



**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:

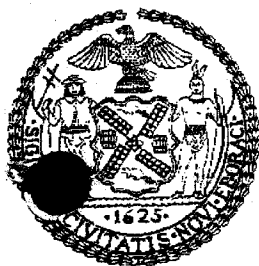
PROJECT ID: HWPLZ008M

RECONSTRUCTION OF FORSYTH STREET PLAZA

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

Together With All Work Incidental Thereto

**BOROUGH OF MANHATTAN
CITY OF NEW YORK**



FOR THE DEPARTMENT OF TRANSPORTATION
PREPARED BY
URS CORPORATION

JULY 30, 2013

4-021



Bid Tab

Revised Description **RECONSTRUCTION OF FORSYTH STREET PLAZA -
BOROUGH OF MANHATTAN**

Bid Date 10/16/2013 **FMS ID** HWPLZ008M

Estimated Cost *\$3,617,583.70 **DEP Supervised** No

Bid Security 2% of Total Bid Price **PLA** No

Time Allowed 365 CCD **Contract Manager** Vicky Ayo-Vaughan

Addendum 5 **Project Manager** Cato, Barbara

PIN 8502013HW0069C **E-PIN** 85014B0008

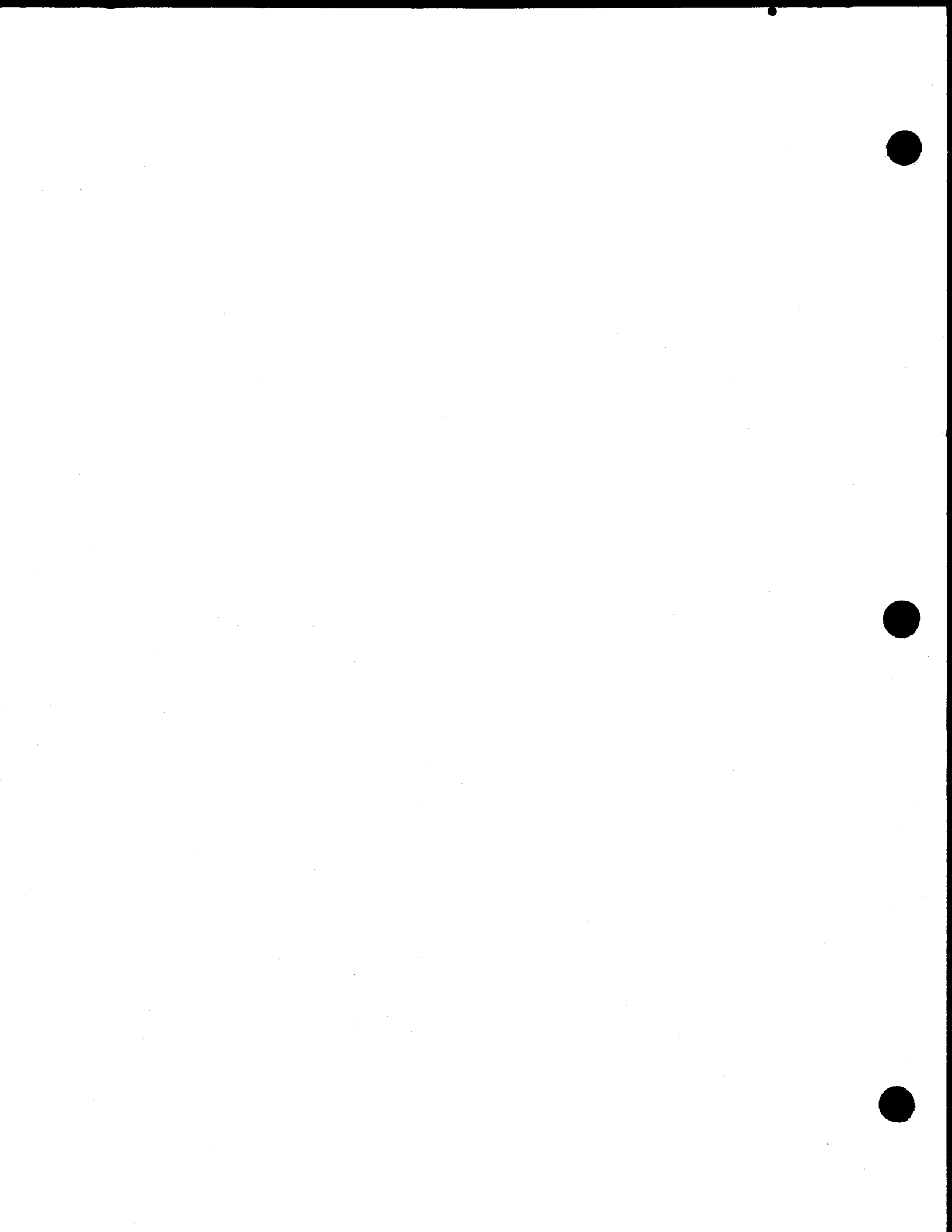
Selective Bidding Yes No **Consultant** URS Corporation

