Contract** involves disposal of hazardous materials, the **Contractor** shall dispose such materials only at sites where the disposal site operator maintains Pollution Legal Liability Insurance in the amount of at least \$2,000,000 for losses arising from such disposal site.

22.8 **Materiality/Non-Waiver:** The **Contractor's** failure to secure policy(ies) in complete conformity with this Article, or to give the Insurance Company timely notice of any sort required in this **Contract** on behalf of the **City**, or to do anything else required by this Article 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.

22.9 **Other Remedies:** Insurance coverage in the minimum amounts provided for herein shall not relieve the **Contractor** or **Subcontractors** of any liability under this **Contract**, nor shall it preclude the **City** from exercising any rights or taking such other actions as are 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, and return the balance, if any, without interest, to the **Contractor**.

23.3 Liens: If at any time before or within thirty (30) Days after the **Work** is completed and accepted by the City, any persons claiming to have performed any labor or furnished any material toward the performance or completion of this **Contract**, shall file with the **Agency** and with the **Treasurer** any notice as is described in the New York State Lien Law, or any act of the Legislature of the State of New York, the City shall retain, from the monies due or to become due under this **Contract**, so much of such monies as shall be sufficient to pay the amount claimed in said notice, together with the reasonable costs of any action or actions brought or that may be brought to enforce such lien. The monies so retained shall be held by the City until the lien thereon created by the said act and the filing of the said notice shall be discharged pursuant to Law.

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 guarantee are provided for.

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 or lessees of the premises.

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 **Laws** 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 **Department**.

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 a time and material basis 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 on a time and material basis 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.

26.2.1 Necessary materials (including transportation to the **Site**); plus

26.2.2 Necessary direct labor, including payroll taxes 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, 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 PRIMEDIA (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 PRIMEDIA (the "Blue Book"). The reasonable rental value is 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 percent of such rental rates; second shift shall be sixty percent of the first shift rate; and third shift shall be forty

percent of the first shift rate. Equipment on standby shall be reimbursed at one-third the prorated monthly rental rate. **Contractor**-owned equipment includes equipment from rental companies affiliated with or controlled by the **Contractor**, as determined by the **Commissioner**. In establishing cost reimbursement for non-operating contractor-owned 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 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 Reasonable rental costs of non-**Contractor**-owned 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

26.2.7 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 shall be based upon the Manual Rate for such insurance for the applicable work classifications/codes, in accordance with the most recent schedule promulgated by the New York Compensation Insurance Rating Board; plus

26.2.8 Additional costs incurred as a result of the **Extra Work** for performance and payment bonds; plus

26.2.9 Ten (10%) 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

26.2.10 Ten (10%) percent of the total of items in Articles 26.2.1 through 26.2.5, plus item 26.2.9, 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

26.2.11 Five (5%) percent of the total of items in Article 26.2.6, 26.2.7, and 26.2.8 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**. The cost of such **Extra Work** and of such omitted or reduced **Work** shall be computed based upon applicable **Contract** unit prices. Where there are no applicable **Contract** unit prices, the cost of such **Extra Work** and of such omitted or reduced **Contract Work** shall

be computed in accordance with items 26.2.1 through 26.2.8. If the cost of such **Extra Work** exceeds the costs of such omitted or reduced **Contract Work**, the **Contract** price shall be increased by the difference, plus percentages for overhead and profit as provided in Articles 26.2.9 through 26.2.11. If the cost of the omitted or reduced **Contract Work** exceeds the cost of the **Extra Work**, then the **Contract** price shall be reduced by the difference.

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 that arise under, or by virtue of, this **Contract** shall be finally resolved in accordance with the provisions of this article 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 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 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 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 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, 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 disputed 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 **Contractor** thus brought into the dispute resolution proceeding shall have the same rights and obligations under this article 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 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. 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 **Agency 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 section 7-201 and 7-203 of the New York City 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 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 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;

27.6.1.1 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

27.6.2 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, 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 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 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 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 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 Corporation Counsel, the Director of the Office of Construction, 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 Laws 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.

27.8 Any termination, cancellation, or alleged breach of the **Contract** prior to or during the pendency of any proceedings pursuant to this article 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.

ARTICLE 28. RECORD KEEPING FOR EXTRA OR DISPUTED WORK

28.1 While the **Contractor** or any of its **Subcontractors** is performing **Extra Work** on a Time and Material Basis ordered by the **Commissioner** under Article 25, or is performing disputed **Work**, or complying with a determination or order under protest in accordance with Articles 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 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** 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 fully 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.

30.2 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, 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, 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, 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** or **Comptroller** 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** or **Comptroller** 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.

30.5 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 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** 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**, officer, 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 **Resident Engineer**, or any other officer, 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 the **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 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 hours in duration.

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.

36.1.5 The aforesaid provisions of this article covering every **Contract** for or on behalf of the State or a municipality for the manufacture, sale or distribution of materials, equipment or supplies shall be limited to operations performed within the territorial limits of the State of New York.

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 section 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 all information and reports including an Employment Report before the award of the **Contract** which are required by E.O. 50, the Rules and Regulations promulgated thereunder, and orders of the 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.

Failure to comply with E.O. 50 and the rules and regulations promulgated thereunder, in one or more instances, may result in the **Agency** declaring the **Contractor** to be non-responsible.

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 VIII of the Administrative Code;

36.5.2 every agreement between the **Contractor** and its **Subcontractors** in excess of \$50,000 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.); and

36.5.3 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 Section 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) calendar **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**. Minimum wages shall be the rates fixed by Federal **Law** and regulations.

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.

37.4 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 wage scale as provided in Labor Law Section 220, as amended, or

37.4.1(b) Less than 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) and Minimum Wages (Article 37.2.6), the party responsible therefore 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 suits brought by the Corporation Counsel in the name of the **City**, in addition to damage for any other breach of this **Contract**, 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 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 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, whether such failures were concurrent or consecutive and whether or not such final determinations concerning separate public work projects are rendered

simultaneously, such **Contractor** or **Subcontractor** shall be ineligible to submit a bid on or be awarded any public work 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 work 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 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 work 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 dollars, such notice shall also include a statement that, that each worker, laborer or mechanic 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 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, which signed statement shall be maintained with the payroll records required by this **Contract**; and

37.6.3.1 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:** Provide laminated identification badges which indicate the worker's, laborer's or mechanic's name, trade, employer's name and employment starting date (month/day/year). Further, 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**; 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 in Article 37.6.1 in that language or languages as may be required. The **Contractor** is responsible for all distributions under 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 If this **Contract** is for an amount greater than \$1,000,000, 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 \$750,000, 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** or **Subcontractor(s)** 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.

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 with the provisions of this article 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 for 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** shall maintain on the **Site** the original payrolls or transcripts thereof which the **Contractor** and its **Subcontractor(s)** are required to maintain pursuant to Labor Law Section 220. The **Contractor** and **Subcontractor(s)** shall submit original payrolls or transcripts, subscribed and affirmed by it as true, with each and every payment requisition. 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 original payrolls or transcripts thereof, subscribed and affirmed by it as true, and the statements signed by each worker pursuant to this Chapter VIII. In addition, the **Contractor** and **Subcontractor(s)** shall furnish to the **Engineer** upon written demand any other information to satisfy the **Engineer** that this Chapter VIII and the Labor Law, as to the hours of employment and rates of wages, are being observed. The **Contractor** shall maintain the payrolls or transcripts thereof for six (6) years from the date of completion of the **Work** on this **Contract**.

38.2 When directed by the **Engineer**, the **Contractor** or **Subcontractor** shall provide the **Engineer** with an attendance sheet for each **Day** on which **Work** is performed on the **Site**. Such attendance sheet shall be in a form acceptable to the **Agency** and shall provide information for employees of the **Contractor** and **Subcontractor(s)**.

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** void.

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 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, 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 a month, 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 such satisfactory payment application, 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 **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 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 section 43.5 herein, then the **Contractor** shall pay interest on amounts due to such **Subcontractor** or **Materialman** at a 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 NY General Business Law. Accrual of interest shall commence on the day immediately following the expiration of the seventh day following receipt of payment to the **Contractor** by 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 suppliers 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 When the **Work** in the opinion of the **Commissioner**, has been substantially but not entirely completed, he/she shall issue a certificate of **Substantial Completion**.

44.2 The **Contractor** shall submit with the **Substantial Completion** requisition:

44.2.1 A Final Verified Statement of any and all alleged claims against the **City** and any pending dispute resolution procedures in accord with the **PPB Rules** and this **Contract**, 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.

44.2.1(a) With respect to each such claim, the **Commissioner**, the **Comptroller** and, in the event of litigation, the Corporation Counsel of the **City** 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 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, will have waived any such claims.

44.2.2 A Final Approved Punch List.

44.2.3 Where required, a request for a substantial or final extension of time.

44.3 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 where the **Contractor** shall fail 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.

44.4 No further partial payments shall be made to the **Contractor** after the **Commissioner** issues a Certificate of **Substantial Completion**, except the **Substantial Completion** payment and **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.

44.5 The **Contractor** acknowledges that nothing contained in this article 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. 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 and all alleged claims against the **City**, and any pending dispute resolution procedures in accord with the **PPB Rules** and this **Contract**, 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 Corporation Counsel of the **City** 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, is entitled 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 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 to 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 officers, 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, or those for amounts deducted by the **Commissioner** from the final requisition or by the **Comptroller** 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 officer, 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 from commencing an action for breach of **Contract** under this provision to the extent permitted by **Law** and by the terms of the **Contract** 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 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 the 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.

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 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 a lawsuit 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 provision 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 complete 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 previous provisions of this Chapter X shall be in addition to any and all other legal or equitable remedies permissible in the premises.

54.3 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**.

54.4 The expense of such completion, 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**.

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 lawsuit, 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 lawsuit be instituted or maintained on any such claims unless such lawsuit is commenced within six (6) months after the date the **Commissioner** issues a Certificate of **Substantial Completion** pursuant to Article 44; except that:

56.2.1 Any claims arising out of events occurring after the date the **Commissioner** issues a Certificate of **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 becomes 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 lawsuit 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 indemnify the **City** against any and all claims and judgments for damages for any infringement of copyright and patents or use of patented articles, tools, materials, equipment, appliances or processes in the performance or completion of the **Work**, including all costs and expenses which the **City** shall or may incur or be obligated to pay by reason thereof.

ARTICLE 58. NO CLAIM AGAINST OFFICERS, AGENTS OR EMPLOYEES

58.1 No claim whatsoever shall be made by the **Contractor** against any officer, 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. SERVICES OF NOTICES

59.1 The **Contractor** hereby designates the business 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. Actual delivery of any such notice, direction or communication to the aforesaid place, or depositing it in a postpaid wrapper addressed thereto in any post office box (P.O. Box) regularly maintained by the United States Postal Service, shall be conclusively deemed to be sufficient service thereof upon the **Contractor** as the date of such delivery or deposit.

59.2 Such address 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, local taxes and Sales and Compensation Use Taxes of the State of New York and of cities and counties on all materials and supplies 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 or a Subcontractor, or to supplies and materials which even though they are consumed, are not incorporated into the completed Work (consumable supplies), and the Contractor and its Subcontractors shall be responsible for and pay any and all applicable taxes, including Sales and Compensation Use Taxes, on such leased tools, machinery, equipment or other property and upon all such unincorporated supplies and materials.

62.2 The Contractor agrees to sell and the City agrees to purchase all supplies and materials, other than consumable supplies, 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 supplies and materials shall be in full payment and consideration for the sale of such supplies and materials herein.

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, etc., 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 and labor.

62.3 The purchase by the Contractor of the supplies and materials sold hereunder shall be a purchase or procurement for resale and therefore not subject to the New York State or City Sales or Compensation Use Taxes or any such taxes of cities or counties. The sale of such supplies and materials by the Contractor to the City is exempt from the aforesaid sales or compensating use taxes. With respect to such supplies and materials, 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 supplies and materials, free of liens and/or encumbrances, and the **Contractor** shall mark or otherwise identify all such materials as the property of the **City**.

62.4 Title to all materials 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 supplies and materials to the **Site** and prior to its becoming a part of the permanent structure and/or construction. Notwithstanding such transfer of title, the **Contractor** shall have the full and continuing responsibility to install such materials and supplies in accordance with the provisions of this **Contract**, protect them, maintain them in a proper condition and forthwith repair, replace and make good any damage thereto, theft or disappearance thereof, and furnish additional materials 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 such supplies and materials are rejected as being defective or otherwise unsatisfactory, title to all such supplies and materials shall be deemed to have been transferred back to the **Contractor**.

62.5 The purchase by **Subcontractors** of supplies and materials to be sold hereunder shall also be a purchase or procurement for resale to the **Contractor** (either directly or through other **Subcontractors**) and therefore not subject to the aforesaid Sales or Compensation Use Taxes, provided that the subcontract agreements provide for the resale of such supplies and materials prior to and separate and apart from the incorporation of such supplies and materials into the permanent structure and/or construction and that such subcontract agreements are in a form similar to this **Contract** with respect to the separation of the sale of materials from the **Work** and labor, services, consumable supplies and any other matters to be provided, and provided further that the subcontract agreements provide separate prices for materials and all other services and matters. Such separation shall actually be followed in practice, including the separation of payments for supplies and materials from the payments for other **Work** and labor and other things to be provided.

62.6 The **Contractor** and its **Subcontractors** and Materialmen shall obtain any and all necessary **Contractor** Exempt Purchase Certificates or Resale Certificates from the appropriate governmental **Agency** or **Agencies**, and furnish a **Contractor** Exempt Purchase Certificate or Resale Certificate to all persons, firms or corporations from which they purchase supplies and materials for the performance of the **Work** covered by this **Contract**.

62.7 In the event any of the provisions of this article shall be deemed to be in conflict with any other provisions of this **Contract** or create any ambiguity, then the provisions of this article 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 Agreement, 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 herein 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 herein 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 herein 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 herein 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, 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 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 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, less salvage value, 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:

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, whichever is less, 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 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 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.

64.2.2 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 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 Material Contracts or Items: On all **Contracts** or items in a **Contract** where time and material records are specified as the basis for payment of the **Work**, 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 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 Cost shall not include overhead.

64.3 In no event shall any payments under this article exceed the **Contract** price for such items.

64.4 All payments pursuant to this article 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, 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 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** of New York, State of New York, 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 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 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 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 United States 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 State of New York, upon request of the **City**, the **Contractor** shall either consent to a transfer of the action to a State Court of competent jurisdiction located in the **City** and State 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 State Court of competent jurisdiction in the **City**.

65.3 If any provision(s) of this article 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 Export Administration Act of 1979, as amended, or the regulations of the United States Department of Commerce 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, 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.

67.2 Unless specifically waived by the **Commissioner** with the approval of the Division of Economic and Financial Opportunity of the 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 enterprise ("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 prime **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 LBE's 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 **Contract**. Remedy for such breach of **Contract** may include the imposition of any or all of the following sanctions:

67.6.1 Reducing a **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 Where non-compliance is by an LBE, de-certifying and declaring the LBE 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 and rules, 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 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. HEALTH INSURANCE COVERAGE

70.1 If the price for which this **Contract** was awarded exceeds \$100,000, or if the price for which this **Contract** was awarded when combined with other construction or services contracts awarded the **Contractor** by the **City** in the year prior to award of this **Contract** exceeds \$100,000, the **Contractor**, following registration of the **Contract**, shall be required to submit responses to requests for information regarding the nature of any health

insurance provided by the Contractor to its employees and their spouses and domestic partners, upon request of the Agency or other designated City agency.

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 9.

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: Eighteen Million Sixteen Dollars, (\$ 18,016,831.40), 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.
thousand, Eight hundred thirty one dollars 41/100.

ARTICLE 76. ELECTRONIC FUNDS TRANSFER

76.1 In accordance with Section 6-107.1 of the New York City Administrative Code, the Contractor agrees to accept payments under this Agreement from the City by electronic funds transfer. An electronic funds transfer 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 Agreement, Contractor shall designate one financial institution or other authorized payment agent and shall complete the "EFT Vendor Payment Enrollment Form" (available at <http://www.nyc.gov/dof>) in order to provide the Commissioner of Finance with information necessary for Contractor to receive electronic funds transfer payments through the 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 agreement. 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 agency head may waive the application of the requirements herein to payments on contracts entered into pursuant to §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 contracting agency may waive the requirements hereunder for payments 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 – 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.

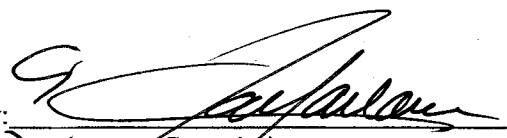
6. Statements made in any instrument submitted to Agency pursuant to Section 6-129 shall be submitted under penalty of perjury and any false or misleading statement or omission shall be grounds for the application of any applicable criminal and/or civil penalties for perjury. The making of a false or 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.

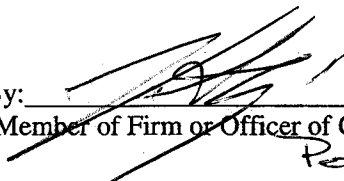
Deputy

IN WITNESS WHEREOF, the ^{Deputy} 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

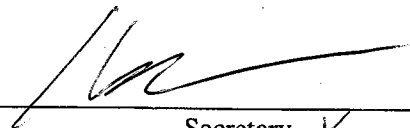
By: 
Deputy Commissioner

CONTRACTOR:

By: 
(Member of Firm or Officer of Corporation)
Peter Tully

Title: _____

(Where Contractor is a Corporation, add):
Attest:


Secretary Kenneth Tully

(Seal)

ACKNOWLEDGEMENT OF PRINCIPAL, IF A CORPORATION

State of New York County of Queens ss:

On this 11th day of September, 2013 before me personally came Peter Tully to me known who, being by me duly sworn did depose and say that he resides at NASSAU County 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.

CAROL R. GORDON
Notary Public, State of New York
No. 01GO4680187
Qualified in Queens County
Commission Expires April 30, 2014

Carol R Gordon
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:

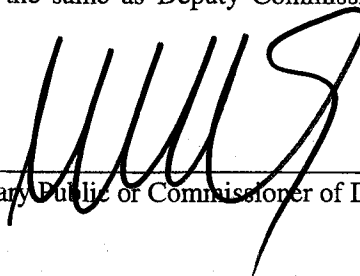
On this _____ day of _____, _____, before me personally appeared _____ to me known, and known to me to be the person described in and who executed the foregoing instrument; and acknowledged that he executed the same.

Notary Public or Commissioner of Deeds

ACKNOWLEDGEMENT BY COMMISSIONER

State of New York County of Queens ss:

On this 11th day of Sept, 2013, before me personally came Eric MacFarlane 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

Eighteen million Sixteen thousand
eight hundred thirty one dollars 46/100.

Dollars (\$ 18,066,831.40)

is chargeable to the fund of the Department of Design and Construction entitled Code

PDWTC2013

Department of Design and Construction

I hereby certify that the specifications contained herein comply with the terms and conditions of the BUDGET.


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 80 to 83): 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 #1 (Pages 80 to 83): 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 80 to 83): 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 80 to 83): 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 84 to 87): 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 84 to 87): 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 84 to 87): 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 84 to 87): 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 88 to 91): 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 88 to 91): 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 88 to 91): 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 88 to 91): 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.

Contracting agencies anticipating doing work which requires the employment of a trade or classification not included in this schedule must request the Comptroller to establish a proper classification for the work pursuant to Labor Law §220 (3-a) (a). The prevailing rate schedule as promulgated by the Comptroller, must, in compliance with law, be annexed to and form part of the contract.

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, Agency Chief Contracting Officers must contact the Bureau of Labor Law when the need arises for a work classification not published in this schedule.

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 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 at www.comptroller.nyc.gov. The rate of wages and supplemental benefits to be paid or provided are those that prevail at the time the work is being performed. Preliminary schedules for future one-year periods are published annually in the City Record on or about June 1st of each succeeding year. Final schedules are published on or about July 1st in the City Record and on our web site at 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.

Answers to questions concerning prevailing trade 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.

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.

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Contractors are advised to review the applicable Collective Bargaining Agreements and the Comptroller's Prevailing Wage Schedule before bidding on Public Work. If there are any questions concerning prevailing wages, benefits, overtime, Holiday pay, shift differentials or any prevailing practice, please contact this office.

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.

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.

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

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OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
 §220 PREVAILING WAGE SCHEDULE

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ASBESTOS HANDLER

(Hazardous Material; Disturbs, removes, encapsulates, repairs, or encloses friable asbestos material)

Asbestos Handler

Effective Period: 7/1/2013 - 6/30/2014

Wage Rate per Hour: **\$35.90**

Supplemental Benefit Rate per Hour: **\$15.05**

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: 7/1/2013 - 6/30/2014

Wage Rate per Hour: **\$44.40**

Supplemental Benefit Rate per Hour: **\$38.44**

Blaster (Hydraulic)

Effective Period: 7/1/2013 - 6/30/2014

Wage Rate per Hour: **\$45.17**

Supplemental Benefit Rate per Hour: **\$38.44**

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Blaster - Trac Drill Hydraulic

Effective Period: 7/1/2013 - 6/30/2014
Wage Rate per Hour: \$40.04
Supplemental Benefit Rate per Hour: \$38.44

Blaster - Wagon: Air Trac: Quarry Bar: Drillrunners

Effective Period: 7/1/2013 - 6/30/2014
Wage Rate per Hour: \$39.30
Supplemental Benefit Rate per Hour: \$38.44

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: 7/1/2013 - 6/30/2014
Wage Rate per Hour: \$38.32
Supplemental Benefit Rate per Hour: \$38.44

Blaster - Powder Carriers

Effective Period: 7/1/2013 - 6/30/2014
Wage Rate per Hour: \$34.66
Supplemental Benefit Rate per Hour: \$38.44

Blaster - Hydraulic Trac Drill Chuck Tender

Effective Period: 7/1/2013 - 6/30/2014
Wage Rate per Hour: \$33.46
Supplemental Benefit Rate per Hour: \$38.44

Blaster - Chuck Tender & Nipper

Effective Period: 7/1/2013 - 6/30/2014
Wage Rate per Hour: \$32.75
Supplemental Benefit Rate per Hour: \$38.44

Blaster - Magazine Keepers: (Watch Person)

Effective Period: 7/1/2013 - 6/30/2014
Wage Rate per Hour: \$19.76
Supplemental Benefit Rate per Hour: \$38.44

Overtime Description

Magazine Keepers:

Time and one half for work performed in excess of forty (40) hours per week and for work performed on Saturdays, Sundays and Holidays.

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

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: 7/1/2013 - 12/31/2013

Wage Rate per Hour: **\$49.47**

Supplemental Benefit Rate per Hour: **\$39.78**

Supplemental Note: The above rate applies to repair or maintenance and new construction; For time and one half overtime - \$59.08; For double overtime - \$78.37.

Effective Period: 1/1/2014 - 6/30/2014

Wage Rate per Hour: **\$50.45**

Supplemental Benefit Rate per Hour: **\$41.31**

Supplemental Note: The above rate applies to repair or maintenance and new construction; For time and one half overtime - \$61.37; For double overtime - \$81.43.

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

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.

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: 7/1/2013 - 6/30/2014

Wage Rate per Hour: \$46.44

Supplemental Benefit Rate per Hour: \$27.53

Overtime

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

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

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: 7/1/2013 - 6/30/2014

Wage Rate per Hour: \$48.08

Supplemental Benefit Rate per Hour: \$41.10

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.

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: 7/1/2013 - 7/17/2013

Wage Rate per Hour: **\$46.74**

Supplemental Benefit Rate per Hour: **\$42.37**

Effective Period: 7/18/2013 - 6/30/2014

Wage Rate per Hour: **\$46.82**

Supplemental Benefit Rate per Hour: **\$44.97**

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

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Off shift work, commencing between 5:00 P.M. and 10:00 P.M. shall work eight and one half hours allowing for one half hour for lunch, but will be paid for 9 hours including benefits at the straight time rate for 8 hours.

(Carpenters District Council)

CEMENT & CONCRETE WORKER

Cement & Concrete Worker

Effective Period: 7/1/2013 - 6/30/2014

Wage Rate per Hour: \$42.33

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)

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

CEMENT MASON

Cement Mason

Effective Period: 7/1/2013 - 6/30/2014

Wage Rate per Hour: \$38.63

Supplemental Benefit Rate per Hour: \$39.05

Supplemental Note: Overtime supplemental benefit rate per hour: \$57.55

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: 7/1/2013 - 6/30/2014

Wage Rate per Hour: \$35.44

Supplemental Benefit Rate per Hour: \$19.75

Core Driller Helper

Effective Period: 7/1/2013 - 6/30/2014

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Wage Rate per Hour: \$28.60

Supplemental Benefit Rate per Hour: \$19.75

Core Driller Helper(Third year in the industry)

Effective Period: 7/1/2013 - 6/30/2014

Wage Rate per Hour: \$25.74

Supplemental Benefit Rate per Hour: \$19.75

Core Driller Helper (Second year in the industry)

Effective Period: 7/1/2013 - 6/30/2014

Wage Rate per Hour: \$22.88

Supplemental Benefit Rate per Hour: \$19.75

Core Driller Helper (First year in the industry)

Effective Period: 7/1/2013 - 6/30/2014

Wage Rate per Hour: \$20.02

Supplemental Benefit Rate per Hour: \$19.75

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: 7/1/2013 - 6/30/2014

Wage Rate per Hour: \$40.50

Supplemental Benefit Rate per Hour: \$42.07

Supplemental Note: The above supplemental rate applies for work performed in Manhattan, Bronx, Brooklyn and Queens. \$43.49 - For work performed in Staten Island.

Derrick Person & Rigger - Site Work

For site work where no rigging is involved.

Effective Period: 7/1/2013 - 6/30/2014

Wage Rate per Hour: \$30.00

Supplemental Benefit Rate per Hour: \$31.32

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: 7/1/2013 - 6/30/2014

Wage Rate per Hour: \$59.40

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Supplemental Benefit Rate per Hour: \$44.97

Diver Tender (Marine)

Effective Period: 7/1/2013 - 6/30/2014

Wage Rate per Hour: \$42.05

Supplemental Benefit Rate per Hour: \$44.97

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: 7/1/2013 - 6/30/2014

Wage Rate per Hour: \$46.82

Supplemental Benefit Rate per Hour: \$44.97

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.

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
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 but will be paid 113% of the straight time hourly wage and the straight time supplemental benefits.

(Carpenters District Council)

DRIVER: TRUCK (TEAMSTER)

Driver - Automobile Chauffeur (Dump Truck)

Effective Period: 7/1/2013 - 6/30/2014

Wage Rate per Hour: \$38.11

Supplemental Benefit Rate per Hour: \$40.20

Driver - Heavy Equipment Trailer Driver

Effective Period: 7/1/2013 - 6/30/2014

Wage Rate per Hour: \$39.61

Supplemental Benefit Rate per Hour: \$40.20

Note: For time and one half overtime Wage Rate - \$57.16; for double time overtime Wage Rate - \$76.21

Driver - Euclid & Turnapull Operator

Effective Period: 7/1/2013 - 6/30/2014

Wage Rate per Hour: \$38.67

Supplemental Benefit Rate per Hour: \$40.20

Driver - Six Wheeler(3 Axle) Tractors & Trailers

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Effective Period: 7/1/2013 - 6/30/2014

Wage Rate per Hour: \$39.11

Supplemental Benefit Rate per Hour: \$40.20

Note: For time and one half overtime Wage Rate - \$58.01; for double time overtime Wage Rate - \$77.34

Driver - Boom Truck

Effective Period: 7/1/2013 - 6/30/2014

Wage Rate per Hour: \$39.36

Supplemental Benefit Rate per Hour: \$40.20

Note: For time and one half overtime Wage Rate - \$58.01; for double time overtime Wage Rate - \$77.34

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.

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 Driver (Sand & Gravel)

Effective Period: 7/1/2013 - 6/30/2014

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Wage Rate per Hour: \$35.71

Supplemental Benefit Rate per Hour: \$37.27

Overtime Description

For Paid Holidays: Employees working two (2) days in the calendar week in which the holiday falls are to be 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

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: 7/1/2013 - 5/13/2014

Wage Rate per Hour: \$52.00

Supplemental Benefit Rate per Hour: \$46.13

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Effective Period: 5/14/2014 - 6/30/2014
Wage Rate per Hour: \$53.00
Supplemental Benefit Rate per Hour: \$47.54

Electrician "A" (Regular Day Overtime)

Effective Period: 7/1/2013 - 5/13/2014
Wage Rate per Hour: \$78.00
Supplemental Benefit Rate per Hour: \$49.39

Effective Period: 5/14/2014 - 6/30/2014
Wage Rate per Hour: \$79.50
Supplemental Benefit Rate per Hour: \$50.86

Electrician "A" (Day Shift)

Effective Period: 7/1/2013 - 5/13/2014
Wage Rate per Hour: \$52.00
Supplemental Benefit Rate per Hour: \$46.13

Effective Period: 5/14/2014 - 6/30/2014
Wage Rate per Hour: \$53.00
Supplemental Benefit Rate per Hour: \$47.54

Electrician "A" (Day Shift Overtime After 8 hours)

Effective Period: 7/1/2013 - 5/13/2014
Wage Rate per Hour: \$78.00
Supplemental Benefit Rate per Hour: \$49.39

Effective Period: 5/14/2014 - 6/30/2014
Wage Rate per Hour: \$79.50
Supplemental Benefit Rate per Hour: \$50.86

Electrician "A" (Swing Shift)

Effective Period: 7/1/2013 - 5/13/2014
Wage Rate per Hour: \$61.01
Supplemental Benefit Rate per Hour: \$52.47

Effective Period: 5/14/2014 - 6/30/2014
Wage Rate per Hour: \$62.19
Supplemental Benefit Rate per Hour: \$54.07

Electrician "A" (Swing Shift Overtime After 7.5 hours)

Effective Period: 7/1/2013 - 5/13/2014
Wage Rate per Hour: \$91.52
Supplemental Benefit Rate per Hour: \$56.30

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Effective Period: 5/14/2014 - 6/30/2014
Wage Rate per Hour: \$93.29
Supplemental Benefit Rate per Hour: \$57.97

Electrician "A" (Graveyard Shift)

Effective Period: 7/1/2013 - 5/13/2014
Wage Rate per Hour: \$68.34
Supplemental Benefit Rate per Hour: \$57.83

Effective Period: 5/14/2014 - 6/30/2014
Wage Rate per Hour: \$69.66
Supplemental Benefit Rate per Hour: \$59.59

Electrician "A" (Graveyard Shift Overtime After 7 hours)

Effective Period: 7/1/2013 - 5/13/2014
Wage Rate per Hour: \$102.51
Supplemental Benefit Rate per Hour: \$62.11

Effective Period: 5/14/2014 - 6/30/2014
Wage Rate per Hour: \$104.49
Supplemental Benefit Rate per Hour: \$63.96

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.

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

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.

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.

Effective Period: 7/1/2013 - 5/13/2014

Wage Rate per Hour: \$26.50

Supplemental Benefit Rate per Hour: \$19.56

First and Second Year "M" Wage Rate Per Hour - Hired on or before 5/10/07: \$25.80

First and Second Year "M" Supplemental Rate- Hired on or before 5/10/07: \$19.21

First and Second Year "M" Wage Rate Per Hour - Hired after 5/10/07: \$22.00

First and Second Year "M" Supplemental Rate- Hired after 5/10/07: \$17.30

Effective Period: 5/14/2014 - 6/30/2014

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

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: 7/1/2013 - 5/13/2014

Wage Rate per Hour: \$39.75

Supplemental Benefit Rate per Hour: \$21.23

First and Second Year "M" Wage Rate Per Hour - Hired on or before 5/10/07: \$38.70

First and Second Year "M" Supplemental Rate- Hired on or before 5/10/07: \$20.83

First and Second Year "M" Wage Rate Per Hour - Hired after 5/10/07: \$33.00

First and Second Year "M" Supplemental Rate- Hired after 5/10/07: \$18.68

Effective Period: 5/14/2014 - 6/30/2014

Wage Rate per Hour: \$40.50

Supplemental Benefit Rate per Hour: \$21.01

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

Overtime

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

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
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: 7/1/2013 - 6/30/2014

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

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

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

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: 7/1/2013 - 5/20/2014
Wage Rate per Hour: \$52.00
Supplemental Benefit Rate per Hour: \$47.90

Effective Period: 5/21/2014 - 6/30/2014
Wage Rate per Hour: \$53.00
Supplemental Benefit Rate per Hour: \$49.34

Electrician - Electro Pole Foundation Installer

Effective Period: 7/1/2013 - 5/20/2014
Wage Rate per Hour: \$39.42
Supplemental Benefit Rate per Hour: \$36.46

Effective Period: 5/21/2014 - 6/30/2014
Wage Rate per Hour: \$40.18
Supplemental Benefit Rate per Hour: \$37.73

Electrician - Electro Pole Maintainer

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§220 PREVAILING WAGE SCHEDULE

Effective Period: 7/1/2013 - 5/20/2014
Wage Rate per Hour: \$33.75
Supplemental Benefit Rate per Hour: \$32.83

Effective Period: 5/21/2014 - 6/30/2014
Wage Rate per Hour: \$34.40
Supplemental Benefit Rate per Hour: \$34.00

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: 7/1/2013 - 6/30/2014
Wage Rate per Hour: \$57.01
Supplemental Benefit Rate per Hour: \$34.48

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.

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§220 PREVAILING WAGE SCHEDULE

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

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: 7/1/2013 - 6/30/2014

Wage Rate per Hour: \$45.14

Supplemental Benefit Rate per Hour: \$33.02

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
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

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: 7/1/2013 - 6/30/2014

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: 7/1/2013 - 6/30/2014

Wage Rate per Hour: \$59.24

Supplemental Benefit Rate per Hour: \$31.93

Supplemental Note: \$57.46 on overtime

Shift Wage Rate: \$94.78

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: 7/1/2013 - 6/30/2014

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: 7/1/2013 - 6/30/2014

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: 7/1/2013 - 6/30/2014

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: 7/1/2013 - 6/30/2014

Wage Rate per Hour: \$39.10

Supplemental Benefit Rate per Hour: \$31.93

Supplemental Note: \$57.46 on overtime

Shift Wage Rate: \$62.56

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§220 PREVAILING WAGE SCHEDULE

Engineer - Heavy Construction Maintenance Engineer IV

On Pumps and Mixers including mud sucking

Effective Period: 7/1/2013 - 6/30/2014

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: 7/1/2013 - 6/30/2014

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, Guniting Machines, Battery of Compressors, Crawler Cranes, two-person Trenching Machines.

Effective Period: 7/1/2013 - 6/30/2014

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: 7/1/2013 - 6/30/2014

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: 7/1/2013 - 6/30/2014

Wage Rate per Hour: \$53.43

Supplemental Benefit Rate per Hour: \$31.93

Supplemental Note: \$57.46 on overtime

Shift Wage Rate: \$85.49

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Engineer - Steel Erection Oiler II

On a Crawler Crane

Effective Period: 7/1/2013 - 6/30/2014

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: 7/1/2013 - 6/30/2014

Wage Rate per Hour: \$54.04

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

Engineer - Building Work Maintenance Engineers II

On Pumps, Generators, Mixers and Heaters

Effective Period: 7/1/2013 - 6/30/2014

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 GWV, and machines of a similar nature.

Effective Period: 7/1/2013 - 6/30/2014

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, Gunitite Machines, Compressors (three or more in Battery).

Effective Period: 7/1/2013 - 6/30/2014

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

Columbus Day

Veteran's Day

Thanksgiving Day

Christmas Day

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

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: 7/1/2013 - 6/30/2014

Wage Rate per Hour: **\$35.55**

Supplemental Benefit Rate per Hour: **\$17.65**

Instrument Person

Effective Period: 7/1/2013 - 6/30/2014

Wage Rate per Hour: **\$29.41**

Supplemental Benefit Rate per Hour: **\$17.65**

Rodperson

Effective Period: 7/1/2013 - 6/30/2014

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

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: 7/1/2013 - 6/30/2014

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: 7/1/2013 - 6/30/2014

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: 7/1/2013 - 6/30/2014

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

(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: 7/1/2013 - 6/30/2014

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: 7/1/2013 - 6/30/2014

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: 7/1/2013 - 6/30/2014

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

(Operating Engineer Local #15-D)

ENGINEER - FIELD (STEEL ERECTION)

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Field Engineer - Steel Erection Party Chief

Effective Period: 7/1/2013 - 6/30/2014

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: 7/1/2013 - 6/30/2014

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: 7/1/2013 - 6/30/2014

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

(Operating Engineer Local #15-D)

ENGINEER - OPERATING

Operating Engineer - Road & Heavy Construction I

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
\$220 PREVAILING WAGE SCHEDULE

Back Filling Machines, Cranes, Mucking Machines and Dual Drum Paver.

Effective Period: 7/1/2013 - 6/30/2014

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: 7/1/2013 - 6/30/2014

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: 7/1/2013 - 6/30/2014

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: 7/1/2013 - 6/30/2014

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

Pile Drivers & Rigs (employing Dock Builder foreperson): Derrick Boats, Tunnel Shovels.

Effective Period: 7/1/2013 - 6/30/2014

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

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Mixers (Concrete with loading attachment), Concrete Pavers, Cableways, Land Derricks, Power Houses (Low Air Pressure Units).

Effective Period: 7/1/2013 - 6/30/2014
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: 7/1/2013 - 6/30/2014
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: 7/1/2013 - 6/30/2014
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: 7/1/2013 - 6/30/2014
Wage Rate per Hour: \$62.53
Supplemental Benefit Rate per Hour: \$28.60
Supplemental Note: \$51.75 overtime hours
Shift Wage Rate: \$100.05

Operating Engineer - Road & Heavy Construction X

Elevators (manually operated as personnel hoist).

Effective Period: 7/1/2013 - 6/30/2014
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

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Compressors (Portable 3 or more in battery), Driving of Truck Mounted Compressors, Well-point Pumps, Tugger Machines Well Point Pumps, Churn Drill.

Effective Period: 7/1/2013 - 6/30/2014

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: 7/1/2013 - 6/30/2014

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: 7/1/2013 - 6/30/2014

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: 7/1/2013 - 6/30/2014

Wage Rate per Hour: **\$61.53**

Supplemental Benefit Rate per Hour: **\$28.60**

Supplemental Note: \$51.75 overtime hours

Shift Wage Rate: **\$98.45**

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: 7/1/2013 - 6/30/2014

Wage Rate per Hour: **\$41.44**

Supplemental Benefit Rate per Hour: **\$28.60**

Supplemental Note: \$51.75 overtime hours

Shift Wage Rate: **\$66.30**

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

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: 7/1/2013 - 6/30/2014

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: 7/1/2013 - 6/30/2014

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: 7/1/2013 - 6/30/2014

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: 7/1/2013 - 6/30/2014

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 - Paving II

Asphalt Roller

Effective Period: 7/1/2013 - 6/30/2014

Wage Rate per Hour: \$64.04

Supplemental Benefit Rate per Hour: \$28.60

Supplemental Note: \$51.75 overtime hours

Shift Wage Rate: \$102.46

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Operating Engineer - Paving III

Asphalt Plants

Effective Period: 7/1/2013 - 6/30/2014

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: 7/1/2013 - 6/30/2014

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: 7/1/2013 - 6/30/2014

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: 7/1/2013 - 6/30/2014

Wage Rate per Hour: \$56.16

Supplemental Benefit Rate per Hour: \$28.60

Supplemental Note: \$51.75 overtime hours

Operating Engineer - Steel Erection I

Three Drum Derricks

Effective Period: 7/1/2013 - 6/30/2014

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.

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Effective Period: 7/1/2013 - 6/30/2014
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: 7/1/2013 - 6/30/2014
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: 7/1/2013 - 6/30/2014
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: 7/1/2013 - 6/30/2014
Wage Rate per Hour: \$57.82
Supplemental Benefit Rate per Hour: \$28.60
Supplemental Note: \$51.75 overtime hours

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: 7/1/2013 - 6/30/2014
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

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Effective Period: 7/1/2013 - 6/30/2014

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: 7/1/2013 - 6/30/2014

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: 7/1/2013 - 6/30/2014

Wage Rate per Hour: \$64.26

Supplemental Benefit Rate per Hour: \$28.60

Supplemental Note: \$51.75 overtime hours

Operating Engineer - Building Work VI

Pole Hoist, Single Drum Hoists.

Effective Period: 7/1/2013 - 6/30/2014

Wage Rate per Hour: \$63.58

Supplemental Benefit Rate per Hour: \$28.60

Supplemental Note: \$51.75 overtime hours

Operating Engineer - Building Work VII

Rack & Pinion and House Cars

Effective Period: 7/1/2013 - 6/30/2014

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

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

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

Effective Period: 7/1/2013 - 6/30/2014

Wage Rate per Hour: \$46.15

Supplemental Benefit Rate per Hour: \$38.50

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

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

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: 7/1/2013 - 10/31/2013
Wage Rate per Hour: \$42.00
Supplemental Benefit Rate per Hour: \$33.24
Supplemental Note: Supplemental Benefit Overtime Rate: \$41.24

Effective Period: 11/1/2013 - 6/30/2014
Wage Rate per Hour: \$42.00
Supplemental Benefit Rate per Hour: \$34.09
Supplemental Note: Supplemental Benefit Overtime Rate: \$42.59

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

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

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: 7/1/2013 - 4/30/2014

Wage Rate per Hour: \$23.50

Supplemental Benefit Rate per Hour: \$18.54

Effective Period: 5/1/2014 - 6/30/2014

Wage Rate per Hour: \$23.60

Supplemental Benefit Rate per Hour: \$19.04

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: 7/1/2013 - 6/30/2014

Wage Rate per Hour: \$56.48

Supplemental Benefit Rate per Hour: \$33.31

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

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 shall be Tier A House Wreckers (i.e. 1st, 2nd, 11th, 14th etc). The 10th and 20th House Wrecker shall be apprentices. Other House Wreckers shall be Tier B House Wreckers.

Effective Period: 7/1/2013 - 6/30/2014

Wage Rate per Hour: \$34.01

Supplemental Benefit Rate per Hour: \$25.14

House Wrecker - Tier B

On all work sites the first, second, eleventh and every third House Wrecker thereafter shall be Tier A House Wreckers (i.e. 1st, 2nd, 11th, 14th etc). The 10th and 20th House Wrecker shall be apprentices. Other House Wreckers shall be Tier B House Wreckers.

Effective Period: 7/1/2013 - 6/30/2014

Wage Rate per Hour: \$23.75

Supplemental Benefit Rate per Hour: \$18.62

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

Paid Holidays

None

(Mason Tenders District Council)

IRON WORKER - ORNAMENTAL

Iron Worker - Ornamental

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Effective Period: 7/1/2013 - 6/30/2014

Wage Rate per Hour: **\$42.30**

Supplemental Benefit Rate per Hour: **\$43.54**

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)

IRON WORKER - STRUCTURAL

Iron Worker - Structural

Effective Period: 7/1/2013 - 6/30/2014

Wage Rate per Hour: **\$46.75**

Supplemental Benefit Rate per Hour: **\$62.48**

Supplemental Note: Supplemental benefits are to be paid at the applicable overtime rate when overtime is in effect.

Overtime Description

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

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)

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: 7/1/2013 - 6/30/2014

Wage Rate per Hour: \$39.25

Supplemental Benefit Rate per Hour: \$33.25

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
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)

Effective Period: 7/1/2013 - 6/30/2014
Wage Rate per Hour: \$24.25
Supplemental Benefit Rate per Hour: \$12.30

Landscaper (3 - 6 years experience)

Effective Period: 7/1/2013 - 6/30/2014
Wage Rate per Hour: \$23.25
Supplemental Benefit Rate per Hour: \$12.30

Landscaper (up to 3 years experience)

Effective Period: 7/1/2013 - 6/30/2014

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Wage Rate per Hour: \$20.75
Supplemental Benefit Rate per Hour: \$12.30

Groundperson

Effective Period: 7/1/2013 - 6/30/2014
Wage Rate per Hour: \$20.75
Supplemental Benefit Rate per Hour: \$12.30

Tree Remover / Pruner

Effective Period: 7/1/2013 - 6/30/2014
Wage Rate per Hour: \$29.25
Supplemental Benefit Rate per Hour: \$12.30

Landscaper Sprayer (Pesticide Applicator)

Effective Period: 7/1/2013 - 6/30/2014
Wage Rate per Hour: \$19.25
Supplemental Benefit Rate per Hour: \$12.30

Watering - Plant Maintainer

Effective Period: 7/1/2013 - 6/30/2014
Wage Rate per Hour: \$14.25
Supplemental Benefit Rate per Hour: \$12.30

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.

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: 7/1/2013 - 6/30/2014

Wage Rate per Hour: \$49.19

Supplemental Benefit Rate per Hour: \$32.24

Marble Finisher

Effective Period: 7/1/2013 - 6/30/2014

Wage Rate per Hour: \$39.05

Supplemental Benefit Rate per Hour: \$31.43

Marble Polisher

Effective Period: 7/1/2013 - 6/30/2014

Wage Rate per Hour: \$34.73

Supplemental Benefit Rate per Hour: \$24.60

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: 7/1/2013 - 6/30/2014

Wage Rate per Hour: \$35.00

Supplemental Benefit Rate per Hour: \$25.74

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

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: 7/1/2013 - 6/30/2014

Wage Rate per Hour: \$34.07

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

Supplemental Benefit Rate per Hour: \$19.77

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: 7/1/2013 - 6/30/2014

Wage Rate per Hour: \$23.27

Supplemental Benefit Rate per Hour: \$14.08

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

President's Day

Memorial Day

Independence Day

Labor Day

Thanksgiving Day

Christmas Day

Paid Holidays

None

(Local #79)

METALLIC LATHER

Metallic Lather

Effective Period: 7/1/2013 - 6/30/2014

Wage Rate per Hour: \$41.43

Supplemental Benefit Rate per Hour: \$40.15

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

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
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

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 (1/2) 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: 7/1/2013 - 6/30/2014

Wage Rate per Hour: \$47.69

Supplemental Benefit Rate per Hour: \$48.87

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

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

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: 7/1/2013 - 6/30/2014

Wage Rate per Hour: **\$44.39**

Supplemental Benefit Rate per Hour: **\$35.11**

Supplemental Note: Supplemental benefits for overtime to be paid at the rate of \$46.08 per hour.

Mosaic Mechanic - Mosaic & Terrazzo Finisher

Effective Period: 7/1/2013 - 6/30/2014

Wage Rate per Hour: **\$42.78**

Supplemental Benefit Rate per Hour: **\$35.11**

Supplemental Note: Supplemental benefits for overtime to be paid at the rate of \$46.08 per hour.

Mosaic Mechanic - Machine Operator Grinder

Effective Period: 7/1/2013 - 6/30/2014

Wage Rate per Hour: **\$42.78**

Supplemental Benefit Rate per Hour: **\$35.11**

Supplemental Note: Supplemental benefits for overtime to be paid at the rate of \$46.08 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

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
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: 7/1/2013 - 4/30/2014

Wage Rate per Hour: \$37.50

Supplemental Benefit Rate per Hour: \$25.62

Supplemental Note: \$30.25 on overtime

Effective Period: 5/1/2014 - 6/30/2014

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: 7/1/2013 - 4/30/2014

Wage Rate per Hour: \$40.50

Supplemental Benefit Rate per Hour: \$25.62

Supplemental Note: \$30.25 on overtime

Effective Period: 5/1/2014 - 6/30/2014

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

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

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: 7/1/2013 - 6/30/2014

Wage Rate per Hour: \$36.15

Supplemental Benefit Rate per Hour: \$9.66

Journeyperson

Effective Period: 7/1/2013 - 6/30/2014

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

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

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: 7/1/2013 - 6/30/2014

Wage Rate per Hour: \$33.00

Supplemental Benefit Rate per Hour: \$11.62

Supplemental Note: Overtime Supplemental Benefit rate - \$7.42; New Hire Rate (0-3 months) - \$0.00

Lineperson (thermoplastic)

Effective Period: 7/1/2013 - 6/30/2014

Wage Rate per Hour: \$37.00

Supplemental Benefit Rate per Hour: \$11.62

Supplemental Note: Overtime Supplemental Benefit rate - \$7.42; 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.

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

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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: 7/1/2013 - 6/30/2014

Wage Rate per Hour: **\$47.00**

Supplemental Benefit Rate per Hour: **\$32.08**

Painter - Power Tool

Effective Period: 7/1/2013 - 6/30/2014

Wage Rate per Hour: **\$53.00**

Supplemental Benefit Rate per Hour: **\$32.08**

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: 7/1/2013 - 4/30/2014

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Wage Rate per Hour: \$39.00

Supplemental Benefit Rate per Hour: \$29.23

Supplemental Note: Supplemental benefits are to be paid at the appropriate straight time and overtime rate.

Effective Period: 5/1/2014 - 6/30/2014

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

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: 7/1/2013 - 6/30/2014

Wage Rate per Hour: \$43.54

Supplemental Benefit Rate per Hour: \$33.55

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

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

and repair of temporary construction fencing; slurry seal coating, maintenance of safety surfaces; play equipment installation, and other related work.

Effective Period: 7/1/2013 - 6/30/2014

Wage Rate per Hour: \$39.67

Supplemental Benefit Rate per Hour: \$33.55

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: 7/1/2013 - 6/30/2014

Wage Rate per Hour: \$45.12

Supplemental Benefit Rate per Hour: \$33.55

Production Paver & Roadbuilder - Raker

Effective Period: 7/1/2013 - 6/30/2014

Wage Rate per Hour: \$44.61

Supplemental Benefit Rate per Hour: \$33.55

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: 7/1/2013 - 6/30/2014

Wage Rate per Hour: \$41.32

Supplemental Benefit Rate per Hour: \$33.55

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

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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 20% 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)

PLASTERER

Plasterer

Effective Period: 7/1/2013 - 6/30/2014

Wage Rate per Hour: \$41.13

Supplemental Benefit Rate per Hour: \$24.95

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.

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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: 7/1/2013 - 6/30/2014

Wage Rate per Hour: \$35.00

Supplemental Benefit Rate per Hour: \$25.74

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

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

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Effective Period: 7/1/2013 - 6/30/2014

Wage Rate per Hour: **\$51.76**

Supplemental Benefit Rate per Hour: **\$37.19**

Supplemental Note: Overtime supplemental benefit rate per hour: **\$74.10**

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 (MECHANICAL EQUIPMENT AND SERVICE)

(Mechanical Equipment and Service work shall include any repair and/or replacement of the present plumbing system.)

Effective Period: 7/1/2013 - 6/30/2014

Wage Rate per Hour: **\$33.46**

Supplemental Benefit Rate per Hour: **\$16.93**

Overtime

Time and one half the regular rate after an 8 hour day.

Time and one half the regular rate for Saturday.

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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
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: 7/1/2013 - 6/30/2014

Wage Rate per Hour: \$37.11

Supplemental Benefit Rate per Hour: \$25.56

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.

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(Plumbers Local #1)

PLUMBER: PUMP & TANK
(Installation and Maintenance)

Plumber - Pump & Tank

Effective Period: 7/1/2013 - 6/30/2014

Wage Rate per Hour: \$53.01

Supplemental Benefit Rate per Hour: \$31.86

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

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Effective Period: 7/1/2013 - 6/30/2014

Wage Rate per Hour: \$45.41

Supplemental Benefit Rate per Hour: \$23.29

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: 7/1/2013 - 6/30/2014

Wage Rate per Hour: \$39.00

Supplemental Benefit Rate per Hour: \$27.37

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

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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: 7/1/2013 - 6/30/2014

Wage Rate per Hour: **\$45.41**

Supplemental Benefit Rate per Hour: **\$23.29**

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.

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(Bricklayer District Council)

SHEET METAL WORKER

Sheet Metal Worker

Effective Period: 7/1/2013 - 6/30/2014

Wage Rate per Hour: **\$45.96**

Supplemental Benefit Rate per Hour: **\$43.19**

Supplemental Note: Supplemental benefit contributions are to be made at the applicable overtime rates.

Sheet Metal Worker - Duct Cleaner

Effective Period: 7/1/2013 - 6/30/2014

Wage Rate per Hour: **\$12.90**

Supplemental Benefit Rate per Hour: **\$8.07**

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: 7/1/2013 - 6/30/2014

Wage Rate per Hour: **\$36.77**

Supplemental Benefit Rate per Hour: **\$43.19**

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

Paid Holidays

None

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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 journeyman 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: 7/1/2013 - 7/31/2013

Wage Rate per Hour: \$41.28

Supplemental Benefit Rate per Hour: \$22.88

Supplemental Note: Supplemental benefit contributions are to be made at the applicable overtime rates.

Effective Period: 8/1/2013 - 6/30/2014

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

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Paid Holidays

None

(Local #28)

SIGN ERECTOR
(Sheet Metal, Plastic, Electric, and Neon)

Sign Erector

Effective Period: 7/1/2013 - 6/30/2014

Wage Rate per Hour: \$42.80

Supplemental Benefit Rate per Hour: \$42.17

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

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: 7/1/2013 - 6/30/2014

Wage Rate per Hour: \$52.50

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Supplemental Benefit Rate per Hour: **\$50.54**

Supplemental Note: Overtime supplemental benefit rate: \$100.34

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.

Effective Period: 7/1/2013 - 6/30/2014

Wage Rate per Hour: **\$52.50**

Supplemental Benefit Rate per Hour: **\$50.54**

Supplemental Note: Overtime supplemental benefit rate: \$100.34

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

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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: 7/1/2013 - 6/30/2014

Wage Rate per Hour: \$36.30

Supplemental Benefit Rate per Hour: \$11.76

Refrigeration and Air Conditioner Service Person V

Effective Period: 7/1/2013 - 6/30/2014

Wage Rate per Hour: \$29.82

Supplemental Benefit Rate per Hour: \$10.71

Refrigeration and Air Conditioner Service Person IV

Effective Period: 7/1/2013 - 6/30/2014

Wage Rate per Hour: \$24.71

Supplemental Benefit Rate per Hour: \$9.80

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.

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Effective Period: 7/1/2013 - 6/30/2014
Wage Rate per Hour: \$21.21
Supplemental Benefit Rate per Hour: \$9.12

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: 7/1/2013 - 6/30/2014
Wage Rate per Hour: \$17.60
Supplemental Benefit Rate per Hour: \$8.50

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: 7/1/2013 - 6/30/2014
Wage Rate per Hour: \$10.95
Supplemental Benefit Rate per Hour: \$7.90

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
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: 7/1/2013 - 6/30/2014

Wage Rate per Hour: \$47.72

Supplemental Benefit Rate per Hour: \$35.28

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.

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: 7/1/2013 - 12/31/2013

Wage Rate per Hour: \$44.32

Supplemental Benefit Rate per Hour: \$21.66

Effective Period: 1/1/2014 - 6/24/2014

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Wage Rate per Hour: \$44.82
Supplemental Benefit Rate per Hour: \$21.66

Effective Period: 6/25/2014 - 6/30/2014
Wage Rate per Hour: \$45.32
Supplemental Benefit Rate per Hour: \$21.66

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: 7/1/2013 - 6/30/2014
Wage Rate per Hour: \$35.94
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.

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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.

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: 7/1/2013 - 6/30/2014

Wage Rate per Hour: **\$38.49**

Supplemental Benefit Rate per Hour: **\$27.40**

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

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

Tile Layer - Setter

Effective Period: 7/1/2013 - 6/30/2014

Wage Rate per Hour: \$48.35

Supplemental Benefit Rate per Hour: \$31.44

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

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

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: 7/1/2013 - 6/30/2014

Wage Rate per Hour: \$42.63

Supplemental Benefit Rate per Hour: \$44.54

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

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 but will be paid 113% of the straight time hourly wage and the straight time supplemental benefits.

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 PREVAILING WAGE SCHEDULE

(Local #1536)

TUNNEL WORKER

Blasters, Mucking Machine Operators (Compressed Air Rates)

Effective Period: 7/1/2013 - 6/30/2014
Wage Rate per Hour: \$54.20
Supplemental Benefit Rate per Hour: \$48.20

Tunnel Workers (Compressed Air Rates)

Effective Period: 7/1/2013 - 6/30/2014
Wage Rate per Hour: \$52.31
Supplemental Benefit Rate per Hour: \$46.59

Top Nipper (Compressed Air Rates)

Effective Period: 7/1/2013 - 6/30/2014
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: 7/1/2013 - 6/30/2014
Wage Rate per Hour: \$50.42
Supplemental Benefit Rate per Hour: \$44.91

Bottom Bell & Top Bell Signal Person: Shaft Person (Compressed Air Rates)

Effective Period: 7/1/2013 - 6/30/2014
Wage Rate per Hour: \$50.42
Supplemental Benefit Rate per Hour: \$44.92

Changehouse Attendant: Powder Watchperson (Compressed Air Rates)

Effective Period: 7/1/2013 - 6/30/2014
Wage Rate per Hour: \$43.94
Supplemental Benefit Rate per Hour: \$42.55

Blasters (Free Air Rates)

Effective Period: 7/1/2013 - 6/30/2014
Wage Rate per Hour: \$51.72
Supplemental Benefit Rate per Hour: \$46.03

Tunnel Workers (Free Air Rates)

Effective Period: 7/1/2013 - 6/30/2014
Wage Rate per Hour: **\$49.48**
Supplemental Benefit Rate per Hour: **\$44.06**

All Others (Free Air Rates)

Effective Period: 7/1/2013 - 6/30/2014
Wage Rate per Hour: **\$45.73**
Supplemental Benefit Rate per Hour: **\$40.75**

Microtunneling (Free Air Rates)

Effective Period: 7/1/2013 - 6/30/2014
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
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.**

(NO TEXT ON THIS PAGE)

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.

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ASBESTOS HANDLER

(Ratio of Apprentice Journeyperson: 1 to 1, 1 to 3)

Asbestos Handler (First 1000 Hours)

Effective Period: 7/1/2013 - 6/30/2014
Wage Rate Per Hour: 78% of Journeyperson's rate
Supplemental Benefit Rate Per Hour: \$15.05

Asbestos Handler (Second 1000 Hours)

Effective Period: 7/1/2013 - 6/30/2014
Wage Rate Per Hour: 80% of Journeyperson's rate
Supplemental Benefit Rate Per Hour: \$15.05

Asbestos Handler (Third 1000 Hours)

Effective Period: 7/1/2013 - 6/30/2014
Wage Rate Per Hour: 83% of Journeyperson's rate
Supplemental Benefit Rate Per Hour: \$15.05

Asbestos Handler (Fourth 1000 Hours)

Effective Period: 7/1/2013 - 6/30/2014
Wage Rate Per Hour: 89% of Journeyperson's rate
Supplemental Benefit Rate Per Hour: \$15.05

(Local #78)

BOILERMAKER

(Ratio of Apprentice to Journeyperson: 1 to 1, 1 to 3)

Boilermaker (First Year)

Effective Period: 7/1/2013 - 12/31/2013
Wage Rate Per Hour: 65% of Journeyperson's rate
Supplemental Benefit Rate Per Hour: \$28.75

Effective Period: 1/1/2014 - 6/30/2014
Wage Rate Per Hour: 65% of Journeyperson's rate
Supplemental Benefit Rate Per Hour: \$29.74

Boilermaker (Second Year: 1st Six Months)

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 APPRENTICESHIP PREVAILING WAGE SCHEDULE

Effective Period: 7/1/2013 - 12/31/2013
Wage Rate Per Hour: 70% of Journeyperson's rate
Supplemental Benefit Rate Per Hour: \$30.33

Effective Period: 1/1/2014 - 6/30/2014
Wage Rate Per Hour: 75% of Journeyperson's rate
Supplemental Benefit Rate Per Hour: \$31.91

Boilermaker (Second Year: 2nd Six Months)

Effective Period: 7/1/2013 - 12/31/2013
Wage Rate Per Hour: 75% of Journeyperson's rate
Supplemental Benefit Rate Per Hour: \$31.91

Effective Period: 1/1/2014 - 6/30/2014
Wage Rate Per Hour: 75% of Journeyperson's rate
Supplemental Benefit Rate Per Hour: \$33.05

Boilermaker (Third Year: 1st Six Months)

Effective Period: 7/1/2013 - 12/31/2013
Wage Rate Per Hour: 80% of Journeyperson's rat
Supplemental Benefit Rate Per Hour: \$33.49

Effective Period: 1/1/2014 - 6/30/2014
Wage Rate Per Hour: 80% of Journeyperson's rat
Supplemental Benefit Rate Per Hour: \$34.69

Boilermaker (Third Year: 2nd Six Months)

Effective Period: 7/1/2013 - 12/31/2013
Wage Rate Per Hour: 85% of Journeyperson's rate
Supplemental Benefit Rate Per Hour: \$35.05

Effective Period: 1/1/2014 - 6/30/2014
Wage Rate Per Hour: 85% of Journeyperson's rate
Supplemental Benefit Rate Per Hour: \$36.34

Boilermaker (Fourth Year: 1st Six Months)

Effective Period: 7/1/2013 - 12/31/2013
Wage Rate Per Hour: 90% of Journeyperson's rate
Supplemental Benefit Rate Per Hour: \$36.63

Effective Period: 1/1/2014 - 6/30/2014
Wage Rate Per Hour: 90% of Journeyperson's rate
Supplemental Benefit Rate Per Hour: \$38.00

Boilermaker (Fourth Year: 2nd Six Months)

Effective Period: 7/1/2013 - 12/31/2013

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 APPRENTICESHIP PREVAILING WAGE SCHEDULE

Wage Rate Per Hour: 95% of Journeyperson's rate
Supplemental Benefit Rate Per Hour: \$38.20

Effective Period: 1/1/2014 - 6/30/2014

Wage Rate Per Hour: 95% of Journeyperson's rate
Supplemental Benefit Rate Per Hour: \$39.65

(Local #5)

BRICKLAYER

(Ratio of Apprentice to Journeyperson: 1 to 1, 1 to 4)

Bricklayer (First 750 Hours)

Effective Period: 7/1/2013 - 6/30/2014

Wage Rate Per Hour: 50% of Journeyperson's rate
Supplemental Benefit Rate Per Hour: \$16.60

Bricklayer (Second 750 Hours)

Effective Period: 7/1/2013 - 6/30/2014

Wage Rate Per Hour: 60% of Journeyperson's rate
Supplemental Benefit Rate Per Hour: \$16.60

Bricklayer (Third 750 Hours)

Effective Period: 7/1/2013 - 6/30/2014

Wage Rate Per Hour: 70% of Journeyperson's rate
Supplemental Benefit Rate Per Hour: \$16.60

Bricklayer (Fourth 750 Hours)

Effective Period: 7/1/2013 - 6/30/2014

Wage Rate Per Hour: 80% of Journeyperson's rate
Supplemental Benefit Rate Per Hour: \$16.60

Bricklayer (Fifth 750 Hours)

Effective Period: 7/1/2013 - 6/30/2014

Wage Rate Per Hour: 90% of Journeyperson's rate
Supplemental Benefit Rate Per Hour: \$16.60

Bricklayer (Sixth 750 Hours)

Effective Period: 7/1/2013 - 6/30/2014

Wage Rate Per Hour: 95% of Journeyperson's rate

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
\$220 APPRENTICESHIP PREVAILING WAGE SCHEDULE

Supplemental Benefit Rate Per Hour: \$16.60

(Bricklayer District Council)

CARPENTER

(Ratio of Apprentice to Journeyman: 1 to 1, 1 to 4)

Carpenter (First Year)

Effective Period: 7/1/2013 - 6/30/2014

Wage Rate Per Hour: 40% of Journeyman's rate

Supplemental Benefit Rate Per Hour: \$27.69

Effective 7/18/13 - Supplemental Benefit Rate Per Hour: \$30.29

Carpenter (Second Year)

Effective Period: 7/1/2013 - 6/30/2014

Wage Rate Per Hour: 50% of Journeyman's rate

Supplemental Benefit Rate Per Hour: \$27.69

Effective 7/18/13 - Supplemental Benefit Rate Per Hour: \$30.29

Carpenter (Third Year)

Effective Period: 7/1/2013 - 6/30/2014

Wage Rate Per Hour: 65% of Journeyman's rate

Supplemental Benefit Rate Per Hour: \$27.69

Effective 7/18/13 - Supplemental Benefit Rate Per Hour: \$30.29

Carpenter (Fourth Year)

Effective Period: 7/1/2013 - 6/30/2014

Wage Rate Per Hour: 80% of Journeyman's rate

Supplemental Benefit Rate Per Hour: \$27.69

Effective 7/18/13 - Supplemental Benefit Rate Per Hour: \$30.29

(Carpenters District Council)

CEMENT MASON

(Ratio of Apprentice to Journeyman: 1 to 1, 1 to 4)

Cement Mason (First Year)

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 APPRENTICESHIP PREVAILING WAGE SCHEDULE

Effective Period: 7/1/2013 - 6/30/2014

Wage and Supplemental Rate Per Hour: 50% of Journeyperson's Rate

Cement Mason (Second Year)

Effective Period: 7/1/2013 - 6/30/2014

Wage and Supplemental Rate Per Hour: 60% of Journeyperson's Rate

Cement Mason (Third Year)

Effective Period: 7/1/2013 - 6/30/2014

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: 7/1/2013 - 6/30/2014

Wage Rate Per Hour: 50% of Journeyperson's rate

Supplemental Benefit Rate Per Hour: \$18.04

Cement & Concrete Worker (501 - 1000 hours)

Effective Period: 7/1/2013 - 6/30/2014

Wage Rate Per Hour: 65% of Journeyperson's rate

Supplemental Benefit Rate Per Hour: \$18.87

Cement & Concrete Worker (1001 - 2000 hours)

Effective Period: 7/1/2013 - 6/30/2014

Wage Rate Per Hour: 65% of Journeyperson's rate

Supplemental Benefit Rate Per Hour: \$24.25

Cement & Concrete Worker (2001 - 4000 hours)

Effective Period: 7/1/2013 - 6/30/2014

Wage Rate Per Hour: 80% of Journeyperson'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 6)

Derrickperson & Rigger (stone) - First Year

Effective Period: 7/1/2013 - 6/30/2014
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: 7/1/2013 - 6/30/2014
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: 7/1/2013 - 6/30/2014
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: 7/1/2013 - 6/30/2014
Wage Rate Per Hour: 90% of Journeyman's rate
Supplemental Benefit Rate Per Hour: 75% of Journeyman's rate

(Local #197)

DOCKBUILDER/PILE DRIVER
(Ratio of Apprentice to Journeyman: 1 to 1, 1 to 6)

Dockbuilder/Pile Driver (First Year)

Effective Period: 7/1/2013 - 6/30/2014
Wage Rate Per Hour: 40% of Journeyman's rate
Supplemental Benefit Rate Per Hour: \$30.29

Dockbuilder/Pile Driver (Second Year)

Effective Period: 7/1/2013 - 6/30/2014
Wage Rate Per Hour: 50% of Journeyman's rate

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 APPRENTICESHIP PREVAILING WAGE SCHEDULE

Supplemental Benefit Rate Per Hour: \$30.29

Dockbuilder/Pile Driver (Third Year)

Effective Period: 7/1/2013 - 6/30/2014
Wage Rate Per Hour: 65% of Journeyperson's rate
Supplemental Benefit Rate Per Hour: \$30.29

Dockbuilder/Pile Driver (Fourth Year)

Effective Period: 7/1/2013 - 6/30/2014
Wage Rate Per Hour: 80% of Journeyperson's rate
Supplemental Benefit Rate Per Hour: \$30.29

(Carpenters District Council)

ELECTRICIAN

(Ratio of Apprentice to Journeyperson: 1 to 1, 1 to 3)

Electrician (First Year - Hired before 5/10/07)

Effective Period: 7/1/2013 - 5/13/2014
Wage Rate per Hour: \$15.25
Supplemental Benefit Rate per Hour: \$12.26
Overtime Wage Rate Per Hour: \$22.88
Overtime Supplemental Rate Per Hour: \$13.26

Effective Period: 5/14/2014 - 6/30/2014
Wage Rate per Hour: \$15.25
Supplemental Benefit Rate per Hour: \$12.51
Overtime Wage Rate Per Hour: \$22.88
Overtime Supplemental Rate Per Hour: \$13.51

Electrician (First Year - Hired on or After 5/10/07)

Effective Period: 7/1/2013 - 5/13/2014
Wage Rate per Hour: \$12.50
Supplemental Benefit Rate per Hour: \$10.86
Overtime Wage Rate Per Hour: \$18.75
Overtime Supplemental Rate Per Hour: \$11.68

Effective Period: 5/14/2014 - 6/30/2014
Wage Rate per Hour: \$12.50
Supplemental Benefit Rate per Hour: \$11.11
Overtime Wage Rate Per Hour: \$18.75
Overtime Supplemental Rate Per Hour: \$11.93

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
\$220 APPRENTICESHIP PREVAILING WAGE SCHEDULE

Electrician (Second Year - Hired before 5/10/07)

Effective Period: 7/1/2013 - 5/13/2014
Wage Rate per Hour: \$18.05
Supplemental Benefit Rate per Hour: \$13.68
Overtime Wage Rate Per Hour: \$27.08
Overtime Supplemental Rate Per Hour: \$14.87

Effective Period: 5/14/2014 - 6/30/2014
Wage Rate per Hour: \$18.05
Supplemental Benefit Rate per Hour: \$13.93
Overtime Wage Rate Per Hour: \$27.08
Overtime Supplemental Rate Per Hour: \$15.12