Bid Rank	Vendor	Bid Amount	Security Type
1	TROCOM CONSTRUCTION CORP	**\$3,583,630.93	Bond
2	C.A.C. INDUSTRIES, INC.	\$3,939,120.00	Bond
3	PERFETTO CONTRACTING CO. INC.	\$4,256,686.72	Bond
4	JLJ IV ENTERPRISES INC.	\$4,891,559.62	Bond
5	NAVILLUS TILE INC. D/B/A NAVILLUS CONTRACTING	\$5,418,171.01	Bond
6	P & T II CONTRACTING CORP.	\$5,572,719.07	Bond
7	JR CRUZ CORP.	\$5,910,622.00	Bond

Recorder: Phyllis Lopez – ext. 1283

Approver: 

Bid Tab
Pin: 8502013HW0069C





NEW YORK CITY DEPARTMENT OF
DESIGN + CONSTRUCTION

DAVID J. BURNEY, FALA
Commissioner

CAROL DIAGOSTINO
Agency Chief
Contracting Officer

November 15, 2013

CERTIFIED MAIL - RETURN RECEIPT REQUEST
TROCOM CONSTRUCTION CORP
46-27 54th Road
Maspeth, NY 11378

RE: FMS ID: HWPLZ008M
E-PIN: 85014B0008001
DDC PIN: 8502013HW0069C
RECONSTRUCTION OF FORSYTH
STREET PLAZA - BOROUGH OF
MANHATTAN
NOTICE OF AWARD

Dear Contractor:

You are hereby awarded the above referenced contract based upon your bid in the amount of \$3,583,630.93 submitted at the bid opening on October 16, 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

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.

(NO TEXT ON THIS PAGE)

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: HWPLZ008M

RECONSTRUCTION OF FORSYTH STREET PLAZA

**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

TABLE OF CONTENTS

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

(NO TEXT ON THIS PAGE)

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

SPECIAL NOTICE TO BIDDERS

BID SUBMISSION REQUIREMENTS

THE FOLLOWING DOCUMENTS ARE TO BE COMPLETED AND SUBMITTED WITH THE BID:

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

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

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

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

NOTES:

- (1) All of the above referred to blank forms to be completed and submitted with the bid are included in the BID BOOKLET.
- (2) If the bidder has any questions or requires additional information, please contact the Department of Design and Construction by phone (718-391- 2601) or by fax (718-391-2615).
- (3) **VENDEX QUESTIONNAIRES:** The Bidder is advised that Vendex Questionnaires and procedures have been changed. Vendex Questionnaires, as well as detailed instructions, may be obtained at www.nyc.gov/vendex. The bidder may also obtain Vendex forms and instructions by contacting the Agency Chief Contracting Officer or the contact person for this contract.
- (4) **SPECIAL EXPERIENCE REQUIREMENTS:** The Bidder is advised that Special Experience Requirements may apply to this contract. Such requirements are set forth on pages 3 and 4 of this Bid Booklet.