Electrician (Second Year - Hired on or After 5/10/07)

Effective Period: 7/1/2013 - 5/13/2014
Wage Rate per Hour: \$14.50
Supplemental Benefit Rate per Hour: \$11.88
Overtime Wage Rate Per Hour: \$21.75
Overtime Supplemental Rate Per Hour: \$12.83

Effective Period: 5/14/2014 - 6/30/2014
Wage Rate per Hour: \$14.50
Supplemental Benefit Rate per Hour: \$12.13
Overtime Wage Rate Per Hour: \$21.75
Overtime Supplemental Rate Per Hour: \$13.08

Electrician (Third Year - Hired before 5/10/07)

Effective Period: 7/1/2013 - 5/13/2014
Wage Rate per Hour: \$20.15
Supplemental Benefit Rate per Hour: \$14.75
Overtime Wage Rate Per Hour: \$30.23
Overtime Supplemental Rate Per Hour: \$16.08

Effective Period: 5/14/2014 - 6/30/2014
Wage Rate per Hour: \$20.15
Supplemental Benefit Rate per Hour: \$15.00
Overtime Wage Rate Per Hour: \$30.23
Overtime Supplemental Rate Per Hour: \$16.33

Electrician (Third Year - Hired on or After 5/10/07)

Effective Period: 7/1/2013 - 5/13/2014
Wage Rate per Hour: \$16.50
Supplemental Benefit Rate per Hour: \$12.89
Overtime Wage Rate Per Hour: \$24.75
Overtime Supplemental Rate Per Hour: \$13.98

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 APPRENTICESHIP PREVAILING WAGE SCHEDULE

Effective Period: 5/14/2014 - 6/30/2014

Wage Rate per Hour: \$16.50

Supplemental Benefit Rate per Hour: \$13.14

Overtime Wage Rate Per Hour: \$24.75

Overtime Supplemental Rate Per Hour: \$14.23

Electrician (Fourth Year - Hired before 5/10/07)

Effective Period: 7/1/2013 - 5/13/2014

Wage Rate per Hour: \$22.10

Supplemental Benefit Rate per Hour: \$15.74

Overtime Wage Rate Per Hour: \$33.15

Overtime Supplemental Rate Per Hour: \$17.20

Effective Period: 5/14/2014 - 6/30/2014

Wage Rate per Hour: \$22.10

Supplemental Benefit Rate per Hour: \$15.99

Overtime Wage Rate Per Hour: \$33.15

Overtime Supplemental Rate Per Hour: \$17.45

Electrician (Fourth Year - Hired on or After 5/10/07)

Effective Period: 7/1/2013 - 5/13/2014

Wage Rate per Hour: \$18.50

Supplemental Benefit Rate per Hour: \$13.91

Overtime Wage Rate Per Hour: \$27.75

Overtime Supplemental Rate Per Hour: \$15.13

Effective Period: 5/14/2014 - 6/30/2014

Wage Rate per Hour: \$18.50

Supplemental Benefit Rate per Hour: \$14.16

Overtime Wage Rate Per Hour: \$27.75

Overtime Supplemental Rate Per Hour: \$15.38

Electrician (Fifth Year - Hired before 5/10/07)

Effective Period: 7/1/2013 - 5/13/2014

Wage Rate per Hour: \$25.80

Supplemental Benefit Rate per Hour: \$19.21

Overtime Wage Rate Per Hour: \$38.70

Overtime Supplemental Rate Per Hour: \$20.83

Effective Period: 5/14/2014 - 6/30/2014

Wage Rate per Hour: \$26.30

Supplemental Benefit Rate per Hour: \$19.96

Overtime Wage Rate Per Hour: \$39.45

Overtime Supplemental Rate Per Hour: \$21.61

Electrician (Fifth Year - Hired on or After 5/10/07)

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 APPRENTICESHIP PREVAILING WAGE SCHEDULE

Effective Period: 7/1/2013 - 5/13/2014
Wage Rate per Hour: \$22.00
Supplemental Benefit Rate per Hour: \$17.30
Overtime Wage Rate Per Hour: \$33.00
Overtime Supplemental Rate Per Hour: \$18.68

Effective Period: 5/14/2014 - 6/30/2014
Wage Rate per Hour: \$22.50
Supplemental Benefit Rate per Hour: \$18.05
Overtime Wage Rate Per Hour: \$33.75
Overtime Supplemental Rate Per Hour: \$19.46

Overtime Description

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: 7/1/2013 - 6/30/2014
Wage Rate Per Hour: 50% of Journeyman's rate
Supplemental Rate Per Hour: \$26.87

Elevator (Constructor) - Second Year

Effective Period: 7/1/2013 - 6/30/2014
Wage Rate Per Hour: 55% of Journeyman's rate
Supplemental Rate Per Hour: \$27.92

Elevator (Constructor) - Third Year

Effective Period: 7/1/2013 - 6/30/2014
Wage Rate Per Hour: 65% of Journeyman's rate
Supplemental Rate Per Hour: \$29.38

Elevator (Constructor) - Fourth Year

Effective Period: 7/1/2013 - 6/30/2014
Wage Rate Per Hour: 75% of Journeyman's rate
Supplemental Rate Per Hour: \$30.84

(Local #1)

ELEVATOR REPAIR & MAINTENANCE
(Ratio of Apprentice to Journeyman: 1 to 1, 1 to 2)

Elevator Service/Modernization Mechanic (First Year)

Effective Period: 7/1/2013 - 6/30/2014
Wage Rate Per Hour: 50% of Journeyman's rate
Supplemental Benefit Per Hour: \$26.79

Elevator Service/Modernization Mechanic (Second Year)

Effective Period: 7/1/2013 - 6/30/2014
Wage Rate Per Hour: 55% of Journeyman's rate
Supplemental Benefit Per Hour: \$27.12

Elevator Service/Modernization Mechanic (Third Year)

Effective Period: 7/1/2013 - 6/30/2014
Wage Rate Per Hour: 65% of Journeyman's rate
Supplemental Benefit Per Hour: \$28.43

Elevator Service/Modernization Mechanic (Fourth Year)

Effective Period: 7/1/2013 - 6/30/2014
Wage Rate Per Hour: 75% of Journeyman's rate
Supplemental Benefit Per Hour: \$29.74

(Local #1)

ENGINEER
(Ratio of Apprentice to Journeyman: 1 to 1, 1 to 5)

Engineer - First Year

Effective Period: 7/1/2013 - 6/30/2014
Wage Rate per Hour: \$22.49
Supplemental Benefit Rate per Hour: \$20.68

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
\$220 APPRENTICESHIP PREVAILING WAGE SCHEDULE

Engineer - Second Year

Effective Period: 7/1/2013 - 6/30/2014
Wage Rate per Hour: \$28.11
Supplemental Benefit Rate per Hour: \$20.68

Engineer - Third Year

Effective Period: 7/1/2013 - 6/30/2014
Wage Rate per Hour: \$20.92
Supplemental Benefit Rate per Hour: \$20.68

Engineer - Fourth Year

Effective Period: 7/1/2013 - 6/30/2014
Wage Rate per Hour: \$33.73
Supplemental Benefit Rate per Hour: \$20.68

(Local #15)

ENGINEER - OPERATING
(Ratio of Apprentice to Journeyperson: 1 to 1, 1 to 5)

Operating Engineer - First Year

Effective Period: 7/1/2013 - 6/30/2014
Wage Rate Per Hour 40% of Journeyperson's Rate
Supplemental Benefit Per Hour: \$18.60

Operating Engineer - Second Year

Effective Period: 7/1/2013 - 6/30/2014
Wage Rate Per Hour: 50% of Journeyperson's Rate
Supplemental Benefit Per Hour: \$18.60

Operating Engineer - Third Year

Effective Period: 7/1/2013 - 6/30/2014
Wage Rate Per Hour: 60% of Journeyperson'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)

Effective Period: 7/1/2013 - 6/30/2014
Wage Rate Per Hour: 40% of Journeyman's rate
Supplemental Rate Per Hour: \$25.75

Floor Coverer (Second Year)

Effective Period: 7/1/2013 - 6/30/2014
Wage Rate Per Hour: 50% of Journeyman's rate
Supplemental Rate Per Hour: \$25.75

Floor Coverer (Third Year)

Effective Period: 7/1/2013 - 6/30/2014
Wage Rate Per Hour: 65% of Journeyman's rate
Supplemental Rate Per Hour: \$25.75

Floor Coverer (Fourth Year)

Effective Period: 7/1/2013 - 6/30/2014
Wage Rate Per Hour: 80% of Journeyman's rate
Supplemental Rate Per Hour: \$25.75

(Carpenters District Council)

GLAZIER

(Ratio of Apprentice to Journeyman: 1 to 1, 1 to 3)

Glazier (First Year)

Effective Period: 7/1/2013 - 6/30/2014
Wage Rate Per Hour: 40% of Journeyman's rate
Supplemental Rate Per Hour: \$11.97

Glazier (Second Year)

Effective Period: 7/1/2013 - 6/30/2014
Wage Rate Per Hour: 50% of Journeyman's rate
Supplemental Rate Per Hour: \$21.13

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 APPRENTICESHIP PREVAILING WAGE SCHEDULE

Glazier (Third Year)

Effective Period: 7/1/2013 - 6/30/2014
Wage Rate Per Hour: 60% of Journeyman's rate
Supplemental Rate Per Hour: \$23.54

Glazier (Fourth Year)

Effective Period: 7/1/2013 - 6/30/2014
Wage Rate Per Hour: 80% of Journeyman's rate
Supplemental Rate Per Hour: \$28.34

(Local #1281)

**HEAT & FROST INSULATOR
(Ratio of Apprentice to Journeyman: 1 to 1, 1 to 4)**

Heat & Frost Insulator (First Year)

Effective Period: 7/1/2013 - 6/30/2014
Wage and Supplemental Rate Per Hour: 40% of Journeyman's rate

Heat & Frost Insulator (Second Year)

Effective Period: 7/1/2013 - 6/30/2014
Wage and Supplemental Rate Per Hour: 60% of Journeyman's rate

Heat & Frost Insulator (Third Year)

Effective Period: 7/1/2013 - 6/30/2014
Wage and Supplemental Rate Per Hour: 70% of Journeyman's rate

Heat & Frost Insulator (Fourth Year)

Effective Period: 7/1/2013 - 6/30/2014
Wage and Supplemental Rate Per Hour: 80% of Journeyman'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: 7/1/2013 - 6/30/2014
Wage Rate per Hour: \$20.36
Supplemental Benefit Rate per Hour: \$16.35

House Wrecker - Second Year

Effective Period: 7/1/2013 - 6/30/2014
Wage Rate per Hour: \$21.46
Supplemental Benefit Rate per Hour: \$16.35

House Wrecker - Third Year

Effective Period: 7/1/2013 - 6/30/2014
Wage Rate per Hour: \$23.01
Supplemental Benefit Rate per Hour: \$16.35

House Wrecker - Fourth Year

Effective Period: 7/1/2013 - 6/30/2014
Wage Rate per Hour: \$25.36
Supplemental Benefit Rate per Hour: \$16.35

(Local #79)

IRON WORKER - ORNAMENTAL

(Ratio of Apprentice to Journeyperson: 1 to 1, 1 to 4)

Iron Worker (Ornamental) - 1st Four Months - Hired on or Before 8/1/08

Effective Period: 7/1/2013 - 6/30/2014
Wage Rate Per Hour: 60% of Journeyperson's rate
Supplemental Rate Per Hour: \$35.78

Iron Worker (Ornamental) 5 - 10 Months - Hired on or Before 8/1/08

Effective Period: 7/1/2013 - 6/30/2014
Wage Rate Per Hour: 65% of Journeyperson's rate
Supplemental Rate Per Hour: \$36.75

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 APPRENTICESHIP PREVAILING WAGE SCHEDULE

Iron Worker (Ornamental) 11 - 16 Months - Hired on or Before 8/1/08

Effective Period: 7/1/2013 - 6/30/2014
Wage Rate Per Hour: 70% of Journeyperson's rate
Supplemental Rate Per Hour: \$37.72

Iron Worker (Ornamental) 17 - 22 Months - Hired on or Before 8/1/08

Effective Period: 7/1/2013 - 6/30/2014
Wage Rate Per Hour: 80% of Journeyperson's rate
Supplemental Rate Per Hour: \$39.66

Iron Worker (Ornamental) 23 - 28 Months - Hired on or Before 8/1/08

Effective Period: 7/1/2013 - 6/30/2014
Wage Rate Per Hour: 85% of Journeyperson's rate
Supplemental Rate Per Hour: \$40.63

Iron Worker (Ornamental) 29 - 36 Months - Hired on or Before 8/1/08

Effective Period: 7/1/2013 - 6/30/2014
Wage Rate Per Hour: 95% of Journeyperson's rate
Supplemental Rate Per Hour: \$42.57

Iron Worker (Ornamental) - 1st Ten Months - Hired After 8/1/08

Effective Period: 7/1/2013 - 6/30/2014
Wage Rate Per Hour: 50% of Journeyperson's rate
Supplemental Rate Per Hour: \$33.84

Iron Worker (Ornamental) - 11 - 16 Months - Hired After 8/1/08

Effective Period: 7/1/2013 - 6/30/2014
Wage Rate Per Hour: 55% of Journeyperson's rate
Supplemental Rate Per Hour: \$34.81

Iron Worker (Ornamental) - 17 - 22 Months - Hired After 8/1/08

Effective Period: 7/1/2013 - 6/30/2014
Wage Rate Per Hour: 60% of Journeyperson's rate
Supplemental Rate Per Hour: \$35.78

Iron Worker (Ornamental) - 23 - 28 Months - Hired After 8/1/08

Effective Period: 7/1/2013 - 6/30/2014
Wage Rate Per Hour: 70% of Journeyperson's rate
Supplemental Rate Per Hour: \$37.72

Iron Worker (Ornamental) - 29 - 36 Months - Hired After 8/1/08

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§220 APPRENTICESHIP PREVAILING WAGE SCHEDULE

Effective Period: 7/1/2013 - 6/30/2014
Wage Rate Per Hour: 80% of Journeyman's rate
Supplemental Rate Per Hour: \$39.66

(Local #580)

IRON WORKER - STRUCTURAL
(Ratio of Apprentice to Journeyman: 1 to 1, 1 to 6)

Iron Worker (Structural) - 1st Six Months

Effective Period: 7/1/2013 - 6/30/2014
Wage Rate per Hour: \$24.48
Supplemental Benefit Rate per Hour: \$43.87

Iron Worker (Structural) - 7- 18 Months

Effective Period: 7/1/2013 - 6/30/2014
Wage Rate per Hour: \$25.08
Supplemental Benefit Rate per Hour: \$43.87

Iron Worker (Structural) - 19 - 36 months

Effective Period: 7/1/2013 - 6/30/2014
Wage Rate per Hour: \$25.68
Supplemental Benefit Rate per Hour: \$43.87

(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: 7/1/2013 - 6/30/2014
Wage Rate Per Hour: 50% of Journeyman's rate
Supplemental Rate Per Hour: \$33.25

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§220 APPRENTICESHIP PREVAILING WAGE SCHEDULE

**Laborer (Foundation, Concrete, Excavating, Street Pipe Layer & Common) -
Second 1000 hours**

Effective Period: 7/1/2013 - 6/30/2014
Wage Rate Per Hour: 60% of Journeyperson's rate
Supplemental Rate Per Hour: \$33.25

**Laborer (Foundation, Concrete, Excavating, Street Pipe Layer & Common) -
Third 1000 hours**

Effective Period: 7/1/2013 - 6/30/2014
Wage Rate Per Hour: 75% of Journeyperson's rate
Supplemental Rate Per Hour: \$33.25

**Laborer (Foundation, Concrete, Excavating, Street Pipe Layer & Common) -
Fourth 1000 hours**

Effective Period: 7/1/2013 - 6/30/2014
Wage Rate Per Hour: 90% of Journeyperson's rate
Supplemental Rate Per Hour: \$33.25

(Local #731)

**MARBLE MECHANICS
(Ratio of Apprentice to Journeyperson: 1 to 1, 1 to 4)**

Cutters & Setters - First 750 Hours

Effective Period: 7/1/2013 - 6/30/2014
Wage and Supplemental Rate Per Hour: 50% of Journeyperson's rate

NO BENEFITS PAID DURING THE FIRST TWO MONTHS (PROBATIONARY PERIOD)

Cutters & Setters - Second 750 Hours

Effective Period: 7/1/2013 - 6/30/2014
Wage and Supplemental Rate Per Hour: 55% of Journeyperson's rate

Cutters & Setters - Third 750 Hours

Effective Period: 7/1/2013 - 6/30/2014
Wage and Supplemental Rate Per Hour: 65% of Journeyperson's rate

Cutters & Setters - Fourth 750 Hours

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§220 APPRENTICESHIP PREVAILING WAGE SCHEDULE

Effective Period: 7/1/2013 - 6/30/2014

Wage and Supplemental Rate Per Hour: 75% of Journeyperson's rate

Cutters & Setters - Fifth 750 Hours

Effective Period: 7/1/2013 - 6/30/2014

Wage and Supplemental Rate Per Hour: 85% of Journeyperson's rate

Cutters & Setters - Sixth 750 Hours

Effective Period: 7/1/2013 - 6/30/2014

Wage and Supplemental Rate Per Hour: 95% of Journeyperson's rate

Polishers & Finishers - First 750 Hours

Effective Period: 7/1/2013 - 6/30/2014

Wage and Supplemental Rate Per Hour: 50% of Journeyperson's rate

NO BENEFITS PAID DURING THE FIRST TWO MONTHS (PROBATIONARY PERIOD)

Polishers & Finishers - Second 750 Hours

Effective Period: 7/1/2013 - 6/30/2014

Wage and Supplemental Rate Per Hour: 60% of Journeyperson's rate

Polishers & Finishers - Third 750 Hours

Effective Period: 7/1/2013 - 6/30/2014

Wage and Supplemental Rate Per Hour: 75% of Journeyperson's rate

Polishers & Finishers - Fourth 750 Hours

Effective Period: 7/1/2013 - 6/30/2014

Wage and Supplemental Rate Per Hour: 90% of Journeyperson's rate

(Local #7)

MASON TENDER

(Ratio of Apprentice to Journeyperson: 1 to 1, 1 to 3)

Mason Tender - First Year

Effective Period: 7/1/2013 - 6/30/2014

Wage Rate per Hour: \$20.63

Supplemental Benefit Rate per Hour: \$17.06

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\$220 APPRENTICESHIP PREVAILING WAGE SCHEDULE

Mason Tender - Second Year

Effective Period: 7/1/2013 - 6/30/2014
Wage Rate per Hour: \$21.73
Supplemental Benefit Rate per Hour: \$17.06

Mason Tender - Third Year

Effective Period: 7/1/2013 - 6/30/2014
Wage Rate per Hour: \$23.33
Supplemental Benefit Rate per Hour: \$17.06

Mason Tender - Fourth Year

Effective Period: 7/1/2013 - 6/30/2014
Wage Rate per Hour: \$25.93
Supplemental Benefit Rate per Hour: \$17.06

(Local #79)

METALLIC LATHER
(Ratio of Apprentice to Journeyperson: 1 to 1, 1 to 3)

Metallic Lather (First Year -Called Prior to 6/29/11)

Effective Period: 7/1/2013 - 6/30/2014
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: 7/1/2013 - 6/30/2014
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: 7/1/2013 - 6/30/2014
Wage Rate per Hour: \$37.77
Supplemental Benefit Rate per Hour: \$25.59

Metallic Lather (First Year -Called On Or After 6/29/11)

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§220 APPRENTICESHIP PREVAILING WAGE SCHEDULE

Effective Period: 7/1/2013 - 6/30/2014

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: 7/1/2013 - 6/30/2014

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: 7/1/2013 - 6/30/2014

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: 7/1/2013 - 6/30/2014

Wage Rate per Hour: \$26.23

Supplemental Benefit Rate per Hour: \$31.51

Millwright (Second Year)

Effective Period: 7/1/2013 - 6/30/2014

Wage Rate per Hour: \$31.00

Supplemental Benefit Rate per Hour: \$34.77

Millwright (Third Year)

Effective Period: 7/1/2013 - 6/30/2014

Wage Rate per Hour: \$35.77

Supplemental Benefit Rate per Hour: \$39.19

Millwright (Fourth Year)

Effective Period: 7/1/2013 - 6/30/2014

Wage Rate per Hour: \$45.30

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\$220 APPRENTICESHIP PREVAILING WAGE SCHEDULE

Supplemental Benefit Rate per Hour: \$44.63

(Local #740)

PAVER AND ROADBUILDER
(Ratio of Apprentice to Journeyperson: 1 to 1, 1 to 3)

Paver and Roadbuilder - First Year (Minimum 1000 hours)

Effective Period: 7/1/2013 - 6/30/2014
Wage Rate per Hour: \$26.19
Supplemental Benefit Rate per Hour: \$16.20

Paver and Roadbuilder - Second Year (Minimum 1000 hours)

Effective Period: 7/1/2013 - 6/30/2014
Wage Rate per Hour: \$27.77
Supplemental Benefit Rate per Hour: \$16.20

(Local #1010)

PAINTER
(Ratio of Apprentice to Journeyperson: 1 to 1, 1 to 3)

Painter - Brush & Roller - First Year

Effective Period: 7/1/2013 - 4/30/2014
Wage Rate per Hour: \$15.00
Supplemental Benefit Rate per Hour: \$11.38

Effective Period: 5/1/2014 - 6/30/2014
Wage Rate per Hour: \$15.80
Supplemental Benefit Rate per Hour: \$11.88

Painter - Brush & Roller - Second Year

Effective Period: 7/1/2013 - 4/30/2014
Wage Rate per Hour: \$18.75
Supplemental Benefit Rate per Hour: \$15.23

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Effective Period: 5/1/2014 - 6/30/2014

Wage Rate per Hour: \$19.75

Supplemental Benefit Rate per Hour: \$15.73

Painter - Brush & Roller - Third Year

Effective Period: 7/1/2013 - 4/30/2014

Wage Rate per Hour: \$22.50

Supplemental Benefit Rate per Hour: \$18.14

Effective Period: 5/1/2014 - 6/30/2014

Wage Rate per Hour: \$23.70

Supplemental Benefit Rate per Hour: \$18.64

Painter - Brush & Roller - Fourth Year

Effective Period: 7/1/2013 - 4/30/2014

Wage Rate per Hour: \$30.00

Supplemental Benefit Rate per Hour: \$23.52

Effective Period: 5/1/2014 - 6/30/2014

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: 7/1/2013 - 6/30/2014

Wage and Supplemental Rate Per Hour: 40% of Journeyman's rate

Painters - Structural Steel (Second Year)

Effective Period: 7/1/2013 - 6/30/2014

Wage and Supplemental Rate Per Hour: 60% of Journeyman's rate

Painters - Structural Steel (Third Year)

Effective Period: 7/1/2013 - 6/30/2014

Wage and Supplemental Rate Per Hour: 80% of Journeyman's rate

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§220 APPRENTICESHIP PREVAILING WAGE SCHEDULE

(Local #806)

PLASTERER

(Ratio of Apprentice to Journeyman: 1 to 1, 1 to 3)

Plasterer - First Year: 1st Six Months

Effective Period: 7/1/2013 - 6/30/2014
Wage Rate Per Hour: 40% of Journeyman's rate
Supplemental Rate Per Hour: \$12.76

Plasterer - First Year: 2nd Six Months

Effective Period: 7/1/2013 - 6/30/2014
Wage Rate Per Hour: 45% of Journeyman's rate
Supplemental Rate Per Hour: \$13.24

Plasterer - Second Year: 1st Six Months

Effective Period: 7/1/2013 - 6/30/2014
Wage Rate Per Hour: 55% of Journeyman's rate
Supplemental Rate Per Hour: \$15.21

Plasterer - Second Year: 2nd Six Months

Effective Period: 7/1/2013 - 6/30/2014
Wage Rate Per Hour: 60% of Journeyman's rate
Supplemental Rate Per Hour: \$16.29

Plasterer - Third Year: 1st Six Months

Effective Period: 7/1/2013 - 6/30/2014
Wage Rate Per Hour: 70% of Journeyman's rate
Supplemental Rate Per Hour: \$18.46

Plasterer - Third Year: 2nd Six Months

Effective Period: 7/1/2013 - 6/30/2014
Wage Rate Per Hour: 75% of Journeyman's rate
Supplemental Rate Per Hour: \$19.54

(Local #530)

PLUMBER

(Ratio of Apprentice to Journeyman: 1 to 1, 1 to 3)

Plumber - First Year: 1st Six Months

Effective Period: 7/1/2013 - 6/30/2014
Wage Rate per Hour: \$14.00
Supplemental Benefit Rate per Hour: \$0.71

Plumber - First Year: 2nd Six Months

Effective Period: 7/1/2013 - 6/30/2014
Wage Rate per Hour: \$14.00
Supplemental Benefit Rate per Hour: \$2.96

Plumber - Second Year

Effective Period: 7/1/2013 - 6/30/2014
Wage Rate per Hour: \$17.96
Supplemental Benefit Rate per Hour: \$16.25

Plumber - Third Year

Effective Period: 7/1/2013 - 6/30/2014
Wage Rate per Hour: \$20.06
Supplemental Benefit Rate per Hour: \$16.25

Plumber - Fourth Year

Effective Period: 7/1/2013 - 6/30/2014
Wage Rate per Hour: \$22.91
Supplemental Benefit Rate per Hour: \$16.25

Plumber - Fifth Year: 1st Six Months

Effective Period: 7/1/2013 - 6/30/2014
Wage Rate per Hour: \$24.31
Supplemental Benefit Rate per Hour: \$16.25

Plumber - Fifth Year: 2nd Six Months

Effective Period: 7/1/2013 - 6/30/2014
Wage Rate per Hour: \$36.38
Supplemental Benefit Rate per Hour: \$16.25

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§220 APPRENTICESHIP PREVAILING WAGE SCHEDULE

(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: 7/1/2013 - 6/30/2014

Wage Rate per Hour: \$25.00

Supplemental Benefit Rate per Hour: \$3.64

Pointer - Waterproofer, Caulker Mechanic - Second Year

Effective Period: 7/1/2013 - 6/30/2014

Wage Rate per Hour: \$27.25

Supplemental Benefit Rate per Hour: \$8.59

Pointer - Waterproofer, Caulker Mechanic - Third Year

Effective Period: 7/1/2013 - 6/30/2014

Wage Rate per Hour: \$32.23

Supplemental Benefit Rate per Hour: \$11.34

Pointer - Waterproofer, Caulker Mechanic - Fourth Year

Effective Period: 7/1/2013 - 6/30/2014

Wage Rate per Hour: \$38.66

Supplemental Benefit Rate per Hour: \$11.34

(Bricklayer District Council)

ROOFER

(Ratio of Apprentice to Journeyman: 1 to 1, 1 to 2)

Roofer - First Year

Effective Period: 7/1/2013 - 6/30/2014

Wage and Supplemental Rate Per Hour: 35% of Journeyman's Rate

Roofer - Second Year

Effective Period: 7/1/2013 - 6/30/2014
Wage and Supplemental Rate Per Hour: 50% of Journeyperson's Rate

Roofer - Third Year

Effective Period: 7/1/2013 - 6/30/2014
Wage and Supplemental Rate Per Hour: 60% of Journeyperson's Rate

Roofer - Fourth Year

Effective Period: 7/1/2013 - 6/30/2014
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 - First Year

Effective Period: 7/1/2013 - 6/30/2014
Wage Rate Per Hour: 30% of Journeyperson's rate
Supplemental Rate Per Hour: \$15.37

Sheet Metal Worker - Second Year

Effective Period: 7/1/2013 - 6/30/2014
Wage Rate Per Hour: 35% of Journeyperson's rate
Supplemental Rate Per Hour: \$18.24

Sheet Metal Worker - Third Year (1st Six Months)

Effective Period: 7/1/2013 - 6/30/2014
Wage Rate Per Hour: 40% of Journeyperson's rate
Supplemental Rate Per Hour: \$20.06

Sheet Metal Worker - Third Year (2nd Six Months)

Effective Period: 7/1/2013 - 6/30/2014
Wage Rate Per Hour: 45% of Journeyperson's rate
Supplemental Rate Per Hour: \$21.87

Sheet Metal Worker - Fourth Year (1st Six Months)

Effective Period: 7/1/2013 - 6/30/2014
Wage Rate Per Hour: 50% of Journeyman's rate
Supplemental Rate Per Hour: \$23.69

Sheet Metal Worker - Fourth Year (2nd Six Months)

Effective Period: 7/1/2013 - 6/30/2014
Wage Rate Per Hour: 55% of Journeyman's rate
Supplemental Rate Per Hour: \$25.33

Sheet Metal Worker - Fifth Year (1st Six Months)

Effective Period: 7/1/2013 - 6/30/2014
Wage Rate Per Hour: 60% of Journeyman's rate
Supplemental Rate Per Hour: \$27.47

Sheet Metal Worker - Fifth Year (2nd Six Months)

Effective Period: 7/1/2013 - 6/30/2014
Wage Rate Per Hour: 70% of Journeyman's rate
Supplemental Rate Per Hour: \$31.23

(Local #28)

SIGN ERECTOR

(Ratio of Apprentice to Journeyman: 1 to 1, 1 to 4)

Sign Erector - First Year: 1st Six Months

Effective Period: 7/1/2013 - 6/30/2014
Wage Rate Per Hour: 35% of Journeyman's rate
Supplemental Rate Per Hour: \$5.96

Sign Erector - First Year: 2nd Six Months

Effective Period: 7/1/2013 - 6/30/2014
Wage Rate Per Hour: 40% of Journeyman's rate
Supplemental Rate Per Hour: \$6.75

Sign Erector - Second Year: 1st Six Months

Effective Period: 7/1/2013 - 6/30/2014
Wage Rate Per Hour: 45% of Journeyman's rate
Supplemental Rate Per Hour: \$7.55

Sign Erector - Second Year: 2nd Six Months

Effective Period: 7/1/2013 - 6/30/2014
Wage Rate Per Hour: 50% of Journeyperson's rate
Supplemental Rate Per Hour: \$8.34

Sign Erector - Third Year: 1st Six Months

Effective Period: 7/1/2013 - 6/30/2014
Wage Rate Per Hour: 55% of Journeyperson's rate
Supplemental Rate Per Hour: \$9.13

Sign Erector - Third Year: 2nd Six Months

Effective Period: 7/1/2013 - 6/30/2014
Wage Rate Per Hour: 60% of Journeyperson's rate
Supplemental Rate Per Hour: \$9.92

Sign Erector - Fourth Year: 1st Six Months

Effective Period: 7/1/2013 - 6/30/2014
Wage Rate Per Hour: 65% of Journeyperson's rate
Supplemental Rate Per Hour: \$10.72

Sign Erector - Fourth Year: 2nd Six Months

Effective Period: 7/1/2013 - 6/30/2014
Wage Rate Per Hour: 70% of Journeyperson's rate
Supplemental Rate Per Hour: \$11.51

Sign Erector - Fifth Year

Effective Period: 7/1/2013 - 6/30/2014
Wage Rate Per Hour: 75% of Journeyperson's rate
Supplemental Rate Per Hour: \$12.30

Sign Erector - Sixth Year

Effective Period: 7/1/2013 - 6/30/2014
Wage Rate Per Hour: 80% of Journeyperson's rate
Supplemental Rate Per Hour: \$12.30

(Local #137)

STEAMFITTER

(Ratio of Apprentice to Journeyperson: 1 to 1, 1 to 3)

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Steamfitter - First Year

Effective Period: 7/1/2013 - 6/30/2014

Wage Rate and Supplemental Per Hour: 40% of Journeyperson's rate

Steamfitter - Second Year

Effective Period: 7/1/2013 - 6/30/2014

Wage Rate and Supplemental Rate Per Hour: 50% of Journeyperson's rate.

Steamfitter - Third Year

Effective Period: 7/1/2013 - 6/30/2014

Wage Rate and Supplemental Rate per Hour: 65% of Journeyperson's rate.

Steamfitter - Fourth Year

Effective Period: 7/1/2013 - 6/30/2014

Wage Rate and Supplemental Rate Per Hour: 80% of Journeyperson's rate.

Steamfitter - Fifth Year

Effective Period: 7/1/2013 - 6/30/2014

Wage Rate and Supplemental Rate Per Hour: 85% of Journeyperson's rate.

(Local #638)

STONE MASON - SETTER

(Ratio Apprentice of Journeyperson: 1 to 1, 1 to 2)

Stone Mason - Setters - First 750 Hours

Effective Period: 7/1/2013 - 6/30/2014

Wage and Supplemental Rate Per Hour: 50% of Journeyperson's rate

Stone Mason - Setters - Second 750 Hours

Effective Period: 7/1/2013 - 6/30/2014

Wage Rate Per Hour: 60% of Journeyperson's rate

Supplemental Rate Per Hour: 50% of Journeyperson's rate

Stone Mason - Setters - Third 750 Hours

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Effective Period: 7/1/2013 - 6/30/2014
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: 7/1/2013 - 6/30/2014
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: 7/1/2013 - 6/30/2014
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: 7/1/2013 - 6/30/2014
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: 7/1/2013 - 6/30/2014
Wage and Supplemental Rate Per Hour: 40% of Journeyperson's rate

Drywall Taper - Second Year

Effective Period: 7/1/2013 - 6/30/2014
Wage and Supplemental Rate Per Hour: 60% of Journeyperson's rate

Drywall Taper - Third Year

Effective Period: 7/1/2013 - 6/30/2014
Wage and Supplemental Rate Per Hour: 80% of Journeyperson's rate

(Local #1974)

TILE LAYER - SETTER
(Ratio of Apprentice to Journeyman: 1 to 1, 1 to 4)

Tile Layer - Setter - First 750 Hours

Effective Period: 7/1/2013 - 6/30/2014
Wage and Supplemental Rate Per Hour: 50% of Journeyman's rate

Tile Layer - Setter - Second 750 Hours

Effective Period: 7/1/2013 - 6/30/2014
Wage and Supplemental Rate Per Hour: 55% of Journeyman's rate

Tile Layer - Setter - Third 750 Hours

Effective Period: 7/1/2013 - 6/30/2014
Wage and Supplemental Rate Per Hour: 65% of Journeyman's rate

Tile Layer - Setter - Fourth 750 Hours

Effective Period: 7/1/2013 - 6/30/2014
Wage and Supplemental Rate Per Hour: 75% of Journeyman's rate

Tile Layer - Setter - Fifth 750 Hours

Effective Period: 7/1/2013 - 6/30/2014
Wage and Supplemental Rate Per Hour: 85% of Journeyman's rate

Tile Layer - Setter - Sixth 750 Hours

Effective Period: 7/1/2013 - 6/30/2014
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)

Timberperson - First Year

Effective Period: 7/1/2013 - 6/30/2014
Wage Rate Per Hour: 40% of Journeyman's rate

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§220 APPRENTICESHIP PREVAILING WAGE SCHEDULE

Supplemental Rate Per Hour: \$30.04

Timberperson - Second Year

Effective Period: 7/1/2013 - 6/30/2014
Wage Rate Per Hour: 50% of Journeyperson's rate
Supplemental Rate Per Hour: \$30.04

Timberperson - Third Year

Effective Period: 7/1/2013 - 6/30/2014
Wage Rate Per Hour: 65% of Journeyperson's rate
Supplemental Rate Per Hour: \$30.04

Timberperson - Fourth Year

Effective Period: 7/1/2013 - 6/30/2014
Wage Rate Per Hour: 80% of Journeyperson's rate
Supplemental Rate Per Hour: \$30.04

(Local #1536)

(NO TEXT ON THIS PAGE)

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.

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.

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.

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§6-109 PREVAILING WAGE SCHEDULE

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

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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: 7/1/2013 - 6/30/2014

Wage Rate per Hour: \$10.00

Supplemental Benefit Rate per Hour: \$1.50

(NYC Administrative Code §6-109)

FOOD SERVICE EMPLOYEES

Cook

Effective Period: 7/1/2013 - 6/30/2014

Wage Rate per Hour: \$15.62

Supplemental Benefit Rate per Hour: \$1.72

Cafeteria Attendant

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§6-109 PREVAILING WAGE SCHEDULE

Effective Period: 7/1/2013 - 6/30/2014
Wage Rate per Hour: \$10.48
Supplemental Benefit Rate per Hour: \$1.72

Counter Attendant

Effective Period: 7/1/2013 - 6/30/2014
Wage Rate per Hour: \$9.95
Supplemental Benefit Rate per Hour: \$1.72

Kitchen Helper / Dishwasher

Effective Period: 7/1/2013 - 6/30/2014
Wage Rate per Hour: \$9.60
Supplemental Benefit Rate per Hour: \$1.72

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: 7/1/2013 - 6/30/2014
Wage Rate per Hour: \$10.00
Supplemental Benefit Rate per Hour: \$1.50

(NYC Administrative Code §6-109)

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: 7/1/2013 - 6/30/2014

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.

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§6-109 PREVAILING WAGE SCHEDULE

Effective Period: 7/1/2013 - 6/30/2014
Wage Rate per Hour: \$10.00
Supplemental Benefit Rate per Hour: \$1.50

(NYC Administrative Code §6-109)

TEMPORARY OFFICE SERVICES

Administrative Assistant

Effective Period: 7/1/2013 - 6/30/2014
Wage Rate per Hour: \$32.83
Supplemental Benefit Rate per Hour: None

Cashier

Effective Period: 7/1/2013 - 6/30/2014
Wage Rate per Hour: \$11.50
Supplemental Benefit Rate per Hour: None

Clerk (various)

Effective Period: 7/1/2013 - 6/30/2014
Wage Rate per Hour: \$14.86
Supplemental Benefit Rate per Hour: None

Computer Assistant

Effective Period: 7/1/2013 - 6/30/2014
Wage Rate per Hour: \$21.23
Supplemental Benefit Rate per Hour: None

Data Entry Operator

Effective Period: 7/1/2013 - 6/30/2014
Wage Rate per Hour: \$16.21
Supplemental Benefit Rate per Hour: None

Receptionist

Effective Period: 7/1/2013 - 6/30/2014
Wage Rate per Hour: \$14.88
Supplemental Benefit Rate per Hour: None

Secretary (various)

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§6-109 PREVAILING WAGE SCHEDULE

Effective Period: 7/1/2013 - 6/30/2014
Wage Rate per Hour: \$18.66
Supplemental Benefit Rate per Hour: None

Word Processor

Effective Period: 7/1/2013 - 6/30/2014
Wage Rate per Hour: \$20.02
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.



Leonard A. Mancusi
SENIOR ASSISTANT COMPTROLLER

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) 669-8495

ALAN G. HEVESI
COMPTROLLER

MEMORANDUM

November 6, 2000

To Agency Chief Contracting Officers

From: 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.

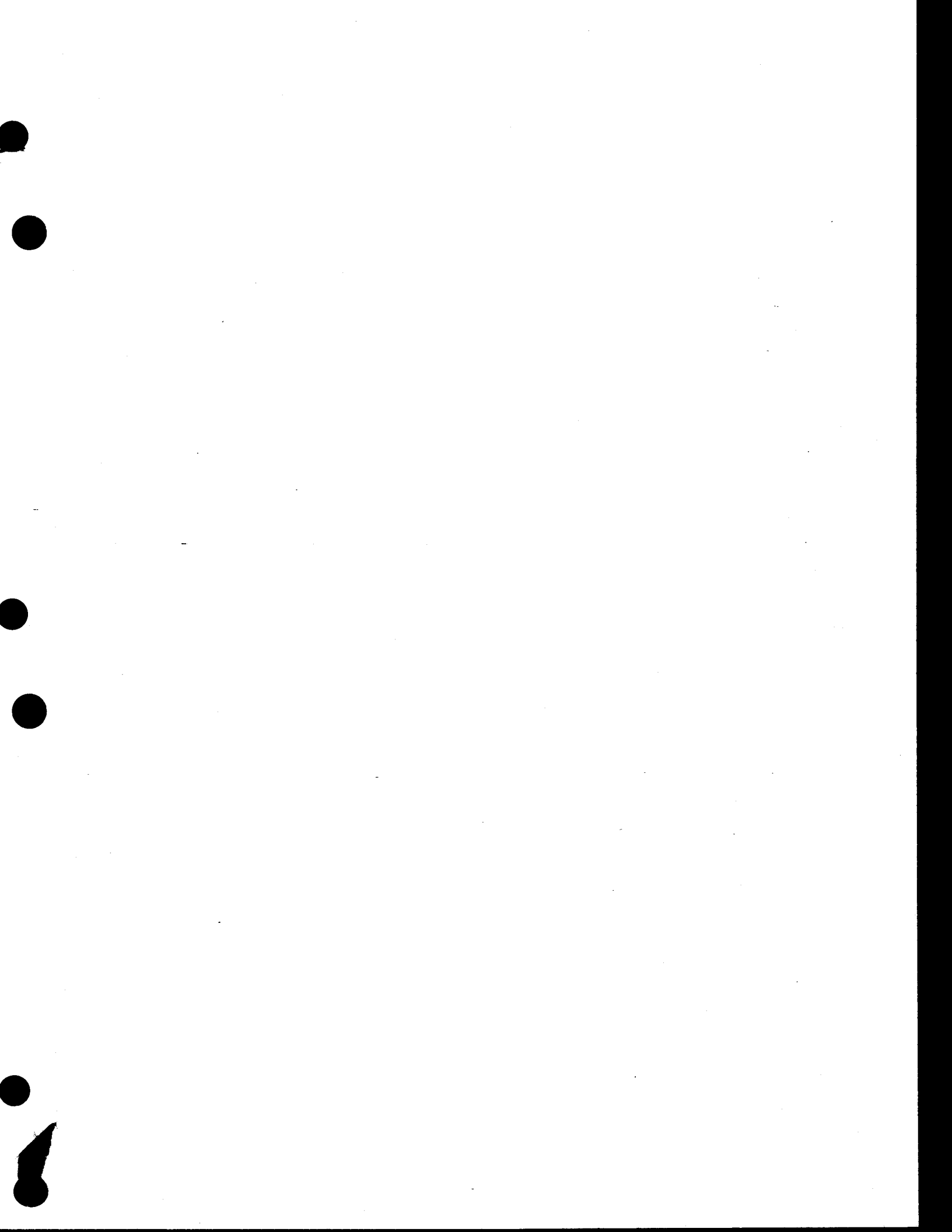
Although some construction contract boilerplate language has been amended to include §6-109, sub-contractors performing security services have advised us that they were not aware of this provision and, since traditionally, security guards were not a covered trade on construction sites, and they were 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____





NEW YORK CITY DEPARTMENT OF
DESIGN + CONSTRUCTION

**INFRASTRUCTURE DIVISION
BUREAU OF DESIGN**

VOLUME 2 OF 3

PROJECT ID: PDWTC2013

WORLD TRADE CENTER CAMPUS SECURITY PLAN

WASHINGTON STREET FROM BARCLAY STREET TO VESEY STREET
TRINITY PLACE FROM LIBERTY STREET TO THAMES STREET
WEST BROADWAY FROM VESEY STREET TO BARCLAY STREET
AND
CHURCH STREET FROM VESEY STREET TO BARCLAY STREET

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

Together With All Work Incidental Thereto

BOROUGH OF MANHATTAN
CITY OF NEW YORK

Tully Construction Co., Inc.
Contractor.

Dated _____, 20____

APPROVED AS TO FORM
CERTIFIED AS TO LEGAL AUTHORITY

[Signature]
Acting Corporation Counsel

[Signature] 7/19/13

Dated July 19, 2013



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

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

VOLUME 3 OF 3

**SCHEDULE A
ADDENDA NOS. 1 TO 5**

FOR FURNISHING ALL LABOR AND MATERIALS NECESSARY AND REQUIRED FOR:

PROJECT ID: PDWTC2013

WORLD TRADE CENTER CAMPUS SECURITY PLAN

**WASHINGTON STREET FROM BARCLAY STREET TO VESEY STREET
TRINITY PLACE FROM LIBERTY STREET TO THAMES STREET
WEST BROADWAY FROM VESEY STREET TO BARCLAY STREET
AND
CHURCH STREET FROM VESEY STREET TO BARCLAY STREET**

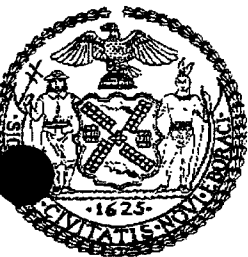
**INCLUDING SEWER, WATER MAIN, STREET LIGHTING,
AND TRAFFIC SIGNAL WORK**

Together With All Work Incidental Thereto

**BOROUGH OF MANHATTAN
CITY OF NEW YORK**

FOR THE DEPARTMENT OF TRANSPORTATION
PREPARED BY
AECOM USA, INC.

MAY 23, 2013



4-004



SCHEDULE A

<u>REFERENCE</u>	<u>ITEM</u>	<u>REQUIREMENTS</u>
Section 26 Information for Bidders	Bid Security	See Attachment 1 (page A-1 of the Bid Booklet).
	Performance Security Payment Security	See Attachment 1 (page A-1 of the Bid Booklet).
Article 14 Contract	Date for Substantial Completion	See Page SA-2
Article 15 Contract	Liquidated Damages	For Each Consecutive Calendar Day Over Completion Time: <u>\$1500.00</u>
Article 17 Contract	Subcontracts	Not to Exceed <u>50%</u> of Contract Price
Article 24 Contract	Deposit as Guarantee	Percent of Contract Price <u>1%</u>
	Maintenance Period	Eighteen (18) Months, excluding Trees Twenty-four (24) Months for Tree Planting
Article 77 Contract	M/WBE Program	See Subcontract Utilization Plan in the Bid Booklet
Section 6.40 Standard Highway Specifications	Liquidated Damages For Engineer's Field Office	For Each Calendar Day of Deficiency <u>\$250.00</u>
		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.
Section 6.70 Standard Highway Specifications	Liquidated Damages For Maintenance and Protection of Traffic	For each instance of failure to comply with the Maintenance and Protection of Traffic requirements within three (3) hours after written notice from the Engineer: <u>\$250.00</u>
		For each and every hour of failing to open the entire width of roadway to traffic the morning following a night/weekend work operation: <u>\$500.00</u>

Section 7.13 Standard Highway Specifications	Liquidated Damages For Maintenance of Site	For Each Calendar Day, For Each Occurrence: <u>\$250.00</u>
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.		

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 545 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 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 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 ccd shall be added to the above Final Contract Duration.

SCHEDULE A

(RELATING TO ARTICLE 22 – INSURANCE)

PART I. MINIMUM LIMITS AND SPECIAL CONDITIONS

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

Types of Insurance (per Article 22 in its entirety, including listed paragraph)	Minimum Limits and Special Conditions
<p>■ Commercial General Liability Art. 22.1.1</p>	<p>\$3,000,000 per occurrence</p> <p>\$6,000,000 aggregate (applicable separately to this Project)</p> <p>Additional Insureds:</p> <ol style="list-style-type: none"> 1. <u>City of New York, including its officials and employees;</u> 2. <u>The New York City Transit Authority (NYCTA), Manhattan and Bronx Surface Transit Operation Authority (MaBSTOA), Staten Island Rapid Transit Operation Authority (SIRTOA), Metropolitan Transportation Authority (MTA), its subsidiaries and affiliated companies. The Contractor shall furnish two (2) certificates of insurance to and the policy shall be endorsed to provide thirty (30) days advance notice to the Director, Risk Management, MTA Risk and Insurance Management Standards, Enforcement and Claims Unit, 2 Broadway, 21st Floor, New York, NY 10004, of any material change and/or cancellation.</u>

SCHEDULE A

(RELATING TO ARTICLE 22 – INSURANCE)

(PART I CONTINUED)

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

Types of Insurance (per Article 22 in its entirety, including listed paragraph)	Minimum Limits and Special Conditions
<p> <input checked="" type="checkbox"/> Workers' Compensation Art. 22.1.2 <input checked="" type="checkbox"/> Disability Benefits Insurance Art. 22.1.2 <input checked="" type="checkbox"/> Employers' Liability Art. 22.1.3 <input type="checkbox"/> Jones Act Art. 22.1.4 <input type="checkbox"/> U.S. Longshoremen's and Harbor Workers Compensation Act Art. 22.1.4 </p>	<p>Workers' Compensation: Statutory per New York State law without regard to jurisdiction</p> <p>Disability Benefits Insurance: Statutory per New York State law without regard to jurisdiction</p> <p>Employers' Liability: \$2,000,000 each accident</p> <p> <input checked="" type="checkbox"/> Additional Requirements: (1) <u>Two (2) certificates of such insurance or authority for self-insurance shall be furnished to the Director, Risk Management, MTA Risk and Insurance Management Standards, Enforcement and Claims Unit, 2 Broadway, 21st Floor, New York, NY 10004</u> </p>
<p><input type="checkbox"/> Builders' Risk Art. 22.1.5</p>	<p>_____ % of total value of Work City of New York and the Contractor named as Loss Payee for the Work in order of precedence, as their interests may appear</p>

SCHEDULE A

(RELATING TO ARTICLE 22 – INSURANCE)

(PART I CONTINUED)

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

Types of Insurance (per Article 22 in its entirety, including listed paragraph)	Minimum Limits and Special Conditions
<input checked="" type="checkbox"/> Comprehensive Business Auto Coverage Art. 22.1.6	\$2,000,000 per accident If vehicles are used for transporting hazardous materials, the Contractor shall provide pollution liability broadened coverage for covered autos (endorsement CA 99 48) as well as proof of MCS 90. Additional Insureds: (1) <u>City of New York, including its officials and employees;</u> (2) <u>The New York City Transit Authority (NYCTA), Manhattan and Bronx Surface Transit Operation Authority (MaBSTOA), Staten Island Rapid Transit Operation Authority (SIRTOA), Metropolitan Transportation Authority (MTA), its subsidiaries and affiliated companies.</u>
<input type="checkbox"/> Pollution/Environmental Liability Art. 22.1.7	\$ _____ per occurrence \$ _____ aggregate Additional Insureds: 1. City of New York, including its officials and employees, and 2. _____ 3. _____
<input type="checkbox"/> Marine Protection and Indemnity Art. 22.1.8(a)	\$ _____ per occurrence \$ _____ aggregate Additional Insureds: 1. City of New York, including its officials and employees, and 2. _____ 3. _____

SCHEDULE A

(RELATING TO ARTICLE 22 – INSURANCE)

(PART I CONTINUED)

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

Types of Insurance (per Article 22 in its entirety, including listed paragraph)	Minimum Limits and Special Conditions
<input type="checkbox"/> Ship Repairers Legal Liability Art. 22.1.8(b)	\$ _____ each occurrence [Contracting agency to fill in total value of City vessels involved]
<input type="checkbox"/> Collision Liability/Towers Liability Art. 22.1.8(c)	\$ _____ per occurrence \$ _____ aggregate Additional Insureds: 1. City of New York, including its officials and employees, and 2. _____ 3. _____
<input type="checkbox"/> Marine Pollution Liability Art. 22.1.8(d)	\$ _____ each occurrence Additional Insureds: 1. City of New York, including its officials and employees, and 2. _____ 3. _____

SCHEDULE A

(RELATING TO ARTICLE 22 – INSURANCE)

(PART I CONTINUED)

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

Types of Insurance (per Article 22 in its entirety, including listed paragraph)	Minimum Limits and Special Conditions
<p>[OTHER] Art. 22.1.9</p> <p>■ Railroad Protection Liability Policy</p> <p>(ISO-RIMA or equivalent form) approved by Permitter 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 # 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 30 days of the Binder Approval.</u> 	<p>\$2,000,000 per occurrence</p> <p>\$6,000,000 annual aggregate</p> <p>Named Insureds:</p> <p>1. <u>New York City Transit Authority (NYCTA), the Manhattan and Bronx Surface Transit Operation Authority (MaBSTOA), the Staten Island Rapid Transit Operation Authority (SIRTOA), MTA Capital Construction Co., the Metropolitan Transportation Authority (MTA) including its subsidiaries and affiliates, the City of New York (as Owner) and all other indemnified parties.</u></p>

SCHEDULE A

(RELATING TO ARTICLE 22 – INSURANCE)

(PART I CONTINUED)

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

Types of Insurance (per Article 22 in its entirety, including listed paragraph)	Minimum Limits and Special Conditions
<p>[OTHER]</p> <p><input type="checkbox"/> Professional Liability</p> <p>A. The Contractor's Professional Engineer shall maintain and submit evidence of Professional Liability Insurance in the minimum amount of \$1,000,000 per claim. The policy or policies shall include an endorsement to cover the liability assumed by the Contractor under this Contract arising out of the negligent performance of professional services or caused by an error, omission or negligent act of the Contractor's Professional Engineer or anyone employed by the Contractor's Professional Engineer.</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>Art. 22.1.9</p>
<p>[OTHER]</p> <p>■ Engineer's Field Office</p> <p>Section 6.40, Standard Highway Specifications</p>	<p>Art. 22.1.9</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>

SCHEDULE A

(RELATING TO ARTICLE 22 – INSURANCE)

PART II. BROKER’S CERTIFICATION

[Pursuant to Article 22.3.1(a) 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 complete copies of all policies referenced in the Certificate of Insurance. In the absence of completed policies, binders are acceptable.]

CERTIFICATION BY BROKER

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

[Name of broker (typewritten)]

[Address of broker (typewritten)]

[Signature of authorized official or broker]

[Name and title of authorized official (typewritten)]

Sworn to before me this
_____ day of _____, 200_

NOTARY PUBLIC

SCHEDULE A

(RELATING TO ARTICLE 22 – INSURANCE)

PART III. 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

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 Cruz, 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 February 2010

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

REFERENCE	ITEM	REQUIREMENTS
Section 26 Information for Bidders	Bid Security	See Attachment 1 (page A-1 of the Bid Booklet).
	Performance Security Payment Security	See Attachment 1 (page A-1 of the Bid Booklet).
Article 14 Contract	Date for Substantial Completion	See Page SA-2
Article 15 Contract	Liquidated Damages	For Each Consecutive Calendar Day Over Completion Time: <u>\$1500.00</u>
Article 17 Contract	Subcontracts	Not to Exceed <u>50%</u> of Contract Price
Article 24 Contract	Deposit as Guarantee	Percent of Contract Price <u>1%</u>
	Maintenance Period	Eighteen (18) Months, excluding Trees Twenty-four (24) Months for Tree Planting
Article 77 Contract	M/WBE Program	See Subcontract Utilization Plan in the Bid Booklet
Section 6.40 Standard Highway Specifications	Liquidated Damages For Engineer's Field Office	For Each Calendar Day of Deficiency <u>\$250.00</u> 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.
Section 6.70 Standard Highway Specifications	Liquidated Damages For Maintenance and Protection of Traffic	For each instance of failure to comply with the Maintenance and Protection of Traffic requirements within three (3) hours after written notice from the Engineer: <u>\$250.00</u>
		For each and every hour of failing to open the entire width of roadway to traffic the morning following a night/weekend work operation: <u>\$500.00</u>

Section 7.13 Standard Highway Specifications	Liquidated Damages For Maintenance of Site	For Each Calendar Day, For Each Occurrence: <u>\$250.00</u>
	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.	

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 545 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 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 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 ccd shall be added to the above Final Contract Duration.

SCHEDULE A

(RELATING TO ARTICLE 22 – INSURANCE)

PART I. MINIMUM LIMITS AND SPECIAL CONDITIONS

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

Types of Insurance (per Article 22 in its entirety, including listed paragraph)	Minimum Limits and Special Conditions
■ Commercial General Liability Art. 22.1.1	<p>\$<u>3,000,000</u> per occurrence</p> <p>\$<u>6,000,000</u> aggregate (applicable separately to this Project)</p> <p>Additional Insureds:</p> <ol style="list-style-type: none"> 1. <u>City of New York, including its officials and employees;</u> 2. <u>The New York City Transit Authority (NYCTA), Manhattan and Bronx Surface Transit Operation Authority (MaBSTOA), Staten Island Rapid Transit Operation Authority (SIRTOA), Metropolitan Transportation Authority (MTA), its subsidiaries and affiliated companies. The Contractor shall furnish two (2) certificates of insurance to and the policy shall be endorsed to provide thirty (30) days advance notice to the Director, Risk Management, MTA Risk and Insurance Management Standards, Enforcement and Claims Unit, 2 Broadway, 21st Floor, New York, NY 10004, of any material change and/or cancellation.</u>

SCHEDULE A

(RELATING TO ARTICLE 22 – INSURANCE)

(PART I CONTINUED)

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

Types of Insurance (per Article 22 in its entirety, including listed paragraph)	Minimum Limits and Special Conditions
<p> <input checked="" type="checkbox"/> Workers' Compensation Art. 22.1.2 <input checked="" type="checkbox"/> Disability Benefits Insurance Art. 22.1.2 <input checked="" type="checkbox"/> Employers' Liability Art. 22.1.3 <input type="checkbox"/> Jones Act Art. 22.1.4 <input type="checkbox"/> U.S. Longshoremen's and Harbor Workers Compensation Act Art. 22.1.4 </p>	<p> Workers' Compensation: Statutory per New York State law without regard to jurisdiction Disability Benefits Insurance: Statutory per New York State law without regard to jurisdiction Employers' Liability: \$2,000,000 each accident <input checked="" type="checkbox"/> Additional Requirements: (1) <u>Two (2) certificates of such insurance or authority for self-insurance shall be furnished to the Director, Risk Management, MTA Risk and Insurance Management Standards, Enforcement and Claims Unit, 2 Broadway, 21st Floor, New York, NY 10004</u> </p>
<p> <input type="checkbox"/> Builders' Risk Art. 22.1.5 </p>	<p> _____ % of total value of Work City of New York and the Contractor named as Loss Payee for the Work in order of precedence, as their interests may appear </p>

SCHEDULE A

(RELATING TO ARTICLE 22 – INSURANCE)

(PART I CONTINUED)

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

Types of Insurance (per Article 22 in its entirety, including listed paragraph)	Minimum Limits and Special Conditions
<input checked="" type="checkbox"/> Comprehensive Business Auto Coverage Art. 22.1.6	<p>\$2,000,000 per accident</p> <p>If vehicles are used for transporting hazardous materials, the Contractor shall provide pollution liability broadened coverage for covered autos (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 New York City Transit Authority (NYCTA), Manhattan and Bronx Surface Transit Operation Authority (MaBSTOA), Staten Island Rapid Transit Operation Authority (SIRTOA), Metropolitan Transportation Authority (MTA), its subsidiaries and affiliated companies.</u></p>
<input type="checkbox"/> Pollution/Environmental Liability Art. 22.1.7	<p>\$ _____ per occurrence</p> <p>\$ _____ aggregate</p> <p>Additional Insureds:</p> <p>1. City of New York, including its officials and employees, and</p> <p>2. _____</p> <p>3. _____</p>
<input type="checkbox"/> Marine Protection and Indemnity Art. 22.1.8(a)	<p>\$ _____ per occurrence</p> <p>\$ _____ aggregate</p> <p>Additional Insureds:</p> <p>1. City of New York, including its officials and employees, and</p> <p>2. _____</p> <p>3. _____</p>

SCHEDULE A

(RELATING TO ARTICLE 22 – INSURANCE)

(PART I CONTINUED)

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

Types of Insurance (per Article 22 in its entirety, including listed paragraph)	Minimum Limits and Special Conditions
<input type="checkbox"/> Ship Repairers Legal Liability Art. 22.1.8(b)	\$ _____ each occurrence [Contracting agency to fill in total value of City vessels involved]
<input type="checkbox"/> Collision Liability/Towers Liability Art. 22.1.8(c)	\$ _____ per occurrence \$ _____ aggregate Additional Insureds: 1. City of New York, including its officials and employees, and 2. _____ 3. _____
<input type="checkbox"/> Marine Pollution Liability Art. 22.1.8(d)	\$ _____ each occurrence Additional Insureds: 1. City of New York, including its officials and employees, and 2. _____ 3. _____

SCHEDULE A

(RELATING TO ARTICLE 22 – INSURANCE)

(PART I CONTINUED)

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

Types of Insurance (per Article 22 in its entirety, including listed paragraph)	Minimum Limits and Special Conditions
<p>[OTHER] Art. 22.1.9</p> <p>■ Railroad Protection Liability Policy</p> <p>(ISO-RIMA or equivalent form) approved by Permitter 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 # 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 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>New York City Transit Authority (NYCTA), the Manhattan and Bronx Surface Transit Operation Authority (MaBSTOA), the Staten Island Rapid Transit Operation Authority (SIRTOA), MTA Capital Construction Co., the Metropolitan Transportation Authority (MTA) including its subsidiaries and affiliates, the City of New York (as Owner) and all other indemnified parties.</u></p>

SCHEDULE A

(RELATING TO ARTICLE 22 – INSURANCE)

(PART I CONTINUED)

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

Types of Insurance (per Article 22 in its entirety, including listed paragraph)	Minimum Limits and Special Conditions
<p>[OTHER]</p> <p><input type="checkbox"/> Professional Liability</p> <p>A. The Contractor's Professional Engineer shall maintain and submit evidence of Professional Liability Insurance in the minimum amount of \$1,000,000 per claim. The policy or policies shall include an endorsement to cover the liability assumed by the Contractor under this Contract arising out of the negligent performance of professional services or caused by an error, omission or negligent act of the Contractor's Professional Engineer or anyone employed by the Contractor's Professional Engineer.</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>Art. 22.1.9</p>
<p>[OTHER]</p> <p>■ Engineer's Field Office</p> <p>Section 6.40, Standard Highway Specifications</p>	<p>Art. 22.1.9</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>

SCHEDULE A

(RELATING TO ARTICLE 22 – INSURANCE)

PART II. BROKER'S CERTIFICATION

[Pursuant to Article 22.3.1(a) 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 complete copies of all policies referenced in the Certificate of Insurance. In the absence of completed policies, binders are acceptable.]

CERTIFICATION BY BROKER

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

[Name of broker (typewritten)]

[Address of broker (typewritten)]

[Signature of authorized official or broker]

[Name and title of authorized official (typewritten)]

Sworn to before me this
_____ day of _____, 200_

NOTARY PUBLIC

SCHEDULE A

(RELATING TO ARTICLE 22 – INSURANCE)

PART III. 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: PDWTC2013

WORLD TRADE CENTER CAMPUS SECURITY PLAN

WASHINGTON STREET FROM BARCLAY STREET TO VESEY STREET
TRINITY PLACE FROM LIBERTY STREET TO THAMES STREET
WEST BROADWAY FROM VESEY STREET TO BARCLAY STREET
AND
CHURCH STREET FROM VESEY STREET TO BARCLAY STREET
INCLUDING SEWER, WATER MAIN, STREET LIGHTING,
AND TRAFFIC SIGNAL WORK

Together With All Work Incidental Thereto

BOROUGH OF MANHATTAN
CITY OF NEW YORK

ADDENDUM NO. 1

DATED: May 24, 2013

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)
3. New Sections
4. Special Provisions

1. AMENDMENTS TO STANDARD HIGHWAY SPECIFICATIONS, VOLUME I

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

[Added 12-09-2010]

1. Refer to Page 15, **Subsection 1.06.23.(C) CONFORMANCE WITH FEDERAL, STATE AND CITY AGENCIES;**

Add the following new paragraphs:

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

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

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

[Added 01-09-2011]

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

"(B) STUMP REMOVAL

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

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

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

[Added 04-18-2011]

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

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

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

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

[Added 07-01-2011]

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

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

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

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

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

[Added 07-27-2011]

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

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

[Added 09-27-2012]

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

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

[Added 04-08-2013]

7. Refer to Page 200, **Subsection 4.11.2.(B), first paragraph, sixth line;**
Delete the word "porcelain,".
8. Refer to Page 201, **Subsection 4.11.3.(B) FILL AND BACKFILL, second and third paragraphs;**
Delete the second and third paragraphs under Subsection 4.11.3.(B), in their entirety;
Substitute the following revised two paragraphs:

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

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

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

“(F) RECYCLED PORCELAIN AGGREGATE (RPA)

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

Should the Contractor desire to use RPA in his fill or backfill material, he shall contact Mr. Vasyl 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."

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. Refer to Page 394, Subsection 6.52.3. METHODS;
Insert the following new sentence to the end of the third paragraph:

"However, on Federally Funded Projects all uniformed full-time flagpersons paid under this item, irrespective of where they are used in Examples #1 and #2, shall be deemed to be Laborers and shall not be paid less than the highest minimum hourly rate as set forth by Federal, State or City laws."

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.”

(NO TEXT ON THIS PAGE)

3. NEW SECTIONS

SECTION 6.18 PIF
PEDESTRIAN INTERDICTION FENCING

6.18 PIF.1 DESCRIPTION

- (A) Under this section, the Contractor shall furnish all labor, material, equipment, insurance, and incidentals necessary to furnish and install pedestrian interdiction fencing, including, but not limited to fabrication of a working prototype and mock-up installation in accordance with the Contract Drawings, the specifications, and the directions of the Engineer.
- (B) References - The following is a listing of the publications referenced in this Section:
- (1) American Society of Civil Engineers (ASCE)
 - (a) ASCE 8 Specification for the Design of Cold-Formed Stainless Steel Structural Members.
 - (2) American Society for Testing and Materials (ASTM)
 - (a) ASTM A 312 Standard Specification for Seamless and Welded Austenitic Stainless Steel Pipes.
 - (b) ASTM A 554 Specification for Welded Stainless Steel Mechanical Tubing.
 - (c) ASTM A 666 Specification for Annealed or Cold-Worked Austenitic Stainless Steel Sheet, Strip, Plate, and Flat Bar.
 - (d) ASTM A 743 Specification for Castings, Iron Chromium, Iron-Chromium-Nickel, Corrosion Resistant, for General Application.
 - (e) ASTM C 1107 Specification for Packaged Dry, Hydraulic-Cement Grout (Nonshrink).
 - (3) American Welding Society, Inc. (AWS)
 - (a) AWS D1.6 Structural Welding Code - Stainless Steel.
 - (4) National Association of Architectural Metal Manufacturers (NAAMM)
 - (a) Metal Finishes Manual for Architectural and Metal Products.
- (C) Submittals - Submit the following:
- (1) Product Data
 - (a) Manufacturer's product specifications and instructions for materials and processes used in the fabrication, assembly and installation of handrails and railings, including, but not limited to, finishes and grout. Provide mill test reports for all material used in the contract.
 - (2) Shop Drawings
 - (a) Drawings for fabrication and erection of handrails and railings, showing sizes, shapes and layout of all railing components. Include plans, elevations and details of fittings, connections and anchorages to other Work. Furnish templates for anchors and bolts to be installed under other Sections.
 - (b) Revise and resubmit shop drawings as required to reflect prototype and mock-up modifications required for approval.
 - (3) Prototype Fabrication and Mock-Up
 - (a) Fabricate a prototype of a single handrail unit installed on a stair of the same dimensions indicated on the Contract Drawings for review and approval of the Engineer.
 - (i) Prototype fabrication shall be full-size of the actual materials and finishes intended for use on the project.
 - (ii) Use approved shop drawings to fabricate prototype and create mock-up installation.
 - (iii) Adjust and refabricate prototype as many times as required to meet the requirements to the satisfaction of the Engineer.
 - (4) Samples
 - (a) Samples for finish verification: For each type of metal finish specified in this section. Prepare samples on metal of same shape, gauge and alloy to be used in Work. Where normal color and texture variations are to be expected, samples shall show limits of such variations.
 - (i) Provide a minimum of three (3) twelve-inch (12") length samples of tubing of the size(s), shape(s), gauge(s) allowed to be used in this work.

- (b) Include six-inch (6") length samples of distinctly different railing members including handrails, top rails, posts, rail coverings, and any other appurtenances. Include samples of fittings and brackets.
 - (5) Design Calculations: Design calculations signed and sealed by a Professional Engineer licensed in New York State, showing compliance with loading criteria specified in this section.
 - (6) Qualifications
 - (a) Professional Engineer: Demonstrate capabilities and experience meeting the qualifications specified in the "Quality Control" article in this section. Include list of five (5) completed projects with project names, addresses, names of architects and owners.
 - (b) Manufacturer: Demonstrate capabilities and experience meeting the qualifications specified in the "Quality Control" article in this section. Include list of five (5) completed projects with project names, addresses, names of architects and owners.
 - (c) Shop and Site Welder: Evidence of current AWS certification.
 - (d) Before starting work, submit to the Engineer for approval welding procedure specifications, welder qualifications, and the qualifications/credentials of the shop and field Quality Control personnel meeting the qualifications specified in the "Quality Control" article in this section.
 - (7) Quality Control Inspection Reports: Copies of all Quality Control inspection reports performed by the AWS Certified Welding Inspector within seven (7) calendar days of the date of each inspection in accordance with the "Quality Control" article in this section.
 - (8) Material Safety Data Sheets (MSDS), for applicable products. Applicable products include, but are not limited to, field-applied adhesives, sealants, carpets, paints and coatings. Material Safety Data Sheets shall indicate the Volatile Organic Compound (VOC) limits of products submitted (if an MSDS does not include a product's VOC limits, then product data sheets, manufacturer literature, or a letter of certification from the manufacturer may be submitted in addition to the MSDS to indicate the VOC limits).
- (D) Design and Performance Requirements
- (1) Delegated Design: Design railings, including comprehensive engineering analysis by a qualified professional engineer, using performance requirements and design criteria indicated.
 - (2) Design railings to withstand structural loads indicated, determine allowable design working stresses of railing materials based on the following:
 - (a) Steel: 72 percent of minimum yield strength.
 - (b) Aluminum: The lesser of minimum yield strength divided by 1.65 or minimum ultimate tensile strength divided by 1.95.
 - (c) Stainless Steel: 60 percent of minimum yield strength.
 - (3) Structural Performance
 - (a) Railings shall withstand the effects of gravity loads and the following loads and stresses within limits and under conditions indicated:
 - (i) Handrails and Top Rails of Guards:
 - 1. Uniform load of 50 pounds per foot, applied in any direction.
 - 2. Concentrated load of 200 pounds of force applied in any direction.
 - 3. Uniform and concentrated loads need not be assumed to act concurrently.
 - (ii) Infill of Guards:
 - 1. Concentrated load of 50 pounds of force applied horizontally on an area of 1 square foot.
 - (b) Infill load and other loads need not be assumed to act concurrently.
 - (c) Thermal Movements: Allow for thermal movements resulting from the following maximum change (range) in ambient and surface temperatures by preventing buckling, opening of joints, overstressing of components, failure of connections and other detrimental effects. Base engineering calculation on surface temperatures of materials due to both solar heat gain and nighttime-sky heat loss.
 - (i) Temperature Change (Range): 120 degrees Fahrenheit, ambient; 180 degrees Fahrenheit, material surfaces.
 - (4) Pedestrian Interdiction Fencing shall be capable of being fully disassembled and removed from site without damage to fencing materials or adjacent pavements and furnishings.

- (5) Corrosion Control: Prevent galvanic action and other forms of corrosion by isolating metals and other materials from direct contact with incompatible materials.

(E) Quality Control

- (1) Where specified in the "Submittals" article in this section, submit structural calculations for handrails and railings. Determine allowable design working stresses of handrail and railing materials based on ASCE 8.
- (a) The submittal shall be sealed by a Professional Engineer registered in the State of New York and who is experienced in the design of handrails.
- (2) Manufacturer Qualifications
- (a) Manufacturer regularly engaged in manufacture of stainless steel handrails during the past three (3) years and having certified welders and machine operators.
- (3) Welding Standards
- (a) Comply with applicable provisions of AWS D1.6 Structural Welding Code – Stainless Steel.
- (i) Each welder shall have satisfactorily passes AWS qualification tests for welding processes involved and shall be currently AWS certified.
- (ii) Ensure that shop and/or field Quality Control inspections are performed by an AWS Certified Welding Inspector before and during assembly as well as during and after welding. Submit all Quality Control reports to the Engineer.
- (iii) All Welding procedures shall be qualified as required by AWS D1.6.
- (4) Field Measurements
- (a) Verify handrail and railing dimensions by field measurements before fabrication and indicate measurements on Shop Drawings. Coordinate fabrication schedule with construction progress to avoid delaying the Work.

(F) Delivery, Storage, And Handling

- (1) Protect material from damage including, but not limited to, scratches, nicks, dents, and gouges during delivery, storage, assembly, and installation.

(G) Schedule And Sequencing

- (1) Estimated Prototype Fabrication Duration: the Contractor shall plan for adequate time for the design and fabrication of custom illuminated handrails. The following duration is provided as a guide for the Contractor to be able to bid the project based on a realistic schedule. Actual prototype design and fabrication duration may vary depending upon the Contractor's ability to properly fabricate a single railing unit, install it in a mock-up condition and meet the requirements herein.
- (a) Contractor to assume a minimum of twelve (12) weeks.

6.18 PIF.2 MATERIALS

- (A) Manufacturers - Subject to compliance with requirements of this Section, furnish and install products of one of the following, or approved equivalent:

- (1) Landscape Forms, Inc., Kalamazoo, MI
- (2) C.W. Cole & Company, South El Monte, CA
- (3) Julius Blum & Co., Inc., Carlstadt, NJ
- (4) Sterling Dula Architectural Prod. (div. of Kane Mfg.), Erie, PA
- (5) Tri-Tech Inc., Austell, GA
- (6) R & B Wagner, Inc., Butler, WI

(B) Materials

- (1) Comply with the standards specified for forms and types of metals shown on the Contract Drawings or required for handrail and railing components.
- (2) Stainless Steel
- (a) Stainless Steel Tubing: ASTM A 554, Grade MT 316L.

- (b) Stainless Steel Pipe: ASTM A 312, Grade TP 316L for exterior applications.
- (c) Castings: Iron-chromium and iron-chromium-nickel alloy: ASTM A 743, Type 316L, Grade CF 8M or CF 3M for exterior applications.
- (d) Stainless Steel Plate: ASTM A 666, Type 316L for exterior applications.
- (3) Brackets, Flanges and Fittings
 - (a) Cast or formed metal of same type of material and finish as supported handrails or railings.
- (4) Welding Electrodes and Filler Metal
 - (a) Type and alloy of filler metal and electrodes as recommended by AWS D1.6 (producer of metal to be welded) and as required for color match, strength and compatibility in fabricated items.
- (5) Fasteners
 - (a) ANSI Type 316 stainless steel, nonmagnetic. Use concealed fasteners for interconnection of handrail and railing components and for their attachment to other Work, unless otherwise shown on the Contract Drawings.
- (6) Anchors and Inserts
 - (a) ANSI Type 316 stainless steel, nonmagnetic, size recommended by the railing manufacturer for type of loading and installation condition shown on Contract Drawings. Use toothed expansion bolt devices for drilled-in-place anchors. Furnish inserts as required, to be set into concrete or masonry.

(C) Fabrication

- (1) General
 - (a) Railings shall be shop assembled custom products.
 - (b) Fabricate custom handrails and railings to dimensions and details shown on the Contract Drawings. Furnish handrail and railing members in sizes and profiles shown on Contract Drawings, with supporting posts and brackets of size and spacing shown, but not less than required to support the design loadings specified in the "Design and Performance Requirements" article in this section.
 - (i) Preassemble items in shop to the greatest extent possible to minimize field splicing and assembly. Disassemble units only as necessary for shipping and handling limitations. Clearly match mark units for reassembly and coordinated installation.
 - (ii) Shear and punch metals cleanly and accurately. Remove burrs and ease exposed edges to a radius of approximately 1/32 inch. Form bent-metal corners to smallest radius possible without causing grain separation or otherwise impairing the Work.
 - (iii) Cut, reinforce, drill and tap components to receive anchorage, finish hardware and similar items.
 - (iv) Close exposed ends of handrail and railing members with prefabricated end fittings.
 - (v) Fabricate wall returns at ends of wall-mounted handrails. Close ends of returns. Furnish railing extensions at bottom and top of stairs as shown on the Contract Drawings.
 - (vi) Form bends by using prefabricated elbow fittings and radius bends, as applicable, of radii shown on the Contract Drawings, except where configuration shown requires bending of railing members.
 - (vii) Fabricate connections that will be exposed to weather in a manner to exclude water. Where water may accumulate, provide weepholes.
- (2) Custom Products
 - (a) Handrail Size: Rounded tubing, as indicated on the Contract Drawings.
 - (b) Mounting/Attachment: Surface mounted at the direction of the New York City Police Department as indicated on the Contract Drawings.
- (3) Welded Connections
 - (a) Fabricate handrails and railings with welded connections, unless otherwise shown on the Contract Drawings. Cope components at perpendicular and skew connections to provide close fit or use fittings designed for this purpose. Weld connections continuously to comply with the following:
 - (i) Use materials and methods that minimize distortion and develop strength and corrosion resistance of base metals.

- (ii) Obtain fusion without undercut or overlap.
 - (iii) Remove flux immediately.
 - (iv) At exposed connections, finish exposed surfaces smooth and blend so no roughness shows after finishing and so welded surface matches contours of adjoining surfaces.
 - (v) All welded permanent splices shall be complete penetration welds unless otherwise shown on the Contract Drawings.
- (4) Nonwelded Connections
- (a) Where railings are shown on the Contract Drawings to be adhesively or mechanically attached:
 - (i) Fabricate handrails and railings to accommodate interconnection of members using railing manufacturer's standard concealed mechanical fasteners and fittings.
 - (ii) Assemble members and fittings to produce flush, smooth and rigid hairline joints.
 - (iii) Splice joints for field connection shall use epoxy structural adhesive where such procedure represents manufacturer's standard splicing method.
- (5) Brackets, Flanges, Fittings, and Anchors
- (a) Use manufacturer's standard wall brackets, flanges, miscellaneous fittings, and anchors for interconnection of handrail and railing members to other Work. Furnish inserts and other anchorage devices as shown on the Contract Drawings and as required to provide support. Coordinate anchorage types with supporting structure.
- (D) Shop Finishing
- (1) Stainless Steel Finishes
- (a) Comply with NAAMM's "Metal Finishes Manual for Architectural and Metal Products" for recommendations for applying and designating finishes. Protect finishes on exposed surfaces with a strippable, temporary protective covering prior to shipment.
 - (i) Finish designations prefixed by "AISI" conform to the system established by the American Iron and Steel Institute for designating stainless steel finishes.
 - (ii) Grind and polish surfaces to produce uniform, directionally textured and polished finish indicated, free of cross scratches. Run grain of directional finishes, if any, with long dimension of each piece.
 - (iii) Remove or blend tool and die marks and stretch lines into finish.
 - (iv) When polishing is completed, passivate and rinse surfaces. Remove embedded foreign matter and leave surfaces chemically clean.
 - (v) Furnish the following finish:
 1. #4 bead blast with #2 sample electro polish.
 2. Beads shall be pure glass, used only for stainless steel finishing.
 3. Finish shall be as matte as achievable using up-to-date processes and standards.

6.18 PIF.3 METHODS

(A) Preparation

- (1) Coordinate setting drawings, diagrams, templates, instructions and directions for installation of anchorages, such as sleeves, inserts, anchor bolts and miscellaneous items having integral anchors, which are to be embedded in concrete as masonry construction specified in other Sections. Coordinate delivery of such items to the construction site in time for installation.

(B) Installation

(1) General

- (a) Fit exposed connections accurately together to form tight, hairline joints.
- (b) Perform cutting, drilling and fitting required for installation of handrails and railings. Set Work accurately in location, alignment and elevation, plumb, level, true and free of rack, measured from established lines and levels.
- (c) Do not weld, cut or abrade surfaces of handrails and railing components which have been coated or finished after fabrication and are intended for field connection by

- mechanical means without further cutting or fitting.
- (d) Set posts plumb within a tolerance of 1/16 inch in 3 feet.
 - (e) Align rails so variations from level for horizontal members and from parallel with rake of steps and ramps for sloping members do not exceed 1/4 inch in 12 feet.
 - (f) Adjust handrails and railings prior to anchoring to ensure matching alignment at abutting joints. Space posts at interval shown on the Contract Drawings or, if not shown, as required by design loadings specified in this Section.
- (2) Excavate in accordance with Section 6.02 of the Standard Highway Specifications.
 - (3) Anchoring Posts
 - (a) Anchor posts in concrete sidewalk using stainless steel sleeves preset and anchored into the concrete, unless other methods are shown on the Contract Drawings or approved Shop Drawings. Posts shall not be set into sleeves with grout, epoxy or any other permanent adhesive or bonding agent. Posts shall be attached to sleeves with removable mechanical fasteners. All fasteners shall be tamperproof, stainless steel and countersunk.
 - (b) Cast concrete surrounding the anchoring post as indicated on Contract Drawings applying methods specified in the applicable Section for the surrounding concrete sidewalk.
 - (c) Anchor posts to metal surfaces with manufacturer's standard fittings designed for this purpose.
 - (4) Railing Connections
 - (a) Use fully welded, complete penetration weld joints for permanently connecting railing components where directed on the Contract Drawings and approved Shop Drawings. Comply with requirements for welded connections in the "Fabrication" article in this section whether welding is performed in the shop or in the field.
 - (b) Where railing components are shown on the Contract Drawings to be mechanically or adhesively attached, use mechanical or adhesive joints connecting railing components. Prevent damage to railing members and fittings while making connections.
 - (5) Expansion Joints
 - (a) Install expansion joints at locations shown on the Contract Drawings and approved Shop Drawings but not farther apart than required to accommodate thermal movement. Furnish slip-joint internal sleeve extending 2 inches beyond joint on either side. Fasten internal sleeve securely to one side and locate joint within 6 inches of post.
- (C) Adjusting
- (1) Finish Damage
 - (a) At the construction site, repair finishes of handrails and railings damaged as a result of the Contractor's operations or furnish and install new railings as directed. Repair minor damages to finish in accordance with manufacturer's instructions and as approved by the Engineer. All such remedial Work shall be performed to the satisfaction of the Engineer and at no cost to the City.
 - (2) Component Damage
 - (a) Remove handrails and railings whose finish cannot be repaired at the construction site and either return them to the fabrication shop, restore the finishes and reinstall, or furnish and install new handrails and railings. All such remedial Work shall be performed to the satisfaction of the Engineer and at no cost to the City.
- (D) Cleaning
- (1) Clean railings and visible attachment hardware promptly after installation in accordance with manufacturer's instructions.
 - (2) Do not use harsh cleaning materials or methods that could damage finish.
- (E) Protection
- (1) Protect finishes of handrails and railings from damage by use of temporary protective coverings approved by the railing manufacturer. Remove protective covering when other Work of the Contract is completed or when directed by the Engineer.

6.18 PIF.4 MEASUREMENT

- (A) The quantities to be measured for payment shall be the number of lineal feet of pedestrian interdiction fencing actually installed to the satisfaction of the Engineer as per the Contract Drawings and specification.

6.18 PIF.5 PRICE TO COVER

- (A) The contract price bid per linear foot of pedestrian interdiction fencing, furnished and installed, shall cover the cost of all labor, materials (including, but not limited to, posts, brackets, flanges, other structural steel, fittings, sleeves, welding electrodes, filler metal, connections, joints, fasteners, anchors, inserts, and finishes), fabrication, equipment, insurance, and incidentals necessary to complete the work, all in accordance with the Contract Drawings, the specifications and the directions of the Engineer.
- (B) Payment for the following shall be made under made under separate items.
 - (1) Payment for excavation and fill shall be made under Item No. 6.02 AAN.
 - (2) Concrete shall be paid under the applicable sidewalk pay items.

Payment will be made under:

Item No.	Item	Pay Unit
6.18 PIF	PEDESTRIAN INTERDICTION FENCING	L.F.

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 Designation B 589 "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 as shown on drawings or as directed by the Engineer shall be surrounded by lighted timber fencing as shown on the attached sketch. 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.

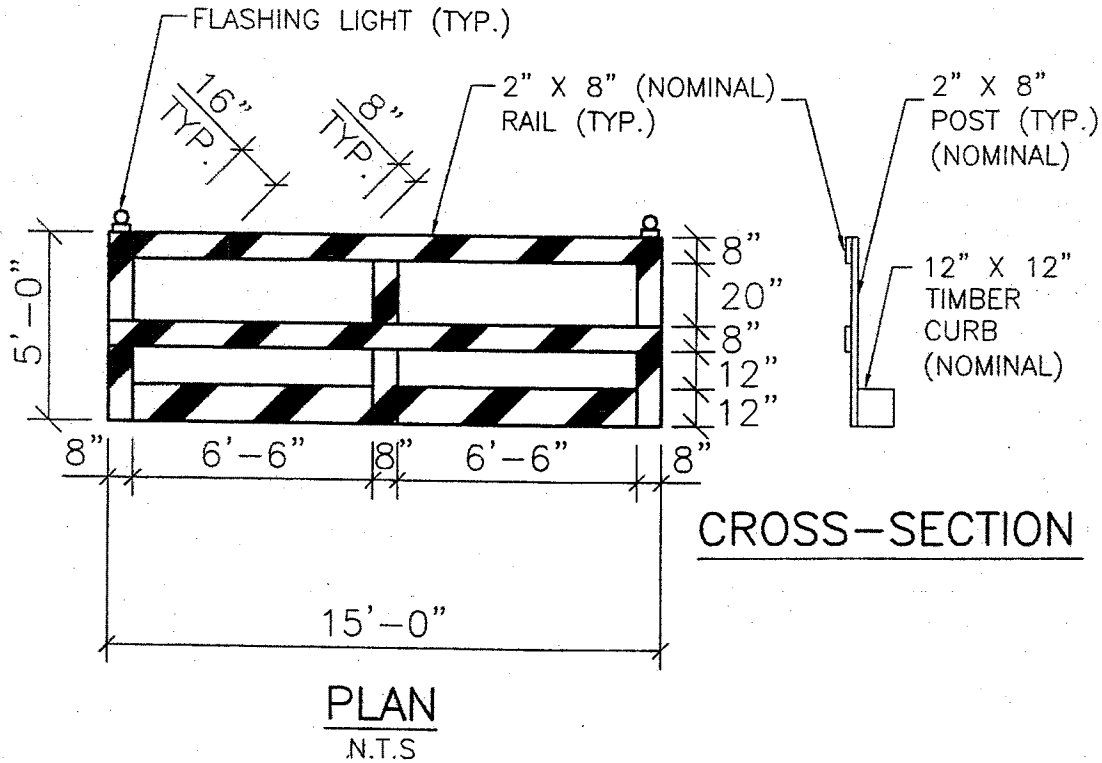
No payment will be made: for movements of fencing made for the Contractor's convenience; for movement of fencing at a given location at the end of a work period and subsequent replacement at the same location at the beginning of the next work period; for movement of fencing at a given location during 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. PRICE TO COVER. The contract price 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	Pay Unit
6.28 ME	LIGHTED TIMBER FENCING FOR USE IN LOWER MANHATTAN PROJECTS	L.F.

LIGHTED TIMBER FENCING FOR USE IN LOWER MANHATTAN PROJECTS



DETAILS:

- 1) LUMBER -DOUGLAS FIR OR SOUTHERN YELLOW PINE.
-ALL SIZES SHOWN ARE "NOMINAL".
-ALL CONNECTIONS FOR TIMBER RAILS, POSTS & CURBS TO BE NAILED.
- 2) PAINT -TWO COATS APPROVED ORANGE & STAIN RESISTANT REFLECTORIZED WHITE.
-STRIPES TO BE 45° WITH 8" ORANGE & 16" WHITE.
- 3) LIGHTS -BATTERY OPERATED OR SOLAR POWERED FLASHING DOT APPROVED TYPE.
-MAXIMUM SPACING 15' CENTER TO CENTER.
- 4) NETTING -TYPE SHALL BE POLYETHYLENE KNITTED MESH, 3.5 OZ PER SQUARE YARD, ORANGE COLOR, 5'-6" HEIGHT WITH REINFORCED EDGE, OR APPROVED EQUAL.
-NETTING TO BE FASTENED TO FENCE EXTERIOR OVER THE ENTIRE 5'-0" HEIGHT.

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, 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 6.34 ACTP, shall consist of chain link fence fabric, top and bottom rails for mounting a decorative mesh (to be furnished under another item), gates, posts with steel plate footings, 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 quantity of Temporary Chain Link Fence to be measured for payment shall be the number of linear feet satisfactorily installed, complete, measured in place, from center to center of end posts.

6.34A.4. PRICE TO COVER. The price bid for 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	Pay Unit
6.34 ACTP	TEMPORARY CHAIN LINK FENCE, 6'-0" HIGH, (WITH TOP AND BOTTOM RAILS AND POSTS MOUNTED ON STEEL PLATES)	L.F.

SECTION 6.59 REM
REMOVAL OF EXISTING GUARD BOOTHS, OPERABLE BARRIERS,
CONCRETE PLANTERS, CONCRETE BARRIER SECTIONS, BOLLARDS,
AND CONCRETE BLOCKS

6.59 REM.1 DESCRIPTION

- (A) This section describes the removal and disposal of existing guard booths, operable security barriers, concrete planters, concrete barrier sections, bollards, and concrete blocks (all of variable sizes) where and as shown on Contract Drawings and as directed by the Engineer

6.59 REM.2 GENERAL

(A) Disposal

- (1) All materials resulting from removal operations or required to be excavated in connection with such operations, except as otherwise provided or directed, shall be disposed of by the Contractor away from the site. Said materials shall not be dumped, placed, stored, or disposed of within the limits of any existing or projected public street or road. The burning of debris or other removed materials will not be permitted.

(B) Damages

- (1) The Contractor shall be responsible for all damages resulting from and due to his removal operations. All holes or excavation resulting from the removal of these items shall be backfilled to the satisfaction of the Engineer at no additional cost to the City. Said responsibility shall include, but not be limited to, structures and portions of structures which are adjacent to the removal site that are to remain. No additional payment or compensation will be made or allowed the Contractor for costs incurred for repairs and replacements required to satisfactorily remedy the aforesaid damages or for the settlement of any claims resulting there from.

(C) Salvage

- (1) The City assumes no responsibility for the condition or presence of salvable materials in or on the premises. All damage to or loss of salvable materials, whether by reason of fire, theft or other happening, shall be at the risk of the Contractor and no such loss or damage shall relieve him from any obligation under the contract or form the basis of any claim against the City. The Contractor shall cap any existing utilities associated with the removal of the guard booths or operable barriers, as directed by the Engineer.

6.59 REM.3 METHODS

- (A) Within the limits shown on Contract Drawings, all structures and accompanying foundations (if existing) shall be completely removed and the area shall be backfilled and restored in kind to the satisfaction of the Engineer.

6.59 REM.4 PRICE TO COVER

- (A) The lump sum price bid shall be for the following work: removal and disposal of existing guard booths, operable security barriers, concrete planters, concrete barrier sections, bollards, and concrete blocks (all of variable sizes). In addition, the lump sum price bid shall cover the cost of furnishing all labor, materials, equipment, insurance, and necessary incidentals required and completing the work, all in accordance with the Contract Drawings, the specifications, and the directions of the Engineer.
- (B) The amount bid for this lump sum item will be payable to the Contractor in proportion to the Percentage of Work completed under this item as listed above in this Section.

Payment will be made under:

Item No.	Item	Pay Unit
6.59 REM	REMOVAL OF EXISTING GUARD BOOTHS, OPERABLE BARRIERS, CONCRETE PLANTERS, CONCRETE BARRIER SECTIONS, BOLLARDS, AND CONCRETE BLOCKS	L.S.

SECTION 6.79 A
DUCTILE IRON PIPE CONNECTIONS

6.79 A.1 INTENT.

This section describes the construction of ductile iron pipe connections between basins, inlets, sewers or manholes, and dry wells.

6.79 A.2 DESCRIPTION.

- (A) Ductile iron pipe connections shall be constructed with internally locked "Push-on" joints not requiring thrust blocks or tie rods, and laid on a compacted layer of Broken Stone, or encased in concrete where specified.
- (B) Pipes shall be of the nominal inside diameter shown or specified.
- (C) Dimensions of concrete encasement shall be as shown on the Contract Drawings.

6.79 A.3 MATERIALS.

- (A) Ductile Iron Pipe shall be of the various sizes specified, shall be epoxy lined and in compliance with the requirements of the NYC Department of Environmental Protection, Standard Sewer Specifications, Section 2.06.
- (B) Broken Stone shall be hard, roughly cubical in shape, un-weathered stone uniformly graded from 1/4" to 3/4" in diameter, and shall conform to commercial 1/4" to 3/4" stone.
- (C) Joints: All joints for Ductile Iron Pipe shall be "Push-On" joint types, meeting the requirements of ANSI Specification A21.11, latest revision. The joints shall be internally locked, not requiring thrust blocks or tie rods, and shall be made in accordance with manufacturer's instructions for assembling the type of joint furnished. For each bell, there shall be furnished a rubber gasket.
 - (1) Products and Manufacturers:
 - (a) Super Bell-Tite Joint of Amstead Industries
 - (b) Tyton Joint of U.S. Pipe and Foundry Company
 - (c) Fastite Joint of the American Cast Iron Company
 - (d) Other joint as may be approved as equal by the Engineer
- (D) Concrete shall comply with the requirements of Section 3.05 of NYCDOT Highway Specifications.; Class B-32; Type IIA Portland cement; Type 1A sand, and Type 1, Grade B, or Type 2, Size No. 57 coarse aggregate.
- (E) Mortar for joints shall comply with the requirements of Section 3.07 of NYCDOT Highway Specifications, Type 1, Mortar, except that the proportions shall be one (1) part of cement to one and one-half (1-1/2) parts of sand and that the ingredients may be mixed by hand.

6.79 A.4 METHODS.

- (A) Excavation
 - (1) Excavation for construction of pipe connections, on a nine (9) inch thick broken stone base, or encased in concrete where specified, shall be made to the widths and depths required in accordance with the Standard Sewers Specifications of the NYC Department of Environmental Protection. No pipe, broken stone, or concrete for pipe encasement shall be laid or placed until the subgrade of the trench has been tested and found correct.

(B) Bedding

- (1) Unless otherwise directed, the Ductile Iron Pipe Connection shall be laid on a nine (9) inch thick compacted layer of Broken Stone. The nine (9) inch thick layer of Broken Stone shall be placed on the subgrade of the trench for its full width. The subgrade must be prepared to the proper grade so that the ductile iron pipe may be placed on the broken stone base accurately to line and grade in agreement with the Contract Drawings, specifications and as directed by the Engineer. Broken Stone shall also be placed around the pipe to a depth of one-half (1/2) the outer diameter of the pipe and for the full width of the trench. The rest of the trench shall be backfilled and compacted as specified and directed by the Engineer.

(C) Laying

- (1) The pipe shall be laid with male ends toward the outlet. All pipes shall be laid true to line and grade, tightly fitted together and matched so that when laid in the work they will form a drain with a smooth and uniform invert. Unless a shorter length of pipe is required or otherwise permitted, not less than twenty-four (24) feet of piping shall be laid in one operation and the trench for each basin connection shall be fully excavated for its entire length before any pipes are laid therein.
- (2) During the progress of the work, the interior of the connections shall be cleared of all foreign matter and the exposed ends of pipe shall be provided with approved temporary covers fitted to the pipe so as to exclude such materials. Unconnected dead ends of pipe shall be closed with approved tile or precast concrete plugs or with hand tightening (wing nut type) expandable plugs as manufactured by O.R.H.A. Industries or Jones Manufacturing Co., or approved equal, so as to provide a watertight seal. The threads are to be greased prior to tightening to ensure a proper seal without stripping.

(D) Joints: Install "Push-On" joints in accordance with manufacturer's instructions.

(E) Wyes and Tees: Provide ductile iron pipe Wye or Tee connections as required by the field conditions and as directed by the Engineer.

(F) Maintenance During Installation: Clear interior of installed piping and structures of dirt and other superfluous material as work progresses. Maintain swab or drag in piping and pull past each joint as it is completed. Place plug in ends of uncompleted pipe at end of each day or when work stops.

(G) Testing: After installing drainage course on top of piping, test drain piping with water to ensure free flow before backfilling. Remove obstructions, replace damaged components, and repeat test until results are satisfactory and approved by the Engineer.

(H) Damaged Pipe: Remove and replace damaged pipe, whether in or out of the trench, at no cost to the City.

(I) Field Cutting

- (1) Ductile iron pipe shall be cut only by means of abrasive saws, hacksaws, wheel type cutters, milling type cutters or as approved by the Engineer. The use of "squeeze" type pipe cutters and cutting torches will not be permitted. The use of diamond points and dog chisels will not be permitted.
- (2) Wherever pipe is field cut, the entire outside of the cut end shall be beveled about one-quarter (1/4) inch at an angle of approximately thirty (30) degrees all around the pipe, with a coarse file or a portable grinder.

(J) Fitting Into Reinforced Concrete Structures

- (1) Pipe connections shall not enter reinforced concrete structures less than twelve (12) inches from the top or bottom of the structure.
- (2) The ends of pipes which enter the reinforced concrete structure shall be neatly cut to fit the inner face of the structure. When directed, such cutting shall be done before the pipes are

built in.

(K) Backfilling

- (1) Immediately after the Engineer has inspected and approved the pipe laid, the trench shall be backfilled.

6.79 A.5 MEASUREMENT.

- (A) The quantity of Ductile Iron Pipe Connection to be measured for payment shall be the number of lineal feet of pipe of each size, furnished and incorporated in the work, complete, measured in place along its axis between the inner faces of the structures or pipe connected.

6.79 A.6 PRICE TO COVER.

- (A) The contract price per linear foot for the indicated size of Ductile Iron Pipe Connection shall cover the cost of all labor, materials, equipment, insurance, and incidentals required to furnish and incorporate in the work, complete, in place, all ductile iron pipe required including, but not limited to, excavation of all materials of whatever nature encountered, including ledge rock (except where there is a separate contract price for Rock Excavation), furnishing and placing broken stone base, joint materials, special pipes where required, inlets, cleanouts, bulkheads, temporary cover, trimming, fitting and building the pipe into concrete or masonry, connections to sewers, sheeting, bracing, backfilling, and all other items necessary to complete this work and perform all work incidental thereto, in accordance with the Contract Drawings and specifications, and as directed by the Engineer.

Payment will be made under:

Item No.	Item	Pay Unit
6.79 AG	4" DUCTILE IRON PIPE CONNECTION	L.F.

**SECTION 7.07 RBRT
REMOVE, STORE AND REINSTALL BICYCLE RACKS**

7.07 RBRT.1. DESCRIPTION

- (A) Under this Section, the Contractor shall remove, store, and reinstall existing Bicycle Racks in accordance with the plans, the specifications, and the directions of the Engineer.

7.07 RBRT.2. MATERIALS AND METHODS

- (A) Prior to initiating work, photograph the existing Bicycle Racks, with particular detailed photographs of any pre-existing damage. Provide electronic files in JPG format to the Engineer, and advise the Engineer of any pre-existing damage.
- (B) The Contractor shall carefully remove, store, and reinstall designated existing Bicycle Racks at locations indicated on contract plans, or where ordered, to the satisfaction of the Engineer, on new sidewalks constructed under other contract items.
- (C) All removed bicycle racks shall be cleaned and stored at the site in a location and manner approved by the Engineer. Maintain protection of bicycle racks while in storage.
- (D) Furnish and install all hardware, grout, and other materials required to reinstall bicycle racks in the same manner as they were originally installed.
 - (1) Do not to disturb the surrounding sidewalk during installation. Restore in kind any disturbed surfaces at no cost to the City.
 - (2) Any loss or damage to the existing bicycle racks done by the Contractor's operation shall be restored to the original condition or replaced in kind to the satisfaction of the Engineer, at no cost to the City.

7.07 RBRT.3. MEASUREMENT

- (A) The quantity of Bicycle Rack to be measured for payment under this item shall be the number of Bicycle Rack satisfactorily reinstalled to the satisfaction of the Engineer.

7.07 RBRT.4. PRICE TO COVER

- (A) The contract price bid to Remove, Store and Reinstall Bicycle Racks shall be a unit price per each bicycle rack and shall include the cost of all labor, material, equipment, insurance, and incidentals required to complete the work. The unit price bid shall also include the cost of all necessary excavation, backfill, miscellaneous hardware, and anchor bolts; all in accordance with the plans, the specifications, and directions of the Engineer.

Payment will be made under:

Item No.	Item	Pay Unit
7.07 RBRT	REMOVE, STORE AND REINSTALL BICYCLE RACKS	EACH

SECTION 7.07 WTC
FIXED STEEL BOLLARD

7.07 WTC.1 DESCRIPTION

- (A) Under this section, the Contractor shall furnish all labor, material, equipment, insurance, and incidentals necessary to furnish and install fixed bollards in accordance with the Contract Drawings, the specifications, and the directions of the Engineer.
- (B) Related Sections
 - (1) Section 4.06 of Standard Highway Specifications
 - (2) Section 4.11 of Standard Highway Specifications
 - (3) Section 4.14 of Standard Highway Specifications
- (C) References
 - (1) American Welding Society - Standard Code for Welding in Building Construction
- (D) Submittals
 - (1) Product Data
 - (a) Manufacturer's and finisher's specifications.
 - (b) Installation and cleaning instructions for products used in ornamental metalwork.
 - (c) Finishing materials and methods.
 - (d) Manufacturer's storage and handling requirements.
 - (e) Manufacturer's standard warranty.
 - (2) Shop Drawings
 - (a) Provide shop drawings, including plans, elevations and detail sections of fixed steel bollards. Indicate materials, gauge, methods, types of joinery, fasteners, anchorages and accessory items; specify finishes. Furnish setting diagrams and templates for anchorages, sleeves and bolts.
 - (3) Samples
 - (a) Samples for finish verification: For each type of metal finish shown on the Contract Drawings, prepare samples of metal finishes of same alloy to be used for the Work.
 - (b) Finish samples: Three (3) six-inch by six-inch (6"x6") samples showing full range of finish and texture variations to be expected.
 - (4) Completed fabrication samples: For each type of metal product shown on the Contract Drawings, prepare samples of metal of same alloy and thickness to be used for the Work. Where normal finish and texture variations are to be expected, include two (2) or more units in each set of samples described below, showing the limits of such variations.
 - (a) Include three six-inch (6") long samples of linear or tubular shapes in actual sizes and profiles.
 - (b) Include three six-inch (6") square samples of plates.
 - (5) Patterns, models or plaster castings made for each custom design of casting shown on the Contract Drawings, if any.
 - (6) Qualifications
 - (a) Manufacturer capabilities and experience, in writing.
 - (b) Finisher capabilities and experience, in writing.
- (E) Prototypes
 - (1) Fabricate prototype fixed bollard for approval of materials and finishes by Engineer.
 - (2) Schedule adequate time for the design and fabrication of prototype units for prototype installation(s).
 - (3) Fabricate a minimum of three (3) full-size units of each fixed bollard type.
 - (4) Prototypes shall be constructed of the actual materials and finishes intended for use on the project and demonstrate full range of finishes of proposed unit.
 - (5) Prototype shall include the fixed bollard complete with cover assembly consistent with the approved shop drawings. Fabricate and supply all additional items as required for a

complete installation.

- (6) Adjust and re-fabricate prototype as many times as required to meet the requirements herein, and on the Contract Drawings.
- (7) Approved prototype may become part of the completed Work if it meets all technical requirements.

7.07 WTC.2 MATERIALS

(A) Structural Bollards

- (1) Steel Pipe, Pipe Cap, and Steel Plate
 - (a) Dimensions and material requirements shall be as noted on the Contract Drawings. Materials shall comply with the provisions of the NYCDOT Standard Highway Specifications, Section 2.35, unless otherwise noted.
 - (b) Paint: Series 88 Azero Primer made by Tnemec or No. 230R55 "Rust Barrier" made by Con-Lux or similar zinc-rich paint.

(B) Bollard Cover

- (1) Required Manufacturer shall be:
 - (a) Secure USA Inc. – P.O. Box 2298, Cumming, GA 30028 – Phone: 888-222-4559 / Fax: 770-889-7939 / Email: Michael.shartouny@secureusa.net / Web: www.secureusa.net
- (2) General - Select material which has a high degree of surface flatness, smoothness and freedom from surface blemishes where exposed to view in the finished unit. Exposed-to-view surfaces that exhibit pitting, seam marks, roller marks, "oil canning", stains, discolorations or other imperfections on finished units will not be acceptable.
- (3) Stainless Steel
 - (a) Grade and type designated below for each form required:
 - (i) Tubing: American Society for Testing and Materials (ASTM) A554, Grade MT, 316, for exterior use.
 - (ii) Pipe: ASTM A312, Grade TP 316, for exterior use.
 - (iii) Castings: ASTM A743, Type 316, Grade CF8M, 1/8" thickness, for exterior use.
 - (iv) Plate: ASTM A666, Type 316 for exterior use.
 - (v) Bar Stock: ASTM A276, Type 316 for exterior use.
- (4) Welding Electrodes and Filler Metal
 - (a) Type and alloy of filler metal and electrodes shall be as recommended by producer of the metal to be welded, complying with applicable American Welding Society Inc. (AWS) specifications and as required for finish match, strength and compatibility between dissimilar materials in the fabricated items.
- (5) Fasteners
 - (a) Metal components shall be stainless steel, ANSI Type 316, nonmagnetic. Finish of fastener metal and alloy shall match finish and texture of the metal being fastened.
 - (b) Use concealed fasteners for interconnection of stainless steel components and for their attachment to other Work, except where otherwise shown on the Contract Drawings. Use Phillips flathead screws, countersunk, with stainless steel, ANSI Type 316, nonmagnetic cap, for exposed fasteners, if any.

7.07 WTC.3 METHODS

(A) Structural Bollards

- (1) Fabrication
 - (a) Bollards shall be shop fabricated from steel pipe and plates.
 - (b) Cut metals by sawing, shearing, or blanking. Flame cutting will be permitted only if cut edges are ground back to clean, smooth edges. Make cuts accurate, clean, sharp and free of burrs, without deforming adjacent surfaces of metals. Drill or cleanly punch holes; do not burn. Make connections with tight joints, capable of developing full strength of member, flush unless indicated otherwise, formed to exclude water where exposed to weather.
 - (c) Welding shall be in accordance with "Standard Code for Welding in Building

Construction" of the American Welding Society, and shall be done with electrodes and/or methods recommended by the manufacturer of the metals being welded. Welds shall be continuous, except where spot welding is specifically permitted. Welds exposed to view shall be ground flush and dressed smooth with and to match finish of adjoining surfaces; undercut metal edges where welds are required to be flush. All welds on or behind surfaces which will be exposed to view shall be done so as to prevent distortion of finished surface. Remove weld spatter and welding oxides from all welded surfaces.

- (d) Mill joints to a tight hairline fit. Cope or miter corner joints. Form joints exposed to weather to exclude water penetration.
 - (e) All surfaces exposed to view shall be clean and free from dirt, stains, grease, scratches, distortion, waves, dents, buckles, tool marks, butts, and other defects which mar appearance of finished work. Metal work exposed to view shall be straight and true to line, smooth arises and angles as sharp as practicable, miters formed in true alignment, profiles accurately intersecting, and with joints carefully matched to produce continuity of line and design. Exposed fastenings, where permitted, shall be of the same material and finish as the metal to which applied, unless otherwise indicated, and shall be of the smallest practicable size.
 - (f) Furnish straight or otherwise custom fabricated bolts, plates, anchors, hangers, dowels and other miscellaneous steel shapes as required for framing and supporting metal work and for anchoring or securing metalwork to concrete or other structures. Fabricate items to sizes, shapes and dimensions required. Furnish steel washers for heads and nuts unless specified otherwise on drawings.
- (2) After fabrication, shop finish with zinc rich paint all surfaces which will not be encased or otherwise in contact with finished concrete.
 - (a) Prior to painting, prepare surface in accordance with recommendations of paint manufacturer. At minimum, the bollards shall be thoroughly cleaned with a solvent such as mineral spirits or turpentine to remove all dirt, grease and foreign matter. Pretreatment may be applied by any method, as approved by the Engineer.
 - (b) After the pretreatment has dried, the bollards shall be painted with two shop coats of paint limited as specified and/or noted on the Contract Drawings.
 - (3) Handling or shipping of painted steel bollards shall not be performed until coatings are thoroughly dry.
 - (4) Stacking and storing of painted bollards in the shop, in transit, and at the job site shall be done using softeners and timbers to keep individual members free from contact with the ground and with each other. Also, bollards shall be protected from soiling by adjacent fabrication or construction operations.
 - (5) The Contractor shall carefully excavate by hand to the required depth necessary to install bollards in concrete foundations as shown on the Contract Drawings.
 - (6) Bollards shall be shimmed and leveled as necessary such that bollards are vertical, in plumb, and at required elevations in their final position.
 - (7) Touchup after erection shall consist of smoothing all abraded areas and building back each coat damaged to achieve the initial condition. Surface areas that have been abraded to bare metal shall be cleaned and then painted in proper recoating intervals.

(B) Bollard Covers

- (1) Design and Performance Requirements
 - (a) Bollard Covers shall be fabricated out of 11-gauge. Stainless steel, ANSI Type 316, nonmagnetic, unless otherwise noted in the Contract Drawings.
 - (b) Basis of Design shall be the WTC Campus Bollard Cover as manufactured by Secure USA, Inc. for Port Authority of New York and New Jersey Contract No. WTC-324.359.M1. Contractor shall demonstrate in shop drawings that current design is consistent with Basis of Design.
 - (c) Items requiring design computations, as noted in the Contract Drawings, shall be designed to withstand all structural loads, as required by building codes which would apply if the City were a private corporation.
 - (d) Thermal Movements - Design components to allow for expansion and contraction for a maximum ambient temperature change (range) of 120 degrees F without causing buckling, excessive opening of joints or overstressing of welds and fasteners.

- (e) Corrosion Control - Prevent galvanic action and other forms of corrosion by isolating metals and other materials from other incompatible materials.
 - (f) Connection - Determine exact means of fastening to bollard in accordance with approved shop drawing meeting the following requirements:
 - (i) Provide a minimum number of connection points as indicated on Contract Drawings.
 - (ii) Coordinate with manufacturer of bollard.
- (2) Fabrication - General
- (a) Form metalwork to the required shapes, sizes and finishes, with true curves, lines and angles. Furnish necessary rebates, lugs and brackets for assembly of units. Use concealed fasteners wherever possible. Finish exposed surfaces to smooth, sharp, well-defined lines and arrises.
 - (b) Preassemble items in shop to the greatest extent possible to minimize field splicing and assembly. Disassemble units only as necessary for shipping and handling limitations. Clearly match mark units for reassembly and coordinated installation.
 - (c) Comply with AWS for recommended practices in shop welding and brazing. Welds and brazes behind finished surfaces shall not distort or discolor exposed side. Clean exposed welded joints of all welding flux and dress all exposed and contact surfaces.
 - (d) Welding
 - (i) Comply with applicable provisions of AWS D1.6 Structural Welding Code - Stainless Steel.
 - (ii) Certify that each welder has satisfactorily passed AWS qualification tests for welding processes involved and if pertinent, has undergone recertification.
 - (iii) All welders shall be licensed in the state in which the Work is to be performed.
 - (iv) Field welding shall not be permitted.
 - (e) Castings shall be sound and free of warp or defects that impair strength and appearance. Mill joints to a close fit and finish exposed surfaces to smooth, sharp, well-defined lines and arrises.
 - (f) Shear and punch metals cleanly and accurately. Remove burrs and ease exposed edges to a radius of approximately 1/32 inch unless otherwise shown. Form bent metal corners to smallest radius possible without causing grain separation or otherwise impairing the Work.
 - (g) Use connections that maintain structural value of joined pieces.
 - (h) Mill joints to a tight, hairline fit. Cope or miter corner joints. Form joints exposed to weather to exclude water penetration.
 - (i) Provide weep holes where water may accumulate.
 - (j) Fabricating Castings
 - (i) Fabricate cast metal units to design from cast metal type shown on the Contract Drawings. Drill and tap castings for threaded mounting studs.
- (3) Shop Finishing
- (a) Comply with National Association of Architectural Metal Manufacturers (NAAMM)'s "Metal Finishes Manual for Architectural and Metal Products" for recommendations relative to application and designations of stainless steel finishes, except as otherwise shown on the Contract Drawings.
 - (b) Stainless Steel Finishes
 - (i) Finish designations prefixed by "AISI" conform to the system established by the American Iron and Steel Institute for designating stainless steel finishes, listed in NAAMM's "Metal Finishes Manual for Architectural and Metal Products".
 - (ii) Remove or blend tool and die marks and stretch lines into finish.
 - (iii) Grind and polish surfaces to produce uniform, directional, textured, polished finish indicated, free of cross scratches. Run grain with long dimension of each piece.
 - (iv) Passivate and rinse surfaces. Remove embedded foreign matter and leave surfaces chemically clean.
 - (c) Furnish the following finish:
 - (i) #4 bead blast with #2 sample electro polish.
 - (ii) Beads shall be pure glass, used only for stainless steel finishing.
 - (iii) Finish shall be as matte as achievable using up-to-date processes and standards.
- (4) Storage and Delivery
- (a) Protect materials from scratches, nicks, dents and gouges during delivery, storage,

- handling, assembly and installation.
- (b) Protect mechanical finishes on exposed surfaces from damage by application of strippable temporary protective covering prior to shipment.
- (c) Inspect ornamental metal items before installation to verify that they are free from scratches, nicks, dents and other damage or defects. Inspect anchorage devices, fasteners, concealed gaskets, joint fillers, insulation and flashings, if any, before installation to verify that they are free of defects. Repair or replace defective items at no cost to the City.
- (5) Installation
 - (a) Set top of bollard cover assembly accurately in location, alignment and elevation, plumb, level and true, measured from established lines and levels, and in proper alignment and relationship to adjacent construction.
 - (b) Form tight joints with exposed connections accurately fitted with uniform reveals and spaces for sealants and joint fillers. Where cutting, welding and grinding are required for proper shop fitting and jointing of Work, restore finishes to eliminate any evidence of such corrective Work.
 - (c) Do not cut or abrade finishes of ornamental metalwork unless such finishes can be completely restored. Any item whose finish cannot be subsequently refinished shall be replaced with a new item at no cost to the City.
 - (d) Install concealed gaskets, joint fillers, insulation and flashings, if indicated on Contract Drawings, as the Work progresses to make the Work weather-tight.
 - (e) Corrosion Protection - Coat concealed surfaces of any dissimilar metals with a heavy coat of bituminous paint. Do not extend coating onto exposed surfaces.
 - (f) Cleaning
 - (i) Remove protective coverings only when there is no possibility of damage from other Work to be performed at the same location. Remove protective coverings simultaneously from similarly finished items to preclude non-uniform oxidation and discoloration.
 - (ii) Wash stainless steel thoroughly with clean water and soap; rinse thoroughly with clean water and wipe dry. Do not use harsh cleaning materials or chemicals that could damage finish.

7.07 WTC.4 MEASUREMENT

- (A) The quantities to be measured for payment shall be the number of each type of steel bollards actually installed to the satisfaction of the Engineer as per the Contract Drawings and specification.

7.07 WTC.5 PRICES TO COVER

- (A) The contract price bid per each type of steel bollard, furnished and installed, shall cover the cost of all labor, material (including, but not limited to, all structural steel, stainless steel, welding materials, fasteners, and paint), fabrication, equipment, insurance, and incidentals necessary to complete the work, all in accordance with the Contract Drawings, the specifications and the directions of the Engineer.
- (B) Payment for the following shall be made under made under separate items.
 - (1) Payment for excavation and backfill shall be made under Item No. 6.02 AAN.
 - (2) Concrete shall be paid for under Item No. 4.06.
 - (3) Steel reinforcement shall be paid for under Item No. 4.14.

Payment will be made under:

Item No.	Item	Pay Unit
7.07 WTC1	BOLLARD TYPE A- FIXED, FURNISH AND INSTALL STEEL BOLLARDS	EACH

- 7.07 WTC2 BOLLARD TYPE B- 6" FIXED, FURNISH AND INSTALL EACH
STEEL BOLLARDS
- 7.07 WTC3 BOLLARD TYPE C- FIXED, FURNISH AND INSTALL STEEL EACH
BOLLARDS

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 4-colors, as directed by the Engineer. Each panel shall also contain metal grommets installed at a 1' maximum spacing around the perimeter of the fabric for mounting on the Lighted Timber Fencing for use in Lower Manhattan Project (Item No. 6.28 ME), 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 Contract Drawings, the specifications and the directions of the Engineer

Payment will be made under:

Item No.	Item	Pay Unit
9.06 HW	ALLOWANCE FOR DECORATIVE MESH FABRIC	F.S.

SECTION 9.60 GB
GUARD BOOTH

9.60 GB.1 INTENT

- (A) This section describes the installation of Credentialing Guard Booths, Inspection Guard Booths, and Exit Guard Booths as shown on the Contract Drawings.

9.60 GB.2 DESCRIPTION

- (A) Install each prefabricated building (Booth) to be furnished by others on concrete foundation slab (concrete pad) on grade as shown on Contract Drawings.

- (1) Each Booth will be furnished by manufacturer with the following integral components:

- (a) Steel framing
- (b) Steel wall and roof panels
- (c) Glazing panels and stops
- (d) Door with glazing and hardware
- (e) Painting
- (f) Metal and glass cladding
- (g) Waterproofing
- (h) Roof drains/leaders
- (i) Electrical panelboard array
- (j) Cabinet Heater, thermostat, and disconnect switch
- (k) Lighting and light switch
- (l) Air conditioning
- (m) Electrical receptacles
- (n) Pipe chase
- (o) Voice/data outlet
- (p) Rack Mounted Equipment Enclosure

- (B) Furnish and Install the following within each Booth:

- (1) Commercial Office Chairs

- (C) Install within each Booth the following components to be furnished by others unless otherwise specified:

- (1) Handheld Radio Charger
 - (a) Counter-top located, free standing equipment
 - (b) Provide 120VAC power from convenience outlet
- (2) Dock Station Portable Devices
 - (a) Counter-top located, free standing equipment
 - (b) Provide 120VAC power from convenience outlet
- (3) Wireless Access Point
 - (a) Ceiling mount device with furnished mounting plate as per the manufacturer's recommendations.
 - (b) Furnish and install wiring between the device and the booth Equipment Enclosure
- (4) Vehicle Security and Scheduling System Laptop Computer
 - (a) Counter-top located, free standing equipment
 - (b) Provide 120VAC power from convenience outlet
- (5) DAS Dashboard Display Laptop Computer
 - (a) Counter-top located, free standing equipment
 - (b) Provide 120VAC power from convenience outlet

- (D) References

- (1) Coordinate with components to be installed under other Sections:
 - (a) Section E 263353: Static Uninterruptible Power Supply

- (b) Section NYPD-CAM: Dome Network IP Camera
- (c) Section NYPD-DNE: Data Networking Equipment
- (d) Section NYPD-PP: Fiber Optic Patch Panel
- (e) Section NYPD-VADI: Vehicle Arrest Device Installation (in Inspection Booths and Exit Booths only)
- (f) Section NYPD-VS: Video Server

9.60 GB.3 MATERIALS

- (A) Concrete shall comply with the requirements of Section 4.06 of Standard Highway Specifications, as applicable.
- (B) Materials for Fill and Backfill shall comply with the requirements of Section 4.11 of Standard Highway Specifications, as applicable.
- (C) Steel reinforcement shall comply with the requirements of Section 4.14 of Standard Highway Specifications, as applicable.
- (D) Office Chair
 - (1) Shark Ergonomic Stool Commercial Office Chair Model SHA2135-L5-R2-200703.
 - (2) Global Granada Ergonomic Drafting Stool
 - (3) Quasar Big & Tall Stool with Arms
 - (4) Or an approved equivalent

9.60 GB.4 METHODS

- (A) Obtain from Engineer applicable templates, drawings and schedules by Others of items to be furnished and installed by Others under separate contract.
- (B) Establish locations of Booths in field, and verify with Engineer prior to construction.
- (C) Perform excavation and backfill in accordance with Section 4.11 of Standard Highway Specifications.
- (D) Construct concrete foundation slab on prepared subgrade in accordance with Contract Drawings. Comply with the requirements of Sections 4.06 and 4.14 of Standard Highway Specifications.
 - (1) Include anchoring as per instructions of Booth manufacturer.
 - (2) Include penetrations and stub-ups.
- (E) Booths will be provided to Contractor at storage location in New York City to be determined by the City. Coordinate with Engineer for exact storage location, conditions and schedule for pickup. The Contractor shall be required to pickup and deliver Booths to the work site and unload them.
- (F) Install Booths square to concrete slab, and secure them to anchors per instructions of the Booth manufacturer.
- (G) Install respective components within or attached to the Booths as shown on Contract Drawings.

9.60 GB.5 MEASUREMENT

- (A) The quantities to be measured for payment shall be the number of each type of Booth actually installed to the satisfaction of the Engineer as per the Contract Drawings and specifications.

9.60 GB.6 PRICES TO COVER

- (A) The contract price per each type of Guard Booth shall cover the cost of furnishing all labor,

materials, equipment, insurance, and necessary incidentals required to install Guard Booths; including, but not limited to, all excavations and backfilling required, furnishing and installing reinforced concrete footings, and installing all components to be furnished by Others; 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	Pay Unit
9.60 GB-C	CREDENTIALING GUARD BOOTH	EACH
9.60 GB-E	EXIT GUARD BOOTH	EACH
9.60 GB-I	INSPECTION GUARD BOOTH	EACH

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, which may include premium time for working during non-scheduled work hours and use of additional equipment. The Contractor will also be paid for accelerated City work deemed necessary by DDC's Assistant Commissioner of Construction for temporary restoration of the streets and sidewalks and subsequent removal thereof for City work, if required, due to Special Unscheduled Event periods. Such accelerated City work shall be paid for under this item in accordance with the requirements of Article 26 in 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	Pay Unit
HW-900H	ALLOWANCE FOR CITY WORK ACCELERATION	F.S.

SECTION HW-908-ME
 ALLOWANCE FOR EXTRA WORK
 DUE TO OFFICE OF THE MEDICAL EXAMINER DISCOVERIES

- (A) If during the course of work, human remains or apparent evidence of such remains are encountered, immediately halt work affecting the location, protect the remains in place, and notify the Office of Chief Medical Examiner and the New York City Police Department in accordance with the provisions of the New York City Administrative Code, Sections 17-201 and 17-202.
- (B) The Office of Chief Medical Examiner, City of New York, shall have jurisdiction over the remains and shall determine the disposition of such remains. The remains shall not become property of the Contractor.
- (C) At all times human remains must be treated with the utmost dignity and respect. Protect the location from potential disturbances until authorization to proceed with work is obtained from the Engineer.
- (D) Should extra work be ordered by the Engineer as a result of human remains being found under the Contract, it shall be paid for under this item as extra work in accordance with the requirements of Article 26 in the Standard Construction Contract.
- (E) Payment made under this Fixed Sum item shall cover the cost of all labor, materials, equipment, insurance, and incidentals necessary to complete any extra work ordered by the Engineer due to human remains found at the site.
- (F) No guarantee is given that this allowance item will in fact be required in the 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 extra work performed by the Contractor, as directed by the Engineer due to human remains encountered at the site.

Payment will be made under:

Item No.	Description	Pay Unit
HW-908-ME	ALLOWANCE FOR EXTRA WORK DUE TO OFFICE OF THE MEDICAL EXAMINER DISCOVERIES	F.S.

SECTION HW-913
ALLOWANCE FOR EXTRA WORK DUE TO INTERIM SECURITY

- (A) Under this Section, the Contractor will be paid for extra work recognized by DDC's Assistant Commissioner of Construction as necessary due to unscheduled interference by the Port Authority of New York and New Jersey's Interim Security program or related unscheduled events.
- (B) The Contractor shall be paid for under this item in accordance with the requirements of Article 26 in the Standard Construction Contract. Payment made under this Fixed Sum item shall cover the cost of all labor, materials, plant, equipment, insurance, and incidentals for necessary work as ordered.
- (C) 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 extra work as described in the Section, as directed by DDC's Assistant Commissioner of Construction.

Payment will be made under:

Item No.	Description	Pay Unit
HW-913	ALLOWANCE FOR EXTRA WORK DUE TO INTERIM SECURITY	F.S.

SECTION NYCT - 7A
Membrane Waterproofing

1.0. GENERAL REQUIREMENTS

1.1. Scope of Work.

- a. The Contractor shall furnish all labor, materials, tools and equipment, and perform all operations necessary for Membrane Waterproofing Work as indicated on the Contract Drawings and as specified herein.

1.2. Description.

- a. Membrane Waterproofing, except as otherwise specified herein, shall consist of a membrane of minimum three layers of treated fiberglass fabric mopped with asphalt, applied to the structure as indicated on the Contract Drawings. Where required free drainage shall be provided by pipe drains, hollow tile, or broken stone.

1.3. Applicable Codes, Standards and Specifications.

- a. Department of the Army, Corps of Engineers Guide Specification for Military Construction UFGS-071200 /2006 - Built-up Bituminous Waterproofing.
- b. American Concrete Institute, ACI 515.1R-79 (Revised 1985) - A Guide to the Use of Waterproofing, Dampproofing, Protective, and Decorative Barrier Systems for Concrete.
- c. ASTM D1668: Standard Specification for Glass Fabrics (Woven and Treated) for Roofing and Waterproofing.
- e. ASTM D5035: Standard Test Methods for Breaking Force and Elongation of Textile Fabrics.
- f. ASTM D41: Standard Specification for Asphalt Primer Used in Roofing, Dampproofing and Waterproofing.
- g. ASTM D449: Standard Specification for Asphalt Used in Dampproofing and Waterproofing
- h. The N.R.C.A. Waterproofing Manual.
- i. ASTM D6506: Standard Specification for Asphalt Based Protection Board for Below-Grade Waterproofing.

1.4. Certification Of Compliance.

- a. The Contractor shall obtain certification of compliance with specification requirements prior to delivery and installation.

1.5. Competent Workmen.

- a. The Contractor will be required to demonstrate that he has the necessary skill and experience required to perform Work of this nature. Only competent persons, skilled in this kind of Work shall be employed to apply the asphaltic compound.

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SECTION NYCT - 7A, Membrane Waterproofing

1.6. Safety Precautions.

- a. The Contractor shall control workmen exposure to asphalt fumes in the Work Site by adhering to the recommendations developed by the National Institute for Occupational Safety and Health (NIOSH) and outlined in the Publication "Criteria for a Recommended Standard: Occupational Exposure to Asphalt Fumes."

1.7. Schedule of Operations.

- a. The Contractor shall maintain the schedule of operations, at the work site and make it available for the inspection of the Engineer.

1.8. Applicable VOC Regulations.

- a. All Waterproofing materials including primer shall be in compliance with applicable Federal, State and Local VOC regulations.

1.9. Limitation.

- a. Waterproofing Membrane shall not be used where soil is contaminated with oil.

1.10. Manufacturer's Instructions.

- a. The Contractor shall maintain the copy of manufacturer's installation instructions for the inspection of the Engineer, prior to delivery of materials to the Site.

1.11. Definition of Ply.

- a. Except as otherwise specifically provided in Paragraph 3.1, the term "ply" as used in this section shall mean a layer of treated fiberglass fabric, both sides of which shall be coated with asphalt at the time of laying as specified herein.

1.12. Number of Plies.

- a. The number of plies of Membrane Waterproofing shall be as indicated on the Contract Drawings.

1.13. Submittals.

- a. The submittals required for the Engineer's/Designer's approval shall be as set forth in the Specifications and may also be indicated in the submittal table at the end of this section for the Contractor's convenience. Other items and/or submittals required to indicate conformance with the Contract Documents shall be available for Engineer's inspection.
- b. Submit shop drawing showing all waterproofing details for all roof, sidewall and sidewall penetrations, Hold Points as well as waterproofing details between existing and new structures for the Engineer's review, comments and approval.

2.0. MATERIALS.

2.1. General.

- a. Materials shall be delivered to the Site in the manufacturer's sealed containers, marked with the manufacturer's name and brand indicating the grade and quality of the materials.
- b. Materials showing evidence of damage, deterioration, or having been opened will be rejected.
- c. Rejected materials shall be removed from the Site before the application of Membrane Waterproofing is started.
- d. Materials shall be stored so that they will not be subject to physical damage, freezing, or contamination. These materials shall be protected from oils, greases, waxes and solvents.

2.2. Material Properties.

2.2.1. Fabric Requirements.

- a. The fabric to be used shall be a fiberglass asphalt treated fabric conforming to ASTM D1668, Type I which shall have been treated before being brought to the Site. The untreated fabric shall weigh not less than 1.4 ounces per square yard, which when treated shall weigh not less than 2.0 ounces per square yard. The thread count shall be between 20 and 24 per linear inch in each direction. The strength of the fabric shall not be less than 75 pounds in either direction by the Strip Method (ASTM D5035).

The material used in treating the fabric shall have the same general characteristics as that used in cementing the layers on the work. The melting point of the asphalt used for treating fabric shall be between 135 degrees and 170 degrees Fahrenheit.

2.2.2. Asphalt Primer Requirements

- a. The waterproofing system shall be used with a cold applied primer conforming to ASTM D41.

2.2.3. Asphalt Requirements.

- a. Asphalt for subway waterproofing shall consist of fluxed natural asphalt, or asphalt prepared by the careful steam distillation of asphaltic petroleum, or by the careful steam distillation and air-blowing of asphaltic petroleum conforming to ASTM D449. The samples of asphalt, the materials used in its preparation, and the documents related to the method of manufacture shall be maintained for the inspection of the Engineer. The asphalt (TYPE II) shall comply with the following requirements:

1. The softening point of fluxed natural asphalt shall be between 145 degrees and 170 degrees Fahrenheit, as determined by the Ring and Ball method. The softening point of steam distilled asphalt shall be between 125 degrees and 140 degrees Fahrenheit as determined by the Ring and Ball method. The softening point of steam-distilled and airblown asphalt shall be between 125 and 140 degrees Fahrenheit as determined by the Ring and Ball method.
2. The consistency of the asphalt shall be determined by the penetration, which shall be between 25 and 50 at 77 degrees Fahrenheit, and not less than 5 at 32 degrees Fahrenheit. Penetration shall be the depth of penetration in hundredths of a centimeter of a No. 2 cambric needle. At 77 degrees Fahrenheit, the needle shall be weighted to 100 grams and shall act for 5 seconds. At 32 degrees Fahrenheit the needle shall be weighted to 200 grams and shall act for one minute.
3. A briquette of the asphalt of cross-section of one square centimeter shall have ductility of not less than 10 centimeters at 77 degrees Fahrenheit, the material being elongated at the rate of 5 centimeters per minute. (Dow moulds).
4. The specific gravity of the asphalt shall be not less than 1.00 at 77 degrees Fahrenheit.
5. Asphalt shall not be less than 99 percent soluble in trichloroethylene. Fluxed natural asphalt shall be not less than ninety-five percent soluble in cold carbon disulphide. Steam-distilled asphalt shall be not less than 99 percent soluble in cold carbon disulphide. Steam-distilled and airblown asphalt shall be not less than 99 percent soluble in cold carbon disulphide.
6. When a fifty gram sample of the asphalt is heated for 5 hours at a temperature of 325 degrees Fahrenheit in a tin box approximately 2-3/16 inches in diameter it shall not lose over one percent by weight.
7. The penetration of the residue of the asphalt at 77 degrees Fahrenheit after heating as specified in the preceding paragraph shall be not less than 60 percent of the original penetration.
8. Temperature of asphalt at time of application shall be in accordance with the manufacturer's recommendations.

2.2.4. Protection Board.

Install a 1/8" protection course board meeting the requirements of ASTM D 6506 Type 2 over the membrane. The board shall be by W.R. Meadows, type PC-2, or approved equal, in accordance with the manufacturer's instructions. It shall be installed after the water

test has been completed and the membrane is dry. The board shall be set in an approved adhesive sufficient to insure a firm support for the entire area. The boards shall be butted together and cut to fit all intersecting surfaces and protrusions. The joints shall be covered with Detail Strip by W.R. Meadows (or approved equal) or with roofer's glass reinforced tape embedded in hot asphalt.

2.2.5. Asphalt Mastic Waterproofing.

- a. Where indicated on the Contract Drawings, asphalt mastic of the quality specified in Paragraph 2.2.3 ASPHALT REQUIREMENTS shall be used.

3.0. CONSTRUCTION METHODS.

3.1. Pre-Installation Conference

- a. An onsite pre-installation conference shall be held prior to commencement of field operations to establish procedures to maintain optimum working conditions and to coordinate this work with related and adjacent work. Agenda for meeting shall include review of special details and flashing. All trades affected by or involved with this work shall be present at such meeting.

3.2 Preparation of Surface.

- a. The asphalt primer shall be applied to a clean and dry substrate and in no case shall it be applied until at least 7 days after concrete placement, or longer if so recommended by the manufacturer. Allow primer to dry before applying waterproofing.
- b. The primer and membrane shall be applied when the weather is dry and the temperature in the shade is above 40 degrees F (4 degrees C).
- c. The substrate shall be free of dirt, debris, dust, oil, grease, frost, water, curing compounds, laitance, bituminous products, friable matter, slurry, and loose, weak and unsound materials. In order to insure a suitable surface, one of the following blast cleaning methods shall be used:
 1. dry sandblasting
 2. wet sandblasting
 3. high-pressure water jetting
- d. All projections shall be removed and all voids made smooth by applying a bed of mortar to the existing concrete.
- e. Bevels and fillets shall be provided where surfaces intersect.
- f. The prepared surfaces shall be witnessed by the Engineer as per Section 1J paragraph 2.6.3.5 describing Hold Points, before application of the waterproofing system.

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3.3. Application.**3.3.1. Heating.**

- a. The kettles in which the asphalt is heated on the Site shall be equipped with automatic thermostatic control capable of maintaining asphalt temperature. Provide an accurate and clearly readable thermometer on all kettles.
- b. Kettles shall not be closer than 25 feet to buildings or combustible materials. Provide minimum two 20 lb ABC all purpose extinguisher at each kettle.
- c. The asphalt shall be heated to the manufacturer's recommended Equiviscous Temperature (EVT) \pm 25 degrees F, but in no case shall asphalt be heated to a temperature of more than 350 degrees Fahrenheit. Asphalt heated above 350 degrees Fahrenheit shall not be used in the Work. In no case shall the temperature exceed the flashpoint of the asphalt. EVT and Flashpoint temperature of asphalt shall be conspicuously posted on kettle.
- d. The fuel for heating the asphalt shall be as nearly as practical non-smoke-producing. Depending upon local conditions, portable or non-portable heating containers may be used.

3.3.2. Membrane Waterproofing; How Laid.

- a. The membrane waterproofing shall not be laid unless concrete is cured for seven days. On smooth surfaces there shall be spread hot melted asphalt in a uniformly thick layer; on this layer of asphalt shall be laid a treated fiberglass fabric; this process shall be repeated until such number of layers as indicated on the Contract Drawings have been placed and a final coat of asphalt shall then be applied. Waterproofing shall not be applied if frothing or bubbling occurs when hot asphalt is applied to the surface. Flat asphalt must stick tightly to the surface.
- b. The fabric shall be rolled out into the asphalt while the asphalt is still hot, and pressed against the asphalt so as to insure the fabric being completely stuck over its entire surface and free from air pockets.
- c. To prevent cooling of the asphalt, only an area of the size to be determined by trial shall be mopped before rolling the fabric into place.
- d. Asphaltic Waterproofing shall be laid over compatible Waterproofing type. If the Waterproofing types are not compatible, metal flashing shall be used to physically separate two incompatible types.
- e. Special care shall be taken to lay Waterproofing Membrane over vertical surface during warm weather. Concrete shall be placed as soon as possible. Waterproofing which has sagged or cracked due to water build-up shall be replaced. When the structural wall or slab is placed against Waterproofing, special efforts are needed to avoid honeycomb in the concrete.

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3.3.3. Asphalt to Completely Cover Surface.

- a. Each layer of asphalt shall completely and entirely cover the surface on which it is spread without cracks or blowholes.

3.3.4. Joints.

- a. Membrane waterproofing shall be so laid that at any cross-section through the fabric there shall be at least the full number of plies required. In order to insure this result there shall be an overlap of at least two inches at the ends and edges of each strip of fabric. The joints shall be staggered between plies.
- b. All joints in membrane waterproofing not laid in a continuous operation shall be lapped so as to secure a full lap of at least one foot at the ends and edges.
- c. In joining membrane waterproofing to asphaltic waterproofing in place, the surfaces of the waterproofing in place shall be cleaned and heated before joining the new waterproofing to that previously laid.
- d. All joints and lapped waterproofing membranes with new or existing waterproofing shall be witnessed by the Engineer as per Section 1J paragraph 2.6.3.5 describing Hold Points.

3.3.5. Water Test

The waterproofed area or a minimum area of 400 square feet shall be water tested by ponding with a minimum depth of 2" of water for a period of 24 hours to check the integrity of the installation. The water test is to be conducted prior to the installation of the protection concrete. If leaks occur, the water must be drained completely, thoroughly dry and the membrane installation repaired and the test repeated.

3.3.6. Use of Asphalt Mastic.

- a. Asphalt mastic shall be, poured in place, for seals between existing and new waterproofing.

3.3.7. Precautions After Laying Membrane Waterproofing.

- a. When concrete is laid against the membrane waterproofing material, care shall be taken not to break, tear or injure in any way the outer surface of the asphalt. The concrete shall be placed as soon as practicable after the membrane waterproofing is laid. No loads shall be placed upon exposed membrane waterproofing and no walking over or working upon exposed membrane waterproofing will be allowed.

- b. Where membrane waterproofing is applied to concrete of inverts, said waterproofing shall be protected with a one-inch thick mortar (or pea gravel aggregate concrete) layer, which shall be placed on top of the waterproofing within 24 hours after installation of waterproofing. The mortar layer shall not be placed until waterproofing has been inspected. Mortar protection shall be omitted if a structural slab is placed within 24 hours after

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installation of waterproofing.

- c. Waterproofing protection board shall be placed over membrane waterproofing. (exception: on vertical surfaces in blind side applications). Such protection shall be placed in accordance with manufacturer's recommended procedures. Particular attention is called to the Contractor that the intent is to protect the membrane waterproofing from damage during construction and therefore, the protection must be placed immediately upon completion of the of the - waterproofing work and prior to subsequent work that may result in damage thereto.
 1. Where the water test is not being performed, waterproofing protection board shall be pressed into the final application of asphalt while the asphalt is still hot, with edges of boards brought into moderate contact and joints staggered.
 2. Where the water test is to be performed, complete the water test and, if necessary, repair the membrane installation as per paragraph 3.2.5. Apply a fresh layer of asphalt per paragraph 3.2.2. Install waterproofing protection board as indicated in paragraph 3.2.7c1 above.
 3. Waterproofing protection shall be carefully and neatly fitted around pipes and projections and shall cover the entire surface of the waterproofing.
- d. A concrete protection course at least 3 inches thick shall be applied over top slab waterproofing. The top slab waterproofing shall be witnessed by the Engineer as per Section 1J paragraph 2.6.3.5 describing Hold Points before the concrete protection course is placed.