SPECIAL NOTICE TO BIDDERS
SPECIAL EXPERIENCE REQUIREMENTS (Revised 02/2007)

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

The 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: _____

(NO TEXT ON THIS PAGE)

ATTACHMENT 1 - BID INFORMATION

PROJECT ID: HWPLZ008M

Description and Location of Work:

RECONSTRUCTION OF FORSYTH STREET PLAZA

INCLUDING SEWER, WATER MAIN,
STREET LIGHTING, AND TRAFFIC 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 OCTOBER 3, 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 OCTOBER 3, 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

(NO TEXT ON THIS PAGE)

BID SCHEDULE

NOTICE TO BIDDERS

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

Items listed in this Bid Schedule beginning with the number 8.01 followed by a letter (e.g. 8.01 C2) shall comply with the requirements of the corresponding numerical Sections of the DDC Specifications for Handling, Transportation and Disposal of Nonhazardous and Potentially Hazardous Contaminated Materials contained in Addendum No. 3, 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. 52.11D12) 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. 60.12D06) 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. 70.91SW12), 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 551.40200017, 551.50220017, 551.99400017, and 551.99450017 listed in this Bid Schedule shall comply with the requirements of the corresponding numerical Sections incorporated in Addendum No. 1, herein Volume 3 of 3.

Items listed in this Bid Schedule which have three (3) digits followed by a decimal (e.g. 623.12), shall comply with the requirements of the corresponding numerical Sections of the New York State Department of Transportation (NYSDOT) Standard Highway Specifications of May 1, 2008, as currently amended.

Item NYC-564.510002 listed in this Bid Schedule is a modified version of a New York State Department of Transportation (NYSDOT)

Specification and shall comply with the requirements of the corresponding alphanumeric Section incorporated in Addendum No. 1, herein Volume 3 of 3.

However in the Specifications for the items referred to in the above three paragraphs, all references to the "Department", "Materials Bureau", "Regional Engineer", etc., shall be deemed to mean the "Engineer". Where any reference is made on the plans or specifications to the "State" or any of its officials, the Contractor shall substitute the City of New York, Department of Design and Construction, or any of its appropriate officials. The NYSDOT Specifications described above neither imply the State's involvement in any testing and approval of materials, nor in the supervision of construction.

Items listed in this Bid Schedule beginning with the prefix "BL" (e.g. BL-1) shall comply with the requirements of the corresponding alphanumeric Sections incorporated in Addendum No. 1, herein Volume 3 of 3.

Items listed in this Bid Schedule beginning with the prefix "E" (e.g. E 262726F), shall comply with the requirements of the corresponding alphanumeric Sections incorporated in Addendum No. 1, herein Volume 3 of 3.

Items listed in this Bid Schedule beginning with the prefix "NYCT" (e.g. NYCT-7A.1), shall comply with the requirements of the corresponding alphanumeric Sections incorporated in Addendum No. 1, herein Volume 3 of 3.

Items listed in this Bid Schedule beginning with the prefix "PK-" (e.g. PK-12D, PK-14D), shall comply with the requirements of the corresponding alphanumeric Sections incorporated in Addendum No. 1, herein Volume 3 of 3.

Items listed in this Bid Schedule beginning with the prefix "SL-" (e.g. SL-21.09.01) are Street Lighting 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.

Items listed in this Bid Schedule beginning with the prefix "T-" (e.g. T-2.22) 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, except for Item No. "T-60000B which shall comply with the requirements of Section T-60000B in Addendum No. 1, herein Volume 3 of 3.

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: HWPLZ008M
RECONSTRUCTION OF FORSYTH STREET PLAZA
INCLUDING SEWER, WATER MAIN,
STREET LIGHTING, AND TRAFFIC WORK

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

Name of Bidder: Trocom Construction Corp.

Date of Bid Opening: 10-3-13

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

Place of Business of Bidder: 46-27 54 Road, Maspeth NY 11378

Bidder's Telephone Number: 718 937 2000 Fax Number: 718 784 2824

Bidder's E-Mail Address: ASANTORO@TROCOMCONSTRUCTION.COM

Residence of Bidder (If Individual): _____

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

Names of Partners

Residence of Partners

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

Organized under the laws of the State of New York

Name and Home Address of President: Joseph TROVATO

333 Carnation Drive, Farmingdale NY 11735

Name and Home Address of Secretary: Same

Name and Home Address of Treasurer: Same

BID FORM

Troton Construction Corp

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

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.)

Trocom Construction Corp.
46-27 54th Rd.
Maspeth, NY 11378

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

112203562

By: _____
Signature

Title: Vice President

If a corporation, place seal here

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

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

(NO TEXT ON THIS PAGE)

Qualification Form

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

Name of Contractor: Trocom Construction Corp.

Name of Project: Reconstruction of Beekman Street (HMMWTCA6E)

Location of Project: Manhattan

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

Name: Eric MacFarlane, P. E.