3.3.8. Rehabilitation of Waterproofing.

- a. Where protection concrete is removed from an existing structure, extreme care shall be taken to ensure that the existing membrane waterproofing is protected and portions that are disturbed or damaged shall be patched and repaired by the application of asphalt, fabric or any other materials deemed necessary to restore the membrane waterproofing and provide the surface necessary for proper lapping.

3.4. Hold Points

- a. In accordance with Specification Section 1J - Contractors Quality Program, paragraph 2.6.3.5 - Hold Points, shall apply. The Contractor shall review and obtain acceptance by the Engineer for all hold point items listed below prior to proceeding with waterproofing.

4.0. MEASUREMENT AND PAYMENT.

4.1. Payment For Membrane Waterproofing.

- a. Payment for three 3-ply Membrane Waterproofing will be made at the unit price bid in Item No. NYCT-7A.1 - MEMBRANE WATERPROOFING, which price shall include the cost of all incidental work, labor and materials.
- b. Measurement for Membrane Waterproofing will be made on the basis of area covered and the number of plies used with no account being taken of laps.
- c. At joints where membrane waterproofing having any number of plies is lapped over membrane waterproofing having a different number of plies, payment for membrane waterproofing over the area covered by the overlap will be made under the item for the membrane waterproofing having the greater number of plies, to which the lesser number of plies is joined. In no case will payment be made for the laps of membrane waterproofing.
- d. Payment for 6-ply Membrane Waterproofing ordered to be used when severe water conditions are encountered will be made at 200-percent of the price bid for Item No. NYCT-7A.1 - MEMBRANE WATERPROOFING.
- e. Mortar protection layer and protective concrete for membrane waterproofing in place, as required in Paragraph 3.2.7 - Precautions After Laying Membrane Waterproofing, will be paid for under Item No. NYCT-7A.1 - MEMBRANE WATERPROOFING, which unit price shall include the cost of all work, labor, materials, and insurance necessary therefore or incidental thereto.

4.2. Payment For Waterproofing Protection Board.

Payment for Waterproofing Protection Board, complete, in place will be paid for at the unit price bid for Item No. NYCT-7A.2 - WATERPROOFING PROTECTION BOARD, which price shall include the cost of all incidental work, labor, material, and insurance.

Measurement for Waterproofing Protection Board shall be made on the basis of area covered as indicated in the Contract Drawings with no account being taken for laps.

Payment will be made under:

Item No.	Item	Pay Unit
NYCT-7A.1	MEMBRANE WATERPROOFING	S.F.
NYCT-7A.2	WATERPROOFING PROTECTION BOARD	S.F.

NYC TRANSIT SPECIFICATIONS
SECTION NYCT - 7A, Membrane Waterproofing

TABLE 1

Item no	Paragraph	Hold points
1	3.3.4.d	Lapping of waterproofing membranes
2	3.2.f	Preparation of surfaces
3	3.7d	Before application of protection course

Submittal Approvals

Item No.	Paragraph No.	Submittal	Approval By (Engineer or Designer)
1	1.13.	Schedule of Hold Points	Engineer
2			
3			

Note:

This table does not include approvals for "or-equal" proposals. Approvals for "or-equal" proposals are covered in Information For Bidders, Paragraph 9 and Specification Section 1B, Paragraph 1.38.

SECTION NYPD-CCI
CONTROL CABINET INSTALLATION

NYPD-CCI.1 INTENT

- (A) This section describes the installation of Control Cabinet systems as shown on the Contract Drawings.

NYPD-CCI.2 DESCRIPTION

- (A) Control Cabinets will be furnished by Others. Control Cabinets will include the following components, furnished and installed by Others:
 - (1) Hydraulic power unit
 - (2) Lock
 - (3) Electrical controller (PLC)
 - (4) Hydraulic accumulator
 - (5) Hand pump
 - (6) Heater
- (B) Coordinate with Engineer for storage location and delivery of Control Cabinets and components to the site.
- (C) Install Control Cabinet as shown on contract drawings.
- (D) Reference other sections for related components:
 - (1) Communications equipment and control cables
 - (2) Hydraulic hoses
 - (3) Electrical power
 - (4) Traffic lights

NYPD-CCI.3 MATERIALS

- (A) Control Cabinet Foundation materials are indicated on Contract Drawings and specified in other Sections.
- (B) Caulking, fasteners, and mounting hardware shall be as recommended by the Control Cabinet manufacturer.

NYPD-CCI.4 METHODS

- (A) Obtain Manufacturer's installation instructions and drawings.
- (B) Establish locations of Control Cabinet in field, and verify with Engineer prior to construction.
- (C) Control Cabinet will be provided to Contractor at storage location in New York City to be determined by the City. Coordinate with Engineer for exact storage location, conditions and schedule for pickup. Deliver Control Cabinet to the work site and unload.
- (D) Construct Control Cabinet Foundation as shown on Contract Drawings and as specified in the applicable Sections.
- (E) Mount Control Cabinet on Foundation in accordance with the recommendations of the Control Cabinet manufacturer.
 - (1) Connect hydraulic hoses and install other components and accessories indicated on Contract Drawings.
 - (2) Obtain Engineer's approval prior to commissioning.
- (F) Coordinate with Manufacturer of Control Cabinet, who will provide guidance for installation, testing, and certification of the completed work.

NYPD-CCI.5 MEASUREMENT

- (A) The quantities to be measured for payment shall be the number of Control Cabinets actually installed to the satisfaction of the Engineer as per the Contract Drawings and specification.

NYPD-CCI.6 PRICE TO COVER

- (A) The contract price per each of the items listed below shall cover the cost of furnishing all labor, materials (including but not limited to caulking, fasteners, and mounting hardware), equipment, insurance, and necessary incidentals required and completing the work in accordance with the Contract Drawings, the specifications, and directions of the Engineer.
- (B) Payment for the following shall be made under made under separate items.
 - (1) Payment for excavation and fill shall be made under Item No. 6.02 AAN.
 - (2) Concrete and Foundation Material shall be paid for under Item No. 4.06.
 - (3) Steel reinforcement shall be paid for under Item No. 4.14.

Payment will be made under:

Item No.	Item	Pay Unit
NYPD-CCI	CONTROL CABINET INSTALLATION	EACH

SECTION NYPD-HH
HYDRAULIC HOSE

NYPD-HH.1 INTENT

- (A) This section describes furnishing and installing Hydraulic Hose as shown on the Contract Drawings.

NYPD-HH.2 DESCRIPTION

- (A) Furnish and install Hydraulic Hose as shown on Contract Drawings.
- (B) Submittals: Submit product information for hose and fittings.

NYPD-HH.3 MATERIALS

- (A) Hydraulic hose shall be a 1/2" inside diameter, double wire braided with minimum burst pressure of 12,000 PSI, working pressure of 3,000 PSI, and no skiving shall be required for connection to hose fittings. Temperature range shall be -40 to +212 degrees F, manufactured and model number as follows, or approved equivalent:
 - (1) Weatherhead Model H145
 - (2) Aeroquip Model FC639
 - (3) Parker Model 451
- (B) Materials for Fill and Backfill shall comply with the requirements of Section 4.11 of Standard Highway Specifications, as applicable.

NYPD-HH.4 METHODS

- (A) Coordinate with Manufacturer of Vehicle Arrest Device.
- (B) Perform excavation and fill in accordance with Section 4.11 of Standard Highway Specifications.
- (C) Install hose in trench.
 - (1) Hose shall be one continuous section between points of connection indicated on Contract Drawings.
- (D) Backfill after obtaining Engineer's approval to proceed.

NYPD-HH.5 MEASUREMENT

- (A) The quantity to be measured for payment shall be the number of linear feet of Hydraulic Hose actually installed to the satisfaction of the Engineer as per the Contract Drawings and specification.

NYPD-HH.6 PRICE TO COVER

- (A) The contract price per linear foot of Hydraulic Hose shall cover the cost of furnishing all labor, materials, equipment, insurance, and necessary incidentals required and completing the work in accordance with the Contract Drawings, the specifications, and directions of the Engineer.

Payment will be made under:

Item No.	Item	Pay Unit
NYPD-HH	HYDRAULIC HOSE	L.F.

SECTION NYPD-SGP1
FURNISH AND INSTALL STOP/GO SIGNAL POLE

NYPD-SPG1.1 DESCRIPTION

- (A) Under this Item, the Contractor shall furnish and install Stop/Go Signal Pole, including LED direct view signals and supporting plates, housing, signal cover, vertical steel post, mounting plates, welded connections, fasteners and appurtenances in accordance with the Contract Drawings, specifications and directions of the Engineer.
- (B) References: The controllers shall meet all applicable standards from the following:
- (1) ANSI (American National Standards Institute)
 - (2) IESNA (Illumination Engineering Society North America)
 - (3) CUL (Canadian Underwriters Laboratory)
 - (4) UL (Underwriter Laboratories)
 - (5) NEMA (National Electrical Manufacturers Association)
- (C) Submittals:
- (1) Product Data: Submit manufacturer's product data, storage and handling requirements and recommendations, installation methods and available finishes, styles, patterns and textures.
 - (2) Shop Drawings: Submit manufacturer's shop drawings, including plans and elevations, indicating overall dimensions for approval by Engineer.
 - (3) Samples: Submit manufacturer's samples of materials, finishes, and colors, including three (3) samples of specified color as applied to an 8 inch by 8 inch square of specified metal for approval by Engineer.
- (D) Quality Control:
- (1) Manufacturer's Qualifications: Manufacturer shall be regularly engaged in manufacture of site furnishings for a minimum of three (3) years.
 - (2) Product Support: All products shall be supported with complete engineering drawings.

NYPD-SPG1.2 MATERIALS

- (A) Stop/Go Signal
- (1) Manufacturer: Product to be as manufactured by:
Directional Systems, 1419 West 26th St., Erie, PA 16508
Phone: (877) 827-8296; Fax: (877) 827-8291
Email: sales@directionalsystems.com
Website: www.directionalsystems.com
 - (2) Illumination Source:
 - (a) Super bright, wide viewing angle Traffic Controller LED (TCL)
 - (b) LED dimensions: Two (2) 4-inch diameter circular lights, vertically stacked
 - (3) Electrical:
 - (a) Integrated solid-state power supply
 - (b) Standard Voltage: 120 Volts Alternating Current (VAC)
 - (c) Optional Voltages: 9-36 Volts, 240 VAC, 277 VAC
 - (d) Maximum 0.01 amps per lighted message (at 120 V)
 - (e) UL/CUL Listed for wet locations
 - (4) Signal Face:
 - (a) Faces: Single Faced Sign
 - (b) Extrusion: Slim line continuous, corrosion resistant, aluminum housing 2.5" deep
 - (c) Face Material: impact resistant, smoked tinted polycarbonate 1/8" thick.
 - (5) Cabinet (Housing)
 - (a) Dimensions: 12" H x 6" W x 2.5" D
 - (b) Finish Color: Duranodic Bronze, Semi-Gloss Finish
 - (6) Warranty: Products shall be free from defects in material and/or workmanship for a period of

three (3) years from the date of substantial completion.

- (7) Products shall be repaired or replaced, to the satisfaction of the Engineer, any items found defective upon inspection by Engineer.

(B) Signal Pole Structure and Cover

(1) Signal Cover:

(a) Manufacturer: Secure USA Inc. – P.O. Box 2298, Cumming, GA 30028 – Phone: 888-222-4559 / Fax: 770-889-7939 / Email: Michael.shartouny@secureusa.net / Web: www.secureusa.net.

(b) Signal Covers shall be fabricated out of 11-gauge stainless steel, ANSI Type 316, nonmagnetic, unless otherwise noted in the Contract Drawings.

- (2) General - Select material which has a high degree of surface flatness, smoothness and freedom from surface blemishes where exposed to view in the finished unit. Exposed-to-view surfaces that exhibit pitting, seam marks, roller marks, "oil canning", stains, discolorations or other imperfections on finished units will not be acceptable.

(3) Stainless Steel

(a) Grade and type designated below for each form required:

(i) Tubing: American Society for Testing and Materials (ASTM) A554, Grade MT, 316, for exterior use.

(ii) Pipe: ASTM A312, Grade Type 316, for exterior use.

(iii) Castings: ASTM A743, Type 316, Grade CF8M, 1/8" thickness, for exterior use.

(iv) Plate: ASTM A666, Type 316 for exterior use.

(v) Bar Stock: ASTM A276, Type 316 for exterior use.

(4) Welding Electrodes and Filler Metal

(a) Type and alloy of filler metal and electrodes shall be as recommended by producer of the metal to be welded, complying with applicable American Welding Society Inc. (AWS) specifications and as required for color match, strength and compatibility between dissimilar materials in the fabricated items.

(C) Fasteners

(1) Metal components shall be stainless steel, ANSI Type 316, nonmagnetic. Finish of fastener metal and alloy shall match color and texture of the metal being fastened.

- (2) Use concealed fasteners for interconnection of stainless steel components and for their attachment to other Work, except where otherwise shown on the Contract Drawings. Use Phillips flathead screws, countersunk, with stainless steel, ANSI Type 316, nonmagnetic cap, for exposed fasteners, if any.

NYPD-SPG1.3 METHODS

(A) Signal Structure and Cover

(1) Design and Performance Requirements

(a) Exterior appearance of Signal Cover shall be similar to Fixed Bollards which are included in Contract and specified under a separate section.

(b) Items requiring design computations, as noted in the Contract Drawings, shall be designed to withstand all structural loads, as required by building codes which would apply if the City were a private corporation.

(c) Thermal Movements - Design components to allow for expansion and contraction for a maximum ambient temperature change (range) of 120 degrees F without causing buckling, excessive opening of joints or overstressing of welds and fasteners.

(d) Corrosion Control - Prevent galvanic action and other forms of corrosion by isolating metals and other materials from other incompatible materials.

(e) Connection - Determine exact means of fastenings in accordance with approved shop drawing meeting the following requirements:

(i) Provide a minimum number of connection points as indicated on Contract Drawings.

(2) Fabrication – General

- (a) Form metalwork to the required shapes, sizes and finishes, with true curves, lines and angles. Furnish necessary rebates, lugs and brackets for assembly of units. Use concealed fasteners wherever possible. Finish exposed surfaces to smooth, sharp, well-defined lines and arrises.
- (b) Preassemble items in shop to the greatest extent possible to minimize field splicing and assembly. Disassemble units only as necessary for shipping and handling limitations. Clearly match mark units for reassembly and coordinated installation.
- (c) Comply with AWS for recommended practices in shop welding and brazing. Welds and brazes behind finished surfaces shall not distort or discolor exposed side. Clean exposed welded joints of all welding flux and dress all exposed and contact surfaces.
- (d) Welding
 - (i) Comply with applicable provisions of AWS D1.6 Structural Welding Code – Stainless Steel.
 - (ii) Certify that each welder has satisfactorily passed AWS qualification tests for welding processes involved and if pertinent, has undergone recertification.
 - (iii) All welders shall be licensed in the state in which the Work is to be performed.
 - (iv) Field welding shall not be permitted.
- (e) Castings shall be sound and free of warp or defects that impair strength and appearance. Mill joints to a close fit and finish exposed surfaces to smooth, sharp, well-defined lines and arrises.
- (f) Shear and punch metals cleanly and accurately. Remove burrs and ease exposed edges to a radius of approximately 1/32 inch unless otherwise shown. Form bent metal corners to smallest radius possible without causing grain separation or otherwise impairing the Work.
- (g) Use connections that maintain structural value of joined pieces.
- (h) Mill joints to a tight, hairline fit. Cope or miter corner joints. Form joints exposed to weather to exclude water penetration.
- (i) Provide weep holes where water may accumulate.
- (j) Fabricating Castings
 - (i) Fabricate cast metal units to design from cast metal type shown on the Contract Drawings. Drill and tap castings for threaded mounting studs.
- (3) Shop Finishing
 - (a) Comply with National Association of Architectural Metal Manufacturers (NAAMM)'s "Metal Finishes Manual for Architectural and Metal Products" for recommendations relative to application and designations of stainless steel finishes, except as otherwise shown on the Contract Drawings.
 - (b) Stainless Steel Finishes
 - (i) Finish designations prefixed by "AISI" conform to the system established by the American Iron and Steel Institute for designating stainless steel finishes, listed in NAAMM's "Metal Finishes Manual for Architectural and Metal Products".
 - (ii) Remove or blend tool and die marks and stretch lines into finish.
 - (iii) Grind and polish surfaces to produce uniform, directional, textured, polished finish indicated, free of cross scratches. Run grain with long dimension of each piece.
 - (iv) Passivate and rinse surfaces. Remove embedded foreign matter and leave surfaces chemically clean.
 - (c) Furnish the following finish to exposed surfaces:
 - (i) #4 bead blast with #2 sample electro polish.
 - (ii) Beads shall be pure glass, used only for stainless steel finishing.
 - (iii) Finish shall be as matte as achievable using up-to-date processes and standards.
- (4) Storage and Delivery
 - (a) Protect materials from scratches, nicks, dents and gouges during delivery, storage, handling, assembly and installation.
 - (b) Protect mechanical finishes on exposed surfaces from damage by application of strippable temporary protective covering prior to shipment.
 - (c) Inspect ornamental metal items before installation to verify that they are free from scratches, nicks, dents and other damage or defects. Inspect anchorage devices, fasteners, concealed gaskets, joint fillers, insulation and flashings, if any, before installation to verify that they are free of defects. Repair or replace defective items at no cost to the City.

- (5) Installation
 - (a) Set Signal Pole assembly accurately in location, alignment and elevation, plumb, level and true, measured from established lines and levels, and in proper alignment and relationship to adjacent construction.
 - (b) Form tight joints with exposed connections accurately fitted with uniform reveals and spaces for sealants and joint fillers. Where cutting, welding and grinding are required for proper shop fitting and jointing of Work, restore finishes to eliminate any evidence of such corrective Work.
 - (c) Do not cut or abrade finishes of ornamental metalwork unless such finishes can be completely restored. Any item whose finish cannot be subsequently refinished shall be replaced with a new item at no cost to the City.
 - (d) Install concealed gaskets, joint fillers, insulation and flashings, if indicated on Contract Drawings, as the Work progresses to make the Work weather-tight.
 - (e) Corrosion Protection - Coat concealed surfaces of any dissimilar metals with a heavy coat of bituminous paint. Do not extend coating onto exposed surfaces.
 - (f) Cleaning
 - (i) Remove protective coverings only when there is no possibility of damage from other Work to be performed at the same location. Remove protective coverings simultaneously from similarly finished items to preclude non-uniform oxidation and discoloration.
 - (ii) Wash stainless steel thoroughly with clean water and soap; rinse thoroughly with clean water and wipe dry. Do not use harsh cleaning materials or chemicals that could damage finish.
- (6) Stop/Go Signal:
 - (a) Install in accordance with manufacturer's instructions.

NYPD-SPG1.4 MEASUREMENT

- (A) The quantities of Stop/Go Signal Poles to be measured for payment shall be the quantity of each installed at the site to the satisfaction of the Engineer.

NYPD-SPG1.5 PRICE TO COVER

- (A) The price bid shall be the unit price per each Stop/Go Traffic Signal Pole, Furnished and Installed, and shall include the cost of all labor, material (including all signals, steel, welding materials, fasteners, and paint), fabrication, equipment, insurance, and incidentals necessary to complete the work, all in accordance with the Contract Drawings, the specifications and the directions of the Engineer.
- (B) Payment for the following shall be made under made under separate items.
 - (1) Payment for excavation and fill shall be made under Item No. 6.02 AAN.
 - (2) Concrete and Foundation Material shall be paid for under Item No. 4.06.
 - (3) Steel reinforcement shall be paid for under Item No. 4.14.

Payment will be made under:

Item No.	Item	Pay Unit
NYPD-SGP1	FURNISH AND INSTALL STOP/GO SIGNAL POLE	EACH

**SECTION NYPD-VADI
VEHICLE ARREST DEVICE INSTALLATION**

NYPD-VADI.1 INTENT

- (A) This section describes the installation of Vehicle Arrest Device systems as shown on the Contract Drawings.

NYPD-VADI.2 DESCRIPTION

- (A) Install Vehicle Arrest Devices, which will be furnished by others.
 - (1) Vehicle Arrest Device will be Model HT-1 Raptor Road Blocker, manufactured by Heald, Ltd. The device will be furnished with the following components:
 - (a) Hydraulic power unit – supplied in cabinet
 - (b) Integral hand pump – supplied in cabinet
 - (c) Hydraulic accumulator – supplied in cabinet
 - (d) Control panel – supplied to be fitted in guard booth
 - (2) Coordinate with Engineer for storage location and delivery of Vehicle Arrest Devices and components to the site.
 - (3) Install Vehicle Arrest Device as shown on Contract Drawings.
- (B) Reference other sections for related components:
 - (1) Control system
 - (2) Communications equipment
 - (3) Stop/Go signal
 - (4) Loop detectors
 - (5) Hydraulic cables
 - (6) Electrical power
 - (7) Storm drainage
 - (8) Control Cabinets

NYPD-VADI.3 MATERIALS

- (A) Concrete shall comply with the requirements of Section 4.06 of Standard Highway Specifications, as applicable.
- (B) Materials for Fill and Backfill shall comply with the requirements of Section 4.11 of Standard Highway Specifications, as applicable.

NYPD-VADI.4 METHODS

- (A) Obtain Manufacturer's installation instructions and drawings.
- (B) Establish locations of Vehicle Arrest Device in field, and verify with Engineer prior to construction.
- (C) Vehicle Arrest Device will be provided to Contractor at storage location in New York City to be determined by the City. Coordinate with Engineer for exact storage location, conditions and schedule for pickup. Deliver Vehicle Arrest Device to the work site and unload.
- (D) Perform excavation and fill in accordance with Section 4.11 of Standard Highway Specifications.
- (E) Prepare subgrade, and place Vehicle Arrest Device at locations, alignment and grades shown on Contract Drawings.
 - (1) Connect hydraulic hoses and other accessories, drainage, control ducts and any other required ducting.
 - (2) Provide cabling and all connections for access control unit and all Raptors prior to commissioning.

- (3) Obtain Engineer's approval prior to backfill.
- (F) Place concrete in accordance with Contract Drawings. Comply with the requirements of Sections 4.06 and 4.14 of Standard Highway Specifications.
- (G) Coordinate with Manufacturer of Vehicle Arrest Device, who will provide guidance for installation, testing, and certification of the completed system. Perform testing of the installation per manufacturer's instructions.

NYPD-VADI.5 MEASUREMENT

- (A) The quantity to be measured for payment shall be the number of Vehicle Arrest Devices actually installed to the satisfaction of the Engineer as per the Contract Drawings and specification.

NYPD-VADI.6 PRICE TO COVER

- (A) The contract price per each Vehicle Arrest Device Installation shall cover the cost of furnishing all labor, materials, equipment, insurance, and necessary incidentals required and completing the work including but not limited to excavation, preparation of subgrade, fill, backfill, installation, testing, certification, and coordination as needed to provide a complete and functional installation in accordance with manufacturer's instructions, the Contract Drawings, the specifications, and directions of the Engineer.
- (B) Payment for the following shall be made under made under separate items.
 - (1) Concrete shall be paid for under Item No. 4.06.

Payment will be made under:

Item No.	Item	Pay Unit
NYPD-VADI	VEHICLE ARREST DEVICE INSTALLATION	EACH

SECTION NYPD-VSCI
VEHICLE SCALE INSTALLATION

NYPD-VSCI.1 INTENT

- (A) This section describes the installation of Vehicle Scale systems as shown on the Contract Drawings.

NYPD-VSCI.2 DESCRIPTION

- (A) Furnish and install scale pit as shown on Contract Drawings.
- (B) Install Vehicle Scale, which will be furnished by others, as shown on drawings and in accordance with Manufacturer's instructions.
 - (1) Vehicle Scale will be AX920 In-Ground Axle Scale manufactured by Intercomp Co., Inc., 3839 County Road 116, Median, MN 55340-9342, 1-800-328-3336. The scale will be furnished with the following components:
 - (a) Vehicle Scale Assembly – welded metal pit frame (weighbridge) structure with indicator box and platform
 - (b) Manufacturer's Installation kit
- (C) Reference other sections for related components:
 - (1) Communications equipment
 - (2) Electrical conduits and wiring
 - (3) Storm drainage system

NYPD-VSCI.3 MATERIALS

- (A) Materials for Fill and Backfill shall comply with the requirements of Section 4.11 of Standard Highway Specifications, as applicable.
- (B) Concrete shall comply with High-Early Strength concrete in compliance with the requirements of Section 4.04 of Standard Highway Specifications, as applicable.

NYPD-VSCI.4 METHODS

- (A) Obtain Manufacturer's installation instructions and drawings.
- (B) Vehicle Scale will be provided to Contractor at storage location in New York City to be determined by the City. Coordinate with Engineer for exact storage location, conditions and schedule for pickup. Deliver Vehicle Scale to the work site and unload.
- (C) Coordinate with Manufacturer of Vehicle Scale, who will provide guidance for installation, testing, and certification of the completed system.
- (D) Establish locations of Vehicle Scale in field, and verify with Engineer prior to construction.
- (E) Perform excavation and fill in accordance with Section 4.11 of Standard Highway Specifications.
- (F) Prepare subgrade, and construct concrete scale pit at locations, alignment and grades shown on Contract Drawings.
 - (1) Coordinate for storm drainage and electrical conduit construction.
 - (2) Connect storm drainage and other utilities to concrete pit.
- (G) Place concrete in accordance with Contract Drawings. Comply with the requirements of Section 4.04 of Standard Highway Specifications.
- (H) Backfill after obtaining Engineer's approval to proceed.

NYPD-VSCI.5 MEASUREMENT

- (A) The quantities to be measured for payment shall be the number of Vehicle Scales actually installed to the satisfaction of the Engineer as per the Contract Drawings and specification.

NYPD-VSCI.6 PRICE TO COVER

- (A) The contract price per each Vehicle Scale Installation shall cover the cost of furnishing all labor, materials, equipment, insurance, and necessary incidentals required and completing the work including, but not limited to, pickup and delivery of Vehicle Scale, vehicle scale assembly, and its installation kit; performing excavation, preparation of subgrade, furnishing and placing fill, and backfill; and compliance with all manufacturer's instructions for installation, testing and certification; all in accordance with the Contract Drawings, the specifications, and directions of the Engineer.
- (B) Payment for the following shall be made under made under separate items.
 - (1) Concrete and Foundation Material shall be paid for under Item No. 4.06.
 - (2) Steel reinforcement shall be paid for under Item No. 4.14.

Payment will be made under:

Item No.	Item	Pay Unit
NYPD-VSCI	VEHICLE SCALE INSTALLATION	EACH

**SECTION SL-ADNY-S
FURNISH AND INSTALL TYPE "S" LAMPOST,
SHAFT/ARM ASSEMBLY WITH 250 W CLEAR METAL
HALIDE LAMP AND PHOTO ELECTRIC CONTROL**

1. GENERAL:

- a) The work shall conform to in order of procedure, The New York City and the National Electrical Codes and shall be performed by NYC Licensed Electrician.
- b) The specifications and sketches are intended to serve jointly as a basis upon which the Contractor shall submit a contract price for the material and labor provisions.
- c) When conflicts occur in the specifications or on the drawings/sketches or between either, the items of greater quantity or higher costs shall be provided.
- d) The Contractor shall provide all items of labor or materials not specifically indicated, but required to complete the intended installations.
- e) The Contractor shall coordinate his work or adjust same in order that conflicts in space locations do not occur.
- f) The work under this contract shall be performed simultaneously with work of other trades, so as not to delay progress of work.
- g) This Contractor shall be responsible for work under this contract, with its completion and final acceptance and shall replace any of same which may be damaged, lost or stolen, without additional costs to the City.
- h) The Contractor, before his acceptance of the contract, shall agree to provide without additional charge any work deemed necessary by the utility. However, the utility service hookup to the street light will be done by the utility company and paid for directly by the City, at no cost to the Contractor.

2. SCOPE: Unless otherwise provided for, the work shall include:

- Removal of existing street type lampposts.
- Furnishing and installing "P620" Series Lampposts with "F210" Series Luminaires manufactured by Heritage Casting & Iron Works, Ltd. or an approved equivalent.
- Existing footings shall be removed and replaced with new anchor bolt foundation. Contractor shall ensure that the bolt circle fits the "P620" Series Lampposts.
- In case of any bolt circle mismatch, the Contractor shall cut existing bolts and install new bolts to fit new lamppost bolt circle. Bolt specification and penetration through footing shall be given by Engineer.
- Contractor shall furnish four (4) spare luminaires to the Engineer. No direct payment will be made for furnishing the spare luminaires, the cost shall be deemed included in the price bid for each lamppost.

3. MATERIALS AND METHODS:

- (A) Alliance for Downtown New York – Roadway fixture – Type S. The complete luminaire designated Type S-1 shall be a Heritage Casting & Ironworks, Ltd. (1280 Fewster Drive; Mississauga, Ontario L4W 1A4; Canada) roadway luminaire F210-L-CTG-250MH-120V-SR-3 or an approved equivalent, as pre-approved by the New York City Department of Transportation, Street lighting Division. The horizontal arm mounted fixture shall operate a 250-Watt clear metal halide lamp from a nominal 120v, 60 hertz power source and shall be capable of starting and operating the specified lamp within the limit specified by the lamp manufacturer. The luminaire shall contain completely pre-wired integral ballast and an optical assembly that shall provide a Type III IES Distribution. Labeling shall be in accordance with NYC DOT standards. The luminaire assembly shall be UL certified.

The luminaire shall include a precision cast aluminum top housing per the design drawings, hinged optical door with tempered clear glass lens. The housing and shall have a gray paint finish as specified below. The unit shall have a 2" pipe slip fitter with three sets of two set screws every 120' and one hex security bolt. The fixture shall fit on the matching specified arm assembly or any NYC standard arm.

The luminaire shall include a twist lock socket with a "Ripley 6390B-NYC" with 2 fc Turn on and 1 fc Turn off, twist lock "fail-off" photocell in conformance with NYC DOT standard specifications No 500.

All hardware, screws and fasteners shall be stainless steel.

The unit shall be furnished with ballast components mounted within the housing and accessible through the hinged optical door. The ballast shall be pre-wired and easily replaced through the use of quick disconnect plugs.

The luminaire shall contain CWA type ballast in full compliance with the lamp-ballast specifications as provided by the lamp manufacturers.

The ballast shall reliably start and operate the lamp in ambient temperatures down to -20 degrees F.

The optical assembly shall contain a precision-formed aluminum reflector with a chemically bonded non- breakable, corrosion resistant optical surface. A heat/ impact resistant glass lens shall be provided.

The optical assembly shall have heat resistant elastomeric gasket to exclude particulate contamination when the optical door is closed. An activated charcoal filter shall permit passage of air for normal on/off heating and cooling cycles, filtering, and out gaseous contaminants such as hydrocarbons.

The optical assembly shall contain an adjustable mogul base socket with superior lamp gripping. The socket shall be suitable for high pulse rated lamp/ ballast systems.

The fixture shall be factory painted using polyester powder coat paint. The fixture shall be painted Silver PCT73106. Paint shall be as manufactured by PPG Industries or an approved equivalent.

- (B) Alliance for Downtown New York – Roadway Pole – Type S. The complete street lighting base, pole, and arm designated type S shall be provided specifically for the luminaire also labeled Type S. The pole base and arm shall be manufactured by Heritage Casting & Ironworks, Ltd.; (1280 Fewster Drive; Mississauga, Ontario L4W 1A4; Canada), model number P620, or an approved equivalent. The base shall be manufactured of ISO 450-10 spheroidal graphic or ductile cast iron ASTM A536-84 Grade 65-45-12. It shall be manufactured in 3 pieces however, the base and pole shall be factory assembled for accurate alignment. The pole shaft is a tapered steel unit, which is octagonal at the base and tapers to a round shape per the drawings. The pole shall meet the standard NYC DOT signal department specification for use as a Signal Mast arm support. The light fixture arm fits on a tenon on the top of the pole and is held in place by a custom concealed hardware. The arm is tapered steel ending in a standard 2" pipe tenon that will fit any standard NYC street light luminaire.

The cast base shall contain four anchor bolts equally spaced on a NYC standard 15" bolt circle. The 4 - 1" (1-1/4" when used for signal support) anchor bolts shall be accessible from the exterior of the pole. The anchor bolts shall be protected by a two-part cast aluminum shell, which is minimally 3/16" thick and is anchored in place with concealed tamperproof stainless steel fasteners.

The manufacturer shall provide custom brackets for mounting traffic signal and fire alarm control boxes at the specified heights per the drawings.

Anchor bolts shall meet ASTM standard A307-65 Grade A and the NYC DOT standard specifications. The pole manufacturer shall provide calculations relative to the structural characteristics of the pole for approval. The pole shall meet all applicable MSTHO standards.

The pole shall be factory painted in two colors using acrylic polyurethane paint. The base shall be painted Light Grey RAL 7035 and the shaft shall be painted jet black RAL 9005. The arm shall also be painted light gray. Paint shall be as manufactured by Lankwitzer Lackfabrik GMBH & Co. KG, or an approved equivalent.

The base shall have a cast ductile iron access door as shown on the drawings. The door shall have concealed hinges, which can be replaced in the field if damaged. The non-removable door shall be held shut by recessed Torx type fasteners, which are captive in the hinged door.

The fixture shall be furnished with a Burndy K2C grounding lug for #6 AWG per the NYC DOT Street lighting grounding methods standard specification, mounted on the interior.

4. **SUBMITTAL OF SHOP DRAWINGS:** The Contractor shall submit for the Engineer's approval, in consultation with NYCDOT Street Lighting, six (6) copies of shop drawings, catalog cuts or brochures of the following equipment:

- a) Lamppost
- b) Luminaries
- c) Anchor bolts (foundation).

5. **MEASUREMENT & PAYMENT:** The quantity of TYPE "S" LAMPPOST, SHAFT/ARM ASSEMBLY WITH 250 W CLEAR METAL HALIDE LAMP AND PHOTO ELECTRIC CONTROL to be paid for under this Item shall be the number of new lampposts under this item that are actually installed, in accordance with the plans and specifications, to the satisfaction of the Engineer.

The price bid shall be a unit price per **EACH** and shall include the furnishing of all labor, materials, equipment and incidental expenses necessary and required to furnish and install new lampposts with connections and other items necessary or required to complete the work, all in accordance with the plans, specifications, and as directed by the Engineer.

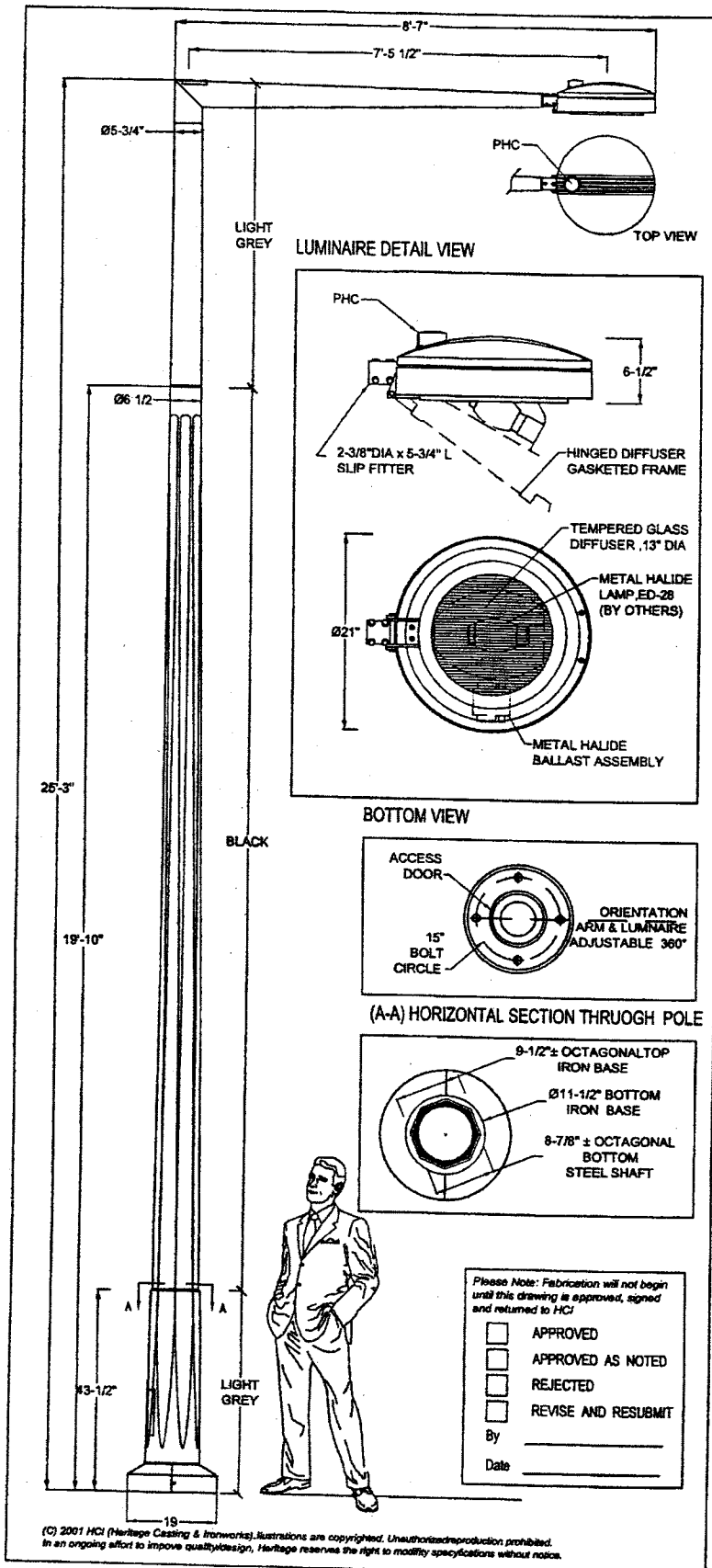
Not to be included under this item are the costs of removing existing poles and foundations, and furnishing and installing new foundations which will be paid for under Items Nos. SL-21.09.05, SL-20.08.01, and SL-20.02.02, as appropriate.

Payment will be made under:

Item No.	Item	Pay Unit
SL-ADNY-S	FURNISH AND INSTALL TYPE "S" LAMPPOST, SHAFT/ARM ASSEMBLY WITH 250 W CLEAR METAL HALIDE LAMP AND PHOTO ELECTRIC CONTROL	EACH

Approval Drawing

Light Standard: F210-L- P620



Diffuser Material: Tempered glass.
Optical System: Roadway type segmented reflector, bright anodized (Type "Alzak") IES Type V.
Top Housing Material: Precision cast aluminum with integral cooling ribs and provision for mounting of photocontrol in the fixture top.
Ballast: MH high power factor mounted on removable bracket. A quick disconnect wiring system allows for fast easy ballast maintenance.
 Wattage - 250W MH (CWA)
 Voltage - 120V (QUAD)
 Socket - Mogul (4kV)
Lamp: 250W Clear MH Lamp. (By others)
Photocontrol: Twist lock "fail-off" photocell in conformance with NYC DOT standard spec.No.500
Pole: The base The pole shaft is a tapered steel unit, which is octagonal at the base and tapers to round shape. It is made of 11 gauge steel produced according to ASTM A513 standard. The base shall be made of heavy ductile cast iron produced according to ISO 450-10. 8"W x 10"H hand hole for electrical work as necessary. The base and steel shaft shall be assembled for accurate alignment.
Base Cover: Two piece attached to pole with two stainless steel screws.
Anchor Bolts: Four galvanized 1"(25mm) x 40" (1016mm) long . (By others)
 Template are is supplied by HCI
Finish: Electrostatically applied, thermoset polyester powder-coat finish for fixture, and sprayed-on acrylic polyurethane for pole.
Colour: Silver PCT73106 - Fixture
 Jet black RAL 9005 - Shaft
 Light Grey RAL 7035 - Base and Arm

Date: Mar.5, 2003 Drawing No: 4336
 Model: F210-LCTG-250MH-120V-SR-3-PHC-P620-S1
 Project: NEW YORK

Please Note: Fabrication will not begin until this drawing is approved, signed and returned to HCI

Please Note: Fabrication will not begin until this drawing is approved, signed and returned to HCI

APPROVED
 APPROVED AS NOTED
 REJECTED
 REVISE AND RESUBMIT

By _____
 Date _____



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4. 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 Section 1.06.27 of the Standard 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 the 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 Section 6.70 in the Standard Highway Specifications, specific traffic stipulations as called for on the plans, OCMC Traffic Stipulations attached to the end of these Special Provisions, and the directions of the Engineer. In case of a conflict, the Engineer's decision shall be final.

In addition, the cost of compliance with requirements of the OCMC Traffic Stipulations, unless otherwise provided for, shall be deemed included in the prices bid for all scheduled items.

C. HOLIDAY 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 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>

* 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>

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 subsequent 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.

D. 9/11 EMBARGO, BIKE RACE ROUTE AND OTHER SPECIAL EVENTS. 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 September 9 through 11:59 PM September 11.

In addition, the Contractor will be precluded from proceeding with work at any of the following locations where the Contractor cannot complete such work three (3) days prior to the date of the scheduled activity and the Holiday Embargo restrictions under Article C, above, shall apply:

BROOKLYN BRIDGE FULL WEEKEND CLOSURES

9/11 CONSTRUCTION EMBARGO (FROM SEPTEMBER 9 TO SEPTEMBER 11)

SUMMER STREETS EMBARGO

5 BOROUGH BIKE TOUR, ETC.

BROADWAY SPECIAL EVENTS (PARADES)

OTHER SPECIAL EVENTS SUCH AS MARATHONS (NYC 1/2 MARAHON)

No extension of time due to the above mentioned shutdown periods will be granted to the Contractor for completion of the work.

However, where the Contractor is notified of a Special Unscheduled Event, such as a civic parade or other official activity, party, etc. not listed above, then the Holiday Embargo restrictions under Article C, above, shall apply. Temporary restoration of the streets and sidewalks and subsequent removal thereof for City work, if required,

for those Special Unscheduled Event periods will be paid for under Item No. HW-900H and 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. 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.

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

NYCT "OUTSIDE CONTRACT" INSURANCE REQUIREMENTS

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

(A) Workers' Compensation Insurance (including Employer's Liability Insurance) with limits as specified in Schedule A, which limit may be met by a combination of primary and excess insurance meeting the statutory limits of New York State. The policy shall be endorsed to include Longshoreman's and Harbor Workers' Compensation Act/Maritime Coverage Endorsement and/or Jones Act Endorsement when applicable.

(B) Commercial General Liability Insurance (I.S.O. 2001 Form or equivalent) approved by Permitter in the Permittee's name with limits of liability as specified in Schedule A for each occurrence on a combined single limit basis for injuries to persons (including death) and damages to property. The limits may be provided in the form of a primary policy or combination of primary and umbrella/excess policy. When the minimum contract amounts can only be met when applying the umbrella/excess policy; the Umbrella/Excess Policy must follow form of the underlying policy and be extended to "drop down" to become primary in the event primary limits are reduced or aggregate limits are exhausted. Such insurance shall be primary and non-contributory to any other valid and collectable insurance and must be exhausted before implicating any Permitter/MTA policy available.

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

- Contractual coverage for liability assumed by the Permittee under this agreement;

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

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

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

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

2. General Requirements Applicable to Insurance Policies

- a) All of the insurance required by this Article shall be with Companies licensed or authorized to do business in the State of New York with an A.M. Best Company rating of not less than A-/VII or better and reasonably approved by the Permittor/MTA and shall deliver evidence of such policies.

- b) Except for Workers Compensation, all references to forms and coverages referred to above shall be the most recent used by the Insurance Services Office, Inc. (ISO") or equivalent forms approved by the Insurance Department of the State of New York, provided, however, that excess coverages may be written on forms reasonably acceptable to Permittor containing provisions other than those contained in ISO forms but otherwise conforming in substance to the requirements of this Article.
- c) The Permittee or its Contractor performing the work shall furnish evidence of all policies before any work is started to the permittor:

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

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

primary and umbrella/excess policies.

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

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 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 2010" or latest version, or in an approved equivalent program which shall be directly and fully translatable into Microsoft Project 2010 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 his/her 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 Specifications and the above "SCHEDULING PRESENTATION" Article, and shall be submitted for approval of the Engineer.

J. 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, he should indicate by which method he 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, he/she 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 his 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, 40 WORTH STREET, NEW YORK, NEW YORK
- 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 his/her 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 Item 6.43. 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 his own expense.

K. 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, unless otherwise provided in Schedule A.

L. PORT AUTHORITY OF NEW YORK AND NEW JERSEY SURVEY MONUMENTS. When working in the vicinity of Port Authority of New York and New Jersey survey monuments, the Contractor shall hand excavate, under Item 8.02 A, at those Survey Monuments for a distance of five (5) feet around each monument, as directed by the Engineer. Any damage to their survey monuments must be reported to the Port Authority of New York and New Jersey, immediately and they will reinstall their own

monuments.

M. PEDESTRIAN MANAGERS. Under this contract, "highly visible" trained Pedestrian Managers shall be provided in order to properly maintain the flow of pedestrian traffic at all locations where construction operations, construction vehicles and equipment, and temporary traffic patterns related to the construction operations require positive temporary pedestrian traffic control, as specified in the contract documents and as ordered by the Engineer.

The Contractor shall provide trained Pedestrian Managers with a uniform readily identifiable to the traveling public. Pedestrian Managers shall wear fluorescent green vests, as described in the Manual of Uniform Traffic Control Devices (MUTCD). Other equipment shall include gloves, a hat, a whistle, and a two-way radio active on site during any operation requiring Pedestrian Manager. Each Pedestrian Manager shall be equipped with all items necessary to carry out their assigned duties.

All Pedestrian Managers shall be English speaking, have at least 5 years of experience in dealing with crowds, and adequately trained in pedestrian management operations by an approved training company.

Prior to the start of pedestrian management operations, the Contractor shall provide to the Engineer a list of trained Pedestrian Managers to be used in the contract, identifying the source and competence of each individual's training and their years of experience in dealing with crowds. When requested by the Engineer, Pedestrian Managers shall be required to demonstrate their competency in pedestrian management procedures. Pedestrian Managers not competent in such procedures to the satisfaction of the Engineer shall be retrained or replaced at once.

The quantity to be measured for payment shall be the number of person-hours of Pedestrian Manager service actually performed, as authorized by the Engineer. Laborers who are not full-time Pedestrian Managers will not be measured for payment as a Pedestrian Manager under this or any other item. Each Pedestrian Manager shall be required to work a minimum of eight hours a day and the Contractor will be given a minimum of 12 hours advanced notice by the Engineer as to when to furnish a Pedestrian Manager.

Payment for each Pedestrian Manager, as ordered by the Engineer, will be made at the unit price bid for Uniformed Full-Time Flagperson under Item No. 6.52.

N. CONTRACTOR TO NOTIFY the Alliance for Downtown New York, Inc., by calling Mr. Frank Addeo, telephone number (212) 835-2758, prior to the start of construction, for them to determine which street name signs need to be replaced and which can be reinstalled within the Downtown Alliance area. The Contractor shall also, prior to construction, make arrangement with the Alliance for Downtown New York, Inc., for them to pickup any existing wayfinding signs and sign

structures, which shall be carefully removed by the Contractor, at the start of the work in each block. Any damage to the existing signs and sign structures that is caused by the Contractor's operations shall be restored or replaced by the Contractor, to the satisfaction of the Engineer.

Then, at the completion of the work in each block, the Contractor shall be required to reinstall any removed wayfinding sign structures where directed by the Engineer, and the Alliance for Downtown New York, Inc., will reinstall their wayfinding sign.

No separate payment will be made for this work, the cost of which shall be deemed included under all scheduled items.

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. THE CONTRACTOR IS NOTIFIED that all electrical work required under this project shall be performed only by a licensed electrician registered with the Department of Buildings and all plumbing work required under this project shall be performed by a licensed plumber under the rules and regulations of the City of New York.

Q. THE CONTRACTOR IS NOTIFIED that for use of City water under this project the Contractor shall be required to obtain a water use permit from the Department of Environmental Protection at the Contractor's own cost.

R. THE CONTRACTOR IS NOTIFIED that should human remains be encountered during the course of work, the work shall be stopped immediately pending the Office of Chief Medical Examiner and the New York City Police Department notification and review.

S. 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.

CITY OF NEW YORK
DEPARTMENT OF TRANSPORTATION
LOWER MANHATTAN BOROUGH COMMISSIONER'S OFFICE
59 MAIDEN LANE, 37TH FLOOR
NEW YORK, NEW YORK 10038

OCMC FILE NO: MEC-13-201CONTRACT NO: PDWTC2013PROJECT: WORLD TRADE CENTER CAMPUS SECURITY PLANLOCATIONS: WASHINGTON STREET BETWEEN BARCLAY STREET AND VESEY STREETWEST BROADWAY BETWEEN BARCLAY STREET AND VESEY STREETTRINITY PLACE BETWEEN RECTOR STREET AND LIBERTY STREETCHURCH STREET BETWEEN FULTON STREET AND PARK PLACECOMMUNITY BOARD: ONE (1), MANHATTAN

Permission is hereby granted to the New York City Department of Design and Construction (DDC) and its duly authorized agent, to enter upon and restrict the flow of traffic at the above location and its local adjacent streets for the purpose of carrying out the above noted project, subject to the stipulations, as noted below:

SPECIAL NOTES:

- **ACCESS TO ADJUTING PROPERTIES:** The Contractor shall coordinate all activities with abutting property owners to ensure access is provided to/from entrances/driveways at all times.
- **ENHANCED MITIGATIONS FOR PEDESTRIAN FLOW:** Timber curb and fencing as per Lower Manhattan Standards shall be provided to enclose all construction work zones and to ensure pedestrian safety. Pedestrian Traffic Managers shall be provided to assist pedestrians around the work zones as determined by NYCDOT. Concrete barriers are required to protect pedestrians from vehicular traffic at locations where pedestrians are redirected into the roadway.
- **NYPD Traffic Enforcement Agents (TEA) are required for this project:** Traffic Enforcement Agents (TEA) shall be provided at locations and for durations as determined by New York Police Department (NYPD) and New York City DOT (NYCDOT). All TEA costs shall include relief and supervision.
- **MPT and DETOUR PLANS:** The Contractor must submit a Maintenance and Protection of Traffic (MPT) Plans and Detour Plans to NYCDOT - LMBCO/OCMC for approval at least two weeks before commencing work or before making changes to the current MPT or Detour Plan. "No Standing Anytime - Temporary Construction" signs and temporary pavement markings shall be installed and maintained as warranted by the MPT plan. All temporary signs and pavement markings shall be removed upon completion of the project.
- **COMMUNITY OUTREACH:** Community Outreach shall be provided for the duration of the project to notify the public in the form of advanced media advisories. Full roadway closures require a minimum of 14 days of outreach prior to the road closure. All outreach must be coordinated with NYCDOT and the LMCCC.
- **AUTHORIZED PARKING** - Prior to performing work which impacts Authorized Parking, the Contractor shall submit in writing to NYCDOT - LMBCO/OCMC, a request to occupy space currently used by Authorized vehicles. The Contractor must submit for approval to NYCDOT - LMBCO/OCMC alternate locations for the authorized parking. The Contractor must also perform the necessary measures to relocate regulatory signs, such as, providing advanced warning signs 3 days in advance of any signage change.
- **SEQUENCING OF WORK** - The Contractor is encouraged to work multiple locations concurrently to expedite construction. However, the Contractor must provide the proper number of crews (including utility specialty crews) to work productively at all concurrent locations. The Contractor must submit an MPT and Detour Plan to NYCDOT - LMBCO/OCMC for approval prior to start of construction at any location.
- **BUS ROUTES/STOPS** - The Contractor shall provide written notice to NYC DOT and New York City Transit (NYCT) a minimum of five (5) weeks in advance for lane/street closures that affect bus routes or bus stops. Any relocation of Bus Stops must be coordinated with NYCT prior to starting construction.

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- **BROOKLYN BRIDGE FULL WEEKEND CLOSURES:** When the Brooklyn Bridge full weekend closures occur, the Contractor must restore all lanes to traffic as well as restore lanes as determined by NYCDOT – LMBCO/OCMC. The Contractor will not be allowed to occupy any traffic lanes on these streets during the Brooklyn Bridge full weekend closures.
- **9/11 CONSTRUCTION EMBARGO:** A 9/11 Construction Embargo is in effect for this project. No work shall be performed from 9/9 to 9/11 of each year of the contract. The Contractor must maintain all open lanes outside of the construction zone to traffic as well as restore lanes to traffic as determined by NYCDOT – LMBCO/OCMC.
- **SUMMER STREETS EMBARGO:** During Summer Streets in August, the Contractor must restore all lanes to traffic as well as restore lanes as determined by NYCDOT – LMBCO/OCMC.
- **BROADWAY / SPECIAL EVENTS EMBARGOS:** In the case of special events on Broadway or in Lower Manhattan, such as a parade, marathon, 5 Borough Bike Tour, etc., the Contractor must maintain all open lanes outside of the construction zone to traffic as well as restore lanes to traffic as determined by NYCDOT – LMBCO/OCMC.
- **BROADWAY CONSTRUCTION:** In the case of a construction event on Broadway, such as a full roadway closure, the Contractor must maintain all open lanes outside of the construction zone to traffic as well as restore lanes to traffic as determined by NYCDOT – LMBCO/OCMC.
- **WORLD TRADE CENTER SITE:** The Contractor must coordinate all work including the moving of barricades with the Port Authority of New York and New Jersey and NYPD Counter Terrorism at least 14 days in advance of the start of construction, for any changes in MPT and for any work zone relocations.
- **PERMANENT ASPHALT PAVING OPERATIONS:** Final permanent paving operations must be conducted during night time hours and/or weekend daytime hours depending on the locations and at the discretion of NYCDOT. The Contractor must apply for a permit from NYCDOT for final paving operations. The Contractor must provide advanced outreach to the community, local businesses and agencies within the area at least 2 weeks in advance of the paving operation.

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ALL CURB, SIDEWALK, ROADWAY AND UTILITY WORK

1. WASHINGTON STREET FROM BARCLAY STREET TO VESEY STREET

- Working hours shall be as follows:

7 AM to 10 PM, Monday through Friday
9 AM to 6 PM, Saturday
10 AM to 6 PM, Sunday.
- The Contractor shall maintain a minimum of one (1) eleven (11) foot lane for traffic at all times.
- The Contractor must maintain, at a minimum, a five (5) foot clear path either on the sidewalk or a protected walkway in the roadway at all times. All temporary walkways installed by the Contractor must be free of obstructions and tripping hazards and must meet ADA requirements.
- The Contractor may not work on sidewalks on both sides of the street at the same time.
- The Contractor may not work on curbs on both sides of the street at the same time.
- The Contractor must maintain access to all residential and commercial establishments at all times. All temporary walkways and building entrance ramps installed by the Contractor must be free of obstructions and tripping hazards and must meet ADA requirements
- During water main and related work that requires water shut offs; the working hours shall be 9:00 PM to 5:00 AM.
- No noisy operations shall occur prior to 8:00 AM on weekdays, prior to 10:00 AM on weekends or after 10:00 PM.
- The Contractor shall coordinate all work with all business operations and agencies within the area.

2. WEST BROADWAY FROM BARCLAY STREET TO VESEY STREET

- Working hours shall be as follows:

7 AM to 10 PM, Monday through Friday
9 AM to 6 PM, Saturday
10 AM to 6 PM, Sunday.
- The Contractor shall maintain a minimum of one (1) eleven (11) foot lane for traffic at all times.
- The Contractor must maintain, at a minimum, one (1) fourteen (14) foot lane for trucks to enter and exit the Post Office building.
- The Contractor must maintain, at a minimum, a five (5) foot clear path either on the sidewalk or a protected walkway in the roadway at all times. All temporary walkways installed by the Contractor must be free of obstructions and tripping hazards and must meet ADA requirements.
- The Contractor may not work on sidewalks on both sides of the street at the same time.
- The Contractor may not work on curbs on both sides of the street at the same time.
- The Contractor must maintain access to all residential and commercial establishments at all times. All temporary walkways and building entrance ramps installed by the Contractor must be free of obstructions and tripping hazards and must meet ADA requirements.
- During water main and related work that requires water shut offs; the working hours shall be 9:00 PM to 5:00 AM, Monday night to Friday morning.
- No noisy operations shall occur prior to 8:00 AM on weekdays, prior to 10:00 AM on weekends or after 10:00 PM.
- The Contractor shall coordinate all work with all business operations and agencies within the area.

3. TRINITY PLACE FROM RECTOR STREET TO THAMES STREET

- Working hours shall be as follows:

7 AM to 8 PM, Monday through Friday
9 AM to 6 PM, Saturday
10 AM to 6 PM, Sunday.
- The Contractor shall maintain a minimum of two (2) eleven (11) foot lanes for traffic at all times.
- During roadway, curb and booth installations, the Contractor must maintain, at a minimum, an eight (8) foot clear path on the sidewalk at all times.
- During sidewalk installation, the Contractor must maintain at a minimum a five (5) foot clear path on the sidewalk or a protected walkway in the roadway at all times. All temporary walkways installed by the Contractor must be free of obstructions and tripping hazards and must meet ADA requirements.
- For the installation of the center island median east curb line, the Contractor shall maintain a minimum of twenty one (21) feet for two (2) lanes of traffic at all times.
- The Contractor may not work on sidewalks on both sides of the street at the same time.

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- The Contractor may not work on curbs on both sides of the street at the same time.
- The Contractor must maintain access to all residential and commercial establishments at all times. All temporary walkways and building entrance ramps installed by the Contractor must be free of obstructions and tripping hazards and must meet ADA requirements
- During water main and related work that requires water shut offs; the working hours shall be 9:00 PM to 5:00 AM.
- No noisy operations shall occur prior to 8:00 AM on weekdays, prior to 10:00 AM on weekends or after 10:00 PM.
- The Contractor shall coordinate all work with all business operations and agencies within the area.
- The Contractor must coordinate all work with all Schools in the immediate area. In the case of an event at a nearby School, such as large tests, the Contractor will be required to reduce construction noise levels during the event.

4. TRINITY PLACE FROM THAMES STREET TO CEDAR STREET

- Working hours shall be as follows:

7 AM to 8 PM, Monday through Friday
9 AM to 6 PM, Saturday
10 AM to 6 PM, Sunday.
- The Contractor shall maintain a minimum of two (2) eleven (11) foot lanes for traffic at all times.
- During roadway, curb and booth installations, the Contractor must maintain, at a minimum, an eight (8) foot clear path on the sidewalk at all times.
- During sidewalk installation, the Contractor must maintain, at a minimum, a five (5) foot clear path on the sidewalk or a protected walkway in the roadway at all times. All temporary walkways installed by the Contractor must be free of obstructions and tripping hazards and must meet ADA requirements.
- For the installation of the center island median east curb line, the Contractor shall maintain a minimum of twenty one (21) feet for two (2) lanes of traffic at all times.
- The Contractor may not work on sidewalks on both sides of the street at the same time.
- The Contractor may not work on curbs on both sides of the street at the same time.
- The Contractor must maintain access to all residential and commercial establishments at all times. All temporary walkways and building entrance ramps installed by the Contractor must be free of obstructions and tripping hazards and must meet ADA requirements
- During water main and related work that requires water shut offs; the working hours shall be 9:00 PM to 5:00 AM, Monday night to Friday morning. During these hours, the Contractor shall maintain a minimum of one (1) eleven (11) foot lane for traffic.
- No noisy operations shall occur prior to 8:00 AM on weekdays, prior to 10:00 AM on weekends or after 10:00 PM.
- The Contractor shall coordinate all work with all business operations and agencies within the area.
- The Contractor must coordinate all work with all Schools in the immediate area. In the case of an event at a nearby School, such as large tests, the Contractor will be required to reduce construction noise levels during the event.

5. TRINITY PLACE FROM CEDAR STREET TO LIBERTY STREET

- Working hours shall be as follows:

7 AM to 8 PM, Monday through Friday
9 AM to 6 PM, Saturday
10 AM to 6 PM, Sunday.
- The Contractor shall maintain a minimum of two (2) eleven (11) foot lanes for traffic at all times.
- During roadway and curb installations, the Contractor must maintain, at a minimum, an eight (8) foot clear path on the sidewalk at all times.
- During sidewalk installation, the Contractor must maintain, at a minimum, a five (5) foot clear path on the sidewalk or in a protected walkway in the roadway at all times. All temporary walkways installed by the Contractor must be free of obstructions and tripping hazards and must meet ADA requirements.
- For the installation of the center island median east curb line, the Contractor shall maintain a minimum of twenty one (21) feet for two (2) lanes of traffic at all times.
- The Contractor may not work on sidewalks on both sides of the street at the same time.
- The Contractor may not work on curbs on both sides of the street at the same time.

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- The Contractor must maintain access to all residential and commercial establishments at all times. All temporary walkways and building entrance ramps installed by the Contractor must be free of obstructions and tripping hazards and must meet ADA requirements
- During water main and related work that requires water shut offs; the working hours shall be 9:00 PM to 5:00 AM.
- No noisy operations shall occur prior to 8:00 AM on weekdays, prior to 10:00 AM on weekends or after 10:00 PM.
- The Contractor shall coordinate all work with all business operations and agencies within the area.
- The Contractor must coordinate all work with all Schools in the immediate area. In the case of an event at a nearby School, such as large tests, the Contractor will be required to reduce construction noise levels during the event.

6. BARCLAY STREET FROM CHURCH STREET TO WEST BROADWAY

- Working hours shall be as follows:

7 AM to 10 PM, Monday through Friday
9 AM to 6 PM, Saturday
10 AM to 6 PM, Sunday.
- The Contractor shall maintain a minimum of one (1) eleven (11) foot lane for traffic and one (1) eight (8) foot lane for parking at all times.
- The Contractor must maintain, at a minimum, a five (5) foot clear path either on the sidewalk or a protected walkway in the roadway at all times. All temporary walkways installed by the Contractor must be free of obstructions and tripping hazards and must meet ADA requirements.
- The Contractor may not work on sidewalks on both sides of the street at the same time.
- The Contractor may not work on curbs on both sides of the street at the same time.
- The Contractor must maintain access to all residential and commercial establishments at all times. All temporary walkways and building entrance ramps installed by the Contractor must be free of obstructions and tripping hazards and must meet ADA requirements
- During water main and related work that requires water shut offs; the working hours shall be 9:00 PM to 5:00 AM, Monday night to Friday morning.
- No noisy operations shall occur prior to 8:00 AM on weekdays, prior to 10:00 AM on weekends or after 10:00 PM.
- The Contractor shall coordinate all work with all business operations and agencies within the area.

7. BARCLAY STREET FROM WEST BROADWAY TO GREENWICH STREET

- Working hours shall be as follows:

7 AM to 10 PM, Monday through Friday
9 AM to 6 PM, Saturday
10 AM to 6 PM, Sunday.
- The Contractor shall maintain a minimum of one (1) eleven (11) foot lane for traffic and one (1) eight (8) foot lane for parking at all times.
- The Contractor must maintain, at a minimum, a five (5) foot clear path either on the sidewalk or a protected walkway in the roadway at all times. All temporary walkways installed by the Contractor must be free of obstructions and tripping hazards and must meet ADA requirements.
- The Contractor may not work on sidewalks on both sides of the street at the same time.
- The Contractor may not work on curbs on both sides of the street at the same time.
- The Contractor must maintain access to all residential and commercial establishments at all times. All temporary walkways and building entrance ramps installed by the Contractor must be free of obstructions and tripping hazards and must meet ADA requirements
- During water main and related work that requires water shut offs; the working hours shall be 9:00 PM to 5:00 AM, Monday night to Friday morning.
- No noisy operations shall occur prior to 8:00 AM on weekdays, prior to 10:00 AM on weekends or after 10:00 PM.
- The Contractor shall coordinate all work with all business operations and agencies within the area.

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8. BARCLAY STREET FROM GREENWICH STREET TO WASHINGTON STREET

- Working hours shall be as follows:
 - 7 AM to 10 PM, Monday through Friday
 - 9 AM to 6 PM, Saturday
 - 10 AM to 6 PM, Sunday.
- The Contractor shall maintain a minimum of two (2) eleven (11) foot lanes for traffic at all times.
- The Contractor must maintain, at a minimum, a five (5) foot clear path either on the sidewalk or a protected walkway in the roadway at all times. All temporary walkways installed by the Contractor must be free of obstructions and tripping hazards and must meet ADA requirements.
- The Contractor may not work on sidewalks on both sides of the street at the same time.
- The Contractor may not work on curbs on both sides of the street at the same time.
- The Contractor must maintain access to all residential and commercial establishments at all times. All temporary walkways and building entrance ramps installed by the Contractor must be free of obstructions and tripping hazards and must meet ADA requirements
- During water main and related work that requires water shut offs; the working hours shall be 9:00 PM to 5:00 AM, Monday night to Friday morning.
- No noisy operations shall occur prior to 8:00 AM on weekdays, prior to 10:00 AM on weekends or after 10:00 PM.
- The Contractor shall coordinate all work with all business operations and agencies within the area.

9. BARCLAY STREET FROM WASHINGTON STREET TO WEST STREET

- Working hours shall be as follows:
 - 7 AM to 10 PM, Monday through Friday
 - 9 AM to 6 PM, Saturday
 - 10 AM to 6 PM, Sunday.
- The Contractor shall maintain a minimum of two (2) eleven (11) foot lanes for traffic at all times.
- The Contractor must maintain, at a minimum, a five (5) foot clear path either on the sidewalk or a protected walkway in the roadway at all times. All temporary walkways installed by the Contractor must be free of obstructions and tripping hazards and must meet ADA requirements.
- The Contractor may not work on sidewalks on both sides of the street at the same time.
- The Contractor may not work on curbs on both sides of the street at the same time.
- The Contractor must maintain access to all residential and commercial establishments at all times. All temporary walkways and building entrance ramps installed by the Contractor must be free of obstructions and tripping hazards and must meet ADA requirements
- During water main and related work that requires water shut offs; the working hours shall be 9:00 PM to 5:00 AM, Monday night to Friday morning.
- No noisy operations shall occur prior to 8:00 AM on weekdays, prior to 10:00 AM on weekends or after 10:00 PM.
- The Contractor shall coordinate all work with all business operations and agencies within the area.

10. GREENWICH STREET FROM PARK PLACE TO BARCLAY STREET

- Working hours shall be as follows:
 - 7 AM to 10 PM, Monday through Friday
 - 9 AM to 6 PM, Saturday
 - 10 AM to 6 PM, Sunday.
- The Contractor shall maintain a minimum of two (2) eleven (11) foot lanes for traffic and one (1) eight (8) foot lane for parking at all times.
- The Contractor must maintain, at a minimum, a five (5) foot clear path either on the sidewalk or a protected walkway in the roadway at all times. All temporary walkways installed by the Contractor must be free of obstructions and tripping hazards and must meet ADA requirements.
- The Contractor may not work on sidewalks on both sides of the street at the same time.
- The Contractor may not work on curbs on both sides of the street at the same time.
- The Contractor must maintain access to all residential and commercial establishments at all times. All temporary walkways and building entrance ramps installed by the Contractor must be free of obstructions and tripping hazards and must meet ADA requirements
- During water main and related work that requires water shut offs; the working hours shall be 9:00 PM to 5:00 AM, Monday night to Friday morning.

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- No noisy operations shall occur prior to 8:00 AM on weekdays, prior to 10:00 AM on weekends or after 10:00 PM.
- The Contractor shall coordinate all work with all business operations and agencies within the area.

11. WEST BROADWAY FROM PARK PLACE TO BARCLAY STREET

- Working hours shall be as follows:

7 AM to 10 PM, Monday through Friday
9 AM to 6 PM, Saturday
10 AM to 6 PM, Sunday.
- The Contractor shall maintain a minimum of two (2) eleven (11) foot lanes for traffic at all times.
- The Contractor must maintain, at a minimum, a five (5) foot clear path either on the sidewalk or a protected walkway in the roadway at all times. All temporary walkways installed by the Contractor must be free of obstructions and tripping hazards and must meet ADA requirements.
- The Contractor may not work on sidewalks on both sides of the street at the same time.
- The Contractor may not work on curbs on both sides of the street at the same time.
- The Contractor must maintain access to all residential and commercial establishments at all times. All temporary walkways and building entrance ramps installed by the Contractor must be free of obstructions and tripping hazards and must meet ADA requirements.
- During water main and related work that requires water shut offs; the working hours shall be 9:00 PM to 5:00 AM, Monday night to Friday morning.
- No noisy operations shall occur prior to 8:00 AM on weekdays, prior to 10:00 AM on weekends or after 10:00 PM.
- The Contractor shall coordinate all work with all business operations and agencies within the area.

12. THAMES STREET FROM TRINITY PLACE TO GREENWICH STREET

- Working hours shall be as follows:

7 AM to 8 PM, Monday through Friday
9 AM to 6 PM, Saturday
10 AM to 6 PM, Sunday.
- The Contractor shall maintain a minimum of one (1) eleven (11) foot lane for traffic at all times.
- The Contractor must maintain, at a minimum, a five (5) foot clear path either on the sidewalk or a protected walkway in the roadway at all times. All temporary walkways installed by the Contractor must be free of obstructions and tripping hazards and must meet ADA requirements.
- The Contractor may not work on sidewalks on both sides of the street at the same time.
- The Contractor may not work on curbs on both sides of the street at the same time.
- The Contractor must maintain access to all residential and commercial establishments at all times. All temporary walkways and building entrance ramps installed by the Contractor must be free of obstructions and tripping hazards and must meet ADA requirements.
- During water main and related work that requires water shut offs; the working hours shall be 9:00 PM to 5:00 AM, Monday night to Friday morning.
- No noisy operations shall occur prior to 8:00 AM on weekdays, prior to 10:00 AM on weekends or after 10:00 PM.
- The Contractor shall coordinate all work with all business operations and agencies within the area.

13. CEDAR STREET FROM GREENWICH STREET TO TRINITY PLACE

- Working hours shall be as follows:

7 AM to 8 PM, Monday through Friday
9 AM to 6 PM, Saturday
10 AM to 6 PM, Sunday.
- The Contractor shall maintain a minimum of one (1) eleven (11) foot lane for traffic at all times.
- The Contractor must maintain, at a minimum, a five (5) foot clear path either on the sidewalk or a protected walkway in the roadway at all times. All temporary walkways installed by the Contractor must be free of obstructions and tripping hazards and must meet ADA requirements.
- The Contractor may not work on sidewalks on both sides of the street at the same time.
- The Contractor may not work on curbs on both sides of the street at the same time.

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- The Contractor must maintain access to all residential and commercial establishments at all times. All temporary walkways and building entrance ramps installed by the Contractor must be free of obstructions and tripping hazards and must meet ADA requirements
- During water main and related work that requires water shut offs; the working hours shall be 9:00 PM to 5:00 AM, Monday night to Friday morning.
- No noisy operations shall occur prior to 8:00 AM on weekdays, prior to 10:00 AM on weekends or after 10:00 PM.

14. CHURCH STREET FROM FULTON STREET TO VESEY STREET

- Working hours shall be as follows:

7 AM to 8 PM, Monday through Friday
9 AM to 6 PM, Saturday
10 AM to 6 PM, Sunday.
- The Contractor shall maintain a minimum of two (2) eleven (11) foot lanes for traffic at all times.
- The sidewalk on the west side of Church Street is to remain closed to pedestrians.
- The Contractor must maintain, at a minimum, an eight (8) foot clear path on the east sidewalk or in a protected walkway in the roadway at all times. All temporary walkways installed by the Contractor must be free of obstructions and tripping hazards and must meet ADA requirements.
- The Contractor may not work on sidewalks on both sides of the street at the same time.
- The Contractor may not work on curbs on both sides of the street at the same time.
- The Contractor must maintain access to all residential and commercial establishments at all times. All temporary walkways and building entrance ramps installed by the Contractor must be free of obstructions and tripping hazards and must meet ADA requirements
- During water main and related work that requires water shut offs; the working hours shall be 9:00 PM to 5:00 AM.
- No noisy operations shall occur prior to 8:00 AM on weekdays, prior to 10:00 AM on weekends or after 10:00 PM.
- The Contractor shall coordinate all work with all business operations and agencies within the area.

15. CHURCH STREET FROM VESEY STREET TO BARCLAY STREET

- Working hours shall be as follows:

7 AM to 8 PM, Monday through Friday
9 AM to 6 PM, Saturday
10 AM to 6 PM, Sunday.
- The Contractor shall maintain a minimum of two (2) eleven (11) foot lanes for traffic at all times.
- During roadway and curb installations, the Contractor must maintain, at a minimum, an eight (8) foot clear path on the sidewalk at all times.
- During sidewalk installation, the Contractor must maintain, at a minimum, a five (5) foot clear path on the sidewalk or in a protected walkway in the roadway at all times. All temporary walkways installed by the Contractor must be free of obstructions and tripping hazards and must meet ADA requirements.
- The Contractor may not work on sidewalks on both sides of the street at the same time.
- The Contractor may not work on curbs on both sides of the street at the same time.
- The Contractor must maintain access to all residential and commercial establishments at all times. All temporary walkways and building entrance ramps installed by the Contractor must be free of obstructions and tripping hazards and must meet ADA requirements
- During water main and related work that requires water shut offs; the working hours shall be 9:00 PM to 5:00 AM.
- No noisy operations shall occur prior to 8:00 AM on weekdays, prior to 10:00 AM on weekends or after 10:00 PM.
- The Contractor shall coordinate all work with all business operations and agencies within the area.

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16. CHURCH STREET FROM BARCALY STREET TO PARK PLACE

- Working hours shall be as follows:
 - 7 AM to 8 PM, Monday through Friday
 - 9 AM to 6 PM, Saturday
 - 10 AM to 6 PM, Sunday.
- The Contractor shall maintain a minimum of three (3) eleven (11) foot lanes for traffic at all times.
- During roadway and curb installations, the Contractor must maintain, at a minimum, an eight (8) foot clear path on the sidewalk at all times.
- During sidewalk installation, the Contractor must maintain at a minimum a five (5) foot clear path on the sidewalk or in a protected walkway in the roadway at all times. All temporary walkways installed by the Contractor must be free of obstructions and tripping hazards and must meet ADA requirements.
- The Contractor may not work on sidewalks on both sides of the street at the same time.
- The Contractor may not work on curbs on both sides of the street at the same time.
- The Contractor must maintain access to all residential and commercial establishments at all times. All temporary walkways and building entrance ramps installed by the Contractor must be free of obstructions and tripping hazards and must meet ADA requirements
- During water main and related work that requires water shut offs; the working hours shall be 9:00 PM to 5:00 AM.
- No noisy operations shall occur prior to 8:00 AM on weekdays, prior to 10:00 AM on weekends or after 10:00 PM.
- The Contractor shall coordinate all work with all business operations and agencies within the area.

17. VESEY STREET FROM CHURCH STREET TO WEST BROADWAY

- Working hours shall be as follows:
 - 7 AM to 8 PM, Monday through Friday
 - 9 AM to 6 PM, Saturday
 - 10 AM to 6 PM, Sunday.
- The Contractor must maintain a minimum of one (1) twenty (20) foot wide walkway for pedestrians on Vesey Street at all times.
- The Contractor must maintain access to all residential and commercial establishments at all times. All temporary walkways and building entrance ramps installed by the Contractor must be free of obstructions and tripping hazards and must meet ADA requirements
- During water main and related work that requires water shut offs; the working hours shall be 9:00 PM to 5:00 AM.
- No noisy operations shall occur prior to 8:00 AM on weekdays, prior to 10:00 AM on weekends or after 10:00 PM.
- The Contractor shall coordinate all work with all business operations and agencies within the area.

INTERSECTIONS

1. INTERSECTION OF WASHINGTON STREET AND BARCLAY STREET

- Working hours shall be as follows:
 - 7 AM to 10 PM, Monday through Friday
 - 9 AM to 6 PM, Saturday
 - 10 AM to 6 PM, Sunday
- The Contractor shall maintain a minimum of one (1) eleven (11) foot lanes for traffic on Washington Street and two (2) eleven (11) foot lanes for traffic on Barclay Street at all times.
- The Contractor must maintain all pedestrian crosswalks at all times.
- During water main and related work that requires water shut offs; the working hours shall be 9:00 PM to 5:00 AM.
- No noisy operations shall occur prior to 8:00 AM on weekdays, 10:00 AM on weekends or after 10:00 PM.
- A minimum of one (1) Pedestrian Traffic Manager shall be provided at this intersection.

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2. INTERSECTION OF WASHINGTON STREET AND VESEY STREET

- Working hours shall be as follows:

9 AM to 6 PM Saturday
10 AM to 6 PM, Sunday
- The Contractor shall maintain a minimum of one (1) eleven (11) foot lane for traffic on Washington Street at all times.
- The Contractor must maintain a minimum of one (1) twenty (20) foot wide walkway for pedestrians on Vesey Street at all times.
- The Contractor must maintain all pedestrian crosswalks at all times.
- During water main and related work that requires water shut offs; the working hours shall be 9:00 PM to 5:00 AM.
- No noisy operations shall occur prior to 8:00 AM on weekdays, 10:00 AM on weekends or after 10:00 PM.

3. INTERSECTION OF WEST BROADWAY AND BARCLAY STREET

- Working hours shall be as follows:

7 AM to 10 PM, Monday through Friday
9 AM to 6 PM, Saturday
10 AM to 6 PM, Sunday
- The Contractor shall maintain a minimum of one (1) eleven (11) foot lanes for traffic on West Broadway and two (2) eleven (11) foot lanes for traffic on Barclay Street at all times.
- The Contractor must maintain all pedestrian crosswalks at all times.
- During water main and related work that requires water shut offs; the working hours shall be 9:00 PM to 5:00 AM.
- No noisy operations shall occur prior to 8:00 AM on weekdays, 10:00 AM on weekends or after 10:00 PM.
- A minimum of one (1) Pedestrian Traffic Manager shall be provided at this intersection.

4. INTERSECTION OF WEST BROADWAY AND VESEY STREET

- Working hours shall be as follows:

9 AM to 6 PM Saturday
10 AM to 6 PM, Sunday
- The Contractor shall maintain a minimum of one (1) eleven (11) foot lanes for traffic on West Broadway at all times.
- The Contractor must maintain a minimum of one (1) twenty (20) foot wide walkway for pedestrians on Vesey Street at all times.
- The Contractor must maintain all pedestrian crosswalks at all times.
- During water main and related work that requires water shut offs; the working hours shall be 9:00 PM to 5:00 AM.
- No noisy operations shall occur prior to 8:00 AM on weekdays, 10:00 AM on weekends or after 10:00 PM.
- A minimum of one (1) Pedestrian Traffic Manager shall be provided at this intersection.

5. INTERSECTION OF GREENWICH STREET AND BARCLAY STREET

- Working hours shall be as follows:

7 AM to 10 PM, Monday through Friday
9 AM to 6 PM, Saturday
10 AM to 6 PM, Sunday
- The Contractor shall maintain a minimum of two (2) eleven (11) foot lanes for traffic on Greenwich Street and two (1) eleven (11) foot lanes for traffic on Barclay Street at all times.
- The Contractor must maintain all pedestrian crosswalks at all times.
- During water main and related work that requires water shut offs; the working hours shall be 9:00 PM to 5:00 AM.
- No noisy operations shall occur prior to 8:00 AM on weekdays, 10:00 AM on weekends or after 10:00 PM.

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6. INTERSECTION OF TRINITY PLACE AND RECTOR STREET

- Working hours shall be as follows:
 - 7 AM to 8 PM, Monday through Friday
 - 9 AM to 6 PM, Saturday
 - 10 AM to 6 PM, Sunday
- The Contractor shall maintain a minimum of two (2) eleven (11) foot lanes for traffic on Trinity Place and one (1) eleven (11) foot lane for traffic on Rector Street at all times.
- For the installation of the center island median east curb line, the Contractor shall maintain a minimum of twenty one (21) feet for two (2) lanes of traffic on Trinity Place at all times.
- The Contractor must maintain all pedestrian crosswalks at all times.
- During water main and related work that requires water shut offs; the working hours shall be 9:00 PM to 5:00 AM.
- No noisy operations shall occur prior to 8:00 AM on weekdays, 10:00 AM on weekends or after 10:00 PM.

7. INTERSECTION OF TRINITY PLACE AND THAMES STREET

- Working hours shall be as follows:
 - 7 AM to 8 PM, Monday through Friday
 - 9 AM to 6 PM, Saturday
 - 10 AM to 6 PM, Sunday
- The Contractor shall maintain a minimum of two (2) eleven (11) foot lanes for traffic on Trinity Place and one (1) eleven (11) foot lane for traffic on Thames Street at all times.
- For the installation of the center island median east curb line, the Contractor shall maintain a minimum of twenty one (21) feet for two (2) lanes of traffic on Trinity Place at all times.
- The Contractor must maintain all pedestrian crosswalks at all times.
- During water main and related work that requires water shut offs; the working hours shall be 9:00 PM to 5:00 AM.
- No noisy operations shall occur prior to 8:00 AM on weekdays, 10:00 AM on weekends or after 10:00 PM.

8. INTERSECTION OF TRINITY PLACE AND CEDAR STREET

- Working hours shall be as follows:
 - 7 AM to 8 PM, Monday through Friday
 - 9 AM to 6 PM, Saturday
 - 10 AM to 6 PM, Sunday
- The Contractor shall maintain a minimum of two (2) eleven (11) foot lanes for traffic on Trinity Place and one (1) eleven (11) foot lane for traffic on Cedar Street at all times.
- For the installation of the center island median, the Contractor shall maintain a minimum of twenty one (21) feet for two (2) lanes of traffic on Trinity Place at all times.
- The Contractor must maintain all pedestrian crosswalks at all times.
- During water main and related work that requires water shut offs; the working hours shall be 9:00 PM to 5:00 AM.
- No noisy operations shall occur prior to 8:00 AM on weekdays, 10:00 AM on weekends or after 10:00 PM.
- A minimum of two (2) Pedestrian Traffic Managers shall be provided at this intersection.

9. INTERSECTION OF TRINITY PLACE AND LIBERTY STREET

- Working hours shall be as follows:
 - 7 AM to 8 PM, Monday through Friday
 - 9 AM to 6 PM, Saturday
 - 10 AM to 6 PM, Sunday
- The Contractor shall maintain a minimum of two (2) eleven (11) foot lanes for traffic on Trinity Place and one (1) eleven (11) foot lane for traffic on Liberty Street at all times.
- The Contractor must maintain all pedestrian crosswalks at all times.
- During water main and related work that requires water shut offs; the working hours shall be 9:00 PM to 5:00 AM.
- No noisy operations shall occur prior to 8:00 AM on weekdays, 10:00 AM on weekends or after 10:00 PM.
- A minimum of four (4) Pedestrian Traffic Managers shall be provided at this intersection.

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10. INTERSECTION OF CHURCH STREET AND VESEY STREET

- Working hours shall be as follows:
 - 7 AM to 8 PM, Monday through Friday
 - 9 AM to 6 PM, Saturday
 - 10 AM to 6 PM, Sunday
- The Contractor shall maintain a minimum of two (2) eleven (11) foot lanes for traffic on Church Street.
- The Contractor must maintain a minimum of one (1) twenty (20) foot wide walkway for pedestrians on Vesey Street at all times.
- The Contractor must maintain all pedestrian crosswalks at all times.
- During water main and related work that requires water shut offs; the working hours shall be 9:00 PM to 5:00 AM.
- No noisy operations shall occur prior to 8:00 AM on weekdays, 10:00 AM on weekends or after 10:00 PM.
- A minimum of four (4) Pedestrian Traffic Managers shall be provided at this intersection.


11. INTERSECTION OF CHURCH STREET AND BARCLAY STREET

- Working hours shall be as follows:
 - 7 AM to 8 PM, Monday through Friday
 - 9 AM to 6 PM, Saturday
 - 10 AM to 6 PM, Sunday
- The Contractor shall maintain a minimum of two (2) eleven (11) foot lanes for traffic on Church Street and one (1) eleven (11) foot lane for traffic on Barclay Street at all times.
- The Contractor must maintain all pedestrian crosswalks at all times.
- During water main and related work that requires water shut offs; the working hours shall be 9:00 PM to 5:00 AM.
- No noisy operations shall occur prior to 8:00 AM on weekdays, 10:00 AM on weekends or after 10:00 PM.
- A minimum of two (2) Pedestrian Traffic Managers shall be provided at this intersection.

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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. A special Holiday Construction Embargo is in effect for this project. No work shall be performed from the Friday before Thanksgiving to January 2nd of each year of the contract. The contractor can apply for a waiver from the Holiday Construction Embargo from the Lower Manhattan Borough Commissioner's Office (LMBCO) or OCMC Streets. If a waiver is granted, new permits will be issued which indicate the waiver.
3. The Contractor is responsible for maintaining work site safety and appearance in accordance with NYC DOT's Highway Rules, NYC DDC's Contractor Good Neighbor Code of Conduct and Lower Manhattan Standards.
4. The Contractor shall communicate extensively with the Community Construction Liaison assigned to this project.
5. The Contractor must notify the NYC Fire Department, NYFD Liberty Street Fire House 10, NYC Police Department, NYCEMS, local Community Board, Borough President's Office-Chief Engineer, NYC DOT LMBCO or OCMC-Streets, plus all abutting property owners at least five working days before the start of construction. Confirmation notices must be provided to the same entities two calendar days before the start of construction. The Contractor will provide 14 days notice for any full roadway closures and/or water shut-offs. All full road closure construction sites must still allow for emergency access at all times.
6. The Contractor is advised that other Contractors may be working in the general area during the term of this stipulation. In which event, the permits may require modifications by the LMBCO or OCMC-Streets.
7. No deviation or departure from these stipulations will be permitted without the prior written approval from the LMBCO or OCMC-Streets. Requests for such modifications shall be submitted to the LMBCO, New York City Department of Transportation, 59 Maiden Lane 37th Floor, New York, NY 10038 or to OCMC-Streets, a minimum of twenty (20) days in advance for consideration.
8. 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 LMBCO or OCMC-Streets.
10. Prior to any work permits being issued a pre-construction meeting will be held twenty (20) days in advance by the LMBCO or OCMC-Streets and the Engineer-In-Charge. Arrangements for the meeting will be coordinated by the Engineer-In-Charge.
11. Work that requires utility specialty crews beyond regular stipulated working hours will be permitted with no noisy operations from 10:00PM to 8:00 AM weekdays, or 10:00AM on Saturdays or 10:00AM on Sundays.
12. **The LMBCO or OCMC-Streets reserves the right to void or modify these stipulations at any time for any reason, including, but not limited to, the following: community feedback, contractor performance, or further analysis of the project conditions, scope and schedule.**


 Frank Hrubes
 Director, Construction Coordination
 Lower Manhattan Borough Commissioner's Office

6/19/13
 Date



THE CITY OF NEW YORK Department of Sanitation

S. ELIZABETH SEARLE
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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.

ATTACH TO CONTRACT DOCUMENTS

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

PROJECT ID: PDWTC2013

WORLD TRADE CENTER CAMPUS SECURITY PLAN

WASHINGTON STREET FROM BARCLAY STREET TO VESEY STREET; TRINITY PLACE FROM
LIBERTY STREET TO THAMES STREET; WEST BROADWAY FROM VESEY STREET TO BARCLAY
STREET; AND, CHURCH STREET FROM VESEY STREET TO BARCLAY STREET

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

Together With All Work Incidental Thereto

BOROUGH OF MANHATTAN

ADDENDUM NO. 2

DATED: July 18, 2013

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

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 March 2012) 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 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.
- (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, 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 March 2012), and the contract drawings, shall be replaced with Bolted Split-Sleeve Restrained Coupling.

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

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

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

- (9) The Contractor shall exercise extreme caution and take all necessary precautions in placing sheeting and excavating to prevent any damage to the existing NYC TRANSIT'S subway structures and its appurtenances during construction work throughout the project area. The Contractor shall take full responsibility to protect the said NYC TRANSIT'S subway structures and its appurtenances and any damage caused by the Contractor's operations shall be made good by the Contractor to the satisfaction of the Engineer at no additional cost to the City.
- (10) The Contractor shall submit shop drawings to NYC Transit Authority showing all the details and methods of construction, such as, sheeting and bracing, including the Contractor's procedure and sequence of construction, supporting and/or protection of the existing TA's structures and its appurtenances, with necessary design calculations for approval prior to starting of the construction. The design shall be made by a New York State Licensed Professional Engineer skilled in this type of construction and as further evidenced by the imprint of Professional Engineer's seal and signature on all drawings. The cost of this work shall be deemed included in the price bid for all items of work under this contract.

B. AMENDMENTS TO THE STANDARD HIGHWAY SPECIFICATIONS

(NO TEXT)

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 1.06.14 - 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 Ms. Theresa Kong at (212) 460-4834.

- (2) VERIZON

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

(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. John Piazza at (718) 888-4261 or at John.piazza@twcable.com.

(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. Brendan Shera at (718) 760-6622.

(5) N.Y.C. TRANSIT AUTHORITY

- (a) The Contractor shall notify Outside Projects at least seven (7) days prior to the start of construction.

The Contractor shall contact:

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

- (b) The Contractor is advised that bus routes as well as bus stops, within the scope of this project may be affected during construction operations. The Contractor shall notify the Transit Authority at least two (2) weeks prior to the start of construction, in order to make the necessary arrangements as required under the NYC TRANSIT GENERAL NOTES included in **Section 1.06.24A, Section 1.06.24B** and **Section 1.06.24C** of this addendum.

Arrangements shall be made through:

Ms. Sarah Wyss
 Director Of Short Range, Bus Service Planning (SRB)
 New York City Transit
 2 Broadway, 17TH Floor
 New York, N.Y. 10004
 Telephone No. (646) 252-5624
 sarah.wyss@nyct.com

(c) In addition, the Contractor is advised that construction operations might affect subway lines and stations; and NYCT facilities (i.e. manholes, ducts, etc.). The Contractor shall notify the Transit Authority as required and specified in **Section 1.06.24A**, **Section 1.06.24B** and **Section 1.06.24C** of this addendum.

- (4) **Refer to Subsection 1.06.24 - Contractor To Carry Out Agreement Between City And Railroad Company Or Property Owner(s), Page I-14:**
Add the following to **Subsection 1.06.24:**

1.06.24A - NYC TRANSIT GENERAL NOTES

For NYC TRANSIT notes see the contract drawings.

1.06.24B - NYC TRANSIT REQUIREMENTS

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

NYCT "OUTSIDE CONTRACT" INSURANCE REQUIREMENTS

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

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

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

- Contractual coverage for liability assumed by the Permittee under this agreement;

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

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

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

(D) Railroad Protective Liability Insurance policy shall be required as specified in Schedule "A".

(E) Environmental/Pollution Exposures:

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

(2) General Requirements Applicable To Insurance Policies:

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

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

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

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

1.06.24C - NYC TRANSIT CURRENT AND FUTURE PROJECTS

The Contractor is notified of the following:

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

- (a) The **IND 8th Avenue Line - E Train** is running along Trinity Street/Church Street
 - (b) The **IRT 7th Avenue Line - No. 1 Train** is running along Varick Street
 - (c) The **BMT Broadway Line - R Train** is running under the proposed project sites
- (2) The Contactor can obtain NYC Transit Structural Drawings by contacting Mr. Vasanth K. Battu at (646) 252-4473.

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

- Drawing No. P-591 - Duct Assignment - Vicinity of Cortland Street Station - 7th Avenue Line - IRT - Manhattan
 - Drawing No. P-400 - Duct Assignment - Vicinity of Chamber Street Station - 8th Avenue Line - IND - Manhattan
 - Drawing No. P-399 - Duct Assignment - Vicinity of Ann Street and Park Row - 8th Avenue Line - IND - Manhattan
- (3) The project might have an impact at the following stations:
- (a) World Trade Center Station for the IND E Train - 8th Avenue Line

Should it become necessary to close any of the entrances for the above station, see Note No. 14.35 from the General Notes that are made part of the Contract Drawings.

- (4) The Contractor shall coordinate this project with the following contract so as to avoid any interference with any aspect of its construction:
- Church Street Corridor Improvements (Contract No. A-37575)**. As this contract is still in the Master Planning Phase, the Contractor shall contact Mr. Mohamed Adam, P.E., Project Engineer-Outside Projects, for more information regarding scope of work.
- (5) **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.

- (6) **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 Traffic Stipulations identified in the maintenance of traffic requirements under Highway Contract No. PDWTC2013.

- (7) **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.

- (8) **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.

- (9) **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.

- (10) **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.

(11) 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.

(12) 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).

(13) **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.

(14) **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.

(15) 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":

(16) 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":

(17) Refer to **Section 5.11 - Outfall Structures, Subsection 5.11.2 - Materials**, Page V-95:
Delete from **Subsection 5.11.2**, 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 $30 \pm 2\%$ 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".

(18) 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.

(19) 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.

(20) 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)**.

(21) Refer to **Subsection 5.32.4 - Specific Pavement Restoration Provisions**, Page V-185:

Add the following to **Subsection 5.32.4**:

(E) Specific Pavement Restoration Provisions:

- (1) Within the limits of the street rehabilitation work being performed for World Trade Center Campus Security Plan the restoration shall be accomplished and paid for in accordance with Street Construction Plans, Details and Specifications for Project ID. PDWTC2013.
- (2) In street areas requiring sewer and water main work outside the limits of street rehabilitation work the restoration shall be as follows:
 - (a) The permanent restoration over the **trench width and cutbacks only** shall consist of a top course of three (3) inches of asphaltic concrete wearing course on a filler course of binder mixture (as needed to match the existing asphalt pavement top course thickness) on a base course of a minimum of nine (9) inches of high-early strength concrete, to match the existing pavement as directed by the Engineer.
- (3) 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 the reflective cracking membrane 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 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 removal and 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 stripping or milling of the pavement shall be made under Item No. 6.75 - GRINDING EXISTING ASPHALTIC CONCRETE WEARING COURSE.
- (j) Payment for pavement restoration shall be made under the following items:

<u>Item No.</u>	<u>Item</u>	<u>Payment Description</u>
4.02 AG	Asphaltic Concrete Wearing Course, 3" Thick	(For asphaltic concrete wearing course top course when <u>no</u> overlay is required.)
4.02 CB	Asphaltic Concrete Mixture	(For binder mixture top filler course under asphaltic concrete wearing course when <u>no</u> overlay is required; and binder mixture in Type A and B Keys.)
4.04 H	Concrete Base For Pavement, Variable Thickness For Trench Restoration, (High-Early Strength)	(For concrete base course over trenches and cutbacks.)

(22) 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'.

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/trafart.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 Standard Water Main Specifications (August 1, 2009), **Subsection 1.06.29 - Contractor To Provide For Traffic**, Page I-15:

Add the following to **Subsection 1.06.29**:

See amended Standard Sewer 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 2.15 - 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.

- (7) 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.

- (8) 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).

- (9) **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.

- (10) **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.

(11) 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".

(12) 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.

(13) 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.

(14) 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":

(15) 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":

(16) **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":

(17) **Refer** to Standard Water Main Specifications (August 1, 2009), Page V-69:
Add the following new **Section 5.20B**:

**SECTION 5.20B
 FURNISHING, DELIVERING AND INSTALLING TEMPORARY LINE STOPS
 ON EXISTING WATER MAINS**

5.20B.1 DESCRIPTION

This section describes the furnishing, delivering and installing of temporary line stop type valves, of the various sizes specified, on existing water mains, where and when directed by the Engineer.

5.20B.2 MATERIALS

Line stop type valves shall have a minimum pressure rating by the manufacturer of 200-psig for 12-inch valves and 150-psig for 20-inch valves, and shall be capable of being used on both cast iron and ductile iron pipe of the diameters specified.

Line stop type valves shall be Hydra-Stopper as manufactured by HYDA-STOP, Inc., 11700 South Cicero Avenue, Alsip, IL. 60803, Tel. No. 800-538-STOP, (www.hydrastop.com); Sure-Stop as manufactured by Flowserve/International Pipe Services Company (IPSCO), 1224 Forest Parkway, Suite 120, Paulsboro, N.J. 08066, Tel. No. 800-828-0044, and Fax No. 856-423-3955, (www.flowserve.com); or an approved equivalent.

5.20B.3 METHODS OF CONSTRUCTION

(A) GENERAL: Under this section, the Contractor shall provide a procedure and equipment necessary to temporarily line stop (plug) a pressurized water main without disrupting pressure or service upstream of the line stop plug. A pressure tap shall first be made into the main, allowing insertion of the line stop plugging device into the water main under pressure. By using a special fitting, the tapping valve can be later recovered under pressure after the plugging head has been removed from the main. The sequence of work shall proceed as follows but the first two steps must be accomplished prior to placing orders for the insertion type valve materials:

- (1) For all water main pipes, determine from City records:
 - (a) Make;
 - (b) Specification;
 - (c) Age; and,
 - (d) Cross-sectional dimensions.
- (2) Prior to ordering material: Excavate; dewater; expose; and, clean the exterior of the water main at location of proposed installation to determine the following:
 - (a) Caliper all mains to determine pipe O.D. and ovality;
 - (b) Verify wall thickness and exterior and interior condition;
 - (c) Verify type of pipe (i.e. cast iron, ductile iron, PVC, etc.);
 - (d) Check for sufficient equipment and material clearances necessary to perform the line stop work along with the relevant work that needs to be accomplished; and,
 - (e) Backfill; and, temporarily restore pavement as necessary.

If the main is heavily corroded or if utilities or any other obstructions will interfere with fittings, support/reaction blocking, or equipment the Contractor may be required to move to a new location up or downstream to structurally sound pipe and to an area that allows sufficient clearances to perform the work.

- (3) Re-excavate; and, dewater as may be necessary. Assemble line stop fitting(s) around the main.
- (4) Pressure test the line stop fitting as per Engineer's directions.
- (5) Wrap the line stop fitting flange in plastic to protect it from concrete splatter. Pour concrete support and reaction blocking. Allow the concrete to cure per Engineer's instructions
- (6) Mount temporary line stop control/tapping valve(s) to fitting(s) and drain nozzle(s).
- (7) Mount tapping machine; open valve; pressure tap; retract cutter; close temporary valve; and, remove tapping machine
- (8) Mount the line stopping machine; open temporary valve; and, insert plugging head into the main as per manufacturer's instructions.
 - (a) If two or more plugging heads are required, insert the downstream plugging head first and then work toward the flow.
 - (b) NOTE: The flow in the water main should be not greater than 0.3-fps at the time the plugging head is inserted into the main.
- (9) Test for shutdown by attempting to dewater the "isolated" section of pipe by a controlled means. Upon approval from the Engineer, in consultation with D.E.P. existing means such as an air release valve, fire hydrant, blow-off valve, etc., may be used for this purpose. Otherwise, the Contractor must provide a suitably sized pressure tap to allow for quick determination of shutdown adequacy.

- (10) Upon shutdown validation, cut the downstream main and install required pipe and fittings.

- (11) Prior to removing the line stop(s) from the main, the pressure between the isolated area "live" main must be equalized. Visually inspect the new installation for any leakage. Upon verification of zero leakage, retract the plugging head(s), close the temporary valve and remove the line stopping machine.
- (12) Install the completion machine and open the control valve.
- (13) Insert the completion plug into nozzle of line stop fitting.
- (14) Remove the completion machine and temporary valve.
- (15) Repeat Paragraphs (12) thru (14), above, at the other line stop fittings.
- (16) Install a blind flange onto the nozzle of each line stop fitting. If a drain fitting is not removed from the line after the line is dewatered, install a threaded pipe plug or blind flange on the fitting or valve outlet, depending on the type of drain fitting used, onto each drain fitting.

(B) **INTERRUPTION OF FLOW:** Existing water mains, upstream of the line stop type devices, cannot be shut down or taken out of service. To insure that the entire operation shall be accomplished without interruption of service or flow, the installation shall be accomplished by a company experienced in the procedures specific to type of line stop being used for the sizes of pipe specified.

(C) **REDUCTION OF PRESSURE:** The entire operation shall be accomplished without a reduction of water pressure, in the main(s) below 100-psig. It shall be the responsibility of the Contractor to verify pressure prior to commencing the installation. The City will reduce the pressure to 100-psig or less for the duration of the installations.

(D) **DRAIN NOZZLES:** Unless otherwise provided by the manufacturer, the drain tapping fitting shall consist of a saddle plate with an integral flanged nozzle to which a tapping or suitable control valve can be attached in a pressure tight manner.

- (1) The interior of the saddle plate, adjacent to and concentric with the O.D. of the nozzle, shall be grooved to retain a gasket that shall seal the saddle plate to the exterior of the cast iron main. This gasket shall constitute the only seal between the main and the fitting.
- (2) At Contractor's option, the saddle plate shall consist of a steel weldment or a machined ductile iron casting.
- (3) Saddle shall be clamped to main by a minimum of two "U" shaped steel strap/stud assemblies of sufficient cross section to contain a line pressure of 200-psig.

(E) **EXTENT OF SHUTDOWNS:** Because of possible internal corrosion and deposits in mains, "bottle-tight" shut-downs may not occur. A satisfactory shutdown is one that allows the work to be accomplished (i.e. valve replacement, etc.) using drainage pumps to dewater excavations, with workmen wearing boots and rain gear, if necessary.

If leakage is excessive, the Contractor and City will cooperate in using "geophones" or other listening devices to determine extent and location of leakage.

(F) **PRELIMINARY FIELD INSPECTION OF MAINS:** Due to the age of the pipe, they may contain dimensional and structural flaws. In addition, it is anticipated that exterior main conditions, bells, service connections, or presence of adjoining utilities may require relocation of proposed line stop fittings. Therefore:

- (1) It will be necessary to know the exact main O.D. and ovality before the line stop fitting can be manufactured. It will also be necessary to know the bore diameter before the plugging head sealing elements can be manufactured.

- (2) Prior to ordering material, the Contractor shall excavate at each proposed line stop location and caliper the header O.D. along at least four (4) diameters to determine ovality.
 - (3) The Contractor shall determine main wall thickness, uniformity and structural integrity by means of ultrasonic testing. Data shall be taken to determine extent of internal deposits, tuberculation, etc.
 - (a) If the Engineer determines that the Contractor's data are not adequate, the Engineer may direct the Contractor to make one or more pressure taps on the main to obtain test pipe coupons for the Engineer's evaluation.
 - (b) The minimum size of test coupon shall be 3-1/2" diameter, drilled through a nominal 4-inch valve.
 - (c) Pressure tapping saddles and other materials used for inspection taps shall conform to the requirements of **Subsection 5.20B.3(A)(9)**, except that test coupon diameter shall be 5" as specified in **Subsection 5.20B.3(F)(3)(b)**.
 - (4) Heavy interior corrosion and/or tuberculation can be anticipated in the existing mains. See **Subsection 5.20B.3(E)**.
 - (5) If, in the Engineer's opinion, the proposed location is unsatisfactory, the Engineer will direct excavation at another site. The Contractor will be paid for the excavation and backfilling of the abandoned site at the unit price bid for item labeled, "ADDITIONAL EARTH EXCAVATION INCLUDING TEST PITS (ALL DEPTHS)".
- (G) LINE STOP FITTINGS AND ACCESSORIES, FOR CAST IRON PIPE: Line stop fittings shall be full encirclement, pressure retention type split tee and shall be furnished and installed as per the manufacturer's instructions and approval of the Engineer. For Hydra-Stops they shall consist of two saddle weldments: (1) an upper Hydra-Stop flange saddle plate and (2) a lower saddle plate. These two saddle plates shall be contiguous.
- (1) Material Drawings: The Contractor shall submit to the Engineer five (5) sets of drawings, furnished by manufacturers, fully and distinctly illustrated and describing the fittings proposed to be furnished.
 - (2) Upper Saddle Plate: the interior of the saddle plate, adjacent to and concentric with the O.D. of the nozzle, shall be grooved to retain a gasket which shall seal the saddle plate to the exterior of the cast iron main. This gasket shall constitute the only seal between the main and the fitting.
 - (3) Hydra-Stop Flange: The outlet of each fitting shall be machined from a 150-lb. forged steel flange (ASTM A161 or A105) or from pressure vessel quality steel plate (ASTM A285, Grade C: flat faced and drilled per ANSI B16.5). Suitable independently operated locking devices shall be provided in the periphery of the flange to secure the completion plug
 - (4) Hydra-Stop Nozzle: The nozzle, which lies between the saddle and the flange (**Subsection 5.20B.3(G)(2)**), shall be fabricated from steel pipe (ASTM A234). After welding and stress relief, the nozzle shall be accurately bored as follows to accommodate the Hydra-Stop plugging head:
 - (a) Machine an internal circular shoulder to seal against the circumferential gasket carried on the plugging head (**Subsection 5.20B.3(L)(2)**).
 - (5) Completion Plug: The completion plug shall be machined from a stress relieved carbon steel weldment. It shall contain two (2) circumferential grooves: one to receive the locking devices from the Hydra-Stop flange, and the second to contain a compressible "O" ring to seal pressure tight against the bore of the flange.

- (6) Blind Flange: Each Hydra-Stop fitting shall be closed with a blind flange. Facing and drilling of the blind flange shall be compatible with that of the Hydra-Stop flange. Minimum blind flange thickness shall be that of AWWA Spec. 207, Class D.
 - (7) Saddle Alignment Marking: Each saddle half shall be matched and marked with serial numbers, to insure proper alignment in the field.
 - (8) Fasteners: All bolts, studs and nuts used on Hydra-Stop and drain/equalization fittings shall be of the heavy series.
 - (9) General: Manufacturer shall exercise extreme care to insure that weldments are of adequate strength, properly shaped, securely reinforced and free from distortion that could stress the cast iron main during installation, pressure tapping, or line stopping operations. All steel shall meet the requirements of ASTM A36, as a minimum. All weldments shall be braced and stress relieved.
 - (10) Gaskets: Shall be molded from elastomer compounds that resist compression setting and are compatible with water in the 32 to 140-degree Fahrenheit temperature range.
 - (11) Upper Hydra-Stop Flange Saddle: Shall consist of a saddle plate, a Hydra-Stop flange, and a Hydra-Stop nozzle.
 - (a) Saddle plate shall be of a minimum of 0.375" in thickness. It shall be shaped to be concentric to the outside of the cast iron main. The smallest I.D. of the saddle and its interior rings shall exceed the O.D. of the main by a minimum of 0.250" to allow for ovality of the main.
 - (b) A Hydra-Stop nozzle of 0.375" minimum wall thickness shall be securely welded to the saddle plate.
 - (c) The Hydra-Stop flange shall be securely welded to the nozzle. After welding, the assembly shall be braced, stress relieved and bored to receive the completion plug and the circumferential gasket of the Hydra-Stop machine plugging head.
 - (d) Bolt, nut of stud, nut and washer assemblies shall be furnished to draw the upper and lower saddles together for sealing. Bolting brackets shall be gusseted.
 - (12) Lower Saddle Plate: Saddle plate shall be of a minimum 0.375" thickness and shall be shaped to be concentric to the outside of the cast iron main. Gusseted bolting brackets shall match upper half.
 - (13) Coating: After fitting has been stress relieved and machined, the exterior and unmachined interior surfaces shall be sandblasted and coated with coal tar epoxy to a final minimum cured thickness of 0.020".
- (H) INSTALLATION OF VALVE FITTINGS, GENERAL: The Contractor shall power wire brush and grind the exterior of the main to remove any debris, corrosion deposits, or other surface irregularities that might interfere with proper sealing and sealing of each fitting against each main. Any structural defects in main, service connections, appurtenances, adjacent utilities, etc. that could interfere with the installation shall be immediately reported to the Engineer.
- (1) Inspection: Contractor shall fit upper and lower saddle plate assemblies to main, thoroughly checking for proper fit to main.
 - (2) Assembly To Main: Under no circumstances shall the Contractor attempt to force, reshape or bend saddle plates by excessive tightening of saddle studs while the fitting is assembled around the main.
 - (a) Any retrofitting shall be accomplished with the fitting removed from the main.
 - (b) Any damage to fitting, accessories or main shall be repaired at Contractor's expense to the satisfaction of the Engineer.

(I) ASSEMBLY OF TAPPING SADDLE FITTINGS FOR CAST IRON PIPE: Note: The upper and lower saddle plates shall be bolted together.

- (1) Main Preparation: The entire periphery of the cast iron main shall be power ground for the entire length of the Hydra-Stop fitting.
- (2) Assembly Of Saddle Plates: Upper and lower saddle halves shall be drawn together by bolt assemblies (**Subsection 5.20B.3(G)(11)(d)**).
 - (a) Saddle plates shall be bolted together in the horizontal position.
 - (b) Coal tar epoxy shall be applied (0.020" minimum thickness).

(J) THRUST AND SUPPORT BLOCKING: Prior to mounting temporary tapping valve and pressure tapping machinery, the Contractor shall install concrete thrust and support blocking as shown on the plans or approved shop drawings to be furnished by the Contractor. Blocking shall reach a minimum cure strength specified by the Engineer before any valves or machinery is mounted onto the fitting.

(K) CUTTING OPERATION: Drilling equipment shall be in good condition, and equipped with power drive to insure smooth cutting, and to minimize shock and vibration. Cutting equipment shall be carbide tipped and capable of being replaced without removal from the jobsite or an additional backup cutter shall be on hand.

(L) LINE STOPPING MACHINERY: The equipment shall consist of a plugging head that contains an elastomer sealing element proven and capable of obtaining an effective shut-down. The plugging head is advanced into and retracted from the main by means of a linear actuator. When retracted, the plugging head and carrier are housed in an adapter, bolted pressure tight between the tapping valve and the actuator.

- (1) Sealing Element: The element shall be monolithically molded from a suitable compound. The element shall be flat in a plane perpendicular to the main when in the set position.
- (2) Plugging Head: The diameter of the plugging head shall be slightly smaller than the bore of the nozzle.
- (3) Deposits In Bore Of Main: The bottom of the plugging head shall be capable of breaking and dislodging tuberculation and other deposits in the bore of the main that might interfere with a satisfactory line stop (**Subsection 5.20B.3(E)**).

(M) COMPLETION: Final closure to the opening made in the water main pipe shall be accomplished by insertion of a completion plug. (**Subsections 5.20B.3(A)(12), 5.20B.3(A)(13) and 5.20B.3(A)(14)**).

- (1) Completion Plug: Test of completion plug (**Subsection 5.20B.3(G)(4)**) sealing shall be accomplished through bleed-off in machine housing.
- (2) Removal: The temporary valve shall be removed and installation of blind flange (**Subsection 5.20B.3(G)(5)**) shall be completed.
- (3) Coating: Contractor shall coat the entire assembly with coal tar epoxy to a final minimum cured thickness of 0.020". Also, a fusion applied epoxy coating on the line stop fitting at the factory is acceptable in lieu of coal tar.

5.20B.4 MEASUREMENT

The quantity to be measured for payment shall be the number of each size Temporary Line Stops actually installed at the site, complete, to the satisfaction of the Engineer.

5.20B.5 PRICES TO COVER

The contract price for "FURNISHING, DELIVERING AND INSTALLING TEMPORARY LINE STOPS ON EXISTING WATER MAINS" shall be the unit price bid per each temporary line stop and shall cover the cost of all labor, material, plant, equipment, samples, tests and insurance required and necessary to furnish, deliver and install temporary line stops on specific size water mains at the locations shown, including the earth excavation of all materials of whatever nature encountered (See **Section 4.03 - Earth Excavation**); dewatering; bridging; backfilling; cleaning up; and furnishing and installing all other items necessary to complete this work and do all work incidental thereto, all in accordance with the plans, specifications and standards, and as directed by the Engineer. Included in the price hereunder shall be the cost of all labor and materials required to clean and measure the pipe surface; prepare shop drawings; furnish and install concrete supports and reaction blocks; mount tapping machines and plugs, remove the water stop plugs; install completion plugs, re-open water main; perform temporary plating; perform all tests; and install all other hardware in accordance with the plans, specifications and standards, or as directed by the Engineer.

Seventy-five percent (75%) of the unit price bid for "FURNISHING, DELIVERING AND INSTALLING TEMPORARY LINE STOPS ON EXISTING WATER MAINS" will be paid when each water stop is satisfactorily installed. The remaining twenty-five percent (25%) will be paid upon completion of the work under this section, when the plug and line stop equipment are removed from the pipe, the pipe is sealed, the excavation is backfilled, and the pavement permanently restored, all in accordance with the plans, specifications and standards, and as directed by the Engineer.

Payment for Furnishing, Delivering And Installing Temporary Line Stops On Existing Water Mains will be made under the Item Number as calculated below:

The Item Numbers for Furnishing, Delivering And Installing Temporary Line Stops On Existing Water Mains have eleven characters. (The decimal point is considered a character, the third character.)

(1) The first five characters shall define Furnishing, Delivering And Installing Temporary Line Stops On Existing Water Mains:

60.19

(2) The sixth, seventh and eighth characters shall define Furnishing, Delivering And Installing Temporary Line Stops On Existing Water Mains:

TLS - Furnishing, Delivering And Installing Temporary Line Stops On Existing Water Mains

(3) The ninth and tenth characters shall define the Diameter of the Water Main. (The ninth and tenth characters representing the unit of inches for the Diameter of the Water Main.) See examples below:

08 - 8-Inch
20 - 20-Inch

(4) The eleventh character shall define Existing Water Main:

E - Existing Water Main

(5) Examples of Item Numbers together with Description and Pay Unit as provided in the Bid Schedule are provided below:

Item No.	Description	Pay Unit
60.19TLS12E	FURNISHING, DELIVERING AND INSTALLING TEMPORARY LINE STOPS ON EXISTING 12-INCH WATER MAIN	EACH
60.19TLS20E	FURNISHING, DELIVERING AND INSTALLING TEMPORARY LINE STOPS ON EXISTING 20-INCH WATER MAIN	EACH

(18) 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.

(19) 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)**.

(20) Refer to Standard Water Main Specifications (August 1, 2009), **Section 5.32 - Final Restoration Of Pavements**, Page V-99:

Add the following to **Subsection 5.32.4 - Specific Pavement Restoration Provisions**:

See amended Standard Sewer 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-114:

Change 16", to 16'.

END OF ADDENDUM NO. 2

This Addendum consists of thirty (30) pages.

ATTACH TO CONTRACT DOCUMENTS

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

PROJECT ID: PDWTC2013

WORLD TRADE CENTER CAMPUS SECURITY PLAN

WASHINGTON STREET FROM BARCLAY STREET TO VESEY STREET
TRINITY PLACE FROM LIBERTY STREET TO THAMES STREET
WEST BROADWAY FROM VESEY STREET TO BARCLAY STREET
AND
CHURCH STREET FROM VESEY STREET TO BARCLAY STREET

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

Together With All Work Incidental Thereto

BOROUGH OF MANHATTAN
CITY OF NEW YORK

ADDENDUM NO. 3

DATED: July 8, 2013

THIS ADDENDUM IS HEREBY MADE A PART OF THE CONTRACT DOCUMENTS

Included herein are the Specifications for the Specialty
Communication and Electrical works.

SPECIALTY COMMUNICATION AND ELECTRICAL ITEMS

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SECTION NYPD-3

INSTALL FIBER OPTIC CABLE INTO NEW LATERALS

PART 1 GENERAL

1.1 SUMMARY

- A. This section addresses the installing of fiber optic cables into new laterals (conduit).
- B. Under this section, the Contractor shall install 12-strand fiber optic cables into new steel conduit interconnecting guard booths, and 6-strand fiber optic cables interconnecting License Plate Recognition (LPR) System equipment and Closed Circuit Television (CCTV) equipment mounted on street light poles to guard booths.
- C. As specified on Contract Drawings or as directed by the Engineer sweeps into light/signal pole foundations will be provided under other items.
- D. Reference: Fiber optic cables are to be furnished under Item Numbers NYPD-F12 and NYPD-F6.

1.2 SUBMITTALS

- A. Materials: As specified in the Contract Documents prior to commencing this scope of work the Contractor shall submit cut sheets for all materials: Lubricant: high performance, pourable liquid rated for difficult fiber optic cable pulls.
- B. As-Builts: Contractor shall redline drawings to produce and submit to the Engineer asbuilt drawings of the installed fiber optic cable.

PART 2 MATERIALS

2.1 LUBRICANT

- A. High performance, pourable liquid rated for difficult fiber optic cable pulls.

PART 3 EXECUTION

3.1 PULLING FIBER OPTIC CABLE

- A. Bend Radius: Do not exceed the minimum cable bend radius. For loose tube and ribbon cable, the bend radius is specified at 20 times the cable diameter during tension/installation conditions and 10 times during static conditions (check the data sheet). Pulling the cable at a lower bend radius increases the compression forces on the cable core which can result in tube deformation and possible fiber damage or attenuation increases. Check the data sheet for the specific bend radius.
- B. Duct Applications: Special care should be given to the entrance/exit of manholes, hand holes, or streetlight/signal pole foundations. When racking the cable in manholes or handholes, care should be taken not to pinch the cable against any edges (duct, walls, etc.) or corners.
- C. Pulling Tension: Do not exceed the maximum specified tensile force for the cable. This is typically 600 lb for outside plant loose tube or ribbon cable. Check the cable data sheet for the specification.
- D. Cable Breakaways: A cable breakaway rated at or below the maximum specified cable load shall be used to assure the cable does not exceed its maximum rated pulling tension.
- E. Swivels: When cables are pulled, swivels must be used on the cable end to prevent accumulation of cable twist.

- F. Cable Pulling Grip Installation: The grip may be applied directly over the jacket; however, be aware that the jacket may pull off the cable before reaching the maximum specified load. Optimum grip strength is achieved by removing part of the jacket to allow gripping of the jacket and cable core.
 - G. Cable Crush: Care should be taken not to crush the cable, which should not be exposed to a short-term load > 125 lb/linear inch. Any different specified values will be noted on the cable data sheet.
 - H. Cable Figure Eighting: Cable may be placed in a figure 8 pattern if it needs to be removed from the reel. This pattern minimizes the accumulation of cable twist. Care should be taken to prevent cable damage while the cable is in this configuration. Figure eighting may only be done manually and not using figure 8 machines.
 - I. Cable Installation Temperature: The cable should not be installed in environments exceeding its specified maximum and minimum installation temperature. For loose tube and ribbon cable this is typically specified for an installation temperature of -22 degrees Fahrenheit to +167 degrees Fahrenheit. Check the cable data sheet for the specific installation temperature.
 - J. Cable lubricant should be used to reduce the cable friction force when pulling cable into duct.
 - K. Cable can be installed by pulling or jetting in duct applications. The cable jetting recommendations below should be followed.
- 3.2 JETTING FIBER OPTIC CABLE
- A. Manufacture Recommendations: Follow the recommendations of both the blowing equipment and cable supplier.
 - B. Crash Test: A crash test should be performed to determine the maximum push force. Excessive pushing will cause the cable to cork screw in the duct or fold over which will damage the fiber.
 - C. Cable with smaller diameters will require a lower maximum push force.
 - D. The maximum cable push force will also decrease as the duct inside diameter increases.
 - E. Cable guides must be used for cables less than or equal to 1.0" in diameter.
 - F. Duct Preparation: Prepare the duct for blowing. This includes assuring the duct inside diameter has sufficient cable clearance for proper blowing. The duct entrance/exit into hand holes or manholes must meet the cable bend radius specification.
 - G. Use the proper cable seals/guides based on the cable diameter.
 - H. Cable end cap or sealing is recommended to keep the air pressure out of the cable.
 - I. Do not over tighten the top of the blowing unit as excessive compression may be applied to the cable.
 - J. Blowing Distance: Consider the route to determine the maximum blowing distance. Follow the blowing equipment suppliers blowing distance recommendations..
 - K. Maintain proper airflow to "blow" the cable verses "pushing" the cable.
 - L. The minimum air pressure in the duct should be 100 psi with 125 psi recommended.
 - M. Air cooler: Air compressor cooler should be used as recommended by the blower equipment manufacturer. Typically this is when the ambient air temperature exceeds 80 degrees Fahrenheit.
 - N. The cable should be clean as it enters the blowing equipment to allow for proper gripping of the

cable.

- O. Use only cable/duct lubricants recommended by its blowing equipment manufacturer for optical fiber cable.

3.3 TERMINALS

- A. All cable slack shall be neatly coiled and secured with black electrical tape.
- B. In Guard Booths, Contractor shall terminate fiber as per the contract drawings.
- C. Cable shall be identified in each manhole/handhole utilizing waterproof cable tags. Contractor shall label all cable tags with a permanent marker. Labels shall include the count of fiber.

PART 4 MEASUREMENT AND PAYMENT

4.1 MEASUREMENT

- A. The quantity of Item No. NYPD-3: INSTALL FIBER OPTIC CABLE INTO NEW LATERALS to be measured for payment shall be the number of LINEAR FOOT (LF) installed, measured from end to end of cable, to the satisfaction of the Engineer.

4.2 PRICE TO COVER

- A. The contract price per linear foot shall cover the cost to furnish all labor, materials, equipment, insurance, and incidentals required to pull or jet fiber optic cables into lateral ducts, and shall include, but not limited to, all equipment, lighting, manhole dewatering, maintenance and protection of traffic, and permits; all in full compliance with the Contract Drawings, the specifications and the directions of the Engineer.

Payment will be made under:

Item No.	Item	Pay Unit
NYPD-3	INSTALL FIBER OPTIC CABLE INTO NEW LATERALS	L.F.

SECTION NYPD-ATCDN

ACCEPTANCE TESTING OF COMMUNICATIONS DATA NETWORKING EQUIPMENT, CLOSED
CIRCUIT TELEVISION CAMERAS AND LICENSE PLATE RECOGNITION SYSTEMS

PART 1 GENERAL

1.1 SUMMARY

- A. This section specifies requirements for testing of the World Trade Center (WTC) Campus Plan Data Networking, Closed Circuit Television (CCTV) Systems, and License Plate Recognition (LPR).
- B. The Contractor shall develop an Integrated Acceptance Testing procedure for the Data Networking Equipment, CCTV System equipment, and LPR System equipment.

1.2 DESIGN AND PERFORMANCE REQUIREMENTS

- A. The Contractor shall submit a comprehensive Acceptance Test Plan that describes all the activities and tasks associated with testing in accordance with the requirements of this Section. The test plan shall include a comprehensive description of Field Acceptance and Operational Acceptance testing to be performed.
- B. Upon successful completion of all Field Acceptance testing, a Final 30 day Operational Acceptance test shall be conducted.
- C. All system functionality shall be tested at each phase. Individual equipment components that were tested in a previous phase need not be retested. Testing shall proceed in this manner for both until the entire system is installed and successfully tested and placed in service.

1.3 APPLICABLE STANDARDS, CODES AND PUBLICATIONS

- A. Testing shall meet all applicable requirements of the latest codes and standards and all local codes. Where specific requirements are not listed the Contractor shall, as a minimum, conform to the latest revision of the references, standards and publications listed below. In the event of a conflict, the more stringent criteria shall govern.
- B. American National Standards Institute (ANSI):
 1. ANSI/ASQC C1-1996 Specifications of General Requirements for a Quality Program
 2. ANSI T1.101-1999 Synchronization Interface Standard
 3. ANSI T1.102-1993 Digital Hierarchy – Electrical Interfaces
 4. ANSI T1.105.03-2003 Synchronous Optical Network (SONET) - Jitter and Wander at Network and Equipment Interfaces
 5. ANSI T1.105.03a-1995 Synchronous Optical Network (SONET) - Jitter at Network Interfaces– DS1 Supplement
 6. ANSI T1.105.03b-1997 Synchronous Optical Network (SONET) - Jitter at Network Interfaces – DS3 Wander Supplement
 7. ANSI T1.105.04-1995 Synchronous Optical Network (SONET) – Data Communication Channel Protocol and Architectures
 8. ANSI T1.119-1994 Information Systems – Synchronous Optical Network (SONET) Operations, Administration Maintenance and Provisioning
 9. ANSI T1.416-1999 Network to Customer Interfaces – Synchronous Optical Network (SONET)
 10. ANSI T1.416.04-2005 Network and Customer Installation Interfaces – SONET Physical Layer Interface and Mapping Specifications for ATM Applications
 11. ANSI/TIA/EIA 568-B-2001 Commercial Building Telecommunications Cabling Standard

- C. Electronic Industries Association (EIA)/Telecommunications Industry Association (TIA):
1. EIA/TIA 232-F Interface between Data Equipment and Data Circuit-Terminating Equipment Employing Serial Binary Data Interchange
 2. EIA/TIA 250-C Electrical Performance for Television Transmission Systems (1990)
 3. EIA 310-D Cabinets, Racks, Panels and Associated Equipment (1992)
 4. EIA/TIA 422-B Electrical Characteristics of Balanced Voltage Digital Interface Circuits (2005)
 5. EIA/TIA 485 Electrical Characteristics of Generators and Receivers for Use in Balanced Digital Multipoint Systems
 6. EIA/TIA 569-A Commercial Building Standard for Telecommunications Pathways and Spaces (2001)
 7. EIA/TIA 606-A Administration Standard for the Commercial Telecommunications Infrastructure (2002)
 8. EIA/TIA 607 Commercial Building, Grounding and Bonding Requirements for Telecommunications (1994)
- D. Federal Communications Commission (FCC)
1. CFR Rules and Regulations; Title 47, Part 15.
- E. Institute of Electrical and Electron Engineers (IEEE):
1. IEEE 802.1D - Standard for Local and Metropolitan Area Networks Media LPR(MAC) Bridges (2004)
 2. IEEE 802.1P - Traffic Class and Dynamic Multi-Cast Filtering Services in Bridged Local Area Networks (Draft Supplement to 802.1D) (1997)
 3. IEEE 802.1Q - Virtual Bridged Local Area Networks (2005)
 4. IEEE 802.1S - Virtual Bridged Local Area Networks - Amendment 3: Multiple Spanning Trees (2002)
 5. IEEE 802.1X Local and Metropolitan Area Networks Port-Based Network LPR(2004)
 6. IEEE 802.3 Information Technology - Telecommunications and Information Exchange between Systems - Local and Metropolitan Area Networks - Specific Requirements Part 3: Carrier Sense Multiple Access with Collision Detection (CSMA/CD) Access Method and Physical Layer (2006)
 7. IEEE 802.3AB Physical Layer Parameters and Specifications for 1000 Mb/s Operation over 4 pair of Category 5 Balanced Copper Cabling, Type 1000 Base-T (1999)
 8. IEEE 802.3AC Carrier Sense Multiple Access with Collision Detection (CSMA/CD) Access Method and Physical Layer Specifications Frame Extensions for Virtual Bridged Local Area (1998)
 9. IEEE 802.3AD Standard for Carrier Sense Multiple Access with Collision Detection (CSMA/CD) Access Method and Physical Layer Specifications Aggregation of Multiple Link Segments (2000)
 10. IEEE 802.3AE Carrier Sense Multiple Access with Collision Detection (CSMA/CD) Access Method and Physical Layer Specifications -Media LPR(MAC) Parameters, Physical Layer and Management Parameters for 10 Gb/s Operation (2002)
 11. IEEE 802.3AH Telecommunications and Information Exchange between Systems - Local and Metropolitan Area Networks - Specific Requirements Part 3: Carrier Sense Multiple Access with Collision Detection (CSMA/CD) Access Method (2004)
 12. IEEE 802.3i System Considerations for Multisegment 10 Mb/s Baseband Networks (Section 13) - Twisted-Pair Medium Attachment Unit (MAU) and Baseband Medium, Type 10Base-T (Section 14) (1990)
 13. IEEE 802.3u Carrier Sense Multiple Access with Collision Detection (CSMA/CD) Access Method and Physical Layer Specifications: MAC Parameters, Physical Layer, Medium Attachment Units and Repeater for 100 Mb/s Operation (Version 5.0) (1995)
 14. IEEE 802.3x - Supplement to Carrier Sense Multiple Access with Collision Detection (CSMA/CD) Access Method and Physical Layer Specifications Specification for 802.3 Full Duplex Operation (2000)
 15. IEEE 802.11 Local and Metropolitan Area Networks - Specific Requirements Part 11: Wireless LAN Medium LPR(MAC) and Physical Layer (PHY) Specifications - Includes IEEE

- 802.11D, 802.11E, 802.11G, 802.11H, 802.11I, 802.11J (2005)
16. IEEE 802.17 Telecommunications and Information Exchange between Systems - Local and Metropolitan Area Networks - Specific Requirements Part 17: Resilient Packet Ring (RPR) Access Method and Physical Layer Specifications (2004)
 17. IEEE 829 Standard for Software Test Documentation (1998)
 18. IEEE C62.38 Guide on Electrostatic DFCU AND SANNACAM harge (ESD) - Withstand Capability Evaluation Methods for Electronic equipment Subassemblies (1994)
 19. IEEE C62.41.1 Guide on the Surge Environment in Low-Voltage (1000 V and Less) AC Power Circuits (2002)
 20. IEEE C62.45 Recommended Practice on Surge Testing for Equipment Connected to Low-Voltage (1000 V and Less) AC Power Circuits (2002)
 21. IEEE C63.12 American National Standard for Recommended Practice for Electromagnetic Compatibility Limits (1999)
- F. International Organization for Standardization (ISO):
1. ISO-9001 Quality Systems - Model for Quality Assurance in Design/Development, Production, Installation and Servicing (2000)
- G. Metro Ethernet Forum (MEF)
1. MEF 9 Abstract Test Suite for Ethernet Services at the UNI (User Network Interface) (2004)
 2. MEF 14 Abstract Test Suite for Traffic Management Phase 1 (2005)
- H. Military Specifications (MIL. SPEC.):
1. MIL-STD-461 Requirements for the Control of Electromagnetic Interference Characteristics of Subsystems and Equipment (1999)
 2. MIL-STD-462 Measurement of Electromagnetic Interference Characterist (1999)
 3. MIL-STD-810 Environmental Engineering Considerations and Laboratory Tests (2003)
- I. NFPA 70 National Electric Code (NEC) (2005)
1. NFPA 130: Standard for Fixed Guideway Transit and Passenger Rail Systems, (2007)
- J. Network Equipment Building System (NEBS)
1. GR-63 NEBS Requirements: Physical Protection.
 2. GR-1089, Electromagnetic Compatibility and Electrical Safety – Generic Criteria for Network Telecommunications Equipment
- K. New York City Electrical Code (NYCEC) (2004)
- L. Society of Motion Picture and Television Engineers (SMPTE)
1. SMPTE 170 Television - Composite Analog Video Signal - NTSC for Studio Applications (2004)
- M. TCP/IP – based network standards
- N. RMON I and II standards (1995)
- O. SNMPv1, SNMPv2c, and SNMPv3
1. Underwriters Laboratory (UL):
 2. UL 796 Printed-Wiring Boards (2006)
 3. UL 840 Insulation Coordination Including Clearances and Creepage Distances for Electrical Equipment (2007)
 4. UL 1012 Power Units other than Class 2 (2006)

5. UL 1310 Class 2 Power Units (2006)

1.4 QUALITY ASSURANCE AND QUALITY CONTROL

- A. The Contractor's testing program shall include a fully operational quality assurance and quality control program in place and shall comply with ISO 9001 standards for "Quality Systems - Model for Quality Assurance in Design/Development, Production, Installation, and Servicing"

1.5 SUBMITTALS

- A. Submit the following for approval by the Engineer, in consultation with NYPD.
1. Submit detailed Field Acceptance Test Plans that describes all the activities and tasks associated with the field acceptance testing of all elements and functions of the systems accordance with the requirements of these specifications and the contract drawings.
 - a. Field Acceptance Test documents shall be submitted a minimum of 30 days prior to proposed start of the Field Acceptance Testing.
 2. Certified Completed Test Reports:
 - a. Field Acceptance Test Results: Submit certified Field Acceptance Test Result documentation no later than 30 days after successful completion of each Field Acceptance Test.
 - b. 30 Day Operational Test Results Data and Documentation: Submit certified 30 Day Operational Test Result Data and documentation no later than 30 days after successful completion of the final 30 Day Operational Test.

PART 2 MATERIALS AND METHODS

2.1 EQUIPMENT

- A. The Contractor shall perform complete integrated testing of elements that make up Data networking, CCTV and LPR systems including, but not limited to:
1. Ethernet Switch
 2. Network Firewall
 3. CCTV cameras, field interfaces and communications equipment
 4. Video Server
 5. LPR Cameras and Field Control Units (FCUs)

2.2 INSPECTION, TESTING, AND VALIDATION

- A. System Testing and Acceptance
1. The Contractor shall conduct a full program of testing, the purpose of which shall be to demonstrate that the equipment meets all of the requirements and performance specifications as set forth herein. Testing shall be performed by the Contractor, during formal acceptance testing program, which shall be performed in the presence of the Engineer.
- B. Acceptance Testing:
1. The Contractor shall conduct a full program of acceptance testing, the purpose of which shall be to demonstrate to the Engineer's satisfaction that the equipment fulfills all of the Specifications as set forth herein and as shown in the Contract Drawings. When all tests have been completed to the satisfaction of the Engineer the Contractor shall prepare and deliver to the Engineer an Acceptance Test Report. Only upon review and approval of the reports by the Engineer, shall the Engineer accept that test and give permission to proceed to the next test.
 2. The test plans and procedures provided by the Contractor shall insure that all of the functional parameters and performance specifications are thoroughly tested. The Acceptance Test Plan shall be subject to the prior review and approval by the Engineer. Any errors detected during any testing period shall be noted and corrected by the Contractor

- before proceeding to the next testing period.
3. Acceptance Test Reports: Following the completion of each test, the Contractor shall prepare and deliver a Final Test Report that describes the results of the test period and the next steps to be taken. The Engineer will review the report and respond, indicating its approval or noting changes required either in the performance of the work or in the report. The Contractor shall make changes or perform additional work as the Engineer may direct prior to the start of the next test phase. No test phase shall be considered complete, nor may the Contractor proceed to the next phase of the project until the Engineer has approved, in writing, the Contractor's test report for the previous phase. The report shall contain, but not be limited to:
 - a. Summary of the test results.
 - b. Descriptive narrative of individual test objective(s).
 - c. System status prior to testing and after testing.
 - d. Exception condition report (when applicable).
 - e. Explanation of exception conditions and Contractor corrections.
 4. System components. These test cases shall include:
 - a. Physical inspection of all equipment and components, including cabinet layouts and appearance, for conformance of construction, layouts, wiring and methods and materials to the approved shop drawings and applicable code requirements.
 - b. Demonstration of the proper functioning of all equipment by thorough exercising of all functions, both individually and collectively.
 - c. Simulation of failure conditions to initiate failover of each component having a backup unit, including the impact upon communications and special application functions. Both failover and recovery shall be demonstrated.
 - d. Recovery from power source voltage dips, surges and failures.
 5. The Contractor shall conduct the following tests specific to the CCTV and LPR Systems operating over the Networks:
 - a. Demonstration of transmission of video and data to the Network.
 - b. PTZ Camera function control from all control sources.
 - c. Demonstration of video server recording and playback functions.
- C. Field Acceptance Test:
1. Field testing shall be performed by the Contractor and witnessed by the Engineer or his designated representative, to show that all of equipment and its operation meet the requirements of these Specifications and the Contract Drawings. Field testing shall continue until the results are satisfactory to the Engineer.
 2. The systems shall be installed and accepted in conjunction with construction phasing. Field acceptance testing shall be conducted for the partially installed. All system functionality shall be tested at each phase. Individual equipment components that were tested in a previous phase need not be retested. Testing shall proceed in this manner until the entire System is installed and successfully tested.
 3. The Contractor shall perform a complete inspection, as specified herein, prior to performing the field tests as specified herein. Field testing shall not be performed without the presence of the Engineer or its designated representative.
 4. Tests that fail shall be repeated upon correction of any deficiencies. Tests shall be repeated as often as required by the Engineer, until satisfactory performance is demonstrated. Repeat testing shall be performed at no additional cost to the Engineer. Further, if any testing needs to be re-witnessed by the Engineer, this additional re-testing shall be at the Contractor's expense.
 5. After installation and agreement by the Engineer to initiate field testing, the equipment shall be tested in compliance with the Field Acceptance Test segment of the Acceptance Test Plan. The Field Acceptance Test shall be conducted with all devices and components installed through a specific construction phase,
 6. The Contractor shall provide all required field test instrumentation. The Contractor shall provide the field test instrumentation as submitted and approved by the Engineer. After field testing is completed and accepted by the Engineer, the field test instrumentation shall remain the property of the Contractor.

7. A copy of all tests and checks performed in the field, complete with meter readings and recordings, where applicable, shall be submitted to the Engineer.
8. Field Tests shall be performed with the CCTV, LPR and systems connected to the Network.
9. Testing, checking and start-up of the system shall be performed under the technical direction of the manufacturer's service engineer. The Contractor, in conjunction with the manufacturer, shall provide, at no additional cost, a start-up service package.
10. Substantial integrated testing will be required to complete and validate operation. The Contractor shall provide all labor to support this testing. The Contractor's support crew shall include at a minimum, each manufacturer's service Engineer, Software Developer and Field Service Technician.
11. Inspection: The Contractor shall perform the following inspections before starting the field testing:
 - a. Verify basic CCTV and LPR operations over the network between the Host Server and the various operator works.
 - b. Verify that all related components are in place and securely mounted in accordance with the applicable Contract Drawings, Specifications and accepted submittals.
 - c. Check all incoming power connections including main disconnect, fusing, main power supply, and I/O device power.
 - d. Verify that each communications cable is installed and correctly corresponds to address assignments.
 - e. Verify communications between the Host Servers, works and all field equipment.
12. The Contractor shall completely check, test, and calibrate all connected hardware to insure that the system performs in accordance with the Specifications. Each shall be tested and verified for correct operation and execution.
 - a. Demonstrate and verify all control functions in operation for each item controlled and each point monitored.
13. The Contractor shall conduct the following tests specific to the CCTV and LPR System.
 - a. After installation and agreement by the Engineer to initiate field testing shall be tested in compliance with the Field Acceptance Test segment of the Acceptance Test Plan. Testing, checking and start-up of the system shall be performed under the technical direction of the manufacturer's service engineer.
 - b. Inspection: The Contractor shall perform the following inspections before starting the field testing:
 - 1). Verify basic operations over the fiber-optic network between the Host Server and the various operator works.
 - 2). Verify that related components are in place and securely mounted in accordance with the applicable Contract Drawings, Specifications and accepted submittals.
 - 3). Check all incoming power connections including main disconnect, fusing, main power supply, and I/O device power.
 - 4). Verify that each Field Control Unit (FCU) communications cable is installed and correctly corresponds to address assignments.
 - 5). Apply power to each system component to verify that the proper input voltage is at the power supply s and that the DC voltages are within range.
 - 6). Verify that network cables are installed at FCU and pan-tilt-zoom (PTZ) cameras and connected devices are configured on the network.
 - 7). Verify that each output is programmed and that no unplanned duplication exists.
 - 8). Verify communications between the Host Servers and all field equipment.
 - c. FCU and CCTV camera Field Tests: The Contractor shall perform the following field tests on each installed FCU CCTV Camera:
 - 1). Input Wiring Test: Prior to any operational testing, perform the following tests:
 - a). Verify that all power supply, FCU and CCTV Camera I/O devices, and network communication diagnostic indicators are signaling correct operation.
 - b). Manually activate each input device and use an I/O assignment listing to verify that the corresponding input system identifier correctly reflects the change.
 - d. System Operation: The Contractor shall perform coordinated testing of all equipment. The Field Test Plan followed shall use the final version of all applicable manuals, printed guides and procedures. The test scripts to be used shall include any additions as

required to demonstrate and exercise all operations and to demonstrate that all of the various components that make up the system are integrated.