Title: Deputy Commissioner Phone Number: 718-391-1000

Brief description of the Project completed or the Project in progress: Water, Sewer, Drainage, utility relocation and replacement, concrete sidewalk, roadway paving, lighting and traffic.

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

Amount of Contract, Subcontract or Sub-subcontract: \$14,200,000.00

Start Date and Completion Date: 9/2/7 to 5/18/10

Name of Contractor: Trocom Construction Corp.

Name of Project: Reconstruction of Liberty Street & Nevelson Plaza (HMMWTCA6C)

Location of Project: Manhattan

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

Name: Eric MacFarlane, P. E.

Title: Deputy Commissioner Phone Number: 718-391-1000

Brief description of the Project completed or the Project in progress: Watermain, sewer, utility relocation and replacement, paving, sidewalk, roadway, sculpture restoration, drilling and grouting, void remediation, guardbooth, benches

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

Amount of Contract, Subcontract or Sub-subcontract: \$17,000,000.00

Start Date and Completion Date: 8/1/08 to 12/9/10



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: Trocom Construction Corp.

Name of Project: Construction of Imagination Playground (MG41100-107MA)

Location of Project: Burling Slip, Manhattan

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

Name: John Natoli, P. E.

Title: Chief Engineer Phone Number: 718-760-6725

Brief description of the Project completed or the Project in progress: Relocate existing 48" box sewer on pile chamber, new park construction, water features, lighting, play equipment, fencing.

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

Amount of Contract, Subcontract or Sub-subcontract: \$8,500,000.00

Start Date and Completion Date: 5/4/09 to 7/27/10

Name of Contractor: Trocom Construction Corp.

Name of Project: Structural Reconstruction of Subway Tunnel (C33812)

Location of Project: Whitehall to Canal Streets, BMT Line

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

Name: Gange Balagangayan

Title: Project Manager Phone Number: 917-335-7345

Brief description of the Project completed or the Project in progress: Rehab of tunnel, steel replacements, structural concrete, waterproofing, vent reconstruction, tunnel lighting grouting.

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

Amount of Contract, Subcontract or Sub-subcontract: \$19,710,000.00

Start Date and Completion Date: 2/1/07 to 11/1/09



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: Trocom Construction Corp.

Name of Project: Emergency Retaining Wall Stabilization (HWCRWALLC)

Location of Project: Various Locations, Citywide

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

Name: Eric MacFarlane

Title: Deputy Commissioner Phone Number: 718-391-1000

Brief description of the Project completed or the Project in progress: Stabilization and reconstruction of retaining walls including piles, steel sheeting, structural concrete.

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

Amount of Contract, Subcontract or Sub-subcontract: \$3,000,000.00

Start Date and Completion Date: 5/207 to 5/2010

Name of Contractor: Trocom Construction Corp.

Name of Project: Reconstruction Route 9A - Bikeway (D259562)

Location of Project: Gainsvort Street to West 59th Street, Manhattan

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

Name: Robert Collucci, P. E. NYSDOT

Title: Resident Engineer Phone Number: _____

Brief description of the Project completed or the Project in progress: Paving, asphalt, curb, lighting, signage, fencing, hazmat removals, road barriers, precast walls, landscaping.

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

Amount of Contract, Subcontract or Sub-subcontract: \$7,800,000.00

Start Date and Completion Date: 6/06 to 6/07



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: Trocom Construction Corp.

Name of Project: Reconstruction of Watermains - Various Locations (HWQP181)

Location of Project: Vernon Blvd. and Liberty Avenue, Queens

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

Name: Evans Doleyres

Title: Assistant Commissioner Phone Number: 718-391-1901

Brief description of the Project completed or the Project in progress: Watermains, curbs, sidewalk trench restoration, hazmat removal, pipe jacking at LIRR.

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

Amount of Contract, Subcontract or Sub-subcontract: \$4,800,000.00

Start Date and Completion Date: 4/06

Name of Contractor: Trocom Construction Corp.