- e. The Contractor shall completely check, test, and calibrate all connected hardware and software to insure that the system performs in accordance with the Specifications and sequences of operation required
 - f. In addition to normal operation, all operating scenarios shall be repeated for the each levels and type of the various equipment failures, such as Host Failures, fiber-optic communications network failures, or individual FCU and CCTV Camera communications failures. Demonstrate that all redundant, self-healing, automatic failover and automatic recover functional requirements operate as specified, to the satisfaction of the Engineer.
 - g. The Contractor shall demonstrate that each FCU and CCTV camera has the software to allow monitoring and control of it over the fiber optic communications network from the remotely located Host Servers and their associated networks.
14. The Contractor shall conduct the following tests specific to operations over the Networks.
- a. The Field Installation Acceptance Test shall ensure the proper operation of all installed components.
 - b. The Field Installation Acceptance Test shall test all cables, wires, components and software installed in the field.
- D. 30 Day Operational Acceptance Tests:
1. The Operational Acceptance Testing phase shall commence following notification by the Engineer that the results of the Field Acceptance Testing are satisfactory to the Engineer, and following receipt by the Engineer of the Contractor's certification that the system is ready for Operational testing. The Operational Acceptance Tests shall be conducted with the advice and assistance of the Contractor during thirty (30) consecutive day period of the entire after the final installation.
 2. All required software and hardware programming and configuration requiring taking the off-line or otherwise rendering it unavailable for use by the operators, must be completed prior to commencement of the 30 Day Operational Testing.
 3. During the Operational Test periods, the system will operate as specified using the fully configured software and hardware and all applicable manuals, printed guides and procedures submitted by the Contractor. The Contractor shall correct any major failure or malfunction of material significance during the period as it occurs. Said malfunctions include, but are not limited to, equipment failure or failure to comply with this Section. Major failure is defined for this purpose as any failure of any item of the equipment or software, or both, that prevents the Engineer from performing meaningful work in the based upon the Engineer's business needs.
 4. After the Contractor corrects a malfunction of material significance, at no cost to the owner, the Operational Test shall restart at day one, and shall continue until the results meet the conditions and terms of the performance period. During the Operational Test phase, the Engineer will determine the standard of performance as described herein.
 5. Performance Period: The Performance Period for Operational Testing shall begin on the date of notification of the Contractor by the Engineer to commence Operational Testing and shall end when the system has met the Standard of Performance for the consecutive days required by operating in conformity with the technical specifications set forth in the specifications.
- E. Failure to Complete Acceptance Testing Successfully;
1. In the event the Contractor is deemed not to have successfully completed Operational Acceptance Testing within ninety (90) days of the scheduled completion, then the Engineer may, in its sole discretion, elect one of the following options, the election of which shall be effective upon written notification to the Contractor by the Engineer:
 - a. The Engineer may require the Contractor to install, within such time period as may be mutually agreed in writing by the Engineer and Contractor, a direct substitute of equipment or components to meet the applicable period of the Acceptance Testing. The Contractor shall use due care in the removal and substitution of such equipment or components. Such substitutions shall be subject to Acceptance Testing as provided in

this section and, in the event such substitute component fails to successfully complete Acceptance Testing by the agreed-upon date, the provisions of this paragraph shall again be applicable.

- b. The Engineer may permit the Contractor to continue to attempt to successfully complete the Acceptance Testing required by this paragraph; provided, however, that the Engineer may revoke its election of this alternative at any time upon not less than five (5) days prior written notice to the Contractor, in which event the Engineer may, in its sole discretion, elect any one (1) of the other options specified in this paragraph, the further selection of which shall be effective upon written notification to the Contractor by the Engineer.
- c. The Engineer may pursue any other remedy thereunder or available at law or in equity or seek to enforce any damages, in addition to those provided in "Liquidated Damages" in Schedule A.

F. Exchange and Expansion of Equipment during Factory, Field and Operational Acceptance Testing:

- 1. The Contractor shall certify in writing to the Engineer when exchange or expansion equipment, devices, or components are installed and ready for use. For this purpose of this section, "expansion" is used to denote equipment which is not specified in the approved final design Bill of Materials. The Contractor shall provide an Installation Date Certificate for the equipment or component. If this occurs during the Operational Test, the performance period of twenty or thirty consecutive calendar days for the operational test shall recommence on the first work day following acceptance of the Contractor's Installation Date Certificate, at which time operational testing shall commence. It is not required that one Operational Testing period expire in order for another performance period to begin.

- G. During the Field and Operational Testing, the Contractor shall perform any re- calibration, re-configuration or re-programming of the hardware and software required as part of the normal operational configuration and to correct any system bug or errors encountered to insure that the system performs in accordance with the Specifications and required sequences of operation. All changes performed during field and Operational Testing shall be fully documented by the Contractor and shall not be implemented without prior approval by the Engineer.

PART 3 MEASUREMENT AND PAYMENT

3.1 MEASUREMENT

- A. The amount bid for this lump sum item will be payable to the Contractor following completion of all work under this item.

3.2 PRICES TO COVER

- A. The lump sum price bid shall cover the cost of furnishing all labor, materials, equipment, insurance, and necessary incidentals required and completing the work, in accordance with the plans, the specifications, and the directions of the Engineer.

Payment will be made under:

Item No.	Item	Pay Unit
NYPD-ATCDN	ACCEPTANCE TESTING OF COMMUNICATIONS DATA NETWORKING EQUIPMENT, CLOSED CIRCUIT TELEVISION CAMERAS AND LICENSE PLATE RECOGNITION SYSTEMS	L.S.

SECTION NYPD-CAM
 DOME NETWORK IP CAMERA

PART 1 GENERAL

1.1 SUMMARY

- A. Under this Section the Contactor shall be required to furnish and install complete Dome Network IP Cameras on utility poles.
- B. The Contractor shall furnish and install the camera assemblies and the associated cabling, communications devices, mounting hardware and other supporting infrastructure elements for the equipment provided by the Contractor in accordance with the criteria described herein and in other parts of the Contract. The Contractor shall start up, test, and maintain the specified Dome Network IP Cameras and all required electronic devices, enclosures, all associated mounting hardware, and all associated cabling. Coordinate the installation with NYPD representatives for the integration of cameras into the NYPD Domain Awareness System (DAS).

1.2 SUBMITTALS

- A. Submit the following within 30 days of Contract Notice to Proceed:
 1. Evidence of meeting the qualifications described in these specifications.
 2. A Bill of Materials stating the manufacturer, equipment model numbers, catalog cut sheets, and other descriptive materials for all equipment and components to be furnished by the Contractor. This information shall, in sufficient detail, demonstrate that the Contractor or Subcontractor who will be performing this work fully understands the equipment requirements and nature of the work to be performed under this contract. All submissions made by the Contractor will be subject to review and approval by the Engineer.

1.3 ABBREVIATIONS & DEFINITION OF TERMS

- A. The publications, specifications, test methods and standards of any organizations listed herein to which referral or mention is made shall be the latest edition of such publication and any interim modifications in effect on the date the Contract Documents are made available, unless otherwise noted.

- | | |
|----------|--|
| 1. FCC | Federal Communications Commission |
| 2. IEEE | Institute of Electrical and Electronic Engineers |
| 3. NEMA | National Electrical Manufacturers Association |
| 4. ONVIF | Open Network Video Interface Forum |

1.4 CERTIFICATIONS AND STANDARDS

- A. The Dome Network IP video camera shall carry the following approvals:
 1. EN55022 Class B, EN 61000-3-2, EN 61000-3-3, EN 61000-6-1, EN 61000-6-2, EN55024
 2. FCC Part 15 - Subpart B Class B
 3. ICES-003 Class B
 4. VCCI Class B
 5. C-tick AS/NZS CISPR 22
 6. KCC Class A
 7. EN 60950-22
 8. IEC 60529 IP66
 9. NEMA 250 Type 4X
 10. IEC 60068-2-1, IEC 60068-2-2, IEC 60068-2-78, IEC 60068-2-14, IEC 60068-2-30,
 11. IEC 60068-2-6, IEC 60068-2-27, IEC 60068-2-60
 12. ISO 4892-2
 13. Midspan: GS, UL, cUL, UL-AR, CE, VCCI, CB, KCC

1.5 INSTRUCTIONS & GUARANTEES

- A. One set of complete schematics and operations/maintenance manuals of the each component of the camera assembly shall be supplied with each five assemblies furnished. Maintenance manuals shall include complete sub-component parts listing.
- B. No changes or substitutions in these requirements will be acceptable unless authorized in writing.
- C. The complete camera assembly shall carry a one-year warranty from the date of acceptance against any imperfections in workmanship or materials.
- D. The Contractor shall be responsible for the monthly maintenance charges and operating cost of the communication from service provider until the warranty is over.

1.6 QUALITY CONTROL

- A. The supplier shall furnish any and all equipment which they deem necessary for safe and reliable field operation of the camera equipment as part of the quoted price for the specified equipment.
- B. All camera components furnished under this section must be current production equipment and of recent manufacturer, identical models of which are in field operation in not less than one hundred (100) locations in the United States or Canada. Untried or prototype units shall not be considered for acceptance.
- C. All major components shall be identified with a metal plate containing the serial number with bar code identification.
- D. Any repairs made by a manufacturer or representative shall be documented and returned with units under warranty repaired. This documentation shall include an explanation of the exact repairs made and identification of parts replaced by part number and circuit number. All warranty repairs must be completed within thirty (30) days of delivery of the equipment to the designated repair depot.

PART 2 MATERIALS

2.1 GENERAL

- A. The outdoor Dome Network IP camera system shall be a discreet, pendant Network IP camera dome system consisting of a dome drive with a variable speed/high speed pan/tilt drive unit with continuous 360° rotation; 1/4-inch high resolution color CCD camera; motorized zoom lens with optical and digital zoom; auto focus; and an enclosure consisting of a back box, lower dome, and a quick-install mounting.
- B. The Contractor is responsible to deliver a working system, including any device major or minor, irrespective as to whether listed below, that is needed for proper operation.
- C. Environmental:
 - 1. The Dome network camera built-in video encoder and accessories shall
 - a. Operate in a temperature range of -40°F to 122°F.
 - b. Operate in a humidity range of 20 to 80% RH (non-condensing).

2.2 APPROVED DOME CAMERA MANUFACTURERS

- A. Bosch Security Systems, Inc.
- B. Not Used

C. Not Used

D. Not Used

2.3 CAMERA

A. Furnish and install Pendant Dome Network IP Camera. Installer shall be Bosch factory certified for installing the specified camera system components.

B. The Camera shall be blemish-free, designed to minimize or eliminate transfer smear and insure acceptable operation during minimal lighting conditions. The camera shall be capable of unattended, continuous 24 hour per day operation in an outside plant environment.

C. The camera shall be fully integrated with the zoom lens described under the heading "Camera Lens" below in this Section. The camera shall accept standard C or CS zoom or fixed lenses and shall be equipped with an auto-iris lens connector with manual override compatible with the zoom lens supplied. The unit shall produce NTSC compatible video utilizing a 1 volt Peak to Peak composite @ 75ohms output, and an input voltage between 22 to 27 VDC. The camera must be fully compliant with all aspects of the NTSC specification.

D. The camera, in all its functions, shall be ONVIF compliant and compatible with the Genetec "Security Center".

E. Resolution & Sensitivity

1. At least 470 horizontal television lines (TVLs) must be produced by the camera and 768 horizontal x 494 vertical active pixels must be produced by the assembly.
2. The night sensitivity of the camera is a key concern in that the unit may have to operate in areas with no primary lighting system.
3. Full video shall be obtainable using an f/1.6 lens and with a minimum illumination of 0.104 lux at 1/60 sec. Video signal to noise ratio shall exceed 50 decibels. The camera shall be equipped with AGC (Automatic Gain Control). The AGC feature shall be switch selectable (On/Off) and be equipped with a variable peak average control.

F. Synchronization & Automatic Control

1. Synchronization shall be via AC line frequency line-lock with phase adjust using a remote control. Line-lock synchronization utilizes the AC power frequency for the vertical sync reference. An internal Isolation transformer shall be provided to reduce ground loop potential and allow multiple cameras to be powered from a single power supply.
2. The camera shall have continuous automatic (through the lens) white balance control with manual override and black light compensation circuitry to adjust the picture dynamically in response to the varying light conditions encountered in outside environments. In this regard, pictures with an appropriate color balance shall be obtainable within all specified illumination conditions.

2.4 CAMERA LENS

A. Lens shall be a fully motorized zoom lens fully compatible with the camera specified in this section.

B. The zoom lens shall be capable of supplying magnification of at least 36x optical and 12x digital zoom with autofocus, providing crisp, clear and rich detail of both zoomed in and zoomed out image.

C. The lens must have an auto-iris capability compatible with the camera and a wide dynamic range of at least 128X.

D. Field of View - The camera and associated zoom lens with an automatic with manual override shall produce a 57.8-degree minimum field of view at 3.4 mm wide zoom.

2.5 REMOTE CONTROL

- A. The zoom magnification shall be fully controllable via the remote pan-tilt-zoom (PTZ) mechanism. The motors controlling the Iris, Zoom, and Focus shall be slip clutch protected to prevent damage due to overload.

2.6 ENVIRONMENTAL ENCLOSURE

A. Basic Configuration

1. The environmental enclosure shall be designed to protect the camera and zoom lens from the outdoor environment which the assembly must be designed to function in. The assembly must be supplied with an integral sun shield.
2. The housing shall be constructed of aluminum and be finished with white or beige, weatherproof, heat-reflecting paint. The enclosure shall protect the camera and zoom lens from harsh outdoor weather conditions. It shall provide a sealed, marine climate resistant, protective environment meeting NEMA-4X (IP66) weatherproof standards.

B. Zoom Lens Clearances

1. The camera and zoom lens shall be mounted to insure that the enclosure will not obstruct the field of view of the camera. Sufficient clearance between the zoom lens extended to its furthest point of travel and the enclosure face plate shall be provided to insure that mirroring on the window will not be obtained.

C. Heater

1. The enclosure shall be equipped with a heater controlled by a thermostat. The heater shall engage when temperature within the enclosure falls below 41°F. The heater shall disengage when temperatures exceed 50°F. The heater shall minimize internal fogging of the face plate when the assembly is operated in cold weather.

D. Cable Entry

1. Cable entry shall be through 1.5" National Pipe Thread (NPT) pendant mount. Sufficient cable lengths shall be provided to reach the Control Receiver Junction Box.

E. Mounting to PTZ Mechanism

1. The mounting assembly of the environmental enclosure shall be attached to the PTZ base assembly by stainless steel circular clamps.

F. Lower Dome

1. Special care shall be taken when installing the lower dome acrylic bubble to ensure that an optimal optical relationship between the lens and bubble was achieved, providing crystal clear video at long focal lengths.

2.7 DOME DRIVE

A. Dome Drive Features

1. 360°/ second Pan Preset Speed and 100°/ second Tilt Preset Speed.
2. 99 presets, $\pm 1^\circ$ Preset Accuracy.
3. Continuously decreases Pan/Tilt speeds in proportion to depth of zoom.
4. Pan motion allows 0.1-120°/sec Pan Speed.
5. Digital Position, zoom control and feedback.
6. Auto rotate and camera flip

2.8 COMMUNICATIONS AND VIDEO ENCODING

- A. Equipped with network interface of 10BASE-T/100BASE-TX auto sensing, half/full duplex, using standard RJ-45 connectors.
- B. Fiber Optic adaptor kit availability
- C. The built-in video encoder shall provide simultaneous support for H.264 (MPEG-4 Part 10/AVC) and Motion JPEG.
- D. Four (4) independent streams:
 - 1. Two (2) H.264 individually configurable streams at 4CIF/D1 resolution.
 - 2. One (1) H.264 I-Frame only stream suitable for recording
 - 3. One (1) Motion JPEG stream at 4CIF/D1 resolution.
- E. Provide iSCSI device support
- F. Device Management:
 - 1. Simple Network Management Protocol (SNMPv3)
 - 2. Remote upgrade capable
 - 3. Web Browser accessible
 - 4. IEEE 802.1X network access control authentication support
 - 5. AES encryption capable with site license
 - 6. User access log
 - 7. Capable of providing bit rates between 9.6kbps and 6 Mbps per video stream.
- G. Protocol support:
 - 1. The built-in video encoder shall incorporate support for at least IPv4/v6, HTTP, HTTPS, SSL/TLS, TCP, QoS, SNMPv1/v2c/v3 (MIB-II), RTSP, RTP, UDP, IGMP, RTCP, SMTP, FTP, ICMP DHCP, UPnP, Bonjour, ARP, DNS, DynDNS, SOCKS, IEEE802.1X.

2.9 ADDITIONAL EQUIPMENT

- A. Low Voltage Power Supply with Step-down transformer
 - 1. Mounted at each camera location
 - 2. Compatible with dome camera manufacturer's equipment
- B. Fiber Optic Media Convertors
 - 1. Compatible with dome camera manufacturer's equipment
 - 2. Provide as modular accessory component of low voltage power supply
- C. Rack Mounted Ethernet Fiber Optic Media Convertors
 - 1. Installation in Booth Equipment Enclosure
 - 2. Compatible with camera located Media Converter
 - 3. Furnish with SFP Optical Interface compatible with camera mounted device
 - 4. Compatible with Camera mounted devices
- D. Small Form Pluggable (SFP) Optical Interfaces
 - 1. Compatible with the dome camera manufacturer's FO Media Converter
 - 2. Furnish one each for camera side and booth side
 - 3. Duplex communication
 - 4. Single mode fiber
 - 5. LC Connector

- E. Rack Mount Card Cage for Media Convertors.

2.10 POLE MOUNT

- A. The Contractor shall furnish and install all incidental components, mounting brackets, and cabling required to achieve a fully functional assembly as illustrated in the Contract Drawings.
- B. All equipment and materials used shall be standard components, regularly manufactured, regularly utilized in the manufacturer's system.
- C. All systems and components shall have been thoroughly tested and proven in actual use.
- D. All systems and components shall be provided with an explicit manufacturer warranty.
- E. Requirements
 1. The pole mount shall be an outdoor unit.
 2. It shall have a sufficient load rating to support the camera dome system.
 3. It shall have a cable access hole and be provided with a liquid tight fitting.
 4. The mount shall have a standard 1-1/2 in. NPT-F pipe thread.

PART 3 METHODS

3.1 VIDEO SUPPLIER

- A. In order to insure compatibility between the components, the camera, environmental enclosure, zoom lens, and PTZ mounting shall all be integrated by an experienced video system engineering firm (Supplier) retained by Contractor.
- B. The Supplier shall:
 1. have full time factory-trained and certified technicians and/or engineers who are rated for the components to be utilized.
 2. be able to provide on-site service anywhere in New York within eight (8) hours notice.
 3. accept full warranty responsibility and regular support service for the complete Dome Network IP Camera System.

3.2 PERFORMANCE

- A. The Contractor shall be responsible for installation of the required system components and communication equipments in the field to provide a fully-operational system.

3.3 TESTING

- A. The Dome Network IP Camera assembly shall be subject to factory and prototype testing as subsequently described. The factory test shall be held at a facility which is fully equipped to operate under various lighting levels. The facility shall be equipped with measurement devices which can be utilized to verify that the assembly is compliant with the specifications. The indoor test shall verify that the camera, zoom lens, environmental enclosure, and PTZ mounting are fully operational and compliant. In addition, the test shall simulate various lighting conditions and demonstrate that the assembly is operable at the minimum lux levels required by this section. The factory test shall also demonstrate or provide confirmation that all of the equipment operates over the specified environmental range for each component.

PART 4 MEASUREMENT AND PAYMENT

4.1 MEASUREMENT

- A. The quantity to be measured for payment shall be the number of Systems installed, to the satisfaction of the Engineer.

4.2 PRICE TO COVER

- A. The contract unit price bid per each System furnished and installed and shall cover the cost of all labor, materials, equipment, insurance, and incidentals necessary to complete the work under this Section, in accordance with the Contract Drawings, the specifications and the directions of the Engineer. The unit price also includes the cost of maintenance of the CCTV Camera System throughout the duration of the project.

Payment will be made under:

Item No.	Item	Pay Unit
NYPD-CAM1	FURNISH AND INSTALL COMPLETE DOME CCTV CAMERA SYSTEM ON UTILITY POLE	EACH
NYPD-CAM2	FURNISH AND INSTALL OPTICAL INTERFACE AND MEDIA CONVERTOR AT GUARD BOOTH	EACH

SECTION NYPD-CCTVE
CCTV EQUIPMENT ENCLOSURE

PART 1 GENERAL

1.1 INTENT

- A. This section describes furnishing and installing a Closed Circuit Television (CCTV) Equipment Enclosure. The enclosure will house the Dome Network IP Camera power supplies and Fiber Optic Patch Panels at each of the Dome Camera locations specified in the Contract Drawings.

1.2 DESCRIPTION

- A. Furnish and install the CCTV Equipment Enclosure.
- B. Reference other sections for related components:
 - 1. NYPD-CAM
 - 2. NYPD-PP

PART 2 MATERIALS

2.1 EQUIPMENT ENCLOSURE

- A. 14 gauge Type 304 Stainless Steel
- B. NEMA 4X Rating
- C. NEMA rated mounting panel for mounting specified electronic and communications components
- D. Key lockable hinged cover
- E. Size: 16" x 16" x 8"
- F. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include the following:
 - 1. Hoffman CSD16168S
 - 2. Copper B-Line
 - 3. Wiegmann
 - 4. Or an approved equivalent
- G. Furnish Pole Mounting Brackets to meet Underwriters Laboratories, Inc. (UL)/Canadian Standards Association (CSA) external mounting requirements.

PART 3 METHODS

3.1 COORDINATION OF WORK

- A. Verify locations of Enclosures in field with the Engineer prior to construction.

3.2 INSTALLATION

- A. Install Enclosure with the specified electronic and communications components as shown on Contract Drawings.
- B. Coordinate installation and integration with New York Police Department (NYPD) Domain Awareness System (DAS) and with NYPD personnel for additional guidance for installation, testing, and certification of the completed system.

PART 4 MEASUREMENT AND PAYMENT

4.1 MEASUREMENT

- A. The quantities to be measured for payment shall be the number of CCTV Equipment Enclosures actually installed to the satisfaction of the Engineer as per the Contract Drawings and specification.

4.2 PRICE TO COVER

- A. The contract price bid per each CCTV Equipment Enclosure shall cover the cost of furnishing all labor, materials, equipment, insurance, and necessary incidentals required and completing the work in accordance with the Contract Drawings, the specifications, and directions of the Engineer.

Payment will be made under:

Item No.	Item	Pay Unit
NYPD-CCTVE	CCTV EQUIPMENT ENCLOSURE	EACH

SECTION NYPD-DNE
DATA NETWORKING EQUIPMENT

PART 1 GENERAL

1.1 INTENT

- A. This section describes furnishing and installing the Data Networking Equipment (DNE) supporting the networking interface requirements between Closed Circuit Television (CCTV) cameras and License Plate Recognition (LPR) Field Control Units (FCUs) in the field and the New York Police Department (NYPD) Domain Awareness System (DAS) as shown on the Contract Drawings.

1.2 DESCRIPTION

- A. Furnish and install the Ethernet Switches and Network Firewalls.
- B. Comply with the requirements of the NYPD Domain Awareness System (DAS).
- C. Reference other sections for related components:
 - 1. NYPD-FCU
 - 2. NYPD-F
 - 3. NYPD-3
 - 4. NYPD-CCTV

PART 2 MATERIALS

2.1 ETHERNET SWITCH

- A. Ethernet switch will be Cisco Model WSC3750X-12S-E. No substitutions will be permitted.
- B. The device will be furnished with the following components:
 - 1. 10GigE Service Module
 - 2. 2 x 10GigE SFP LR Optics
 - 3. Dual Redundant Power Supplies

2.2 NETWORK FIREWALL

- A. Firewall appliance will be Cisco Model ASA 5545X. No substitutions will be permitted.
- B. The device will be furnished with the following components:
 - 1. Six (6) SFP Ports
 - 2. Eight (8) in-built copper ports
 - 3. Dual Redundant Power Supplies

PART 3 METHODS

3.1 PREPARATION

- A. Coordinate installation with the manufacturer, and procure manufacturer's services for instructions, drawings, and installation supervisory services during construction.
- B. Verify locations of Data Networking Equipment in field with the Engineer prior to construction.

3.2 INSTALLATION

- A. Install Ethernet Switch and Firewall as shown on the Contract Drawings.

- B. Coordinate installation and integration with NYPD DAS and with NYPD personnel for additional guidance for installation, testing, and certification of the completed system.

PART 4 MEASUREMENT AND PAYMENT

4.1 MEASUREMENT

- A. The quantities to be measured for payment shall be the number of Ethernet Switches and the number of Network Firewalls actually installed to the satisfaction of the Engineer as per the Contract Drawings and specifications.

4.2 PRICES TO COVER

- A. The contract price per each of the items listed below shall cover the cost of furnishing all labor, materials, equipment, insurance, and necessary incidentals required and completing the work in accordance with the Contract Drawings, the specifications, and directions of the Engineer.

Payment will be made under:

Item No.	Item	Pay Unit
NYPD-DNE1	ETHERNET SWITCH	EACH
NYPD-DNE2	FIREWALL	EACH

SECTION NYPD-F

FURNISH & DELIVER SINGLE MODE FIBER OPTIC CABLE

PART 1 GENERAL

1.1 INTENT

- A. This section addresses the supply of single mode fiber optic cable for outside plant applications in underground conduits. Fiber will interconnect patch panels in guard booths, and will connect License Plate Recognition (LPR) System equipment and Closed Circuit Television (CCTV) equipment mounted on street light poles to guard booths.

1.2 DESCRIPTION

- A. Under this section, the Contractor shall furnish and deliver to site single mode fiber optic cables meeting the materials criteria specified in this Section.
- B. References are made in this Section by abbreviations in accordance with the following list:
 - 1. American National Standards Institute (ANSI)
 - 2. Electronic Industries Alliance (EIA)
 - 3. Fiber Optic Test Procedure (FOTP)
 - 4. Insulated Cable Engineers Association (ICEA)
 - 5. Telecommunications Industry Association (TIA)
 - 6. Underwriters Laboratories, Inc. (UL)
- C. Reference other sections for related components:
 - 1. NYPD-FCU
 - 2. NYPD-3
 - 3. NYPD-PP

1.3 SUBMITTALS

- A. As specified in the Contract Documents prior to commencing this scope of work the Contractor shall submit cut sheets for all materials as outlined in and conforming to Subsection NYPD-F.3 MATERIALS herein this specification.
- B. Before shipment, but while on the shipping reel, all fibers shall be tested for attenuation. Copies of the results shall be attached to the cable reel in a waterproof pouch, and submitted to the Engineer prior to the delivery of the cable to the job site. Attenuation tests shall be performed with an Optical Time Domain Reflectometer (OTDR) capable of recording and displaying anomalies of 0.2 dB as a minimum. The single-mode fibers shall be tested at 1310 nm and 1550 nm. The OTDR with transit case shall be designed for use on single-mode fiber.

PART 2 MATERIALS

2.1 FIBER OPTIC CABLE

- A. The fiber optic cable shall be an ADSS (All-Dielectric, Self-Supporting) loose buffer tube or ribbon design suitable for conduit installation. The cable shall comply with the Bellcore TR-TSY-000843 standards.
- B. The cable shall meet the requirements of the United States Department of Agriculture Rural Utility Service (RUS) 7 CFR1755.900, the requirements of ANSI/ICEA Standard for Fiber Optic Outside Plant Communications Cable, ANSI/ICEA S-87-640-1999, TIA/EIA FOTP Standards 455 and UL 1666 and shall be new, unused and of current design and manufacturer.
- C. The fiber optic cable shall consist of single-mode fibers with a step index of 8.3/125 um. The

cable shall be capable of operation at both 1310 nm and 1550 nm wavelengths.

- D. The cable shall be made up of multiple loose fill buffer tubes or ribbon with a fiber count of 6 strands and of 12 strands, constructed with the following components:
 - 1. Buffer tube: High Modulus Polymeric material. Tube and fiber color code per EIA/TIA-598.
 - 2. Filling Compound: composed of non-toxic and dermatological safe antioxidant hydrocarbon based gel. Dielectric Central strength member with water swellable yarns. An up-coat of polymer (if necessary per construction).
- E. Cable Core: The cable elements are stranded around the chopped strand mat (CSM), using reverse oscillation.
- F. Moisture Resistance: A water blocking tape is applied over the cable core to prevent water ingress and migration with a nominal of 25% overlap. Non-wicking binder yarns are applied over the core tape.
- G. Cable strength: Circumferential strength members are placed over the cable core and under the outer sheath.
- H. Outer Sheath: Ultraviolet (UV) resistant black riser rated polyvinyl chloride (PVC) (or color per Engineers request). A ripcord is applied under the outer sheath.
- I. Cable Markings: Indent printed- Manufacture name, FIBER OPTIC CABLE, # of fibers-fiber type, MM/YY (Month & Year of manufacture), Optical Fiber Non-conductive Riser rating, sequentially marked. The outer cable jacket shall have sequential length markings in feet. The actual length of the cable shall be within +/- 1% of the length markings. The marking shall be in a contrasting color to the cable jacket. The height of the marking shall be approximately 3/32 inch. Cable shall have an environmental operation/storage range of -40°C to + 70°C and an installation range of -30°C to + 75°C.

PART 3 METHODS. NOT APPLICABLE.

PART 4 MEASUREMENT AND PAYMENT

4.1 MEASUREMENT

- A. The quantity of Furnish Strand Fiber (Ribbon/Single), of each size, to be measured for payment to the site shall be the number of linear feet (LF) of cable delivered for installation to the satisfaction of the Engineer.

4.2 PRICES TO COVER.

- A. The contract price shall cover the cost to furnish all labor, materials, equipment, insurance and incidentals required to furnish and deliver single mode fiber optic cable including, but not limited to, all transportation, unloading equipment, maintenance and protection of traffic, and permits; all in full compliance with the Contract Drawings, the specifications and the directions of the Engineer.

Payment will be made under:

Item No.	Item	Pay Unit
NYPD-F6	FURNISH 6 STRAND FIBER (RIBBON/SINGLE)	L.F.
NYPD-F12	FURNISH 12 STRAND FIBER (RIBBON/SINGLE)	L.F.

SECTION NYPD-FCU
FIELD CONTROL UNIT

PART 1 GENERAL

1.1 INTENT

- A. This section describes furnishing and installing the Field Control Unit (FCU) component of the License Plate Recognition System as shown on the Contract Drawings.

1.2 DESCRIPTION

- A. Furnish and install the FCU as shown on Contract Drawings.
- B. Comply with the requirements of the New York Police Department (NYPD) Domain Awareness System (DAS).
- C. Reference other sections for related components:
 - 1. NYPD-LPR
 - 2. NYPD-F
 - 3. NYPD-3
 - 4. NYPD-DNE

PART 2 MATERIALS

2.1 FIELD CONTROL UNIT

- A. Field Control Unit shall be ELSAG Model FCU-NYPD. No substitutions will be permitted. The device shall be furnished with the following components:
 - 1. PC
 - 2. Switch with GigE Fiber Optic Transceiver
 - 3. Modem
 - 4. Power Supplies
 - 5. Heater

PART 3 METHODS

3.1 PREPARATION

- A. Coordinate with the manufacturer who will provide guidance for installation, testing, and certification of the completed system.
- B. Obtain manufacturer's installation instructions, drawings and installation supervisory services.
- C. Establish locations of FCU in field, and verify with Engineer prior to construction.

3.2 INSTALLATION

- A. Install FCU as shown on Contract Drawings and as per the manufacturer's instructions.
- B. Coordinate with NYPD personnel for additional guidance for installation, testing, and certification of the completed system.

PART 4 MEASUREMENT AND PAYMENT

4.1 MEASUREMENT

- A. The quantity to be measured for payment shall be the number of FCUs actually installed to the

satisfaction of the Engineer as per the Contract Drawings and specification.

4.2 PRICE TO COVER

- A. The contract price per each Field Control Unit shall cover the cost of furnishing all labor, materials, equipment, insurance, and necessary incidentals required and completing the work in accordance with the Contract Drawings, the specifications, and directions of the Engineer.

Payment will be made under:

Item No.	Item	Pay Unit
NYPD-FCU	FIELD CONTROL UNIT	EACH

SECTION NYPD-LPR

FURNISH AND INSTALL LICENSE PLATE RECOGNITION (LPR) SYSTEM CAMERAS

PART 1 GENERAL

1.1 INTENT

- A. This section describes furnishing and installing the License Plate Recognition System (LPR) Dual Camera Unit as shown on the Contract Drawings.

1.2 DESCRIPTION

- A. Furnish and install the Dual Camera Unit and interconnect cable.
- B. Comply with the requirements of the New York Police Department (NYPD), Domain Awareness System (DAS).
- C. Reference other sections for related components:
 - 1. NYPD-FCU
 - 2. NYPD-DNE
 - 3. Lighting

PART 2 MATERIALS

2.1 DUAL CAMERA UNIT

- A. Dual camera unit shall be ELSAG Model FPH900. No substitutions permitted. The device shall be furnished with the following components:
 - 1. Monochrome camera
 - 2. IR Illuminator
 - 3. Color Camera
 - 4. Power Supplies
 - 5. Heater

2.2 CABLE

- A. Furnish ELSAG #410395 Custom interconnect cable to length required for connection of LPR Dual Camera to FCU.

PART 3 METHODS

3.1 PREPARATION

- A. Coordinate installation with the manufacturer, and procure manufacturer's services for instructions, drawings, and installation supervisory services during construction.
- B. Verify locations of LPR Dual Camera Units in field with the Engineer prior to construction.

3.2 INSTALLATION

- A. Install LPR Dual Camera Units as shown on Contract Drawings and as per the manufacturer's instructions. Installer shall be ELSAG factory certified for installing the specified components.
- B. Install interconnect cable as required for connection of LPR Dual Camera to FCU.
- C. Coordinate installation and integration with NYPD DAS, and with NYPD personnel for additional guidance for installation, testing, and certification of the completed system.

PART 4 MEASUREMENT AND PAYMENT

4.1 MEASUREMENT

- A. The quantities to be measured for payment shall be the number of LPR Dual Camera Units actually installed to the satisfaction of the Engineer as per the Contract Drawings and specification.

4.2 PRICE TO COVER

- A. The contract price per each LPR Dual Camera Unit shall cover the cost of furnishing all labor, materials, equipment, insurance, and necessary incidentals required and completing the work in accordance with the Contract Drawings, the specifications, and directions of the Engineer.

Payment will be made under:

Item No.	Item	Pay Unit
NYPD-LPR	LPR DUAL CAMERA UNIT	EACH

SECTION NYPD-PP
FIBER OPTIC PATCH PANEL

PART 1 GENERAL

1.1 INTENT

- A. This section describes furnishing and installing the Fiber Optic Patch Panels (FOPP) supporting the fiber connectivity requirements between booths, between booths and ECS manholes, between Dome Network IP Cameras and booths, and between License Plate Recognition (LPR) Field Control Units (FCUs) in the field and the booths, as shown on the contract drawings.

1.2 DESCRIPTION

- A. Furnish and install FOPP's at the locations shown on the contract drawings.
- B. Terminate the fiber furnished and installed under Sections NYPD-F and NYPD-3 of this contract at the booths, at the pole mounted LPR FCU's, at Dome Network IP Camera Enclosures, and the Optical Media convertors.
- C. Use LC Type connectors.
- D. Reference other sections for related components:
1. NYPD-FCU
 2. NYPD-LPR
 3. NYPD-F
 4. NYPD-3
 5. NYPD-CAM
 6. NYPD-DNE

PART 2 MATERIALS AND METHODS

2.1 FURNISH AND INSTALL THE FOLLOWING COMPONENTS IN THE QUANTITIES REQUIRED FOR GUARD BOOTHS.

- A. Closet Connector Housing
1. Corning Model CCH-02U, or approved equivalent
 2. Corning Model CCH-03U, or approved equivalent
- B. Closet Connector Housing Pigtail Cassette:
1. Corning Model CCH-CS12-A9-P00-12, or approved equivalent
 - a. LC Type

2.2 FURNISH AND INSTALL THE FOLLOWING COMPONENTS IN THE QUANTITIES REQUIRED AT THE CCTV EQUIPMENT ENCLOSURE.

- A. Corning Model IT-SPH-01P Single Panel Wall Mount Housing, or approved equivalent.
- B. Corning Model CN-CCH-CP12-A9, or approved equal.

2.3 APPROVED EQUIVALENT MANUFACTURERS

- A. Fibertronics
- B. Wirewerks

2.4 PROVIDE PATCH CORDS BETWEEN FOPP AND EQUIPMENT IN THE REQUIRED

QUANTITIES AND WITH THE REQUIRED TERMINATIONS TYPES.

- 2.5 VERIFY LOCATIONS OF FOPP'S IN FIELD WITH THE ENGINEER PRIOR TO CONSTRUCTION.

PART 3 MEASUREMENT AND PAYMENT

3.1 MEASUREMENT

- A. The quantities to be measured for payment shall be the number of Fiber Optic Patch Panels of each type actually installed to the satisfaction of the Engineer as per the Contract Drawings and specifications.

3.2 PRICES TO COVER

- A. The contract price per each of the items listed below shall cover the cost of furnishing all labor, materials, equipment, insurance, and necessary incidentals required and completing the work in accordance with the plans, the specifications, and directions of the Engineer.

Payment will be made under:

Item No.	Item	Pay Unit
NYPD-PP1	FIBER OPTIC PATCH PANEL, IN BOOTH	EACH
NYPD-PP2	FIBER OPTIC PATCH PANEL, IN ENCLOSURE	EACH

SECTION NYPD-VS
FURNISH AND INSTALL VIDEO SERVER (VS)

PART 1 GENERAL

1.1 INTENT

- A. This section describes furnishing and installing the Video Server providing local video recording capability for the Closed Circuit Television (CCTV) cameras and networked to the New York Police Department (NYPD) Domain Awareness System (DAS) as shown on the Contract Drawings.

1.2 DESCRIPTION

- A. Furnish and install the Video Server.
- B. Comply with the requirements of the NYPD DAS.

1.3 REFERENCE OTHER SECTIONS FOR RELATED COMPONENTS:

- A. NYPD-CCTV
- B. NYPD-DNE

PART 2 MATERIALS

2.1 VIDEO SERVER

- A. Video Server shall be Bosch Model DLA-AIOLO 04AT. No substitutions will be permitted.
- B. The device will be furnished with the following components:
 - 1. Four (4) x 1TB hot swappable hard drives
 - 2. RAID 5 Redundancy
 - 3. Dual Gigabit LAN connectivity
- C. Ensure compatibility with NYPD-DAS Video Management Software.

PART 3 METHODS

3.1 PREPARATION

- A. Verify locations of Video Servers in field with the Engineer prior to construction.

3.2 INSTALL VIDEO SERVER AS SHOWN ON CONTRACT DRAWINGS.

3.3 COORDINATION

- A. Coordinate installation and integration with NYPD DAS and with New York Police Department (NYPD) personnel for additional guidance for installation, testing, and certification of the completed system.

PART 4 MEASUREMENT AND PAYMENT

4.1 MEASUREMENT

- A. The quantity to be measured for payment shall be the number of Video Servers actually installed to the satisfaction of the Engineer as per the Contract Drawings and specification.

4.2 PRICE TO COVER

- A. The contract price per each Video Server shall cover the cost of furnishing all labor, materials, equipment, insurance, and necessary incidentals required and completing the work in accordance with the Contract Drawings, the specifications, and directions of the Engineer.

Payment will be made under:

Item No.	Item	Pay Unit
NYPD-VS	VIDEO SERVER	EACH

SECTION E 260500

(NOT A BID ITEM)

COMMON WORK RESULTS FOR ELECTRICAL

PART 1 GENERAL

1.1 SUMMARY

A. Section Includes:

1. Electrical equipment coordination and installation.
2. Grout.
3. Common electrical installation requirements.

1.2 COORDINATION

A. Coordinate arrangement, mounting, and support of electrical equipment:

1. To provide for ease of disconnecting the equipment with minimum interference to other installations.
2. To allow right of way for piping and conduit installed at required slope.
3. So connecting raceways, conductors, wireways, cable trays, and busways will be clear of obstructions and of the working and access space of other equipment.

B. Coordinate installation of required supporting devices in cast-in-place concrete, masonry walls, and other structural components as they are constructed.

PART 2 PRODUCTS

2.1 GROUT

- A. Nonmetallic, Shrinkage-Resistant Grout: American Society for Testing and Materials (ASTM) C 1107, factory packaged, nonmetallic aggregate grout, noncorrosive, non-staining, mixed with water to consistency suitable for application and a thirty (30) minute working time.

PART 3 EXECUTION

3.1 COMMON REQUIREMENTS FOR ELECTRICAL INSTALLATION

- A. Comply with National Electrical Contractors Association (NECA).
- B. Measure indicated mounting heights to bottom of unit for suspended items and to center of unit for wall-mounting items.
- C. Equipment: Install to facilitate service, maintenance, and repair or replacement of components of both electrical equipment and other nearby installations. Connect in such a way as to facilitate future disconnecting with minimum interference with other items in the vicinity.
- D. Right of Way: Give to piping systems installed at a required slope.

PART 4 MEASUREMENT AND PAYMENT

- 4.1 NO SEPARATE PAYMENT WILL BE MADE FOR WORK UNDER THIS SECTION. THE COST OF ALL WORK UNDER THIS SECTION SHALL BE DEEMED TO BE INCLUDED IN THE COST OF OTHER ELECTRICAL WORK ASSOCIATED WITH THIS PROJECT.

SECTION E 260519

LOW-VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES

PART 1 GENERAL

1.1 SUMMARY

- A. This Section includes the following:
 - 1. Building wires and cables rated 600 V and less.
 - 2. Connectors, splices, and terminations rated 600 V and less.

1.2 SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Field quality-control test reports.

1.3 QUALITY ASSURANCE

- A. Electrical Components, Devices, and Accessories: Listed and labeled as defined in the New York City Electrical Code, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.
- B. Comply with New York City Electrical Code.

PART 2 PRODUCTS

2.1 CONDUCTORS AND CABLES

- A. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include the following:
 - 1. Alcan Products Corporation; Alcan Cable Division.
 - 2. American Insulated Wire Corp.; a Leviton Company.
 - 3. General Cable Corporation.
 - 4. Senator Wire & Cable Company.
 - 5. Southwire Company.
 - 6. AFC Cable Systems, Inc.
 - 7. Or an approved equivalent.
- B. Copper Conductors: Comply with NEMA WC 70.
- C. Conductor Insulation: Comply with NEMA WC70 for Types XHHW.

2.2 CONNECTORS AND SPLICES

- A. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include the following:
 - 1. AFC Cable Systems, Inc.
 - 2. Hubbell Power Systems, Inc.
 - 3. 0-Z/Gedney; EGS Electrical Group LLC.
 - 4. 3M; Electrical Products Division.
 - 5. Tyco Electronics Corp.
 - 6. Or an approved equivalent.
- B. Description: Factory-fabricated connectors and splices of size, ampacity rating, material, type, and class for application and service indicated.

PART 3 EXECUTION

3.1 CONDUCTOR MATERIAL APPLICATIONS

- A. Feeders: All feeders shall be copper. Solid for No. 10 AWG and smaller; stranded for No. 8 AWG and larger.
- B. Branch Circuits: Copper. Solid for No. 10 AWG and smaller; stranded for No. 8 AWG and larger.

3.2 CONDUCTOR INSULATION AND MULTICONDUCTOR CABLE APPLICATIONS AND WIRING METHODS

- A. Service Entrance: Type XHHW, single conductors in raceway.
- B. Feeders: Type XHHW, single conductors in raceway.
- C. Branch Circuits: Type XHHW, single conductors in raceway.

3.3 INSTALLATION OF CONDUCTORS AND CABLES

- A. Use manufacturer-approved pulling compound or lubricant where necessary; compound used must not deteriorate conductor or insulation. Do not exceed manufacturer's recommended maximum pulling tensions and sidewall pressure values.
- B. Use pulling means, including fish tape, cable, rope, and basket-weave wire/cable grips that will not damage cables or raceway.
- C. Install exposed conduits/cables parallel and perpendicular to surfaces of exposed structural members, and follow surface contours where possible.

3.4 CONNECTIONS

- A. Tighten electrical connectors and terminals according to manufacturer's published torque-tightening values. If manufacturer's torque values are not indicated, use those specified in UL 486A and UL 486B.
- B. Make splices and taps that are compatible with conductor material and that possess equivalent or better mechanical strength and insulation ratings than unspliced conductors.
- C. Wiring at Outlets: Install conductor at each outlet, with at least 6 inches of slack.

3.5 FIELD QUALITY CONTROL

- A. Perform tests and inspections and prepare test reports.
- B. Tests and Inspections:
 - 1. After installing conductors and cables and before electrical circuitry has been energized, test service entrance and feeder conductors, and branch conductors for compliance with requirements.
 - 2. Perform each visual and mechanical inspection and electrical test stated in NETA Acceptance Testing Specification. Certify compliance with test parameters.
 - 3. Infrared Scanning: After Substantial Completion, but not more than 60 days after Final Acceptance, perform an infrared scan of each splice in cables and conductors No.4 AWG and larger. Remove box and equipment covers so splices are accessible to portable scanner.
 - a. Instrument: Use an infrared scanning device designed to measure temperature or to detect significant deviations from normal values. Provide calibration record for device.
 - b. Record of Infrared Scanning: Prepare a certified report that identifies splices checked and that describes scanning results. Include notation of deficiencies detected, remedial

action taken and observations after remedial action.

- C. Test Reports: Prepare a written report to record the following:
1. Test procedures used.
 2. Test results that comply with requirements.
 3. Test results that do not comply with requirements and corrective action taken to achieve compliance with requirements.
- D. Remove and replace malfunctioning units and retest as specified above.

PART 4 MEASUREMENT AND PAYMENT

4.1 MEASUREMENT

- A. The quantity of Conductors and Cables to be paid for under ITEM Nos. E 260519 AA, E 260519 BA, E 260519 B, E 260519 C, E 260519 D, E 260519 E, E 260519 G, E 260519 F, E 260519 H, E 260519 H3C, E 260519 H4C, E 260519 H5C and E 260519 H3-4P, shall be the actual number of linear feet of each size conductors and cables actually installed to complete the work, to the satisfaction of the Engineer. When multiple lengths of conductors are used as a cable, each length of conductor shall be measured separately.

4.2 PRICES TO COVER

- A. The unit price bid per linear foot of each size conductor or cable shall cover the cost of furnishing all labor, materials, equipment, insurance, and incidentals to complete the work including, but not limited to, furnishing and placing conductor and cable, and all associated connectors and splices, all in accordance with the Contract Drawings, the specifications, and the directions of the Engineer.

Payment will be made under:

Item No.	Item	Pay Unit
E 260519 AA	LOW-VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES (NO. 4/0 AWG WIRE)	L.F.
E 260519 BA	LOW-VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES (NO. 1/0 AWG WIRE)	L.F.
E 260519 B	LOW-VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES (NO. 2 AWG WIRE)	L.F.
E 260519 C	LOW-VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES (NO. 4 AWG WIRE)	L.F.
E 260519 D	LOW-VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES (NO. 6 AWG WIRE)	L.F.
E 260519 E	LOW-VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES (NO. 8 AWG WIRE)	L.F.
E 260519 G	LOW-VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES (NO. 10 AWG WIRE)	L.F.
E 260519 F	LOW-VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES (NO. 12 AWG WIRE)	L.F.
E 260519 H	LOW-VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES (2#16 Type 4ABS6195), 110 kHz	L.F.

E 260519 H3C	LOW-VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES (3 Core YY #18), 110 kHz	L.F.
E 260519 H4C	LOW-VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES (4 Core YY #18), 110 kHz	L.F.
E 260519 H5C	LOW-VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES (5 Core YY #18), 110 kHz	L.F.
E 260519 H3-4P	LOW-VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES (3-4 PAIR #18 TWISTED PAIR), 110 kHz	L.F.

SECTION E 260526

GROUNDING AND BONDING FOR ELECTRICAL SYSTEMS

PART 1 GENERAL

1.1 SUMMARY

- A. This Section includes methods and materials for grounding systems and equipment.

1.2 SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Qualification Data: For testing agency and testing agencies' field supervisor.
- C. Field quality-control test reports.

1.3 QUALITY ASSURANCE

- A. Testing Agency Qualifications: An independent agency, with the experience and capability to conduct the testing indicated, that is a member company of the International Electrical Testing Association or is a nationally recognized testing laboratory (NRTL) as defined by OSHA in 29 CFR 1910.7, and that is acceptable to authorities having jurisdiction.
 - 1. Testing Agency's Field Supervisor: Person currently certified by the International Electrical Testing Association to supervise on-site testing specified in Part 3.
- B. Electrical Components, Devices, and Accessories: Listed and labeled as defined in New York City Electrical Code, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.
- C. Comply with UL 467 for grounding and bonding materials and equipment.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, Alltec, Erico, Harger.

2.2 CONDUCTORS

- A. Insulated Conductors: Copper wire or cable insulated for 600 V unless otherwise required by applicable Code or authorities having jurisdiction.
- B. Bare Copper Conductors:
 - 1. Solid Conductors: ASTM B 3.
 - 2. Stranded Conductors: ASTM B 8.
 - 3. Tinned Conductors: ASTM B 33.
 - 4. Bonding Cable: 28 kcmil, 14 strands of No. 17 AWG conductor, 1/4 inch in diameter.
 - 5. Bonding Conductor: No. 4 or No. 6 AWG, stranded conductor.
 - 6. Bonding Jumper: Copper tape, braided conductors, terminated with copper ferrules; 1-5/8 inches wide and 1/16 inch thick.
 - 7. Tinned Bonding Jumper: Tinned-copper tape, braided conductors, terminated with copper ferrules; 1-5/8 inches wide and 1/16 inch thick.

2.3 CONNECTORS

- A. Listed and labeled by a nationally recognized testing laboratory acceptable to authorities having jurisdiction for applications in which used, and for specific types, sizes, and combinations of conductors and other items connected.
- B. Bolted Connectors for Conductors and Pipes: Copper or copper alloy, bolted pressure-type, with at least two bolts.
 - 1. Pipe Connectors: Clamp type, sized for pipe.
- C. Welded Connectors: Exothermic-welding kits of types recommended by kit manufacturer for materials being joined and installation conditions.

2.4 GROUNDING ELECTRODES

- A. Ground Plates: Copper-clad steel; 18"x 18"x 0.32".

PART 3 EXECUTION

3.1 APPLICATIONS

- A. Conductors: Install solid conductor for No. 8 AWG and smaller, and stranded conductors for No. 6 AWG and larger, unless otherwise indicated.
- B. Conductor Terminations and Connections:
 - 1. Pipe and Equipment Grounding Conductor Terminations: Bolted connectors.
 - 2. Underground Connections: Welded connectors, except at test wells and as otherwise indicated.

3.2 GROUNDING UNDERGROUND DISTRIBUTION SYSTEM COMPONENTS

- A. Comply with IEEE C2 grounding requirements.
- B. Grounding Manholes and Handholes: Install a driven ground rod through manhole or handhole floor, close to wall, and set rod depth so 4 inches will extend above finished floor. If necessary, install ground rod before manhole is placed and provide No. 1/0 AWG bare, tinned-copper conductor from ground rod into manhole through a waterproof sleeve in manhole wall. Protect ground rods passing through concrete floor with a double wrapping of pressure-sensitive insulating tape or heat-shrunk insulating sleeve from 2 inches above to 6 inches below concrete. Seal floor opening with waterproof, non-shrink grout.
- C. Grounding Connections to Manhole Components: Bond exposed-metal parts such as inserts, cable racks, pulling irons, ladders, and cable shields within each manhole or handhole, to ground rod or grounding conductor. Make connections with No.4 AWG minimum, stranded, hard-drawn copper bonding conductor. Train conductors level or plumb around comers and fasten to manhole walls. Connect to cable armor and cable shields as recommended by manufacturer of splicing and termination kits.

3.3 EQUIPMENT GROUNDING

- A. Install insulated equipment grounding conductors with all feeders and branch circuits.
- B. Metal and Wood Poles Supporting Outdoor Lighting Fixtures: Install grounding electrode and a separate insulated equipment grounding conductor in addition to grounding conductor installed with branch-circuit conductors.

3.4 INSTALLATION

- A. Grounding Conductors: Route along shortest and straightest paths possible, unless otherwise

indicated or required by Code. Avoid obstructing access or placing conductors where they may be subjected to strain, impact, or damage.

- B. Ground Rods: Drive rods until tops are 2 inches below finished floor or final grade, unless otherwise indicated.
 - 1. Interconnect ground rods with grounding electrode conductor below grade and as otherwise indicated. Make connections without exposing steel or damaging coating, if any.
 - 2. For grounding electrode system, install at least two rods spaced at least one-rod length from each other and located at least the same distance from other grounding electrodes, and connect to the service grounding electrode conductor.
- C. Bonding Straps and Jumpers: Install in locations accessible for inspection and maintenance, except where routed through short lengths of conduit.
 - 1. Bonding to Structure: Bond straps directly to basic structure, taking care not to penetrate any adjacent parts.
 - 2. Bonding to Equipment Mounted on Vibration Isolation Hangers and Supports: Install so vibration is not transmitted to rigidly mounted equipment.
 - 3. Use exothermic-welded connectors for outdoor locations, but if a disconnect-type connection is required, use a bolted clamp.

3.5 FIELD QUALITY CONTROL

- A. Testing Agency: Engage a qualified testing and inspecting agency to perform the following field tests and inspections and prepare test reports:
 - 1. After installing grounding system but before permanent electrical circuits have been energized, test for compliance with requirements.
 - 2. Test completed grounding system at each location where a maximum ground resistance level is specified, at service disconnect enclosure grounding terminal. Make tests at ground rods before any conductors are connected.
 - a. Measure ground resistance not less than two full days after last trace of precipitation and without soil being moistened by any means other than natural drainage or seepage and without chemical treatment or other artificial means of reducing natural ground resistance.
 - b. Perform tests by fall-of-potential method according to IEEE 81.
- B. Report measured ground resistances that exceed the following values:
 - 1. Power and Lighting Equipment or System with Capacity 500 kVA and less: 10 ohms.
 - 2. Substations and Pad-Mounted Equipment: 5 ohms.
 - 3. Manhole Grounds: 10 ohms.
- C. Excessive Ground Resistance: If resistance to ground exceeds specified values, notify Architect promptly and include recommendations to reduce ground resistance.

PART 4 MEASUREMENT AND PAYMENT

4.1 MEASUREMENT

- A. The quantity of Grounding Conductors to be paid for under Item No. E 260526 A shall be the actual number of linear feet of grounding conductors installed to complete the work, to the satisfaction of the Engineer.
- B. The quantity of Grounding Plates for Electrical Systems to be paid for under Item No. E 260526 B shall be by EACH type of Grounding Plate installed to complete the work, to the satisfaction of the Engineer.

4.2 PRICE TO COVER

- A. The unit price bid per linear foot of Grounding Conductor, under ITEM No. E 260526 A shall cover the cost of furnishing all labor, materials, equipment, insurance, and incidentals to complete the work including, but not limited to, furnishing and placing grounding conductors, and all associated connectors, electrodes, ground rods, bonding straps, clamps, and Jumpers, all in accordance with the Contract Drawings, the specifications, and the directions of the Engineer.
- B. The unit price bid per each Grounding Plate, under ITEM No. E 260526 B shall cover the cost of furnishing all labor, materials, equipment, insurance, and incidentals to complete the work including, but not limited to, furnishing and placing the Grounding Plates, all in accordance with the Contract Drawings, the specifications, and the directions of the Engineer.

Payment will be made under:

Item No.	Item	Pay Unit
E 260526 A	GROUNDING CONDUCTORS	L.F.
E 260526 B	GROUNDING PLATES	EACH

SECTION E 260529

HANGERS AND SUPPORTS FOR ELECTRICAL SYSTEMS

PART 1 GENERAL

1.1 SUMMARY

- A. This Section includes the following:
 - 1. Supports for electrical equipment and systems.

1.2 DEFINITIONS

- A. References are made in this Section by abbreviations in accordance with the following list:
 - 1. American Society for Testing and Materials (ASTM)
 - 2. American Welding Society (AWS)
 - 3. National Electrical Contractors Association (NECA)
 - 4. Rigid metal conduit (RMC)
 - 5. Steel Structures Painting Council (SSPC)

1.3 PERFORMANCE REQUIREMENTS

- A. Design equipment supports capable of supporting combined operating weight of supported equipment and connected systems and components.

1.4 SUBMITTALS

- A. Shop Drawings: Signed and sealed by a qualified professional engineer. Show fabrication and installation details and include calculations for the following:
 - 1. Equipment supports.
- B. Welding certificates.

1.5 QUALITY CONTROL

- A. Welding: Qualify procedures and personnel according to AWS D1.1/DL1M, "Structural Welding Code - Steel."
- B. Comply with New York City Electrical Code.

1.6 COORDINATION

- A. Coordinate size and location of concrete structures as may be needed to cast anchor-bolt inserts into structures.

PART 2 PRODUCTS

2.1 SUPPORT, ANCHORAGE, AND ATTACHMENT COMPONENTS

- A. Raceway and Cable Supports: As described in NECA 1 and NECA 101.
- B. Conduit and Cable Support Devices: Steel and malleable-iron hangers, clamps, and associated fittings, designed for types and sizes of raceway or cable to be supported.
- C. Structural Steel for Fabricated Supports and Restraints: ASTM A 36/A 36M, steel plates, shapes, and bars; black and galvanized.

- D. Mounting, Anchoring; and Attachment Components: Items for fastening electrical items or their supports to building surfaces include the following:
1. Powder-Actuated Fasteners: Threaded-steel stud, for use in hardened Portland cement concrete, steel, or wood, with tension, shear, and pullout capacities appropriate for supported loads and building materials where used.
 - a. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include the following:
 - 1). Hilti Inc.
 - 2). ITW Ramset/Red Head; a division of Illinois Tool Works, Inc.
 - 3). MKT Fastening, LLC.
 - 4). Simpson Strong-Tie Co., Inc.; Masterset Fastening Systems Unit.
 - 5). Or an approved equivalent.
 2. Mechanical-Expansion Anchors: Insert-wedge-type, zinc-coated steel, for use in hardened Portland cement concrete with tension, shear, and pullout capacities appropriate for supported loads and building materials in which used.
 - a. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - 1). Cooper B-Line, Inc.; a division of Cooper Industries.
 - 2). Empire Tool and Manufacturing Co., Inc.
 - 3). Hilti Inc.
 - 4). ITW Ramset/Red Head; a division of Illinois Tool Works, Inc.
 - 5). MKT Fastening, LLC.
 - 6). Or an approved equivalent.
 3. Concrete Inserts: Steel or malleable-iron, slotted support system units similar to MSS Type 18; complying with MFMA-4 or MSS SP-58.
 4. Clamps for Attachment to Steel Structural Elements: MSS SP-58, type suitable for attached structural element.
 5. Through Bolts: Structural type, hex head, and high strength. Comply with ASTM A325.
 6. Toggle Bolts: All-steel springhead type.
 7. Hanger Rods: Threaded steel.

2.2 FABRICATED METAL EQUIPMENT SUPPORT ASSEMBLIES

- A. Description: Welded or bolted, structural-steel shapes, shop or field fabricated to fit dimensions of supported equipment.

PART 3 EXECUTION

3.1 APPLICATION

- A. Comply with NECA 1 and NECA 101 for application of hangers and supports for electrical equipment and systems except if requirements in this Section are stricter.

3.2 SUPPORT INSTALLATION

- A. Comply with NECA 1 and NECA 101 for installation requirements except as specified in this Article.
- B. Raceway Support Methods: Methods described in NECA 1 for supporting EMT, IMC, and RMC.
- C. Mounting and Anchorage of Surface-Mounted Equipment and Components: Anchor and fasten electrical items and their supports to building structural elements by the following methods unless otherwise indicated by code:
1. To Wood: Fasten with lag screws or through bolts.
 2. To New Concrete: Bolt to concrete inserts.
 3. To Masonry: Approved toggle-type bolts on hollow masonry units and expansion anchor fasteners on solid masonry units.

4. To Existing Concrete: Expansion anchor fasteners.
 5. Instead of expansion anchors, powder-actuated driven threaded studs provided with lock washers and nuts may be used in existing standard-weight concrete 4 inches thick or greater. Do not use for anchorage to lightweight-aggregate concrete or for slabs less than 4 inches thick.
 6. To Light Steel: Sheet metal screws.
 7. Items Mounted on Hollow Walls and Nonstructural Building Surfaces: Mount cabinets, panelboards, disconnect switches, control enclosures, pull and junction boxes attached to substrate by means that meet seismic-restraint strength and anchorage requirements.
- D. Drill holes for expansion anchors in concrete at locations and to depths that avoid reinforcing bars.

3.3 INSTALLATION OF FABRICATED METAL SUPPORTS

- A. Cut, fit, and place miscellaneous metal supports accurately in location, alignment, and elevation to support and anchor electrical materials and equipment.
- B. Field Welding: Comply with AWS DI.1/DI.IM.

3.4 PAINTING

- A. Touchup: Clean field welds and abraded areas of shop paint. Paint exposed areas immediately after erecting hangers and supports. Use same materials as used for shop painting. Comply with SSPC-PA 1 requirements for touching up field-painted surfaces.
 1. Apply paint by brush or spray to provide minimum dry film thickness of 2.0 mils.
- B. Touchup: Comply with requirements for cleaning and touchup painting of field welds, bolted connections, and abraded areas of shop paint on miscellaneous metal.
- C. Galvanized Surfaces: Clean welds, bolted connections, and abraded areas and apply galvanizing-repair paint to comply with ASTM A 780.

PART 4 MEASUREMENT AND PAYMENT

4.1 MEASUREMENT

- A. The quantity of Hangers and Supports for Electrical Systems to be paid for under ITEM E 260529 shall be the actual number of Hangers and Supports, installed to complete the work, to the satisfaction of the Engineer.

4.2 PRICES TO COVER

- A. The unit price bid per each Hangers and Supports, under ITEM No. E 260529, shall cover the cost of furnishing all labor, materials, equipment, insurance, and incidentals to complete the work including, but not limited to, furnishing and placing the Hangers and Supports, including but not limited to fasteners, anchors, supports, and restraints, all in accordance with the Contract Drawings, the specifications, and the directions of the Engineer.

Payment will be made under:

Item No.	Item	Pay Unit
E 260529	HANGERS AND SUPPORTS FOR ELECTRICAL SYSTEMS	EACH

SECTION E 260533

RACEWAY AND BOXES FOR ELECTRICAL SYSTEMS

PART 1 GENERAL

1.1 SUMMARY

- A. This Section includes raceways, fittings, boxes, enclosures, and cabinets for electrical wiring.

1.2 DEFINITIONS

- A. References are made in this Section by abbreviations in accordance with the following list:
 - a. Liquidtight flexible metal conduit (LFMC)
 - b. National Electrical Contractors Association (NECA)
 - c. National Electrical Manufacturers Association (NEMA)
 - d. Society of Cable Telecommunications Engineers (SCTE)

1.3 SUBMITTALS

- A. Product Data: For surface raceways, wireways and fittings, floor boxes, hinged-cover enclosures, and cabinets.
- B. Shop Drawings: For the following raceway components. Include plans, elevations, sections, details, and attachments to other work.
 - 1. Custom enclosures and cabinets.
 - 2. For boxes, including the following:
 - a. Duct entry provisions, including locations and duct sizes.
 - b. Frame and cover design.
 - c. Grounding details.
 - d. Dimensioned locations of cable rack inserts, and pulling-in and lifting irons.
 - e. Joint details.

1.4 QUALITY CONTROL

- A. Electrical Components, Devices, and Accessories: Listed and labeled as defined in New York City Electrical Code, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.
- B. Comply with New York City Electrical Code.

PART 2 PRODUCTS

2.1 METAL CONDUIT AND TUBING

- A. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include the following:
 - 1. AFC Cable Systems, Inc.
 - 2. Alflex Inc.
 - 3. Allied Tube & Conduit; a Tyco International Ltd. Co.
 - 4. Anamet Electrical, Inc.; Anaconda Metal Hose.
 - 5. Electri-Flex Co.
 - 6. Manhattan/CDT/Cole-Flex.
 - 7. Maverick Tube Corporation.
 - 8. O-Z Gedney; a unit of General Signal.
 - 9. Wheatland Tube Company.

- 10. Or an approved equivalent.
 - B. Rigid Steel Conduit: ANSI C80.1.
 - C. LFMC: Flexible steel conduit with PVC jacket.
 - D. Joint Compound for Rigid Steel Conduit: Listed for use in cable connector assemblies, and compounded for use to lubricate and protect threaded raceway joints from corrosion and enhance their conductivity.
- 2.2 BOXES, ENCLOSURES, AND CABINETS

- A. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include the following:
 - 1. Cooper Crouse-Hinds; Div. of Cooper Industries, Inc.
 - 2. EGS/Appleton Electric.
 - 3. Erickson Electrical Equipment Company.
 - 4. Hoffman.
 - 5. Hubbell Incorporated; Killark Electric Manufacturing Co. Division.
 - 6. O-Z/Gedney; a unit of General Signal.
 - 7. RACO; a Hubbell Company.
 - 8. Robroy Industries, Inc.; Enclosure Division.
 - 9. Scott Fetzer Co.; Adalet Division.
 - 10. Spring City Electrical Manufacturing Company.
 - 11. Thomas & Betts Corporation.
 - 12. Walker Systems, Inc.; Wiremold Company (The).
 - 13. Woodhead, Daniel Company; Woodhead Industries, Inc. Subsidiary.
 - 14. Or an approved equivalent.
- B. Sheet Metal Outlet and Device Boxes: NEMA OS 1.
- C. Metal Floor Boxes: Cast or sheet metal, fully adjustable, rectangular.
- D. Small Sheet Metal Pull and Junction Boxes: NEMA OS 1.
- E. Cast-Metal Access, Pull, and Junction Boxes: NEMA FB 1, cast aluminum with gasketed cover.
- F. Hinged-Cover Enclosures: NEMA 250, Type 4X, with continuous-hinge cover with flush vandal resistant latch, unless otherwise indicated.
 - 1. Metal Enclosures: Type A316L Stainless Steel.
- G. Sidewalk Boxes: Flanged, cast iron, hot dip galvanized, flush mounting, cross ribbed checkered with pry bar slot, gasketed, screw on steel cover that withstands pedestrian traffic.

2.3 BOXES

- A. Description: Comply with SCTE 77.
 - 1. Color of Frame and Cover: Gray in hardscaped areas and Green in landscaped areas.
 - 2. Configuration: Units shall be designed for flush burial and have open bottom, unless otherwise indicated.
 - 3. Cover: Weatherproof, secured by tamper-resistant locking devices and having structural load rating consistent with enclosure.
 - 4. Cover Finish: Nonskid finish shall have a minimum coefficient of friction of 0.50.
 - 5. Cover Legend: Molded lettering, as indicated for each service.
 - 6. Conduit Entrance Provisions: Conduit-terminating fittings shall mate with entering ducts for secure, fixed installation in enclosure wall.
 - 7. Boxes 12 inches wide by 24 inches long and larger shall have inserts for cable racks and

pulling-in irons installed before concrete is poured.

- B. Polymer-Concrete Boxes with Polymer-Concrete Cover: Molded of sand and aggregate, bound together with polymer resin, and reinforced with steel or fiberglass or a combination of the two.
 - 1. Basis-of-Design Product: Subject to compliance with requirements, provide the product indicated on Drawings or a comparable product by one of the following:
 - a. Armorcast Products Company.
 - b. Carson Industries LLC.
 - c. CDR Systems Corporation.
 - d. NewBasis.
 - e. Or an approved equivalent.
- C. Electrical service property line splice box shall be provided per ConEd Standard EO-6210-B Rev. 23.

PART 3 EXECUTION

3.1 RACEWAY APPLICATION

- A. Outdoors: Apply raceway products as specified below, unless otherwise indicated:
 - 1. Exposed Conduit: Rigid steel conduit.
 - 2. Concealed Conduit, Aboveground: Rigid steel conduit.
 - 3. Underground Conduit: Rigid steel conduit, direct buried.
 - 4. Connection to Vibrating Equipment (Including Transformers and Hydraulic, Pneumatic, Electric Solenoid, or Motor-Driven Equipment): LFMC.
 - 5. Boxes and Enclosures, Aboveground: NEMA 250, Type 4X.
- B. Minimum Raceway Size: 3/4-inch trade size.
- C. Raceway Fittings: Compatible with raceways and suitable for use and location.
 - 1. Rigid Steel Conduit: Use threaded rigid steel conduit fittings, unless otherwise indicated.

3.2 INSTALLATION

- A. Comply with NECA 1 for installation requirements applicable to products specified in Part 2 except where requirements on Drawings or in this Article are stricter.
- B. Keep raceways at least 6 inches away from parallel runs of flues and steam or hot-water pipes. Install horizontal raceway runs above water and steam piping.
- C. Complete raceway installation before starting conductor installation.
- D. Arrange stub-ups so curved portions of bends are not visible above the finished slab.
- E. Install no more than the equivalent of three 90-degree bends in any conduit run except for communications conduits, for which fewer bends are allowed.
- F. Conceal conduit, unless otherwise indicated.
- G. Raceways Embedded in Slabs:
 - 1. Run conduit larger than 1-inch trade size, parallel or at right angles to main reinforcement. Where at right angles to reinforcement, place conduit close to slab support.
- H. Threaded Conduit Joints, Exposed to Wet, Damp, Corrosive, or Outdoor Conditions: Apply listed compound to threads of raceway and fittings before making up joints. Follow compound manufacturer's written instructions.

- I. Raceway Terminations at Locations Subject to Moisture or Vibration: Use insulating bushings to protect conductors, including conductors smaller than No. 4 AWG.
- J. Install pull wires in empty raceways. Use polypropylene or monofilament plastic line with not less than 200-lb tensile strength. Leave at least 12 inches of slack at each end of pull wire.
- K. Raceways for Optical Fiber and Communications Cable: Install raceways, metallic and nonmetallic, rigid and flexible, as follows:
 - 1. 3/4-Inch Trade Size and Smaller: Install raceways in maximum lengths of 50 feet.
 - 2. 1-Inch Trade Size and Larger: Install raceways in maximum lengths of 75 feet.
 - 3. Install with a maximum of two 90-degree bends or equivalent for each length of raceway unless Drawings show stricter requirements. Separate lengths with pull or junction boxes or terminations at distribution frames or cabinets where necessary to comply with these requirements.
- L. Install raceway sealing fittings at suitable, approved, and accessible locations and fill them with listed sealing compound. For concealed raceways, install each fitting in a flush steel box with a blank cover plate having a finish similar to that of adjacent plates or surfaces. Install raceway sealing fittings at the following points:
 - 1. Where required by New York City Electrical Code.
- M. Flexible Conduit Connections: Use maximum of 72 inches of flexible conduit for equipment subject to vibration, noise transmission, or movement; and for transformers and motors.
 - 1. Use LFMC in damp or wet locations subject to severe physical damage.
 - 2. Use LFMC in damp or wet locations not subject to severe physical damage.
- N. Recessed Boxes in Masonry Walls: Saw-cut opening for box in center of cell of masonry block, and install box flush with surface of wall.
- O. Set metal floor boxes level and flush with finished floor surface.

3.3 INSTALLATION OF UNDERGROUND CONDUIT

- A. Direct-Buried Conduit:
 - 1. Excavate trench bottom to provide firm and uniform support for conduit. Prepare trench bottom for pipe less than 6 inches in nominal diameter.
 - 2. Install backfill.
 - 3. After installing conduit, backfill and compact. Start at tie-in point, and work toward end of conduit run, leaving conduit at end of run free to move with expansion and contraction as temperature changes during this process. Firmly hand tamps backfill around conduit to provide maximum supporting strength. After placing controlled backfill to within 12 inches of finished grade, make final conduit connection at end of run and complete backfilling with normal compaction.
 - 4. Install manufactured rigid steel conduit elbows for stub-ups at poles and equipment and at building entrances through the floor.
 - a. Couple steel conduits to ducts with adapters designed for this purpose, and encase coupling with 3 inches of concrete.
 - b. For stub-ups at equipment mounted on outdoor concrete bases, extend steel conduit horizontally a minimum of 60 inches from edge of equipment pad or foundation. Install insulated grounding bushings on terminations at equipment.
 - 5. Provide penetrations through wall and floors for electrical installation work, including sleeves, floor supports, and fire-stop seal as indicated on Contract Drawings and as approved by Engineer.
 - 6. Warning Planks: Bury warning planks approximately 12 inches above direct-buried conduits, placing them 24 inches O.C. Align planks along the width and along the centerline of conduit.

3.4 INSTALLATION OF UNDERGROUND BOXES

- A. Install boxes level and plumb and with orientation and depth coordinated with connecting conduits to minimize bends and deflections required for proper entrances.
- B. Unless otherwise indicated, support units on a level bed of crushed stone or gravel, graded from 1/2-inch sieve to No.4 sieve and compacted to same density as adjacent undisturbed earth.
- C. Elevation: In paved areas, set so cover surface will be flush with finished grade. Set covers of other enclosures 1 inch above finished grade.
- D. Install removable hardware, including pulling eyes, cable stanchions, cable arms, and insulators, as required for installation and support of cables and conductors and as indicated. Select arm lengths to be long enough to provide spare space for future cables, but short enough to preserve adequate working clearances in the enclosure.
- E. Field-cut openings for conduits according to enclosure manufacturer's written instructions. Cut wall of enclosure with a tool designed for material to be cut. Size holes for terminating fittings to be used, and seal around penetrations after fittings are installed.

3.5 PROTECTION

- A. Provide final protection and maintain conditions that ensure coatings, finishes, and cabinets are without damage or deterioration at time of Substantial Completion.
 - 1. Repair damage to galvanized finishes with zinc-rich paint recommended by manufacturer.
 - 2. Repair damage to paint finishes with matching touchup coating recommended by manufacturer.

PART 4 MEASUREMENT AND PAYMENT

4.1 MEASUREMENT

- A. The quantity of Metal Conduit and Tubing to be paid for under ITEMS Nos. E 260533 A1.0, E 260533 A1.25, E 260533 A1.5, E 260533 AC2.0, E 260533 AC2.5, E 260533 AC3.0 and E 260533 AF4.0 shall be the actual number of linear feet of Metal Conduit and Tubing, installed to complete the work, to the satisfaction of the Engineer.
- B. The quantity of Boxes for to be paid for under ITEM E260533 D, and E260533 CD shall be the actual number of Boxes, installed to complete the work, to the satisfaction of the Engineer.

4.2 PRICES TO COVER

- A. The unit price bid per linear foot of Metal Conduit and Tubing, under ITEMS Nos. E 260533 A1.0, E 260533 A1.25, E 260533 A1.5, E 260533 AC2.0, E 260533 AC2.5, E 260533 AC3.0 and E 260533 AF4.0 shall cover the cost of furnishing all labor, materials, equipment, insurance, and incidentals to complete the work including, but not limited to, furnishing and placing Metal Conduit and Tubing, and all associated connectors and splices as well as penetrations, sleeves, supports, and seals, all in accordance with the Contract Drawings, the specifications, and the directions of the Engineer.
- B. The unit price bid per each Box under ITEM Nos. E260533 D, and E260533 CD shall cover the cost of furnishing all labor, materials, equipment, insurance, and incidentals to complete the work including, but not limited to, furnishing and placing the Boxes, all in accordance with the Contract Drawings, the specifications, and the directions of the Engineer.
- C. The unit price bid per linear foot of each size underground raceway shall cover the cost of excavation, backfill, spacers and any additional requirements for underground installation in accordance with the Contract Drawings, the specifications, and the directions of the Engineer.

Payment will be made under:

Item No.	Item	Pay Unit
E 260533 M1	FURNISH AND INSTALL 1" P.V.C. CONDUITS, SCHEDULE 80, U.L. 651 IN ONE TRENCH – WITH PAVEMENT EXCAVATION	L.F.
E 260533 M2	FURNISH AND INSTALL 2" P.V.C. CONDUITS, SCHEDULE 80, U.L. 651 IN ONE TRENCH – WITH PAVEMENT EXCAVATION	L.F.
E 260533 M2.5	FURNISH AND INSTALL 2- 1/2" P.V.C. CONDUITS, SCHEDULE 80, U.L. 651 IN ONE TRENCH – WITH PAVEMENT EXCAVATION	L.F.
E 260533 M4	FURNISH AND INSTALL 4" P.V.C. CONDUITS, SCHEDULE 80, U.L. 651 IN ONE TRENCH – WITH PAVEMENT EXCAVATION	L.F.
E 260533 A1.0	METAL CONDUIT AND TUBING (1" GALVANIZED RIGID STEEL CONDUIT)	L.F.
E 260533 A1.25	METAL CONDUIT AND TUBING (1-1/4" GALVANIZED RIGID STEEL CONDUIT)	L.F.
E 260533 A1.5	METAL CONDUIT AND TUBING (1-1/2" GALVANIZED RIGID STEEL CONDUIT)	L.F.
E 260533 AC2.0	METAL CONDUIT AND TUBING (2" GALVANIZED RIGID STEEL CONDUIT)	L.F.
E 260533 AC2.5	METAL CONDUIT AND TUBING (2-1/2" GALVANIZED RIGID STEEL CONDUIT)	L.F.
E 260533 AC3.0	METAL CONDUIT AND TUBING (3" GALVANIZED RIGID STEEL CONDUIT)	L.F.
E 260533 AF4.0	METAL CONDUIT AND TUBING (4" GALVANIZED RIGID STEEL CONDUIT)	L.F.
E 260533 CD	CON EDISON PROPERTY LINE SPLICE BOX	EACH
E 260533 D	BOXES FOR ELECTRICAL SYSTEMS	EACH

SECTION E 260553

(NOT A BID ITEM)

IDENTIFICATION FOR ELECTRICAL SYSTEMS

PART 1 GENERAL

1.1 SUMMARY

A. Section Includes:

1. Identification for raceways.
2. Identification of power and control cables.
3. Identification for conductors.
4. Underground-line warning tape.
5. Warning labels and signs.
6. Instruction signs.
7. Equipment identification labels.
8. Miscellaneous identification products.

1.2 REFERENCES

A. References are made in this Section by abbreviations in accordance with the following list:

- a. American Society for Testing and Materials (ASTM)
- b. Institute of Electrical & Electronics Engineers (IEEE)
- c. National Electrical Manufacturers Association (NEMA)
- d. National Fire Protection Association (NFPA)
- e. Nationally Recognized Testing Laboratory (NRTL)
- f. U.S. Department of Labor, Occupational Safety & Health Administration (OSHA)
- g. Underwriters Laboratories, Inc. (UL)

1.3 SUBMITTALS

- A. Product Data: For each electrical identification product indicated.
- B. Samples: For each type of label and sign to illustrate size, colors, lettering style, mounting provisions, and graphic features of identification products.
- C. Identification Schedule: An index of nomenclature of electrical equipment and system components used in identification signs and labels.

1.4 QUALITY ASSURANCE

- A. Comply with ANSI A13.1 and IEEE C2.
- B. Comply with New York City Electrical Code.
- C. Comply with 29 CFR 1910.144 and 29 CFR 1910.145.
- D. Comply with ANSI Z535.4 for safety signs and labels.
- E. Adhesive-attached labeling materials, including label stocks, laminating adhesives, and inks used by label printers, shall comply with UL 969.

1.5 COORDINATION

- A. Coordinate identification names, abbreviations, colors, and other features with requirements in other Sections requiring identification applications, Drawings, Shop Drawings, manufacturer's wiring diagrams, and the Operation and Maintenance Manual; and with those

required by codes, standards, and 29 CFR 1910.145. Use consistent designations throughout Project.

- B. Coordinate installation of identifying devices with completion of covering and painting of surfaces where devices are to be applied.
- C. Coordinate installation of identifying devices with location of access panels and doors.
- D. Install identifying devices before installing acoustical ceilings and similar concealment.

PART 2 PRODUCTS

2.1 POWER RACEWAY IDENTIFICATION MATERIALS

- A. Comply with ANSI A13.1 for minimum size of letters for legend and for minimum length of color field for each raceway size.
- B. Colors for Raceways Carrying Circuits at 600 V or Less:
 - 1. Black letters on an orange field.
 - 2. Legend: Indicate voltage and system or service type.
- C. Self-Adhesive Vinyl Labels for Raceways Carrying Circuits at 600 V or Less: Preprinted, flexible label laminated with a clear, weather- and chemical-resistant coating and matching wraparound adhesive tape for securing ends of legend label.
- D. Snap-Around Labels for Raceways Carrying Circuits at 600 V or Less: Slit, pre-tensioned, flexible, preprinted, color-coded acrylic sleeve, with diameter sized to suit diameter of raceway or cable it identifies and to stay in place by gripping action.
- E. Snap-Around, Color-Coding Bands for Raceways Carrying Circuits at 600 V or Less: Slit, pre-tensioned, flexible, solid-colored acrylic sleeve, 2 inches long, with diameter sized to suit diameter of raceway or cable it identifies and to stay in place by gripping action.
- F. Metal Tags: Brass or aluminum, 2 inch x 2 inch x 0.05 inch, with stamped legend, punched for use with self-locking cable tie fastener.
- G. Write-On Tags: Polyester tag, 0.010 inch thick, with corrosion-resistant grommet and cable tie for attachment to conductor or cable.
 - 1. Marker for Tags: Permanent, waterproof, black ink marker recommended by tag manufacturer.

2.2 POWER AND CONTROL CABLE IDENTIFICATION MATERIALS

- A. Comply with ANSI A13.1 for minimum size of letters for legend and for minimum length of color field for each raceway and cable size.
- B. Self-Adhesive Vinyl Labels: Preprinted, flexible label laminated with a clear, weather- and chemical-resistant coating and matching wraparound adhesive tape for securing ends of legend label.
- C. Metal Tags: Brass or aluminum, 2 inch x 2 inch x 0.05 inch, with stamped legend, punched for use with self-locking cable tie fastener.
- D. Write-On Tags: Polyester tag, 0.010 inch thick, with corrosion-resistant grommet and cable tie for attachment to conductor or cable.
 - 1. Marker for Tags: Permanent, waterproof, black ink marker recommended by tag manufacturer.

- E. Snap-Around Labels: Slit, pretensioned, flexible, preprinted, color-coded acrylic sleeve, with diameter sized to suit diameter of raceway or cable it identifies and to stay in place by gripping action.

2.3 CONDUCTOR IDENTIFICATION MATERIALS

- A. Color-Coding Conductor Tape: Colored, self-adhesive vinyl tape not less than 3 mils thick by 1 to 2 inches wide.
- B. Self-Adhesive Vinyl Labels: Preprinted, flexible label laminated with a clear, weather- and chemical-resistant coating and matching wraparound adhesive tape for securing ends of legend label.
- C. Snap-Around Labels: Slit, pretensioned, flexible, preprinted, color-coded acrylic sleeve, with diameter sized to suit diameter of raceway or cable it identifies and to stay in place by gripping action.
- D. Snap-Around, Color-Coding Bands: Slit, pretensioned, flexible, solid-colored acrylic sleeve, 2 inches long, with diameter sized to suit diameter of raceway or cable it identifies and to stay in place by gripping action.
- E. Marker Tapes: Vinyl or vinyl-cloth, self-adhesive wraparound type, with circuit identification legend machine printed by thermal transfer or equivalent process.
- F. Write-On Tags: Polyester tag, 0.010 inch thick, with corrosion-resistant grommet and cable tie for attachment to conductor or cable.
 1. Marker for Tags: Machine-printed, permanent, waterproof, black ink marker recommended by printer manufacturer.

2.4 FLOOR MARKING TAPE

- A. 2-inch- wide, 5-mil pressure-sensitive vinyl tape, with black and white stripes and clear vinyl overlay.

2.5 UNDERGROUND-LINE WARNING TAPE

- A. Tape:
 1. Recommended by manufacturer for the method of installation and suitable to identify and locate underground electrical and communications utility lines.
 2. Printing on tape shall be permanent and shall not be damaged by burial operations.
 3. Tape material and ink shall be chemically inert, and not subject to degrading when exposed to acids, alkalis, and other destructive substances commonly found in soils.
- B. Color and Printing:
 1. Comply with ANSI Z535.1 through ANSI Z535.5.
 2. Inscriptions for Red-Colored Tapes: ELECTRIC LINE, HIGH VOLTAGE,.
 3. Inscriptions for Orange-Colored Tapes: TELEPHONE CABLE, CATV CABLE, COMMUNICATIONS CABLE, OPTICAL FIBER CABLE, FIRE ALARM.
- C. Material:
 1. Detectable three-layer laminate, consisting of a printed pigmented polyolefin film, a solid aluminum-foil core, and a clear protective film that allows inspection of the continuity of the conductive core, bright-colored, continuous-printed on one side with the inscription of the utility, compounded for direct-burial service.
 2. Overall Thickness: 5 mils.
 3. Foil Core Thickness: 0.35 mil.

4. Weight: 28 lb/1000 sq. ft..
5. 3-Inch Tensile According to ASTM D 882: 70 lbf, and 4600 psi.

2.6 WARNING LABELS AND SIGNS

- A. Comply with New York City Electrical Code and 29 CFR 1910.145.
- B. Self-Adhesive Warning Labels: Factory-printed, multicolor, pressure-sensitive adhesive labels, configured for display on front cover, door, or other access to equipment unless otherwise indicated.
- C. Baked-Enamel Warning Signs:
 1. Preprinted aluminum signs, punched or drilled for fasteners, with colors, legend, and size required for application.
 2. 1/4-inch grommets in comers for mounting.
 3. Nominal size, 7 inches x 10 inches.
- D. Metal-Backed, Butyrate Warning Signs:
 1. Weather-resistant, non-fading, preprinted, cellulose-acetate butyrate signs with 0.0396-inch galvanized-steel backing; and with colors, legend, and size required for application.
 2. 1/4-inch grommets in comers for mounting.
 3. Nominal size, 10 inches x 14 inches.
- E. Warning label and sign shall include, but are not limited to, the following legends:
 1. Multiple Power Source Warning: "DANGER- ELECTRICAL SHOCK HAZARD-EQUIPMENT HAS MULTIPLE POWER SOURCES."
 2. Workspace Clearance Warning: "WARNING- OSHA REGULATION- AREA IN FRONT OF ELECTRICAL EQUIPMENT MUST BE KEPT CLEAR FOR 36 INCHES."

2.7 INSTRUCTION SIGNS

- A. Engraved, laminated acrylic or melamine plastic, minimum 1/16 inch thick for signs up to 20 sq. inches and 1/8 inch thick for larger sizes.
 1. Engraved legend with black letters on white face.
 2. Punched or drilled for mechanical fasteners.
 3. Framed with mitered acrylic molding and arranged for attachment at applicable equipment.
- B. Adhesive Film Label: Machine printed, in black, by thermal transfer or equivalent process. Minimum letter height shall be 3/8 inch.
- C. Adhesive Film Label with Clear Protective Overlay: Machine printed, in black, by thermal transfer or equivalent process. Minimum letter height shall be 3/8 inch. Overlay shall provide a weatherproof and UV-resistant seal for label.

2.8 EQUIPMENT IDENTIFICATION LABELS

- A. Adhesive Film Label: Machine printed, in black, by thermal transfer or equivalent process. Minimum letter height shall be 3/8 inch.
- B. Adhesive Film Label with Clear Protective Overlay: Machine printed, in black, by thermal transfer or equivalent process. Minimum letter height shall be 3/8-inch. Overlay shall provide a weatherproof and UV-resistant seal for label.
- C. Self-Adhesive, Engraved, Laminated Acrylic or Melamine Label: Adhesive backed, with white letters on a dark-gray background. Minimum letter height shall be 3/8 inch.
- D. Engraved, Laminated Acrylic or Melamine Label: Punched or drilled for screw mounting. White

letters on a dark-gray background. Minimum letter height shall be 3/8 inch.

- E. Stenciled Legend: In non-fading, waterproof, black ink or paint. Minimum letter height shall be 1 inch.

2.9 CABLE TIES

- A. General-Purpose Cable Ties: Fungus inert, self-extinguishing, one piece, self-locking, Type 6/6 nylon.

1. Minimum Width: 3/16 inch.
2. Tensile Strength at 73 deg F, According to ASTM D 638: 12,000 psi.
3. Temperature Range: Minus 40 to plus 185 deg F.
4. Color: Black except where used for color-coding.

- B. UV-Stabilized Cable Ties: Fungus inert, designed for continuous exposure to exterior sunlight, self-extinguishing, one-piece, self-locking, Type 6/6 nylon.

1. Minimum Width: 3/16 inch.
2. Tensile Strength at 73 ° F, According to ASTM D 638: 12,000 psi.
3. Temperature Range: Minus 40 to plus 185 ° F.
4. Color: Black.

2.10 MISCELLANEOUS IDENTIFICATION PRODUCTS

- A. Paint: Select paint system applicable for surface material and location (exterior or interior).
- B. Fasteners for Labels and Signs: Self-tapping, stainless-steel screws or stainless-steel machine screws with nuts and flat and lock washers.

PART 3 EXECUTION

3.1 INSTALLATION

- A. Verify identity of each item before installing identification products.
- B. Location: Install identification materials and devices at locations for most convenient viewing without interference with operation and maintenance of equipment.
- C. Apply identification devices to surfaces that require finish after completing finish work.
- D. Self-Adhesive Identification Products: Clean surfaces before application, using materials and methods recommended by manufacturer of identification device.
- E. System Identification Color-Coding Bands for Raceways and Cables: Each color-coding band shall completely encircle cable or conduit. Place adjacent bands of two-color markings in contact, side by side. Locate bands at changes in direction, at penetrations of walls and floors, at 50-foot maximum intervals in straight runs, and at 25-foot maximum intervals in congested areas.
- F. Aluminum Wraparound Marker Labels and Metal Tags: Secure tight to surface of conductor or cable at a location with high visibility and accessibility.
- G. Cable Ties: For attaching tags. Use general-purpose type, except as listed below:
 1. Outdoors: UV-stabilized nylon.
- H. Underground-Line Warning Tape: During backfilling of trenches install continuous underground-line warning tape directly above line at 6 to 8 inches below finished grade. Use multiple tapes where width of multiple lines installed in a common trench or concrete envelope exceeds 16 inches overall.

- I. Painted Identification: Comply with requirements in Division 09 painting Sections for surface preparation and paint application.

3.2 IDENTIFICATION SCHEDULE

- A. Accessible Raceways and Metal-Clad Cables, 600 V or Less, for Service, Feeder, and Branch Circuits More Than 50 A, and 120 V to ground: Identify with self-adhesive vinyl tape applied in bands. Install labels at 30-foot maximum intervals.
- B. Power-Circuit Conductor Identification, 600 V or Less: For conductors in vaults, pull and junction boxes, manholes, and handholes, use color-coding conductor tape to identify the phase.
 1. Color-Coding for Phase and Voltage Level Identification, 600 V or Less: Use colors listed below for ungrounded service feeder and branch-circuit conductors.
 - a. Color shall be factory applied or field applied for sizes larger than No. 8 AWG, if authorities having jurisdiction permit.
 - b. Colors for 208/120-V Circuits:
 - 1). Phase A: Black.
 - 2). Phase B: Red.
 - 3). Phase C: Blue.
 2. Field-Applied, Color-Coding Conductor Tape: Apply in half-lapped turns for a minimum distance of 6 inches from terminal points and in boxes where splices or taps are made. Apply last two turns of tape with no tension to prevent possible unwinding. Locate bands to avoid obscuring factory cable markings.
- C. Install instructional sign including the color-code for grounded and ungrounded conductors using adhesive-film-type labels.
- D. Conductors to be extended in the Future: Attach marker tape to conductors and list source.
- E. Auxiliary Electrical Systems Conductor Identification: Identify field-installed alarm, control, and signal connections.
 1. Identify conductors, cables, and terminals in enclosures and at junctions, terminals, and pull points. Identify by system and circuit designation.
 2. Use system of marker tape designations that is uniform and consistent with system used by manufacturer for factory-installed connections.
 3. Coordinate identification with Project Drawings, manufacturer's wiring diagrams, and the Operation and Maintenance Manual.
- F. Locations of Underground Lines: Identify with underground-line warning tape for power, lighting, communication, and control wiring and optical fiber cable.
 1. Install underground-line warning tape for both direct-buried cables and cables in raceway.
- G. Workspace Indication: Install floor marking tape to show working clearances in the direction of access to live parts. Workspace shall be as required by New York City Electrical Code and 29 CFR 1926.403 unless otherwise indicated.
- H. Warning Labels for Cabinets, Boxes, and Enclosures for Power and Lighting: Self-adhesive warning labels.
 1. Comply with 29 CFR 1910.145.
 2. Identify system voltage with black letters on an orange background.
 3. Apply to exterior of door, cover, or other access.
 4. For equipment with multiple power or control sources, apply to door or cover of equipment including, but not limited to, the following:
 - a. Disconnect switches.
 - b. Controls with external control power connections.

- I. Operating Instruction Signs: Install instruction signs to facilitate proper operation and maintenance of electrical systems and items to which they connect. Install instruction signs with approved legend where instructions are needed for system or equipment operation.
- J. Equipment Identification Labels: On each unit of equipment, install unique designation label that is consistent with wiring diagrams, schedules, and the Operation and Maintenance Manual. Apply labels to disconnect switches and protection equipment, central or master units, control panels, control stations, terminal cabinets, and racks of each system. Systems include power, lighting, control, communication, signal, monitoring, and alarm systems unless equipment is provided with its own identification.
 1. Labeling Instructions:
 - a. Indoor Equipment: Self-adhesive, engraved, laminated acrylic or melamine label. Unless otherwise indicated, provide a single line of text with 1/2-inch- high letters on 1-1/2-inch- high label; where two lines of text are required, use labels 2 inches high.
 - b. Outdoor Equipment: Engraved, laminated acrylic or melamine label.
 - c. Elevated Components: Increase sizes of labels and letters to those appropriate for viewing from the floor.
 - d. Unless provided with self-adhesive means of attachment, fasten labels with appropriate mechanical fasteners that do not change the NEMA or NRTL rating of the enclosure.
 2. Equipment to Be Labeled:
 - a. Panelboards: Typewritten directory of circuits in the location provided by panelboard manufacturer. Panelboard identification shall be self-adhesive, engraved, laminated acrylic or melamine label.
 - b. Enclosures and electrical cabinets.
 - c. Access doors and panels for concealed electrical items.
 - d. Enclosed switches.
 - e. Enclosed circuit breakers.
 - f. Enclosed controllers.
 - g. Contactors.

PART 4 MEASUREMENT AND PAYMENT

- 4.1 NO SEPARATE PAYMENT WILL BE MADE FOR WORK UNDER THIS SECTION. THE COST OF ALL WORK UNDER THIS SECTION SHALL BE DEEMED TO BE INCLUDED IN THE COST OF OTHER ELECTRICAL WORK ASSOCIATED WITH THIS PROJECT.

SECTION E 262726

WIRING DEVICES

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Power Receptacles and associated hardware.

1.2 ACTION SUBMITTALS

- A. Product Data: For each type of product.
- B. Shop Drawings: List of legends and description of materials and process used for premarking wall plates.

1.3 INFORMATIONAL SUBMITTALS

- A. Field quality-control reports.

1.4 CLOSEOUT SUBMITTALS

- A. Operation and maintenance data.

1.5 REFERENCES

- A. References are made in this Section by abbreviations in accordance with the following list:
 - a. National Electrical Contractors Association (NECA)
 - b. National Electrical Manufacturers Association (NEMA)
 - c. National Fire Protection Association (NFPA)
 - d. Underwriters Laboratories, Inc. (UL)

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Manufacturers' Names:
 - 1. Meltric
 - 2. Russellstol
 - 3. Appleton/OZ-Gedney
 - 4. Or an approved equivalent manufacturer.
- B. Source Limitations: Obtain each type of wiring device and associated wall plate from single source from single manufacturer.

2.2 GENERAL WIRING-DEVICE REQUIREMENTS

- A. Wiring Devices, Components, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.
- B. Comply with NFPA 70.
- C. Devices that are manufactured for use with modular plug-in connectors may be substituted under the following conditions:
 - 1. Connectors shall comply with UL 2459 and shall be made with stranding building wire.

2. Devices shall comply with the requirements in this Section.

2.3 RECEPTACLES

A. General Description:

1. NEMA 4X Watertight circuit-interrupting type power receptacle, rated 208VAC, 4 Pole, 4 Wire, 200 Amps with junction box and 30 degree angle adapter for wall mounting, with padlockable cap and matching inlet complete with handle and 50 foot power cord with matching plug and bare copper pigtails on opposite end.

PART 3 EXECUTION

3.1 INSTALLATION

- #### A. Comply with NECA 1, including mounting heights listed in that standard, unless otherwise indicated.

B. Coordination with Other Trades:

1. Protect installed devices and their boxes. Do not place wall finish materials over device boxes and do not cut holes for boxes with routers that are guided by riding against outside of boxes.
2. Keep outlet boxes free of plaster, drywall joint compound, mortar, cement, concrete, dust, paint, and other material that may contaminate the raceway system, conductors, and cables.
3. Install device boxes in brick or block walls so that the cover plate does not cross a joint unless the joint is troweled flush with the face of the wall.
4. Install wiring devices after all wall preparation, including painting, is complete.

C. Conductors:

1. Do not strip insulation from conductors until right before they are spliced or terminated on devices.
2. Strip insulation evenly around the conductor using tools designed for the purpose. Avoid scoring or nicking of solid wire or cutting strands from stranded wire.
3. The length of free conductors at outlets for devices shall meet provisions of NFPA 70, Article 300, without pigtails.

D. Device Installation:

1. Keep each wiring device in its package or otherwise protected until it is time to connect conductors.
2. Do not remove surface protection, such as plastic film and smudge covers, until the last possible moment.
3. Connect devices to branch circuits using pigtails that are not less than 6 inches in length.
4. When there is a choice, use side wiring with binding-head screw terminals. Wrap solid conductor tightly clockwise, two-thirds to three-fourths of the way around terminal screw.
5. Use a torque screwdriver when a torque is recommended or required by manufacturer.
6. When conductors larger than No. 12 AWG are installed on 15- or 20-A circuits, splice No. 12 AWG pigtails for device connections.
7. Tighten unused terminal screws on the device.
8. When mounting into metal boxes, remove the fiber or plastic washers used to hold device-mounting screws in yokes, allowing metal-to-metal contact.

E. Receptacle Orientation:

1. Install ground pin of vertically mounted receptacles down, and on horizontally mounted receptacles to the right.

F. Device Plates: Do not use oversized or extra-deep plates. Repair wall finishes and remount

outlet boxes when standard device plates do not fit flush or do not cover rough wall opening.

- G. Adjust locations of service poles as maybe required.

3.2 FIELD QUALITY CONTROL

- A. Perform the following tests and inspections:

1. Test Instruments: Use instruments that comply with UL 1436.
2. Test Instrument for Receptacles: Digital wiring analyzer with digital readout or illuminated digital-display indicators of measurement.

- B. Tests for Receptacles:

1. Line Voltage: Acceptable range is 208V to 220V.
2. Ground Impedance: Values of up to 2 ohms are acceptable.
3. Using the test plug, verify that the device and its outlet box are securely mounted.
4. Tests shall be diagnostic, indicating damaged conductors, high resistance at the circuit breaker, poor connections, inadequate fault current path, defective devices, or similar problems. Correct circuit conditions, remove malfunctioning units and replace with new ones, and retest as specified above.

- C. Wiring device will be considered defective if it does not pass tests and inspections.

- D. Prepare test and inspection reports.

PART 4 MEASUREMENT AND PAYMENT

4.1 MEASUREMENT

- A. The quantity of Power Receptacles to be paid for under ITEM No. E 262726 A shall be the actual number of Receptacles, installed to complete the work, to the satisfaction of the Engineer.

4.2 PRICE TO COVER

- A. The unit price bid per Power Receptacle, under ITEM No. E 262726 A, shall cover the cost of furnishing all labor, materials, equipment, insurance, and incidentals to complete the work including, but not limited to, furnishing and placing the Power Receptacle, associated hardware, back boxes, caps, testing, and coordination, all in accordance with the Contract Drawings, the specifications, and the directions of the Engineer.

Payment will be made under:

Item No.	Item	Pay Unit
E 262726 AA	POWER RECEPTACLE (NEMA 4X)	EACH

SECTION E 263213
ENGINE GENERATORS

PART 1 GENERAL

1.1 SUMMARY

- A. This Section includes packaged engine-generator sets for emergency power supply with the following features:
 - 1. Trailer mounted unit
 - 2. Diesel engine
 - 3. Unit-mounted cooling system
 - 4. Unit-mounted control and monitoring

1.2 SUBMITTALS

- A. Submit for each type of packaged engine generator unit
 - 1. Product specifications
 - 2. Warranty description
 - 3. Operation and maintenance data

1.3 QUALITY CONTROL

- A. Manufacturer Qualifications: A qualified manufacturer capable of providing training, parts, and emergency maintenance repairs.
- B. Electrical Components, Devices, and Accessories: Listed and labeled as defined in National Fire Protection Association (NFPA) 70, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.
- C. Comply with the following, as applicable:
 - 1. American Society of Mechanical Engineers (ASME) B15.1
 - 2. NFPA 37
 - 3. NFPA 70
 - 4. NFPA 110
 - 5. Underwriters Laboratories, Inc. (UL) 2200
 - 6. State and local government requirements for engine exhaust emissions

1.4 PROJECT CONDITIONS

1.5 WARRANTY

- A. Manufacturer's written warranty to repair or replace components of packaged engine generators and associated auxiliary components that fail in materials or workmanship within one (1) year from date of furnishment.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - 1. Caterpillar; Engine Div.
 - 2. Generac Power Systems, Inc.
 - 3. Kohler Co.; Generator Division.
 - 4. Onan/Cummins Power Generation; Industrial Business Group.

2.2 ENGINE-GENERATOR SET

A. General Requirements

1. Engine Fuel: #2 Diesel
2. Engine Fuel System:
 - a. Main Fuel Pump: Mounted on engine, ensuring adequate primary fuel flow under starting and load conditions.
 - b. Relief-Bypass Valve: Automatically regulates pressure in fuel line and returns excess fuel to source.
3. Fuel Oil Tank:
 - a. Base-mounted, factory installed and piped
 - b. Tank level sensor
 - c. Vandal-resistant fill cap
 - d. Containment shall comply with requirements of authorities having jurisdiction
4. Air-Intake Filter: Heavy-duty, engine-mounted air cleaner with replaceable dry-filter element and "blocked filter" indicator.
5. Starting System: 12-V electric, with negative ground.
6. Battery-Charging Alternator: Factory mounted on engine with solid-state voltage regulation.
7. Environmental Conditions: Engine-generator system shall withstand the following environmental conditions without mechanical or electrical damage or degradation of performance capability: Ambient Temperature of minus 15 degrees C to plus 45 degrees C.
8. Control and Monitoring
 - a. Starting System: Unit shall be capable of either manual or automatic starting modes, selected by a switch on the control and monitoring panel. In the automatic position, remote control contacts initiates starting and stopping of generator set. When switched to the on position, the generator set starts. The off position of same switch initiates generator-set shutdown.
 - b. Configuration: System controls and indicators shall be grouped in a common control and monitoring panel mounted on the generator set.
 - c. Controller
 - 1). Microprocessor controller with emergency stop switch
 - 2). LCD Display Panel
 - 3). User buttons for start, stop, and menu scroll and selection
 - 4). Emergency stop button
 - 5). On/off key switch
 - 6). Indication for status
 - 7). Panel lights
 - 8). Viewable/Selectable Parameters
 - a). Mode of operation
 - b). Battery voltage
 - c). Frequency
 - d). Time delay countdown
 - e). Hourmeter
 - f). Engine speed
 - g). Fuel level (%)
 - h). Coolant temperature
 - i). Oil pressure
 - j). Voltage: phase, phase-to-neutral, total voltage
 - k). Current
 - d. Viewable Faults
 - a). Overspeed
 - b). Overcrank
 - c). Low fuel level
 - d). Coolant temperature
 - e). Oil pressure
 - f). Battery charger
 - g). Frequency meter, ammeter, voltmeter

- e. Emergency stop
- 9. Generator Set Housing: Steel, either galvanized or UV-resistant, high temperature cured, polyester powder paint with lockable doors
- 10. Isolators: Rubber vibration dampers to isolate engine/generator from frame
- 11. Emergency Stop Switch: Externally mounted
- 12. Electrical:
 - a. Voltage Options with selector switch
 - 1). 120/208 V 3 phase, and
 - 2). 120/240 V 1 phase
 - b. Alternator: 12-volt battery charging
 - c. Battery: 12V battery with battery rack, cables, and disconnect switch
- 13. Fuel Filter: With water separator
- 14. Exhaust Emissions: Certified by Environmental Protection Agency (EPA) to conform to interim Tier 4 non-road emissions regulations.
- 15. Noise Level: 70 dB(A) maximum at 23 feet while operating under full load
- 16. Fluid Containment: 110% environmental containment basin for fuel, oil, and coolant.
- 17. Trailer:
 - a. Coupler: for 2 5/16 inch ball hitch
 - b. Running lights: DOT compliant with 7-wire harness and connector
 - c. Brakes: Electric or hydraulic surge brake system with breakaway actuation
 - d. Accessories: Spare tire, mounted on trailer

B. 40 KW Engine-Generator Set Requirements

1. Power Output Ratings:

Voltage	Ph	Hz	Standby kW/kVA	Rating Amps	Prime kW/kVA	Rating Amps
120/208	3	60	38/48	132	35/44	121
120/240	1	60	36/36	150	33/33	138

2. Engine

- a. Type: 4-cycle
- b. Displacement: 3.3 Liters (203 cubic inches) minimum
- c. Rated Engine Speed: 1,800 revolutions per minute (rpm)
- d. Maximum power at rated engine speed: 59 brake horsepower (BHP)

C. 60 KW Engine-Generator Set Requirements

1. Power Output Ratings:

Voltage	Ph	Hz	Standby kW/kVA	Rating Amps	Prime kW/kVA	Rating Amps
120/208	3	60	64/80	222	57/71	198
120/240	1	60	50/50	208	45/45	188

2. Engine

- a. Type: 4-cycle
- b. Displacement: 3.3 Liters (203 cubic inches) minimum
- c. Rated Engine Speed: 1,800 revolutions per minute (rpm)
- d. Maximum power at rated engine speed: 59 brake horsepower (BHP)

PART 3 EXECUTION

3.1 INSTALLATION

- A. Comply with packaged engine-generator manufacturers' written installation and alignment instructions.

3.2 DEMONSTRATION

- A. Engage a factory-authorized service representative to train Owner's maintenance personnel to adjust, operate, and maintain packaged engine generators.

PART 4 MEASUREMENT AND PAYMENT

- A. The quantity to be measured for payment shall be the number of EACH type of Engine Generator actually installed to complete the work, to the satisfaction of the Engineer.
- B. The price bid shall be a unit price for EACH type of Engine Generator and shall include the cost of all labor, materials, equipment, insurance, and any incidental expenses necessary in accordance with the Contract Drawings, specifications, and directions of the Engineer.

Payment will be made under:

Item No.	Item	Pay Unit
E 263213 A	ENGINE GENERATOR, 40 KW	EACH
E 263213 B	ENGINE GENERATOR, 60 KW	EACH

SECTION E 263353

STATIC UNINTERRUPTIBLE POWER SUPPLY

PART 1 GENERAL

1.1 SUMMARY

A. Section Includes:

1. Three-phase, on-line, double-conversion, static-type, UPS units with the following features:
 - a. Surge suppression.
 - b. Rectifier-charger.
 - c. Inverter.
 - d. Static bypass transfer switch.
 - e. Battery and battery disconnect device.
 - f. Battery monitoring.

1.2 REFERENCES

A. References are made in this Section by abbreviations in accordance with the following list:

- a. InterNational Electrical Testing Association (NETA)
- b. National Fire Protection Association (NFPA)
- c. Nationally Recognized Testing Laboratory (NRTL)
- d. Underwriters Laboratories, Inc. (UL)

1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product indicated. Include data on features, components, ratings, and performance.
- B. Shop Drawings: Detail equipment assemblies and indicate dimensions, weights, components, and location and identification of each field connection. Show access, workspace, and clearance requirements; details of control panels; and battery arrangement. Include wiring diagrams.

1.4 INFORMATIONAL SUBMITTALS

- A. Factory Test Reports: Comply with specified requirements.
- B. Field quality-control reports.
- C. Warranties.

1.5 CLOSEOUT SUBMITTALS

- A. Operation and maintenance data.

1.6 QUALITY ASSURANCE

- A. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.
- B. UL Compliance: Listed and labeled under UL 1778 by an NRTL.
- C. NFPA Compliance: Mark UPS components as suitable for installation in computer rooms according to NFPA 75.

1.7 WARRANTY

- A. Special Battery Warranties: Specified form in which manufacturer and Installer agree to repair or replace UPS system storage batteries that fail in materials or workmanship within specified warranty period. Warranty period for batteries shall be minimum of 2 years.
- B. Special UPS Warranties: Specified form in which manufacturer and Installer agree to repair or replace components that fail in materials or workmanship within special warranty period.
 - 1. Special Warranty Period: Three years from date of Substantial Completion.

PART 2 PRODUCTS

2.1 GENERAL

- A. Manufacturer shall include, but not be limited to, the following:
 - 1. EATON Corporation
 - 2. Liebert Corporation; a division of Emerson
 - 3. APC by Schneider Electric

2.2 UNINTERRUPTIBLE POWER SUPPLY

- A. Converter (rectifier): Incoming power shall be filtered and converted to DC by a sine-wave rectifier. The DC power will then be processed by a high-frequency converter to supply power to the inverter. The converter corrects the input power factor to 0.99 and draws sinusoidal current (with less than 5% Total Harmonic Distortion (THD)) from the utility. In the event of utility failure, the converter shall be supplied power without interruption from the internal of external batteries.
 - 1. Overload Capacity: The converter shall be capable of supplying up to 150% of rated load for at least five (5) seconds if no bypass is available.
- B. Inverter: The inverter converts the DC power to regulated AC power for critical loads.
 - 1. Output Voltage: The inverter output voltage is specified in Article 2.3 of this Section.
 - 2. Voltage Regulation: The inverter steady state voltage regulation is +/- 1% phase to neutral, 2% phase to phase. Dynamic regulation meets Class 1 performance of IEC62040-3.
 - 3. Frequency Control: The inverter steady state frequency regulation is +/-0.005 Hz, free running in steady state. UPS is synchronized to mains in normal operation.
- C. Batteries: The batteries shall be sealed, lead acid, maintenance-free, high-rate discharge cells. They will be kept fully charged by the battery charger and have a three-year float service life at 25° C.
- D. Battery Charger: The battery charger is responsible for charging the battery and maintaining full battery charge when AC is applied to the UPS.
- E. Automatic Bypass (static bypass): The UPS shall provide an alternate path to the commercial AC or generator source in the event of an overload, load fault or internal UPS failure. The input must match the output in voltage, frequency, and grounding in order to properly utilize this feature.
- F. User Interface Panel: The UPS shall provide a user-friendly interface panel, which allows the user to: change operating modes, set system parameters, check alarm logs, etc. This LCD display should have backlight and languages consisting of English and a number of optional local languages.
- G. Serial (RS-232) Communication Interface: A 9-pin sub-D connector shall provide capability for communicating with manufacturer-supplied power management software package. The UPS shall also provide signals for indication of UPS general alarms.

- H. (2) Communication Card Slots: The UPS shall provide (2) communication card slots in the front of the UPS allowing for additional connectivity options, including SNMP/Web, AS400 relays, and Modus/Jbus capabilities, etc.
- I. Remote Emergency Power Off (REPO) connection: The UPS shall provide a built-in landing for field connection of a Remote Emergency Power Off circuit. Upon initiation of the REPO circuit, the output will be de-energized and battery will be disconnected, preventing power from being delivered to the attached loads.
- J. Disable Bypass Operation Connection: If active, the automatic transfer to the static bypass is prevented. Synchronization to bypass is not carried out (default).
- K. ABM Resting Connection: If active, the batteries are disconnected from the UPS unit. The discharge of batteries is not prevented but charging will not commence.
- L. Remote ON/OFF Connection: If active, the UPS output turns off regardless of mode of operation. Auxiliary power, communications and rectifier/battery charger shall remain functional.
- M. External Bypass Connection: If active, the UPS is forced to static bypass operation regardless of the bypass status.
- N. External Battery Breaker Status: If active, the UPS detects that the batteries are connected.
- O. Remote Go To Bypass Connection: If active, the UPS transfers to bypass only if bypass voltage, frequency and synchronization are adequate.
- P. Remote Go To Normal Connection: If active, the UPS transfers to inverter. Operation is not prohibited by EPO or alarm condition.
- Q. External Matching Battery Cabinets: 64 and 96 block (7 Ah 12 V) matching battery cabinets to provide extended runtime requirements indicated on the Contract drawings.
- R. Maintenance Bypass Module: Make Before Break Bypass Module which can be operated to bypass the UPS for maintenance or service, without interrupting the critical load.
- S. Power Distribution Module provided with minimum of 4 receptacles. Output circuit breakers provided where required by Contract drawings.

2.3 SYSTEM RATINGS AND OPERATING CHARACTERISTICS

- A. System Input
 - 1. Input Voltage Operation Range
 - a. Nominal 120/208, or 127/220 VAC
 - b. Nominal 480 or 600 VAC available with optional input transformer in matching enclosure
 - c. +15% to -35% from nominal
 - 2. Input Frequency
 - a. 45 to 65 Hz
 - b. auto-sensing
 - c. capable of 50 to 60 Hz or 60 to 50 Hz frequency conversion
 - 3. Input Power Factor is 0.99
 - 4. Input Current Distortion: 5% THD maximum at full rated linear load
 - 5. Inrush Current:
 - a. <2x branch rating without input transformer
 - b. <5x branch rating with input transformer
 - 6. Surge Protection:
 - a. Line to Line 180J
 - b. Line to Ground 450J
- B. System Output, Normal Mode

1. Nominal Output Voltage: 208/120, or 220/127; Selectable through front panel or through serial port connection with power management software.
 2. Voltage regulation: +/-2% of selected output voltage in steady state
 3. Transient Voltage Response: Meets Class 1 performance of IEC62040-3
 4. Voltage THD:
 - a. 2% Total Harmonic Distortion (THD) maximum phase to neutral into a maximum rated linear load (5% phase to phase)
 - b. 5% THD maximum phase to neutral into a maximum rated non-linear load (7% phase to phase)
 5. Nominal Frequency: 50 or 60 Hz selectable
 6. Frequency Regulation:
 - a. 50/60 Hz +/- 0.5 to +/- 3.0 Hz selectable, synchronized to mains, +/- 0.005 Hz free running single units
 - b. +/- 0.15 Hz parallel units
 - c. Slew rate selectable to 1.0, 2.0, 3.0 Hz/s for single units, < 0.5 Hz/s parallel units; Generator Mode (6 / 7.5 Hz/s) for single units selectable through software parameters that can be configured via LCD and service PC interface
 7. Output Current: Maximum output current (at nominal output voltage) for the UPS shall be:
 - a. 10 kVA system: 28 A @ 208 V, 27 A @ 220 V
 - b. 15 kVA system: 42 A @ 208 V, 40 A @ 220 V
 8. Current Overload Capability without Bypass:
 - a. 150% for 5 seconds
 - b. 220% for 300 ms
 9. Bypass:
 - a. Automatic bypass shall provide an alternate path to power in the case of overload, inverter failure or other UPS failure
 - b. External Maintenance Bypass can be utilized with the UPS to allow servicing of the UPS
 - c. Transfer time to and from any internal bypass shall be no-break
 10. Efficiency:
 - a. Typical of >91% while in normal mode
- C. System Output, Battery Mode:
1. Nominal Output Voltage: This shall be the user selected output voltage
 2. Voltage Regulation: +/-1% phase to neutral of selected nominal voltage (+/-2% phase to phase)
 3. Transient Voltage Response
 - a. Meets Class 1 performance of IEC62040-3
 4. Voltage THD:
 - a. 2% Total Harmonic Distortion (THD) maximum into a maximum rated linear load
 - b. 5% THD maximum phase to neutral into a maximum rated non-linear load (7% phase to phase)
 5. Frequency Regulation: +/-0.005 Hz of selected nominal frequency
 6. Overload Capacity:
 - a. 150% for 5 seconds
 - b. 220% for 300 ms
- D. Mechanical Construction:
1. All materials and components of the UPS shall be new, of current manufacture, and shall not have been in prior service except as required during factory testing. The UPS shall be constructed of replaceable subassemblies. All active electronic devices shall be solid-state.
 2. The UPS unit comprised of input rectifier, battery charger, inverter, bypass, and battery consisting of the appropriate number of sealed battery modules, shall be housed in a single freestanding enclosure. The UPS cabinet shall be cleaned, primed, and painted with the manufacturer's standard color. Casters and leveling feet shall be provided as standard.
 3. Matching external battery cabinets shall be available in different sizes.
 4. Dimensions of standard UPS and external battery cabinets shall not exceed space limitations shown on the Contract drawings.

2.4 BATTERY

- A. Battery Type: Valve Regulated Lead Acid (VRLA), minimum three-year float service life at 25 degrees C.
- B. UPS Holdover Time (Runtime): Each UPS system, consisting of a minimum of two battery strings (32 battery blocks) for each power module shall have a minimum holdover time of 4.6 minutes, depending on kVA rating.
- C. Extended Holdover Time (Runtime): Each UPS system shall have capability for addition of extra matching battery cabinets (in two cabinet sizes) to increase the total holdover time. Minimum required runtimes shall be as indicated on the Contract drawings.
- D. Battery Recharge Time:
 - 1. Base UPS system consisting of two (2) battery strings will have a recharge time of max. 1.45 hours to 95% usable capacity @ nominal line after a full load discharge (15 kVA).
- E. Bus Voltage: Nominal bus voltage is 192 VDC. This consists of 16 battery blocks in series with 9 Ah capacity.
- F. Battery Protection:
 - 1. Short Circuit Protection: Over-current protection shall protect the batteries from all short circuit fault conditions
 - 2. Battery Module Protection: Internal battery string circuit breaker shall be provided
 - 3. Under-voltage Protection:
 - a. Inverter cutoff voltage: Battery operation shall be terminated when the battery voltage drops to the 1.7 VPC set point
 - b. Protective shutdown voltage: Inverter shall shutdown after 1 min when the battery voltage drops below 1.7 VPC volts-per-cell typical
 - 4. Over-voltage Protection: If the UPS system's battery bus voltage exceeds the predetermined set point then the UPS will disable charger and alarm a high battery condition.
- G. Advanced Battery Management:
 - 1. Battery recharge: After recharging batteries to full capacity, the charger will enter the rest mode to increase the battery lifetime according the ABM cycle. Hence, continuous float charging of the battery shall not be allowed. The active battery charger states are constant-current (charge mode), constant-voltage (float mode) and no-charge (rest mode).
 - 2. Battery Runtime Monitoring: UPS shall monitor batteries and provide status to end user of battery runtime via front panel, serial communications, or both. Runtime calculations to be based on load demand and analysis of battery health.
 - 3. Battery Health Monitoring: UPS shall periodically test and monitor battery health and provide warnings visually, audibly and/or serially when battery capacity falls below 80% of original capacity. Battery testing may also be user initiated via front panel or serial communications.

2.5 SYSTEM INPUT & OUTPUT CONNECTIONS

- A. AC Input:
 - 1. All UPS units shall be capable of utilizing hardwired input.
- B. AC Output:
 - 1. All UPS units shall be capable of utilizing hardwired output and/or optional Power Distribution Units with up to 4 receptacles. Output circuit breakers shall be provided where shown on the Contract drawings.
- C. Extended Battery Connector: External battery cabinets include cable to connect each battery

cabinet to the UPS or daisy chain external battery cabinets.

- D. Remote Emergency Power Off (REPO) Connection: The UPS shall provide a built-in landing for field connection of a Remote Emergency Power Off circuit. Upon initiation of the REPO circuit, the UPS shall open its input relays, and disengage the battery converter, preventing power from being delivered to the attached loads.
- E. Serial (RS-232) Communication Interface: A 9-pin sub-D connector shall provide capability for communicating with manufacture-supplied software package. The UPS shall also provide signals for indication of UPS alarm status.
- F. (2) Communication Card Slots: The UPS shall provide (2) communication X-slots in the back of the UPS allowing for additional connectivity options, including SNMP/Web, AS/400 relays, Modbus/Jbus capabilities, etc.
- G. (2) Programmable Input Connections: The UPS shall provide built-in inputs for field connection (environmental input). The inputs shall be parameter programmable to suit the needs of the application.

2.6 USER INTERFACE

- A. Front Panel Display: The UPS shall include a front panel display consisting of a graphical LCD display with backlight, four status LED's, and a four-key keypad.
 - 1. Graphical LCD display: Includes basic language (English and local selectable language), display of unit function and operating parameters. It shall be used to signify the operating state of the UPS, for indicating alarms, for changing operations control parameters and set points.
 - 2. Four status LED's, which indicate:
 - a. Alarms, with a red LED
 - b. On Battery, with a yellow LED
 - c. On Bypass, with a yellow LED
 - d. Power On, with a green LED
 - 3. Four-Key Multifunction Keypad: UPS shall have keypad to allow user to adjust UPS parameters, view alarm and inverter logs, change UPS operational modes, and turn the UPS on and off.
- B. Power Management Software Package: The UPS shall include serial communications interface that provides the following communication capabilities:
 - 1. Monitor and graphically display input and output voltage and other operating characteristics
 - 2. Notify end-users in the event of a power anomaly via network, E-mail or page
- C. Communication Ports:
 - 1. (2) Communication Card Slots: The UPS shall provide (2) communication X-slots in the back of the UPS allowing for additional connectivity options, including SNMP/Web, AS/400 relays, Modbus/Jbus capabilities, etc
 - 2. Serial communications (via RS-232) with manufacturer-supplied power management software package

2.7 ENVIRONMENTAL CONDITIONS

- A. The UPS shall be certified to the following safety standards:
 - 1. EN 62040-1-1, IEC 62040-1-1, EN 60950
- B. The UPS shall meet CISPR: International Special
- C. Committee on Radio Interference CISPR 22 Class A (EN50091-2) for Emissions and EN50091-2

(IEC6100032 for 16 amps or less) for Harmonics

- D. Audible Noise: Less than 57 dBA (A weighted) at one (1) meter from all sides in all system modes
- E. Ambient Temperature
 - 1. Operating: UPS 0 deg C to +40 deg C
 - 2. Storage: UPS 0 deg C to +25 deg C
- F. Relative Humidity
 - 1. Operating: 5 to 95% non-condensing.
 - 2. Storage: 5 to 95% non-condensing.
- G. Altitude
 - 1. Operating: To 3000 meters--de-rating or reducing operating temperature range may be required for higher altitudes
 - 2. Transit: To 10,000 meters
- H. Electrostatic Discharge: The UPS shall be able to withstand a minimum 8 kV without damage and without affecting the critical load

PART 3 EXECUTION

3.1 INSTALLATION

- A. Equipment Mounting: Install UPS floor mounted under counter shelf as shown on the Contract drawings.
- B. Maintain minimum clearances and workspace at equipment according to manufacturer's written instructions and NFPA 70.
- C. Connections: Interconnect system components. Make connections to supply and load circuits according to manufacturer's wiring diagrams unless otherwise indicated.
- D. Grounding: Comply with NFPA 70 requirements for grounding connections.
- E. Identify components and wiring according to Section E260553 "Identification for Electrical Systems."
- F. Equalize charging of battery cells according to manufacturer's written instructions. Record individual-cell voltages.

3.2 FIELD QUALITY CONTROL

- A. Perform tests and inspections.
 - 1. Manufacturer's Field Service: Engage a factory-authorized service representative to inspect components, assemblies, and equipment installations, including connections, and to assist in testing.
- B. Tests and Inspections:
 - 1. Comply with manufacturer's written instructions.
 - 2. Inspect interiors of enclosures, including the following:
 - a. Integrity of mechanical and electrical connections.
 - b. Component type and labeling verification.
 - c. Ratings of installed components.
 - 3. Inspect batteries and chargers according to requirements in NETA Acceptance Testing

Specifications.

- 4. Test manual and automatic operational features and system protective and alarm functions.
- C. The UPS system will be considered defective if it does not pass tests and inspections.
- D. Record of Tests and Inspections: Maintain and submit documentation of tests and inspections, including references to manufacturers' written instructions and other test and inspection criteria. Include results of tests, inspections, and retests.
 - 1. Prepare and submit test and inspection reports.

3.3 DEMONSTRATION

- A. Engage a factory-authorized service representative to train Owner's maintenance personnel to adjust, operate, and maintain the UPS.

PART 4 MEASUREMENT AND PAYMENT

4.1 MEASUREMENT

- A. The quantity of 15kVA UPS to be paid for under ITEM No. E 263353 A shall be the actual number of 15kVA UPS's, installed to complete the work, to the satisfaction of the Engineer.
- B. The quantity of 5kVA UPS to be paid for under ITEM No. E 263353 B shall be the actual number of 5kVA UPS's, installed to complete the work, to the satisfaction of the Engineer.

4.2 PRICES TO COVER

- A. The unit price bid per 15 kVA UPS, under ITEM No. E 263353 A, shall cover the cost of furnishing all labor, materials, equipment, insurance, and incidentals to complete the work including, but not limited to, furnishing and placing the 15 kVA UPS and associated hardware, testing, and coordination, all in accordance with the Contract Drawings, the specifications, and the directions of the Engineer.
- B. The unit price bid per 5 kVA UPS, under ITEM No. E 263353 B, shall cover the cost of furnishing all labor, materials, equipment, insurance, and incidentals to complete the work including, but not limited to, furnishing and placing the 5 kVA UPS and associated hardware, testing, and coordination, all in accordance with the Contract Drawings, the specifications, and the directions of the Engineer.

Payment will be made under:

Item No.	Item	Pay Unit
E 263353 A	15 kVA UPS	EACH
E 263353 B	5 kVA UPS	EACH

END OF ADDENDUM NO. 3
 This addendum consists of seventy-four (74) pages.

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

JULY 5, 2013

ADDENDUM NO. 4

PROJECT ID: PDWTC2013

WORLD TRADE CENTER CAMPUS SECURITY PLAN

**WASHINGTON STREET FROM BARCLAY STREET TO VESEY STREET
TRINITY PLACE FROM LIBERTY STREET TO THAMES STREET
WEST BROADWAY FROM VESEY STREET TO BARCLAY STREET
AND
CHURCH STREET FROM VESEY STREET TO BARCLAY STREET**

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

TOGETHER WITH ALL WORK INCIDENTAL THERETO

**BOROUGH OF MANHATTAN
CITY OF NEW YORK**

**SPECIFICATIONS FOR
HANDLING, TRANSPORTATION AND DISPOSAL
OF NONHAZARDOUS AND POTENTIALLY HAZARDOUS
CONTAMINATED MATERIALS**

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

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- Attachments**
1. New York City Department of Environmental Protection Limitations for Effluent to Storm, Sanitary or Combined Sewers Parameters
 2. Applicable Regulations
 3. Definitions

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:

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.

- 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.

- 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.

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:

<u>ITEM NUMBER</u>	<u>ITEM</u>	<u>PAYMENT UNIT</u>
8.01 C2	Sampling and Testing of Contaminated/ Potentially Hazardous Soil for Disposal Parameters	Set

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

- 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.

- 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.

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.**

- 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

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

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.

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

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

- 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.

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

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.

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:

- 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

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.

- 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.

- (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

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

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.

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

ATTACHMENT 1

**New York City Department of Environmental Protection
Limitations for Discharge To Storm, Sanitary/Combined Sewer**

**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

ATTACHMENT 2

Applicable Regulations

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"

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.

ATTACHMENT 3

Definitions

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.

END OF ADDENDUM NO. 4

(This addendum consist of thirty-eight (38) pages)

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

PROJECT ID: PDWTC2013

WORLD TRADE CENTER CAMPUS SECURITY PLAN

WASHINGTON STREET FROM BARCLAY STREET TO VESEY STREET
TRINITY PLACE FROM LIBERTY STREET TO THAMES STREET
WEST BROADWAY FROM VESEY STREET TO BARCLAY STREET
AND
CHURCH STREET FROM VESEY STREET TO BARCLAY STREET

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

TOGETHER WITH ALL WORK INCIDENTAL THERETO

BOROUGH OF MANHATTAN
CITY OF NEW YORK

ADDENDUM NO. 5

DATED: JULY 23, 2013

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 A5-3 through A5-13).
 - B. Schedule U-1 (Page A5-14).
 - C. Schedules U-2 (one for each Utility Company) (Pages A5-15 through A5-33).
 - D. Section U-3 Page A5-34 (as per the Private Utilities reference document for SECTION U called "CET SPECIFICATIONS AND SKETCHES", dated November 2010, and Sketches, Test Pits (Pages A5-35 through A5-41) in this Addendum).
 - E. Utility drawings (24 sheets) consisting of: Con Edison General Notes and Conditions (1 sheet); Con Edison Existing Facilities (1 sheet); Con Edison Existing Utility Plans (2 sheets); Con Edison Existing and Proposed facilities (1 sheet); Con Edison Proposed Utility Plans (2 sheets); Con Edison Mass Excavation Plans (4 sheets); Con Edison Special Care Excavation Plans (4 sheets); Con Edison Proposed Gas and Steam Relocation Plan (1 sheet); ECS Existing Facilities Plan (5 sheets); ECS Special Care Excavation (3 sheets), attached to the Plans.
2. Each facility operator shall provide inspectors at the work site to inspect methods of interference work, verify quantities and items of Utility Work, and coordinate all phases of the facility operator operations.

3. In addition, the following statements are made to provide clarification of various paragraphs under Section U:
- A. Section U, ¶4, requires the Contractor to immediately commence negotiations with each Company for an Interference Agreement under which the Company will compensate the Contractor for any Interference Work which the Company does not elect to perform with its own forces or by specialty contractors retained by the Company. Thus the Contractor is on notice that its work under the Contract may be affected by Interference Work performed by (a) the Contractor pursuant to a separate Interference Agreement with the Company, (b) the Company, or (c) partly by each.
 - B. Section U, ¶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 A5-13, 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: _____

SCHED. U-1_LIST

Project #: PDWTC2013

SCHEDULE U - 1

LISTING OF COMPANIES NAMED FOR THIS CONTRACT

<u>COMPANY NAME</u>	<u>CONTACT NAME</u>	<u>CONTACT TELEPHONE</u>
Consolidated Edison	Theresa Kong	212-460-4834
Verizon/ECS	Michael Fitzpatrick	718-977-8142
Time Warner Cable	John Piazza	718-888-4261

CON EDISON SCOPE OF WORK

SCHEDULE U - 2

FOR COST ESTIMATE

UTILITY CONTRACT INCLUSION ANALYSIS

SUPPORT AND PROTECTION

PDWTC2013 - WORLD TRADE CENTER CAMPUS SECURITY PLAN

WASHINGTON ST., TRINITY PL., W. BROADWAY, CHURCH ST.

CET ITEM NUMBER	DESCRIPTION	UNIT OF MEASURE	ESTIMATED QUANTITY
CET 100.1	UTILITIES CROSSING TRENCH FOR CATCH BASIN CHUTE CONNECT. AND/OR TEST PIT (TYPE .1)	EA	3.00
CET 100.2	UTILITIES CROSSING TRENCH FOR CATCH BASIN CHUTE CONNECT. AND/OR TEST PIT (TYPE .2)	EA	6.00
CET 100.3	UTILITIES CROSSING TRENCH FOR CATCH BASIN CHUTE CONNECT. AND/OR TEST PIT (TYPE .3)	EA	6.00
CET 101.2	UTILITIES CROSSING TRENCH FOR SEWERS OVER 12" TO 24" DIAMETER (TYPE .2)	EA	2.00
CET 101.3	UTILITIES CROSSING TRENCH FOR SEWERS OVER 12" TO 24" DIAMETER (TYPE .3)	EA	2.00
CET 108.2	UTILITIES CROSSING TRENCH FOR WATERMAIN UP TO AND INCL. 12" DIAMETER (TYPE .2)	EA	2.00
CET 108.3	UTILITIES CROSSING TRENCH FOR WATERMAIN UP TO AND INCL. 12" DIAMETER (TYPE .3)	EA	1.00
CET 109.1	UTILITIES CROSSING TRENCH FOR WATERMAIN OVER 12" AND UP TO 24" DIAMETER (TYPE .1)	EA	1.00
CET 109.2	UTILITIES CROSSING TRENCH FOR WATERMAIN OVER 12" AND UP TO 24" DIAMETER (TYPE .2)	EA	3.00
CET 109.3	UTILITIES CROSSING TRENCH FOR WATERMAIN OVER 12" AND UP TO 24" DIAMETER (TYPE .3)	EA	2.00
CET 200	EXTRA DEPTH EXCAVATION OF CATCH BASIN CHUTE CONNECTION PIPES	L.F.	79.00
CET 225.1A	INSTALLATION AND REMOVAL OF CATCH BASINS WITH UTILITY INTERFERENCES.	EA	1.00
CET 225.1B	INSTALLATION OF CATCH BASINS WITH UTILITY INTERFERENCES.	EA	5.00
CET 225.1C	REMOVAL OF CATCH BASINS WITH UTILITY INTERFERENCES. THIS ITEM SHALL BE APPLIED IN THOSE SITUATIONS ONLY WHERE THE CATCH BASIN IS BEING REMOVED AND NOT REPLACED. THIS ITEM REQUIRES COMPLETE REMOVAL OF THE BASIN INCLUDING THE FLOOR.	EA	3.00
CET 300.0	SPECIAL CARE EXCAVATION & BACKFILLING	C.Y.	33.00
CET 301.0	SPECIAL CARE EXCAVATION & BACKFILLING FOR OIL-0-STATIC PIPES	C.Y.	10.00
CET 303.0	FURNISH, DELIVER AND INSTALL TYPE 3/8" CLEAN SAND BACKFILL	C.Y.	10.00
CET 330E.1	SUPPORT & PROTECTION OF ELECTRIC, GAS AND STEAM FACILITIES DURING EXCAVATION OF CITY TRENCH WHEN FACILITIES LIE WITHIN TRENCH LIMITS (TYPE .1)	S.F.	30.00
CET 330E.2	SUPPORT & PROTECTION OF ELECTRIC, GAS AND STEAM FACILITIES DURING EXCAVATION OF CITY TRENCH WHEN FACILITIES LIE WITHIN TRENCH LIMITS (TYPE .2)	S.F.	30.00
CET 330E.3	SUPPORT & PROTECTION OF ELECTRIC, GAS AND STEAM FACILITIES DURING EXCAVATION OF CITY TRENCH WHEN FACILITIES LIE WITHIN TRENCH LIMITS (TYPE .3)	S.F.	15.00
CET 330E.4	SUPPORT & PROTECTION OF ELECTRIC, GAS AND STEAM FACILITIES DURING EXCAVATION OF CITY TRENCH WHEN FACILITIES LIE WITHIN TRENCH LIMITS (TYPE .4)	S.F.	20.00
CET 400	TEST PITS FOR UTILITY FACILITIES	C.Y.	40.00
CET 401.0	TRENCH EXCAVATION FOR ADJUSTMENT OF UTILITIES	C.Y.	133.00
CET 402.1	EXIST. OCCUPIED CONCRETE ENCASED CONDUITS PLACED IN FINAL POSITION WITHOUT CONCR. ENCSMNT	L.F.	60.00
CET 402.1A	EXIST. OCCUPIED CONCRETE ENCASED CONDUITS PLACED IN FINAL POSITION WITH CONCR. ENCSMNT	L.F.	620.00
CET 402.2	EXIST. OCCUPIED NON-CONCRETE ENCASED CONDUITS PLACED IN FINAL POSITION WITHOUT CONCR. ENCSMNT	L.F.	60.00
CET 403.0	PLACING STEEL PROTECTION PLATES FOR UTILITY FACILITIES	S.F.	2287.00
CET 405.1	EXCAVATION FOR INSTALLATION OF UTILITY FACILITIES (WITH TOTAL DEPTHS LESS THAN FIVE FEET)	C.Y.	815.00
CET 405.2	EXCAVATION FOR INSTALLATION OF UTILITY FACILITIES (WITH TOTAL DEPTHS EQUAL TO OR GREATER THAN FIVE FEET)	C.Y.	555.00
CET 406	EXCAVATION FOR UTILITY STRUCTURE	C.Y.	70.00
CET 410.2	MASS EXCAVATION WITH AN AVERAGE AREA OCCUPIED BY UTILITIES HAVING A VOLUME OVER 20% UP TO AND INCLUDING 40% OF THE TOTAL EXCAVATED VOLUME, WITH MAX. DEPTHS, MEASURED FROM THE TOP OF ROADWAY, LESS THAN FIVE FEET.	C.Y.	237.04
CET 410.6	MASS EXCAVATION WITH AN AVERAGE AREA OCCUPIED BY UTILITIES HAVING A VOLUME OVER 20% UP TO AND INCLUDING 40% OF THE TOTAL EXCAVATED VOLUME, WITH MAX. DEPTHS, MEASURED FROM THE TOP OF ROADWAY, EQUAL TO OR GREATER THAN FIVE FEET.	C.Y.	168.56
CET 410.8	MASS EXCAVATION WITH AN AVERAGE AREA OCCUPIED BY UTILITIES HAVING A VOLUME OVER 60% UP TO AND INCLUDING 80% OF THE TOTAL EXCAVATED VOLUME, WITH MAX. DEPTHS, MEASURED FROM THE TOP OF ROADWAY, EQUAL TO OR GREATER FIVE FEET	C.Y.	2224.00
CET 450.1	CONSTRUCTION FIELD SUPPORT REQUIRING AN AVE. SIZE SURVEY CREW THAT WILL PERFORM TYPICAL FIELD SURVEY FUNCTIONS AND PROVIDE QUALITY DATA ANALYSIS REPORTS.	CrHrs	50.00
CET 450.2	CONSTRUCTION FIELD SUPPORT REQUIRING AN AVE. SMALL SIZE CREW CAPABLE OF PERFORMING VARIOUS TASKS, WHICH MAY INCLUDE BUT ARE NOT LIMITED TO: OPENING/CLOSING SUBSURFACE STRUCTURE COVER(S), SETTING/RESETTING MPT SETUP(S), ASSISTING UTILITY FACILITY/SPECIALTY CREW(S), PERFORMING CONDUIT OCCUPANCY IDENTIFICATION, CLEAN-UP STORAGE WORK-SITE, ETC.	CrHrs	300.00

CON EDISON SCOPE OF WORK

UTILITY CONTRACT INCLUSION ANALYSIS

SUPPORT AND PROTECTION

PDWTC2013 - WORLD TRADE CENTER CAMPUS SECURITY PLAN

WASHINGTON ST., TRINITY PL., W. BROADWAY, CHURCH ST.

CET ITEM NUMBER	DESCRIPTION	UNIT OF MEASURE	ESTIMATED QUANTITY
CET 450.3	CONSTRUCTION FIELD SUPPORT REQUIRING AN AVE. SMALL SIZE CREW CAPABLE OF PERFORMING VARIOUS TASKS, WHICH MAY INCLUDE BUT ARE NOT LIMITED TO: EXCAVATIONS DUE TO CABLE FAILURES, INCL. EMERGENCY TYPE EXCAVATIONS, CONSTRUCT MANHOLE ENCLOSURES, INSTALLING SUPPORT SYSTEM FOR UTILITY FACILITIES, DEWATERING UTILITY STRUCTURES AND EXCAVATIONS, OPENING/CLOSING TRAFFIC AND/OR PEDESTRIAN PLATE (WHEN NOT ALREADY INCLUDED AND COVERED IN OTHER APPLICABLE CET ITEMS), ETC.	CrHrs	650.00
CET 500.0	REMOVAL OF ABANDONED MASONRY FOR ELEC. AND TEL. CONDUITS NON-CONC. ENCS	L.F.	2012.00
CET 501.0	REMOVAL OF ABANDONED MASONRY FOR UTILITY FACILITIES	C.Y.	74.25
CET 603E.1	INSTALL UTILITY CONDUIT - WITHOUT CONCRETE ENCASEMENT	L.F.	8538.00
CET 603E.2	INSTALL UTILITY CONDUIT - WITH CONCRETE ENCASEMENT	L.F.	260.00
CET 636 EB RD	ADJUSTMENT OF UTILITY HARWARE (7" TO UNDER 14" WIDTH)	EA.	1.00
CET 636 EC RD	ADJUSTMENT OF UTILITY HARWARE (14" TO UNDER 30" WIDTH)	EA.	1.00
CET 636 ED RD	ADJUSTMENT OF UTILITY HARWARE (30" TO UNDER 34" WIDTH)	EA.	1.00
CET 636 EE RD	ADJUSTMENT OF UTILITY HARWARE (34" TO UNDER 41" WIDTH)	EA.	9.00
CET 636 EH RD	ADJUSTMENT OF UTILITY HARWARE (75" TO UNDER 125" WIDTH)	EA.	1.00
CET 636 EI RD	ADJUSTMENT OF UTILITY HARWARE (125" TO UNDER 170" WIDTH)	EA.	1.00
CET 638N	INSTALLATION OF FIELD CONSTRUCTED UTILITY STRUCTURE	C.Y.	24.00
CET 638R	BREAK OUT AND REMOVE UTILITY STRUCTURE	C.Y.	24.00
CET 700.0	SPECIAL MOD. OF WORK MTHDS TO ACCOM./PROTECT U.G. FACIL. W. LMTD CVR.	L.F.	390.00
CET 710.1	REM. OF ABND. UTILITY STEEL/CAST IRON PIPE, UP TO & INCL. 12" DIAM. PIPES	L.F.	40.00
CET 711	USE SHEETING LINE AS FORM	EA.	1.00
CET 781	REMOVABLE CURB SIDEWALK PANEL FOR ACCESS TO UTILITY STRUCTURE OPENINGS	EA.	1.00
CET 1006V	6" VERTICAL OR ROLLED WATER MAIN OFFSET	EA.	1.00

CON EDISON SCOPE OF WORK

SUPPORT & PROTECTION

PDWTC2013 - WORLD TRADE CENTER CAMPUS SECURITY PLAN

WASHINGTON ST., TRINITY PL., W. BROADWAY, CHURCH ST.

- CET 100.1 UTILITIES CROSSING TRENCH FOR CATCH BASIN CHUTE CONNECT. AND/OR TEST PIT (TYPE .1) EA.
- At the following locations:
CHURCH STREET FROM VESEY STREET TO BARCLAY STREET
- Total quantity for CET 100.1 = 3.00
- CET 100.2 UTILITIES CROSSING TRENCH FOR CATCH BASIN CHUTE CONNECT. AND/OR TEST PIT (TYPE .2) EA.
- At the following locations:
WASHINGTON STREET FROM VESEY STREET TO BARCLAY STREET
CHURCH STREET FROM VESEY STREET TO BARCLAY STREET
- Total quantity for CET 100.2 = 6.00
- CET 100.3 UTILITIES CROSSING TRENCH FOR CATCH BASIN CHUTE CONNECT. AND/OR TEST PIT (TYPE .3) EA.
- At the following locations:
WASHINGTON STREET FROM VESEY STREET TO BARCLAY STREET
WEST BROADWAY FROM VESEY STREET TO BARCLAY STREET
CHURCH STREET FROM VESEY STREET TO BARCLAY STREET
- Total quantity for CET 100.3 = 6.00
- CET 101.2 UTILITIES CROSSING TRENCH FOR SEWERS OVER 12" TO 24" DIAMETER (TYPE .2) EA.
- At the following locations:
TRINITY PLACE FROM LIBERTY STREET TO CEDAR STREET
- Total quantity for CET 101.2 = 2.00
- CET 101.3 UTILITIES CROSSING TRENCH FOR SEWERS OVER 12" TO 24" DIAMETER (TYPE .3) EA.
- At the following locations:
WASHINGTON STREET FROM VESEY STREET TO BARCLAY STREET
TRINITY PLACE FROM LIBERTY STREET TO CEDAR STREET
- Total quantity for CET 101.3 = 2.00
- CET 108.2 UTILITIES CROSSING TRENCH FOR WATERMAIN UP TO AND INCL 12" DIAMETER (TYPE .2) EA.
- At the following locations:
TRINITY PLACE FROM LIBERTY STREET TO CEDAR STREET
- Total quantity for CET 108.2 = 2.00
- CET 108.3 UTILITIES CROSSING TRENCH FOR WATERMAIN UP TO AND INCL 12" DIAMETER (TYPE .3) EA.
- At the following locations:
TRINITY PLACE FROM LIBERTY STREET TO CEDAR STREET
- Total quantity for CET 108.3 = 1.00

CON EDISON SCOPE OF WORK

SUPPORT & PROTECTION

PDWTC2013 - WORLD TRADE CENTER CAMPUS SECURITY PLAN

WASHINGTON ST., TRINITY PL., W.B. BROADWAY, CHURCH ST.

- CET 109.1 UTILITIES CROSSING TRENCH FOR WATERMAIN OVER 12" AND UP TO 24" DIAMETER (TYPE .1) EA.
- At the following locations:
WASHINGTON STREET FROM VESEY STREET TO BARCLAY STREET
- Total quantity for CET 109.1 = 1.00
- CET 109.2 UTILITIES CROSSING TRENCH FOR WATERMAIN OVER 12" AND UP TO 24" DIAMETER (TYPE .2) EA.
- At the following locations:
WASHINGTON STREET FROM VESEY STREET TO BARCLAY STREET
WEST BROADWAY FROM VESEY STREET TO BARCLAY STREET
- Total quantity for CET 109.2 = 3.00
- CET 109.3 UTILITIES CROSSING TRENCH FOR WATERMAIN OVER 12" AND UP TO 24" DIAMETER (TYPE .3) EA.
- At the following locations:
WASHINGTON STREET FROM VESEY STREET TO BARCLAY STREET
WEST BROADWAY FROM VESEY STREET TO BARCLAY STREET
- Total quantity for CET 109.3 = 2.00
- CET 200 EXTRA DEPTH EXCAVATION OF CATCH BASIN CHUTE CONNECTION PIPES L.F.
- At the following locations:
WASHINGTON STREET FROM VESEY STREET TO BARCLAY STREET
WEST BROADWAY FROM VESEY STREET TO BARCLAY STREET
CHURCH STREET FROM VESEY STREET TO BARCLAY STREET
- Total quantity for CET 200 = 79.00
- CET 225.1A INSTALLATION AND REMOVAL OF CATCH BASINS WITH UTILITY INTERFERENCES. EA.
- At the following locations:
CHURCH STREET FROM VESEY STREET TO BARCLAY STREET
- Total quantity for CET 225.1A = 1.00
- CET 225.1B INSTALLATION OF CATCH BASINS WITH UTILITY INTERFERENCES. EA.
- At the following locations:
WASHINGTON STREET FROM VESEY STREET TO BARCLAY STREET
WEST BROADWAY FROM VESEY STREET TO BARCLAY STREET
- Total quantity for CET 225.1B = 5.00
- CET 225.1C REMOVAL OF CATCH BASINS WITH UTILITY INTERFERENCES. THIS ITEM SHALL BE APPLIED IN THOSE SITUATIONS ONLY WHERE THE CATCH BASIN IS BEING REMOVED AND NOT REPLACED. THIS ITEM REQUIRES COMPLETE REMOVAL OF THE BASIN INCLUDING THE FLOOR. EA.
- At the following locations:
WASHINGTON STREET FROM VESEY STREET TO BARCLAY STREET
- Total quantity for CET 225.1C = 3.00

CON EDISON SCOPE OF WORK

SUPPORT & PROTECTION

PDWTC2013 - WORLD TRADE CENTER CAMPUS SECURITY PLAN

WASHINGTON ST., TRINITY PL., W.BROADWAY, CHURCH ST.

CET 300.0 SPECIAL CARE EXCAVATION & BACKFILLING C.Y.

At the following locations:
WASHINGTON STREET FROM VESEY STREET TO BARCLAY STREET
WEST BROADWAY FROM VESEY STREET TO BARCLAY STREET
TRINITY PLACE FROM LIBERTY STREET TO CEDAR STREET

Total quantity for CET 300.0 = 33.00

CET 301.0 SPECIAL CARE EXCAVATION & BACKFILLING FOR OIL-0-STATIC PIPES C.Y.

At the following locations:
BARCLAY STREET FROM WASHINGTON STREET TO GREENWICH STREET

Total quantity for CET 301.0 = 10.00

CET 303.0 FURNISH, DELIVER AND INSTALL TYPE 3/8" CLEAN SAND BACKFILL C.Y.

At the following locations:
BARCLAY STREET FROM WASHINGTON STREET TO GREENWICH STREET

Total quantity for CET 303.0 = 10.00

CET 330E.1 SUPPORT & PROTECTION OF ELECTRIC, GAS AND STEAM FACILITIES DURING EXCAVATION OF CITY TRENCH WHEN FACILITIES LIE WITHIN TRENCH LIMITS (TYPE .1) S.F.

At the following locations:
AS ENCOUNTERED

Total quantity for CET 330E.1 = 30.00

CET 330E.2 SUPPORT & PROTECTION OF ELECTRIC, GAS AND STEAM FACILITIES DURING EXCAVATION OF CITY TRENCH WHEN FACILITIES LIE WITHIN TRENCH LIMITS (TYPE .2) S.F.

At the following locations:
AS ENCOUNTERED

Total quantity for CET 330E.2 = 30.00

CET 330E.3 SUPPORT & PROTECTION OF ELECTRIC, GAS AND STEAM FACILITIES DURING EXCAVATION OF CITY TRENCH WHEN FACILITIES LIE WITHIN TRENCH LIMITS (TYPE .3) S.F.

At the following locations:
WEST BROADWAY FROM VESEY STREET TO BARCLAY STREET

Total quantity for CET 330E.3 = 15.00

CET 330E.4 SUPPORT & PROTECTION OF ELECTRIC, GAS AND STEAM FACILITIES DURING EXCAVATION OF CITY TRENCH WHEN FACILITIES LIE WITHIN TRENCH LIMITS (TYPE .4) S.F.

At the following locations:
WEST BROADWAY FROM VESEY STREET TO BARCLAY STREET

Total quantity for CET 330E.4 = 20.00

CON EDISON SCOPE OF WORK

SUPPORT & PROTECTION

PDWTC2013 - WORLD TRADE CENTER CAMPUS SECURITY PLAN

WASHINGTON ST., TRINITY PL., W. BROADWAY, CHURCH ST.

CET 400	TEST PITS FOR UTILITY FACILITIES	C.Y.
	At the following locations: AS ENCOUNTERED	
	Total quantity for CET 400 = 40.00	
CET 401.0	TRENCH EXCAVATION FOR ADJUSTMENT OF UTILITIES	C.Y.
	At the following locations: WASHINGTON STREET FROM VESEY STREET TO BARCLAY STREET WEST BROADWAY FROM VESEY STREET TO BARCLAY STREET TRINITY PLACE FROM LIBERTY STREET TO CEDAR STREET CHURCH STREET FROM VESEY STREET TO BARCLAY STREET	
	Total quantity for CET 401.0 = 133.00	
CET 402.1	EXIST. OCCUPIED CONCRETE ENCASED CONDUITS PLACED IN FINAL POSITION WITHOUT CONCR. ENCSMNT	L.F.
	At the following locations: AS ENCOUNTERED	
	Total quantity for CET 402.1 = 60.00	
CET 402.1A	EXIST. OCCUPIED CONCRETE ENCASED CONDUITS PLACED IN FINAL POSITION WITH CONCR. ENCSMNT	L.F.
	At the following locations: WASHINGTON STREET FROM VESEY STREET TO BARCLAY STREET WEST BROADWAY FROM VESEY STREET TO BARCLAY STREET TRINITY PLACE FROM LIBERTY STREET TO CEDAR STREET CHURCH STREET FROM VESEY STREET TO BARCLAY STREET	
	Total quantity for CET 402.1A = 620.00	
CET 402.2	EXIST. OCCUPIED NON-CONCRETE ENCASED CONDUITS PLACED IN FINAL POSITION WITHOUT CONCR. ENCSMNT	L.F.
	At the following locations: AS ENCOUNTERED	
	Total quantity for CET 402.2 = 60.00	
CET 403.0	PLACING STEEL PROTECTION PLATES FOR UTILITY FACILITIES	S.F.
	At the following locations: WASHINGTON STREET FROM VESEY STREET TO BARCLAY STREET WEST BROADWAY FROM VESEY STREET TO BARCLAY STREET TRINITY PLACE FROM LIBERTY STREET TO CEDAR STREET CHURCH STREET FROM VESEY STREET TO BARCLAY STREET	
	Total quantity for CET 403.0 = 2,287.00	

CON EDISON SCOPE OF WORK

SUPPORT & PROTECTION

PDWTC2013 - WORLD TRADE CENTER CAMPUS SECURITY PLAN

WASHINGTON ST., TRINITY PL., W. BROADWAY, CHURCH ST.

CET 405.1 EXCAVATION FOR INSTALLATION OF UTILITY FACILITIES (WITH TOTAL DEPTHS LESS THAN FIVE FEET) C.Y.

At the following locations:

CHURCH STREET FROM VESEY STREET TO BARCLAY STREET
WEST BROADWAY FROM VESEY STREET TO BARCLAY STREET
TRINITY PLACE FROM CEDAR STREET TO LIBERTY STREET
BARCLAY ST E/O WEST BROADWAY
AS ENCOUNTERED FROM BARCLAY ST TO WEST BROADWAY
WEST INTERSECTION OF WEST BROADWAY AND VESEY ST
W. SIDE WEST BROADWAY BETWEEN VESEY ST AND BARCLAY ST
WASHINGTON ST BETWEEN VESEY ST AND BARCLAY ST
BARCLAY ST E/O WASHINGTON ST
INTERSECTION OF CHURCH ST AND BARCLAY ST
TRINITY PL FROM THAMES ST TO CEDAR ST
CEDAR ST E/O TRINITY PL

Total quantity for CET 405.1 = 815.00

CET 405.2 EXCAVATION FOR INSTALLATION OF UTILITY FACILITIES (WITH TOTAL DEPTHS EQUAL TO OR GREATER THAN FIVE FEET) C.Y.

At the following locations:

CHURCH STREET FROM VESEY STREET TO BARCLAY STREET
WEST BROADWAY FROM VESEY STREET TO BARCLAY STREET
VESEY STREET AND WEST BROADWAY
TRINITY PLACE AND CEDAR STREET
TRINITY PLACE AND LIBERTY STREET
INTERSECTION OF VESEY ST AND BARCLAY ST
INTERSECTION OF CHURCH ST AND BARCLAY ST
TRINITY PL FROM THAMES ST TO CEDAR ST
TRINITY PL FROM CEDAR ST TO LIBERTY ST

Total quantity for CET 405.2 = 555.00

CET 406 EXCAVATION FOR UTILITY STRUCTURE C.Y.

At the following locations:

CHURCH STREET FROM VESEY STREET TO FULTON STREET
CHURCH ST FROM VESEY ST TO BARCLAY ST

Total quantity for CET 406 = 70.00

CET 410.2 MASS EXCAVATION WITH AN AVERAGE AREA OCCUPIED BY UTILITIES HAVING A VOLUME OVER 20% UP TO AND INCLUDING 40% OF THE TOTAL EXCAVATED VOLUME, WITH MAX. DEPTHS, MEASURED FROM THE TOP OF ROADWAY, LESS THAN FIVE FEET. C.Y.

At the following locations:

TRINITY PLACE FROM CEDAR STREET TO LIBERTY STREET

Total quantity for CET 410.2 = 237.04

CON EDISON SCOPE OF WORK

SUPPORT & PROTECTION

PDWTC2013 - WORLD TRADE CENTER CAMPUS SECURITY PLAN

WASHINGTON ST., TRINITY PL., W.BROADWAY, CHURCH ST.

CET 410.6 MASS EXCAVATION WITH AN AVERAGE AREA OCCUPIED BY UTILITIES HAVING A VOLUME OVER 20% UP TO AND INCLUDING 40% OF THE TOTAL EXCAVATED VOLUME, WITH MAX. DEPTHS, MEASURED FROM THE TOP OF ROADWAY, EQUAL TO OR GREATER THAN FIVE FEET. C.Y.

At the following locations:
TRINITY PLACE FROM CEDAR STREET TO LIBERTY STREET
INTERSECTION OF WASHINGTON ST AND VESEY ST

Total quantity for CET 410.6 = 168.56

CET 410.8 MASS EXCAVATION WITH AN AVERAGE AREA OCCUPIED BY UTILITIES HAVING A VOLUME OVER 60% UP TO AND INCLUDING 80% OF THE TOTAL EXCAVATED VOLUME, WITH MAX. DEPTHS, MEASURED FROM THE TOP OF ROADWAY, EQUAL TO OR GREATER FIVE FEET. C.Y.

At the following locations:
WEST BROADWAY FROM VESEY STREET TO BARCLAY STREET
CHURCH STREET FROM VESEY STREET TO BARCLAY STREET

Total quantity for CET 410.8 = 2,224.00

CET 450.1 CONSTRUCTION FIELD SUPPORT REQUIRING AN AVE. SIZE SURVEY CREW THAT WILL PERFORM TYPICAL FIELD SURVEY FUNCTIONS AND PROVIDE QUALITY DATA ANALYSIS REPORTS. CrHrs

At the following locations:
AS ENCOUNTERED

Total quantity for CET 450.1 = 50.00

CET 450.2 CONSTRUCTION FIELD SUPPORT REQUIRING AN AVE. SMALL SIZE CREW CAPABLE OF PERFORMING VARIOUS TASKS, WHICH MAY INCLUDE BUT ARE NOT LIMITED TO: OPENING/CLOSING SUBSURFACE STRUCTURE COVER(S), SETTING/RESETTING MPT SETUP(S), ASSISTING UTILITY FACILITY/SPECIALTY CREW(S), PERFORMING CONDUIT OCCUPANCY IDENTIFICATION, CLEAN-UP STORAGE WORK-SITE, ETC. CrHrs

At the following locations:
AS ENCOUNTERED

Total quantity for CET 450.2 = 300.00

CET 450.3 CONSTRUCTION FIELD SUPPORT REQUIRING AN AVE. SMALL SIZE CREW CAPABLE OF PERFORMING VARIOUS TASKS, WHICH MAY INCLUDE BUT ARE NOT LIMITED TO: EXCAVATIONS DUE TO CABLE FAILURES, INCL. EMERGENCY TYPE EXCAVATIONS, CONSTRUCT MANHOLE ENCLOSURES, INSTALLING SUPPORT SYSTEM FOR UTILITY FACILITIES, DEWATERING UTILITY STRUCTURES AND EXCAVATIONS, OPENING/CLOSING TRAFFIC AND/OR PEDESTRIAN PLATE (WHEN NOT ALREADY INCLUDED AND COVERED IN OTHER APPLICABLE CET ITEMS), ETC. CrHrs

At the following locations:
AS ENCOUNTERED

Total quantity for CET 450.3 = 650.00

CON EDISON SCOPE OF WORK

SUPPORT & PROTECTION

PDWTC2013 - WORLD TRADE CENTER CAMPUS SECURITY PLAN

WASHINGTON ST., TRINITY PL., W.B BROADWAY, CHURCH ST.

CET 500.0 REMOVAL OF ABANDONED MASONRY FOR ELEC. AND TEL. CONDUITS NON-CONC. L.F.
ENCSD

At the following locations:

TRINITY PLACE FROM LIBERTY STREET TO CEDAR STREET
CHURCH STREET FROM VESEY STREET TO BARCLAY STREET
WASHINGTON STREET FROM VESEY STREET TO BARCLAY
WEST BROADWAY FROM VESEY STREET TO BARCLAY STREET
VESEY STREET E/O WEST BROADWAY
TRINITY PLACE FROM CEDAR STREET TO LIBERTY STREET

Total quantity for CET 500.0 = 2,012.00

CET 501.0 REMOVAL OF ABANDONED MASONRY FOR UTILITY FACILITIES C.Y.

At the following locations:

TRINITY PLACE FROM THAMES STREET TO CEDAR STREET
CHURCH STREET FROM FULTON ST TO PARK PL
WEST BROADWAY FROM VESEY STREET TO BARCLAY STREET
WASHINGTON STREET FROM VESEY TO BARCLAY
VESEY STREET E/O WEST BROADWAY
TRINITY PLACE FROM CEDAR STREET TO LIBERTY STREET

Total quantity for CET 501.0 = 74.25

CET 603E.1 INSTALL UTILITY CONDUIT - WITHOUT CONCRETE ENCASEMENT L.F.

At the following locations:

BARCLAY ST E/O WEST BROADWAY
W. SIDE WEST BROADWAY FROM VESEY TO BARCLAY
BARCLAY ST E/O WASHINGTON ST
INTERSECTION OF VESEY ST AND WASHINGTON ST
WASHINGTON ST BETWEEN VESEY ST AND BARCLAY ST
CHURCH ST BETWEEN VESEY ST AND BARCLAY ST
CHURCH ST BETWEEN VESEY ST AND FULTON ST
INTERSECTION OF BARCLAY ST AND CHURCH ST
CHURCH ST FROM BARCLAY ST TO PARK PLACE
BARCLAY ST W/O CHURCH ST
VESEY ST W/O CHURCH ST
INTERSECTION OF VESEY ST AND CHURCH ST
TRINITY PL FROM THAMES ST TO CEDAR ST
TRINITY PL OF TRINITY AND TO LIBERTY ST
CEDAR ST E/O TRINITY PL
INTERSECTION OF TRINITY PL AND CEDAR ST
TRINITY PL FROM CEDAR ST TO LIBERTY ST

Total quantity for CET 603E.1 = 8,538.00

CET 603E.2 INSTALL UTILITY CONDUIT - WITH CONCRETE ENCASEMENT L.F.

At the following locations:

AS ENCOUNTERED

Total quantity for CET 603E.2 = 260.00

CON EDISON SCOPE OF WORK

SUPPORT & PROTECTION

**PDWTC2013 - WORLD TRADE CENTER CAMPUS SECURITY PLAN
WASHINGTON ST., TRINITY PL., W.BROADWAY, CHURCH ST.**

- CET 636 EB RD ADJUSTMENT OF UTILITY HARWARE (7" TO UNDER 14" WIDTH)** EA.
- At the following locations:
AS ENCOUNTERED
- Total quantity for CET 636 EB RD = 1.00
- CET 636 EC RD ADJUSTMENT OF UTILITY HARWARE (14" TO UNDER 30" WIDTH)** EA.
- At the following locations:
23'+/- N/N/C/ VESEY ST, 3'+/- W/E/C CHURCH ST
- Total quantity for CET 636 EC RD = 1.00
- CET 636 ED RD ADJUSTMENT OF UTILITY HARWARE (30" TO UNDER 34" WIDTH)** EA.
- At the following locations:
AS ENCOUNTERED
- Total quantity for CET 636 ED RD = 1.00
- CET 636 EE RD ADJUSTMENT OF UTILITY HARWARE (34" TO UNDER 41" WIDTH)** EA.
- At the following locations:
20'+/- S/N/C/ VESEY ST, W/C CHURCH ST
23'+/- N/N/C/ VESEY ST, 23'+/- E/W/C CHURCH ST
15'+/- N/N/C/ VESEY ST, 38'+/- E/W/C CHURCH ST
- Total quantity for CET 636 EE RD = 9.00
- CET 636 EH RD ADJUSTMENT OF UTILITY HARWARE (75" TO UNDER 125" WIDTH)** EA.
- At the following locations:
85'+/- N/N/C/ VESEY ST, 4'+/- E/W/C CHURCH ST
- Total quantity for CET 636 EH RD = 1.00
- CET 636 EI RD ADJUSTMENT OF UTILITY HARWARE (125" TO UNDER 170" WIDTH)** EA.
- At the following locations:
75'+/- N/N/C/ VESEY ST, 23'+/- W/E/C CHURCH ST
- Total quantity for CET 636 EI RD = 1.00
- CET 638N INSTALLATION OF FIELD CONSTRUCTED UTILITY STRUCTURE** C.Y.
- At the following locations:
CHURCH STREET FROM VESEY STREET TO BARCLAY STREET
CHURCH STREET FROM FULTON STREET TO VESEY STREET
- Total quantity for CET 638N = 24.00
- CET 638R BREAK OUT AND REMOVE UTILITY STRUCTURE** C.Y.
- At the following locations:
CHURCH STREET FROM VESEY STREET TO BARCLAY STREET
CHURCH STREET FROM FULTON STREET TO VESEY STREET
- Total quantity for CET 638R = 24.00

CON EDISON SCOPE OF WORK

SUPPORT & PROTECTION

PDWTC2013 - WORLD TRADE CENTER CAMPUS SECURITY PLAN

WASHINGTON ST., TRINITY PL., W. BROADWAY, CHURCH ST.

CET 700.0 SPECIAL MOD. OF WORK MTHDS TO ACCOML/PROTECT U.G. FACIL. W. LMTD CVR. C.Y.

At the following locations:

WASHINGTON STREET FROM VESEY STREET TO BARCLAY STREET

WEST BROADWAY FROM VESEY STREET TO BARCLAY STREET

CHURCH STREET FROM VESEY STREET TO BARCLAY STREET

TRINITY PLACE FROM CEDAR STREET TO LIBERTY STREET

Total quantity for CET 700.0 = 590.52

CET 710.1 REM. OF ABND. UTILITY STEEL/CAST IRON PIPE, UP TO & INCL. 12" DIAM. PIPES L.F.

At the following locations:

TRINITY PLACE FROM LIBERTY STREET TO CEDAR STREET

TRINITY PLACE FROM THAMES STREET TO CEDAR STREET

WEST BROADWAY FROM VESEY STREET TO BARCLAY STREET

Total quantity for CET 710.1 = 390.00

CET 711 USE SHEETING LINE AS FORM L.F.

At the following locations:

WEST BROADWAY FROM VESEY STREET TO BARCLAY STREET

Total quantity for CET 711 = 40.00

CET 781 REMOVABLE CURB SIDEWALK PANEL FOR ACCESS TO UTILITY STRUCTURE OPENINGS EA.

At the following locations:

WASHINGTON STREET FROM VESEY STREET TO BARCLAY STREET

Total quantity for CET 781 = 1.00

CET 1006V 6" VERTICAL OR ROLLED WATER MAIN OFFSET EA.

At the following locations:

AS ENCOUNTERED

Total quantity for CET 1006V = 1.00

SECTION U WORKSHEET
PDWTC2013 - WORLD TRADE CENTER CAMPUS SECURITY PLAN
FOR INFORMATION ONLY
ENGINEER'S ESTIMATE OF QUANTITY AND TYPES OF INTERFERENCE
FOR EMPIRE CITY SUBWAY
WASHINGTON ST., TRINITY PL., W. BROADWAY, AND CHURCH ST.
BOROUGH OF MANHATTAN

CET ITEM NUMBER	DESCRIPTION	Unit of Measure	Estimated Quantity
CET 100.1	UTILITIES CROSSING TRENCH FOR CATCH BASIN CHUTE CONNECT. AND/OR TEST PIT (TYPE .1)	EA.	1.00
CET 100.2	UTILITIES CROSSING TRENCH FOR CATCH BASIN CHUTE CONNECT. AND/OR TEST PIT (TYPE .2)	EA.	1.00
CET 100.3	UTILITIES CROSSING TRENCH FOR CATCH BASIN CHUTE CONNECT. AND/OR TEST PIT (TYPE .3)	EA.	1.00
CET 100.4	UTILITIES CROSSING TRENCH FOR CATCH BASIN CHUTE CONNECT. AND/OR TEST PIT (TYPE .4)	EA.	1.00
CET 108.1	UTILITIES CROSSING TRENCH FOR WATERMAIN UP TO AND INCL. 12" DIAMETER (TYPE .1)	EA.	1.00
CET 108.2	UTILITIES CROSSING TRENCH FOR WATERMAIN UP TO AND INCL. 12" DIAMETER (TYPE .2)	EA.	1.00
CET 108.3	UTILITIES CROSSING TRENCH FOR WATERMAIN UP TO AND INCL. 12" DIAMETER (TYPE .3)	EA.	1.00
CET 225.1A	REMOVAL AND INSTALLATION OF CATCH BASINS WITH UTILITY INTERFERENCES	EA.	1.00
CET 225.1B	INSTALLATION OF CATCH BASINS WITH UTILITY INTERFERENCES	EA.	6.00
CET 225.1C	REMOVAL OF CATCH BASINS WITH UTILITY INTERFERENCES	EA.	3.00
CET 300	SPECIAL CARE EXCAVATION & BACKFILLING	C.Y.	14.90
CET 330T	SUPPORT & PROTECTION OF COMMUNICATION UTILITY FACILITIES DURING EXCAVATION OF CITY TRENCH WHEN FACILITIES LIE IN OR	L.F.	165.00
CET 400	TEST PITS	C.Y.	40.00
CET 401	TRENCH EXCAVATION FOR ADJUSTMENT OF UTILITIES	C.Y.	354.10
CET 402T.1A	EXIST. OCCUPIED CONCR. ENCASED CONDUITS PLCD. IN FINAL POS. WITH CONCR. ENCSMNT.	L.F.	6,507.00
CET 402T.V1A	EXIST. VACANT CONCR. ENCASED CONDUITS PLCD. IN FINAL POS. WITH CONCR. ENCSMNT.	L.F.	723.00
CET 403	PLACING STEEL PROTECTION PLATES FOR UTILITIES	S.F.	790.00
CET 500	REMOVAL OF ABANDONED UTILITY CONDUITS (NON-CONCRETE ENCASED)	L.F.	50.00
CET 636 EE RD	ADJUSTMENT OF UTILITY HARWARE IN ROADWAY (34" TO UNDER 41" WIDTH)	EA.	4.00
CET 638 R	BREAK OUT AND REMOVE UTILITY STRUCTURE	C.Y.	5.00
CET 700	SPECIAL MOD. OF WORK MTHDS TO ACCOM./PROTECT U.G. FACIL. W. LMTD CVR.	C.Y.	2,541.00
CET 710.1	REM. OF ABND. UTILITY STEEL/CAST IRON PIPE, UP TO & INCL. 12" DIAM. PIPES	L.F.	480.00

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SECTION U WORKSHEET
PDWTC2013 - WORLD TRADE CENTER CAMPUS SECURITY PLAN
FOR INFORMATION ONLY
ENGINEER'S ESTIMATE OF QUANTITY AND TYPES OF INTERFERENCE
FOR EMPIRE CITY SUBWAY
WASHINGTON ST., TRINITY PL., W. BROADWAY, AND CHURCH ST.
BOROUGH OF MANHATTAN

CET ITEM NUMBER	DESCRIPTION	Unit of Measure	Estimated Quantity
CET 802A	SPECIAL CARE EXCAVATION AND RESTORATION FOR SIDEWALK	S.F.	108.00
CET 802B	SPECIAL CARE EXCAVATION AND RESTORATION FOR CURB WORK	L.F.	474.00

EMPIRE CITY SUBWAY CET SCOPE OF WORK
SUPPORT & PROTECTION
PDWTC2013 - WORLD TRADE CENTER CAMPUS SECURITY PLAN
WASHINGTON ST., TRINITY PL., W. BROADWAY, AND CHURCH ST.
BOROUGH OF MANHATTAN

CET 100.1	UTILITIES CROSSING TRENCH FOR CATCH BASIN CHUTE CONNECT. AND/OR TEST PIT (TYPE .1)	EA.
	At the following locations:	
	W/S WASHINGTON STREET 40' S/O BARCLAY STREET	1.00
	Total quantity for CET 100.1 = 1.00	
CET 100.2	UTILITIES CROSSING TRENCH FOR CATCH BASIN CHUTE CONNECT. AND/OR TEST PIT (TYPE .2)	EA.
	At the following locations:	
	AS ENCOUNTERED AND DIRECTED BY THE ECS REPRESENTATIVE	1.00
	Total quantity for CET 100.2 = 1.00	0.00
CET 100.3	UTILITIES CROSSING TRENCH FOR CATCH BASIN CHUTE CONNECT. AND/OR TEST PIT (TYPE .3)	EA.
	At the following locations:	
	CHURCH STREET N/O VESEY STREET	1.00
	Total quantity for CET 100.3 = 1.00	
CET 100.4	UTILITIES CROSSING TRENCH FOR CATCH BASIN CHUTE CONNECT. AND/OR TEST PIT (TYPE .4)	EA.
	At the following locations:	
	S/S BARCLAY STREET E/O WASHINGTON STREET	1.00
	Total quantity for CET 100.4 = 1.00	
CET 108.1	UTILITIES CROSSING TRENCH FOR WATERMAIN UP TO AND INCL. 12" DIAMETER (TYPE .1)	EA.
	At the following locations:	
	AS ENCOUNTERED AND DIRECTED BY THE ECS REPRESENTATIVE	1.00
	Total quantity for CET 108.1 = 1.00	
CET 108.2	UTILITIES CROSSING TRENCH FOR WATERMAIN UP TO AND INCL. 12" DIAMETER (TYPE .2)	EA.
	At the following locations:	
	INT. OF TRINITY PLACE & LIBERTY STREET	1.00
	Total quantity for CET 108.2 = 1.00	
CET 108.3	UTILITIES CROSSING TRENCH FOR WATERMAIN UP TO AND INCL. 12" DIAMETER (TYPE .3)	EA.
	At the following locations:	
	AS ENCOUNTERED AND DIRECTED BY THE ECS REPRESENTATIVE	1.00
	Total quantity for CET 108.3 = 1.00	

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EMPIRE CITY SUBWAY CET SCOPE OF WORK
SUPPORT & PROTECTION
PDWTC2013 - WORLD TRADE CENTER CAMPUS SECURITY PLAN
WASHINGTON ST., TRINITY PL., W. BROADWAY, AND CHURCH ST.
BOROUGH OF MANHATTAN

CET 225.1A	REMOVAL AND INSTALLATION OF CATCH BASINS WITH UTILITY INTERFERENCES	EA.
	At the following locations:	
	W/S WASHINGTON STREET 20' N/O VESEY STREET	1.00
	Total quantity for CET 225.1A = 1.00	
CET 225.1B	INSTALLATION OF CATCH BASINS WITH UTILITY INTERFERENCES	EA.
	At the following locations:	
	W/S WASHINGTON STREET 45' N/O VESEY STREET	1.00
	W/S WASHINGTON STREET 40' S/O BARCLAY STREET	1.00
	S/S BARCLAY STREET E/O WASHINGTON STREET	1.00
	W/S TRINITY PLACE 25' N/O CEDAR STREET	1.00
	E/S WEST BROADWAY N/O BARCLAY STREET	1.00
	N/S BARCLAY STREET E/O WEST BROADWAY	1.00
	Total quantity for CET 225.1B = 6.00	
CET 225.1C	REMOVAL OF CATCH BASINS WITH UTILITY INTERFERENCES	EA.
	At the following locations:	
	W/S WASHINGTON STREET 65' N/O VESEY STREET	1.00
	S/S BARCLAY STREET E/O WASHINGTON STREET	1.00
	W/S TRINITY PLACE 25' N/O CEDAR STREET	1.00
	Total quantity for CET 225.1C = 3.00	
CET 300	SPECIAL CARE EXCAVATION & BACKFILLING	C.Y.
	At the following locations:	
	E/S WASHINGTON STREET 45' N/O VESEY STREET	5.60
	W/S WASHINGTON STREET S/O BARCLAY STREET	9.30
	Total quantity for CET 300 = 14.90	
CET 330T	SUPPORT & PROTECTION OF COMMUNICATION UTILITY FACILITIES DURING EXCAVATION OF CITY TRENCH WHEN FACILITIES LIE IN OR CLOSE PROXIMITY TO TRENCH LIMITS	L.F.
	At the following locations:	
	W/S WASHINGTON STREET N/O VESEY STREET	35.00
	TRINITY PLACE BET. CEDAR STREET & LIBERTY STREET	130.00
	Total quantity for CET 330T = 165.00	
CET 400	TEST PITS	C.Y.
	At the following locations:	
	AS ENCOUNTERED AND DIRECTED BY THE ECS REPRESENTATIVE	40.00
	Total quantity for CET 400 = 40.00	

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EMPIRE CITY SUBWAY CET SCOPE OF WORK
SUPPORT & PROTECTION
PDWTC2013 - WORLD TRADE CENTER CAMPUS SECURITY PLAN
WASHINGTON ST., TRINITY PL., W. BROADWAY, AND CHURCH ST.
BOROUGH OF MANHATTAN

CET 401 TRENCH EXCAVATION FOR ADJUSTMENT OF UTILITIES

At the following locations:

- W/S WASHINGTON STREET 45' N/O VESEY STREET
- W/S WASHINGTON STREET 40' S/O BARCLAY STREET
- S/S BARCLAY STREET E/O WASHINGTON STREET
- W/S TRINITY PLACE BET. CEDAR STREET & LIBERTY STREET
- E/S WEST BROADWAY N/O BARCLAY STREET

Total quantity for CET 401 = 354.10

CET 402T.1A EXIST. OCCUPIED CONCR. ENCASED CONDUITS PLCD. IN FINAL POS. WITH CONCR. ENCSMNT.

At the following locations:

- W/S WASHINGTON STREET 45' N/O VESEY STREET
- W/S WASHINGTON STREET 40' S/O BARCLAY STREET
- S/S BARCLAY STREET E/O WASHINGTON STREET
- W/S TRINITY PLACE BET. CEDAR STREET & LIBERTY STREET
- E/S WEST BROADWAY N/O BARCLAY STREET

Total quantity for CET 402T.1A = 6,507.00

CET 402T.V1A EXIST. VACANT CONCR. ENCASED CONDUITS PLCD. IN FINAL POS. WITH CONCR. ENCSMNT.

At the following locations:

- W/S WASHINGTON STREET 45' N/O VESEY STREET
- W/S WASHINGTON STREET 40' S/O BARCLAY STREET
- S/S BARCLAY STREET E/O WASHINGTON STREET
- W/S TRINITY PLACE BET. CEDAR STREET & LIBERTY STREET
- E/S WEST BROADWAY N/O BARCLAY STREET

Total quantity for CET 402T.V1A = 723.00

CET 403 PLACING STEEL PROTECTION PLATES FOR UTILITIES

At the following locations:

- WASHINGTON STREET BET. VESEY STREET & BARCLAY STREET
- TRINITY PLACE BET. CEDAR STREET & LIBERTY STREET
- CHURCH STREET BET. VESEY STREET & BARCLAY STREET

Total quantity for CET 403 = 790.00

CET 500 REMOVAL OF ABANDONED UTILITY CONDUITS (NON-CONCRETE ENCASED)

At the following locations:

- AS ENCOUNTERED OR DIRECTED BY ECS FIELD REPRESENTATIVE

Total quantity for CET 500 = 50.00

EMPIRE CITY SUBWAY CET SCOPE OF WORK
SUPPORT & PROTECTION
PDWTC2013 - WORLD TRADE CENTER CAMPUS SECURITY PLAN
WASHINGTON ST., TRINITY PL., W. BROADWAY, AND CHURCH ST.
BOROUGH OF MANHATTAN

CET 636 EE RD	ADJUSTMENT OF UTILITY HARWARE IN ROADWAY (34" TO UNDER 41" WIDTH)	EA.
	At the following locations:	
	WASHINGTON STREET BET. VESEY STREET & BARCLAY STREET	1.00
	TRINITY PLACE BET. CEDAR STREET & LIBERTY STREET	3.00
	Total quantity for CET 636 EE RD = 4.00	
CET 638 R	BREAK OUT AND REMOVE UTILITY STRUCTURE	C.Y.
	At the following locations:	
	WASHINGTON STREET BET. VESEY STREET & BARCLAY STREET	5.00
	Total quantity for CET 638 R = 5.00	
CET 700	SPECIAL MOD. OF WORK MTHDS TO ACCOM./PROTECT U.G. FACIL. W. LMTD CVR.	C.Y.
	At the following locations:	
	AS SHOWN ON CONTRACT DRAWINGS AND DIRECTED BY ECS REP.	2,541.00
	Total quantity for CET 700 = 2,541.00	
CET 710.1	REM. OF ABND. UTILITY STEEL/CAST IRON PIPE, UP TO & INCL. 12" DIAM. PIPES	L.F.
	At the following locations:	
	W/S WASHINGTON STREET 45' N/O VESEY STREET	300.00
	W/S WASHINGTON STREET 40' S/O BARCLAY STREET	180.00
	Total quantity for CET 710.1 = 480.00	
CET 802A	SPECIAL CARE EXCAVATION AND RESTORATION FOR SIDEWALK	S.F.
	At the following locations:	
	AS SHOWN ON CONTRACT DRAWINGS AND DIRECTED BY ECS REP.	108.00
	Total quantity for CET 802A = 108.00	
CET 802B	SPECIAL CARE EXCAVATION AND RESTORATION FOR CURB WORK	L.F.
	At the following locations:	
	AS SHOWN ON CONTRACT DRAWINGS AND DIRECTED BY ECS REP.	474.00
	Total quantity for CET 802B = 474.00	

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FOR INFORMATION ONLY
ENGINEER'S ESTIMATE OF QUANTITIES AND TYPES OF INTERFERENCE
TIME WARNER CABLE OF NEW YORK CITY
PDWTC2013
WORLD TRADE CENTER
CAMPUS SECURITY PLAN
Borough of Manhattan

CET ITEM	DESCRIPTION	UNITS	ESTIMATED QUANTITY
CET 300	SPECIAL CARE EXCAVATION AND BACKFILLING	CY	3
CET 802A	SPECIAL CARE EXCAVATION & RESTORATION FOR SIDEWALK WORK	SF	158
CET 802B	SPECIAL CARE EXCAVATION & RESTORATION FOR CURB WORK	LF	13

TIME WARNER CABLE
SUPPORT & PROTECTION
PDWTC2013
WORLD TRADE CENTER
CAMPUS SECURITY PLAN
Borough of Manhattan

CET 300	SPECIAL CARE EXCAVATION AND BACKFILLING		CY
	At the following location:		
	NEC Washington Street & Vesey Street		3
		Total quantity for CET 300	3
CET 802A	SPECIAL CARE EXCAVATION & RESTORATION FOR SIDEWALK WORK		SF
	At the following location:		
	NEC Washington Street & Vesey Street		158
		Total Quantity for CET 802A	158
CET 802B	SPECIAL CARE EXCAVATION & RESTORATION FOR CURB WORK		LF
	At the following location:		
	NEC Washington Street & Vesey Street		13
		Total Quantity for CET 802B	13

SECTION U-3

(NO TEXT IN THIS SECTION)

SKETCHES

A5-35



conEdison

a conEdison, inc. company

Consolidated Edison Co.
Of New York, Inc
4 Irving Place
New York NY 10003

Project: WORLD TRADE CENTER No: PDWTC2013
CAMPUS SECURITY PLAN

Location:

Prepared By: BMW

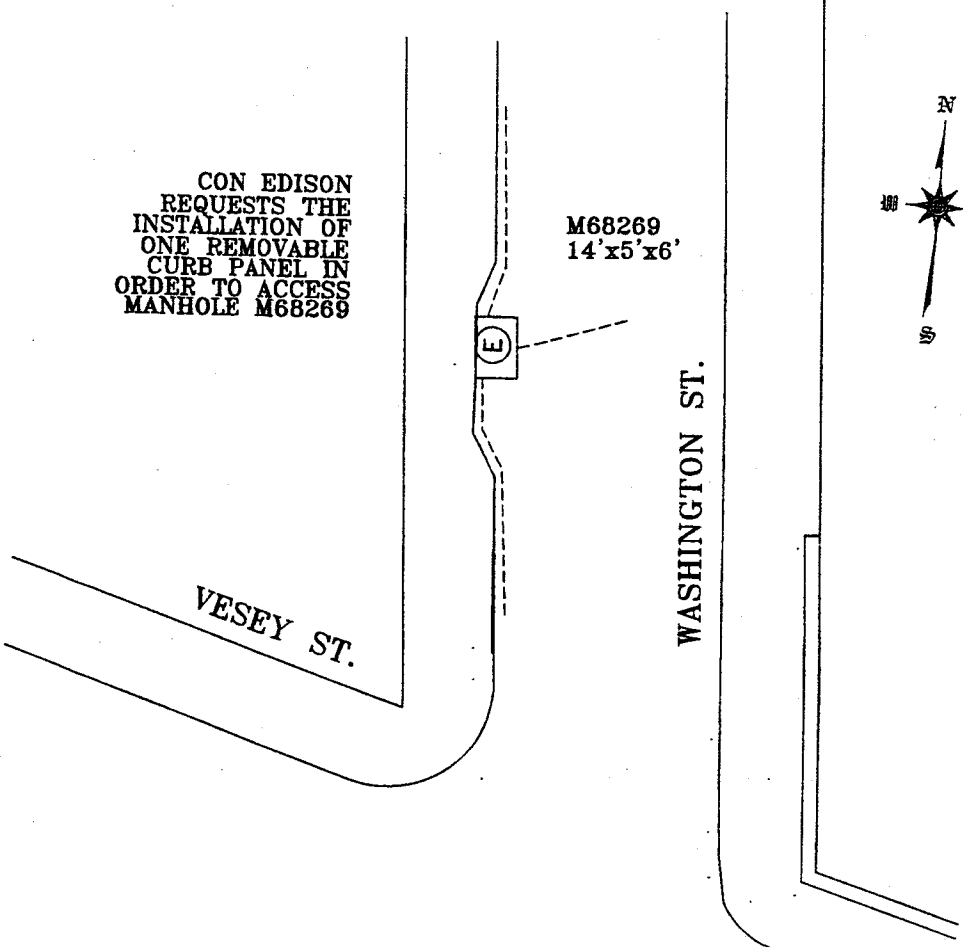
DATE: 04/30/2013

Oil-0-Static Gas High Pressure

Borough: Bronx Manhattan Facility: Electric Fdr Gas Transmission Steam Water Sewer Other: MANHOLE

CON EDISON
REQUESTS THE
INSTALLATION OF
ONE REMOVABLE
CURB PANEL IN
ORDER TO ACCESS
MANHOLE M68269

M68269
14'x5'x6'



NOT TO SCALE

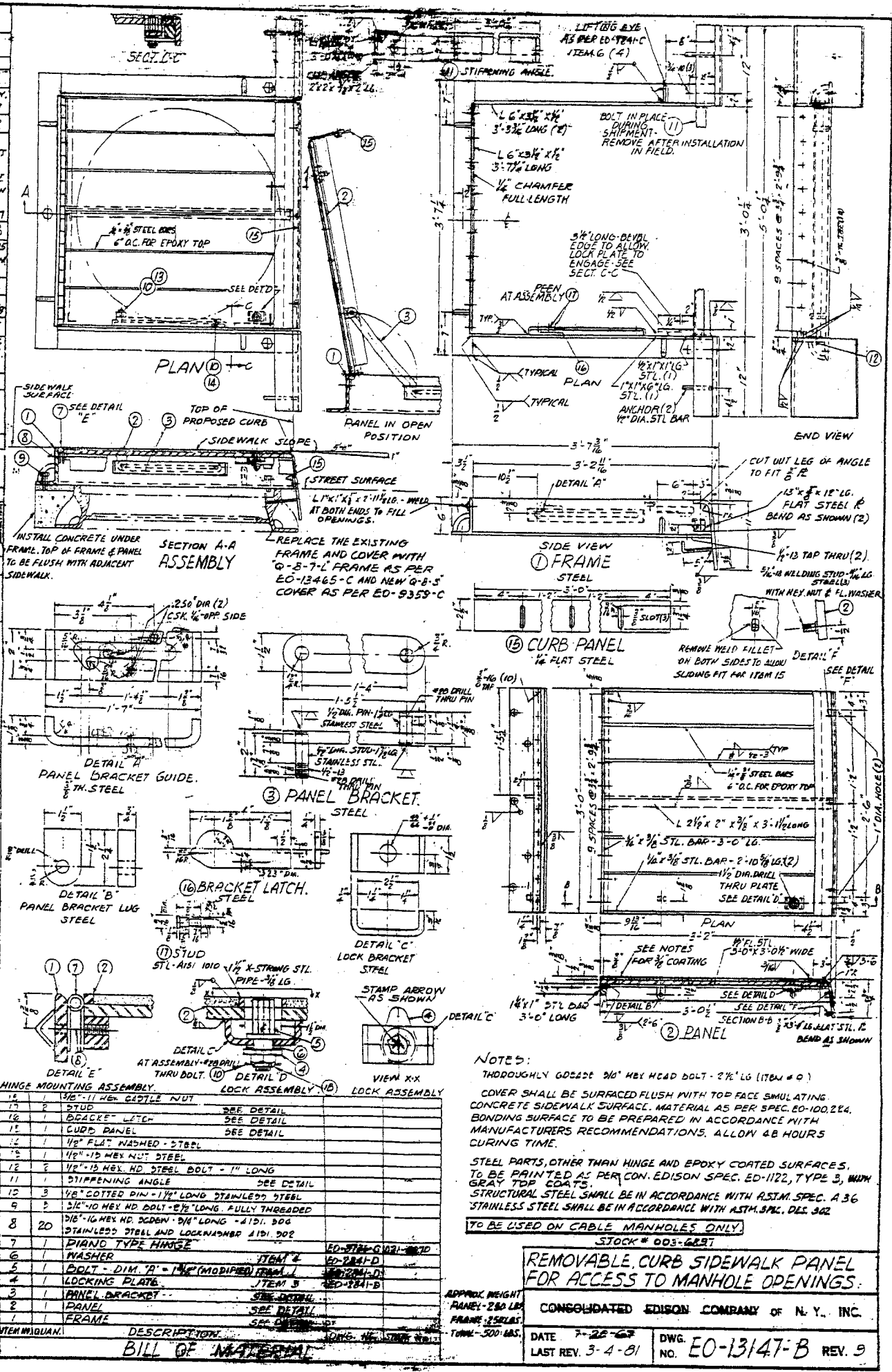
A5-36

REVISIONS

CET SKETCH	
REMOVABLE CURB PANEL	
CONTRACT NO. PDWTC2013	SKETCH NO. 4 OF 4

REVISIONS

1	REVISIONS
2	REVISIONS
3	REVISIONS
4	REVISIONS
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18	REVISIONS
19	REVISIONS
20	REVISIONS



BILL OF MATERIAL

ITEM NO.	DESCRIPTION	QTY	UNIT	REMARKS
1	HINGE MOUNTING ASSEMBLY	1	ASSEMBLY	
2	STUD	1	STUD	
3	BRACKET LATCH	1	STEEL	
4	STUD	1	STEEL	
5	BRACKET LUG	1	STEEL	
6	WASHER	1	STEEL	
7	DIM. 'A'	1	MODIFIED FRAME	
8	LOCKING PLATE	1	STEEL	
9	PANEL BRACKET	1	STEEL	
10	PANEL	1	FLAT STEEL	
11	FRAME	1	STEEL	

NOTES:

- THOROUGHLY GRIND 3/16" HEX HEAD BOLT - 2 1/2" LG (ITEM # 9)
- COVER SHALL BE SURFACED FLUSH WITH TOP FACE SIMULATING CONCRETE SIDEWALK SURFACE. MATERIAL AS PER SPEC. EO-100,244. BONDING SURFACE TO BE PREPARED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS. ALLOW 48 HOURS CURING TIME.
- STEEL PARTS, OTHER THAN HINGE AND EPOXY COATED SURFACES, TO BE PAINTED AS PER CON. EDISON SPEC. ED-1122, TYPE 3, WITH GRAY TOP COATS.
- STRUCTURAL STEEL SHALL BE IN ACCORDANCE WITH ASTM SPEC. A 36
- STAINLESS STEEL SHALL BE IN ACCORDANCE WITH ASTM SPEC. 302

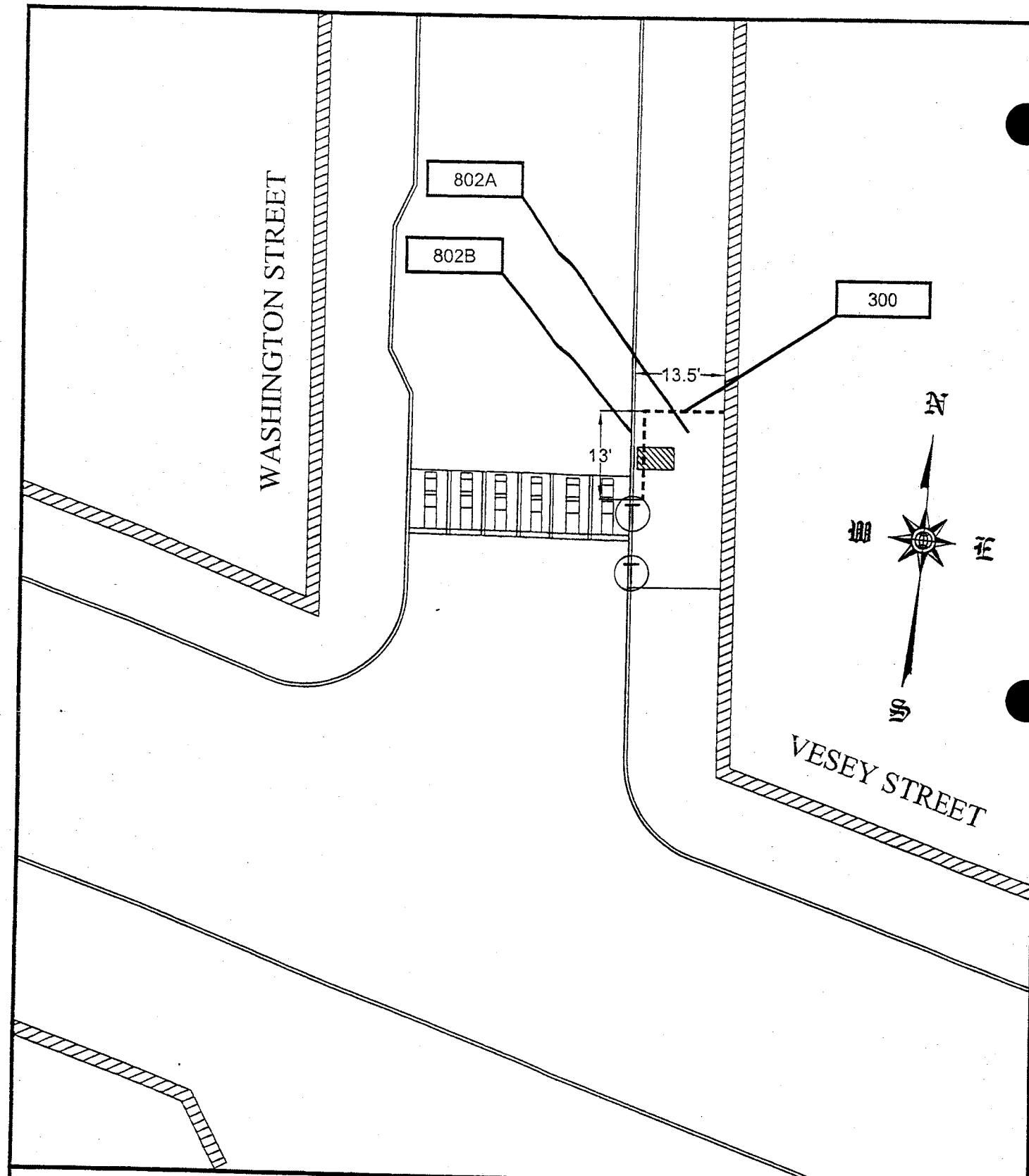
TO BE USED ON CABLE MANHOLES ONLY
STOCK # 003-6827

REMOVABLE CURB SIDEWALK PANEL FOR ACCESS TO MANHOLE OPENINGS.

CONSOLIDATED EDISON COMPANY OF N. Y., INC.

DATE 7-26-67
LAST REV. 3-4-69

DWG. NO. **EO-13147-B** REV. 9



TIME WARNER
CABLE OF NEW YORK CITY

PDWTC2013 World Trade Center Campus
Security Plan: Washington St & Vesey St

DATE

05/23/13

PAGE

1 of 1

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.



JOB NO.: PDWTC2013
 JOB: WORLD TRADE CENTER
 CAMPUS SECURITY PLAN

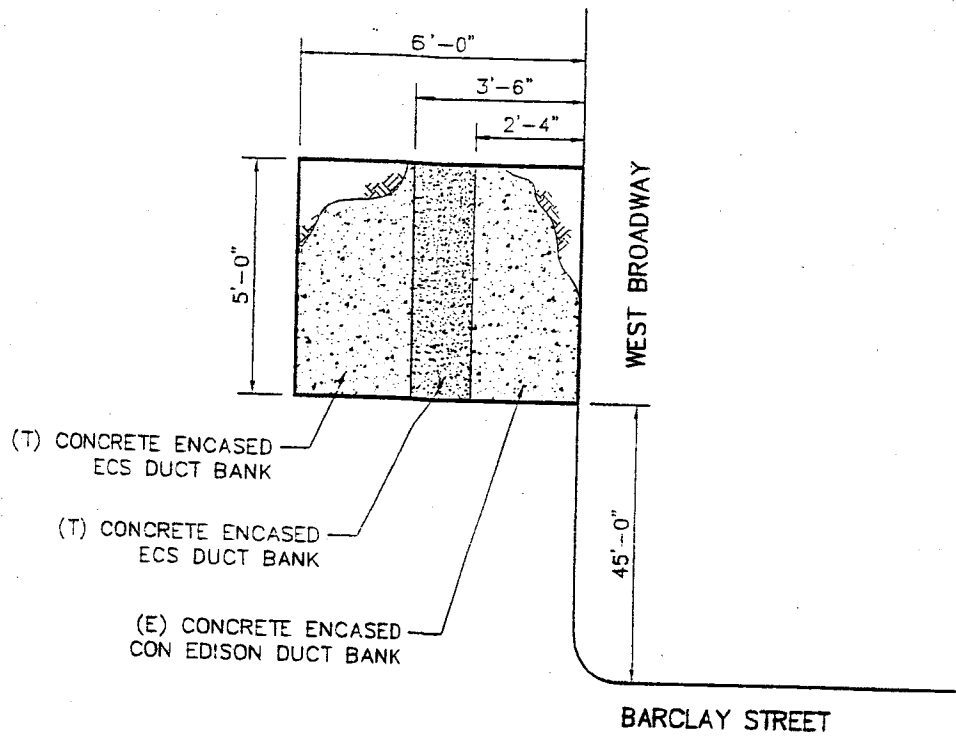
TEST PIT #: 1
 TP DATE: 07/13/13
 INSPECTOR: PM

LOCATION: 0' W/E/C WEST BROADWAY, 45' N/O BARCLAY STREET

PURPOSE: LOCATE FACILITIES

DIMENSION: 6'-0" x 5'-0" x 2'-0" VOLUME: 2.2 C.Y.

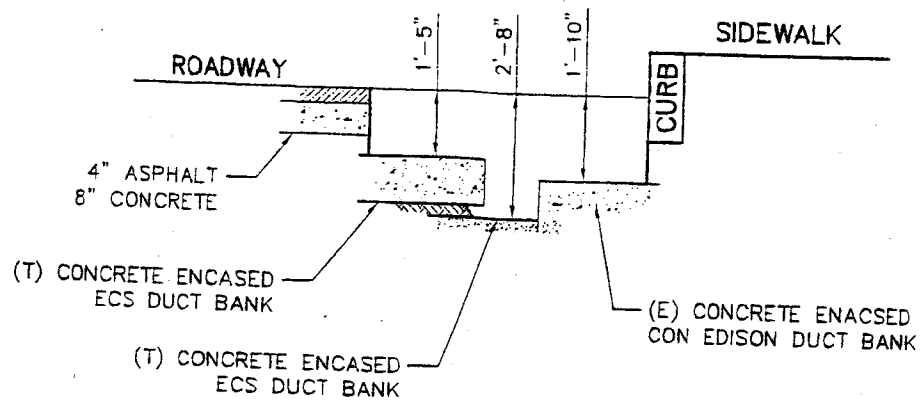
SHEET NO. 1 OF 2



NOTE:
 1. ALL DRAWINGS SHOWING UTILITY
 SUPPORT AND PROTECT WORK ARE
 FOR REFERENCE ONLY.

PLAN

CET
 ITEMS



A5-40
 SECTION LOOKING NORTH

JOB NO.: PDWTC2013

TEST PIT #: 2

JOB: WORLD TRADE CENTER

TP DATE: 07/13/13

CAMPUS SECURITY PLAN

INSPECTOR: PM

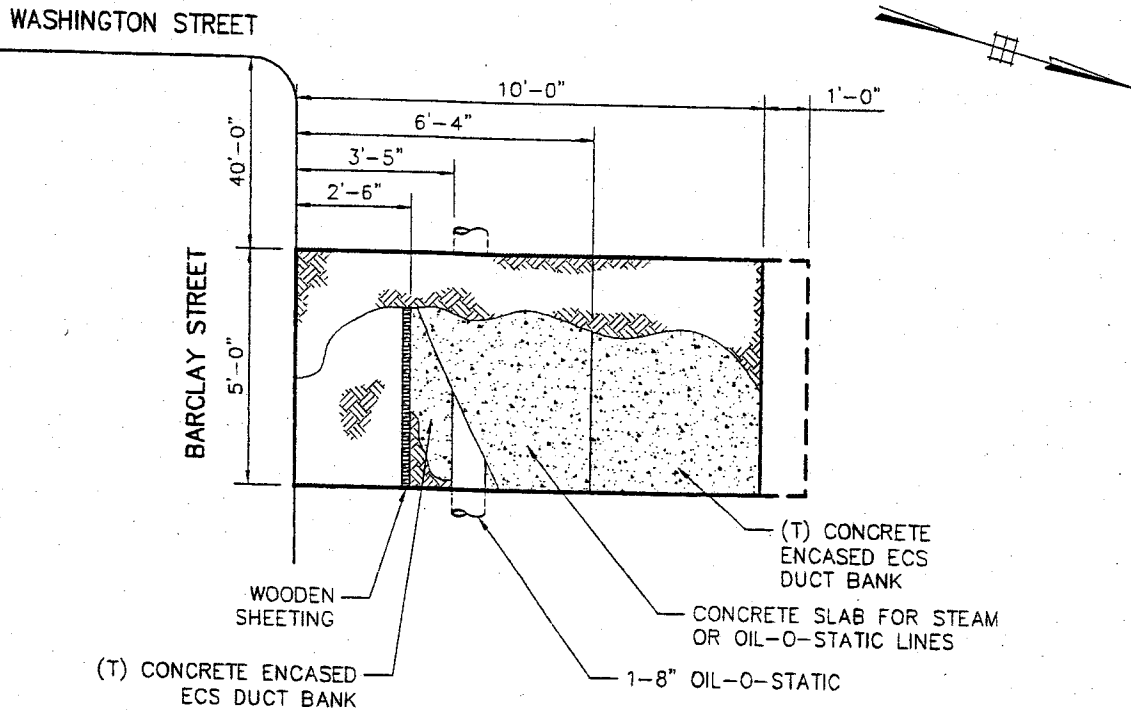
LOCATION: 0' N/S/C BARCLAY STREET, 40' E/O WASHINGTON STREET

PURPOSE: LOCATE FACILITIES

DIMENSION: 10'-0" x 5'-0" x 3'-6"

VOLUME: 6.5 C.Y.

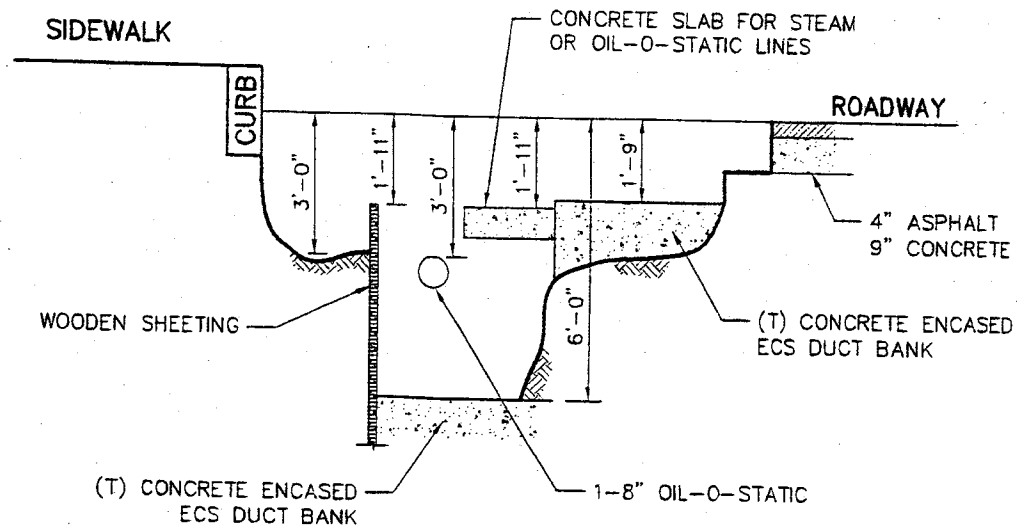
SHEET NO. 2 OF 2



NOTE:
 1. ALL DRAWINGS SHOWING UTILITY SUPPORT AND PROTECT WORK ARE FOR REFERENCE ONLY.

PLAN

CET
 ITEMS



A5-41

SECTION LOOKING WEST

END OF ADDENDUM No.5

This Addendum consists of Forty Two (42) Pages
And Twenty Four (24) Pages of Contract Drawings



NEW YORK CITY DEPARTMENT OF
DESIGN + CONSTRUCTION

**INFRASTRUCTURE DIVISION
BUREAU OF DESIGN**

VOLUME 3 OF 3

PROJECT ID: PDWTC2013

WORLD TRADE CENTER CAMPUS SECURITY PLAN

WASHINGTON STREET FROM BARCLAY STREET TO VESEY STREET
TRINITY PLACE FROM LIBERTY STREET TO THAMES STREET
WEST BROADWAY FROM VESEY STREET TO BARCLAY STREET
AND
CHURCH STREET FROM VESEY STREET TO BARCLAY STREET

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

Together With All Work Incidental Thereto

BOROUGH OF MANHATTAN
CITY OF NEW YORK

Contractor.

Dated _____, 20____