Name of Project: Reconstruction of Old Slip- Manhattan (HMMWTCA6D)

Location of Project: Old Slip between South and Water Streets

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

Name: Evans Doleyres

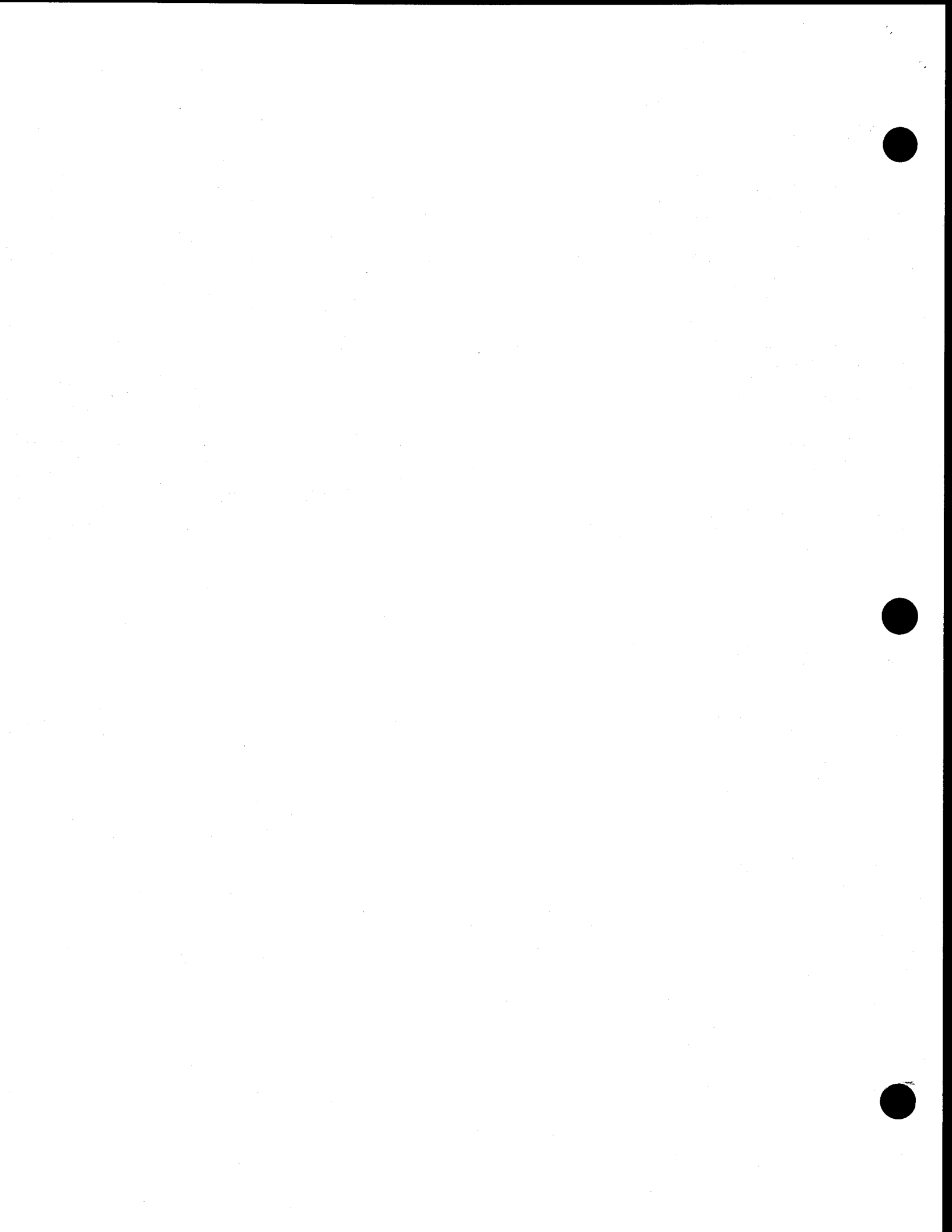
Title: Assistant Commissioner Phone Number: 718-391-1901

Brief description of the Project completed or the Project in progress: Granite work, utility interference, water drainage, unit pavers, lighting, paving, curb, sidewalk, landscaping.

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

Amount of Contract, Subcontract or Sub-subcontract: \$1,400,000.00

Start Date and Completion Date: 5/05



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: Trocom Construction Corp.

Name of Project: Reconstruction of Parks - Various Locatons (9) (MG-703M)

Location of Project: Lower Manhattan

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

Name: David Goldstone

Title: Deputy Director Construction Phone Number: 718-760-8725

Brief description of the Project completed or the Project in progress: Sitework, granite, curb, pavings, fountains, fencing, sculptures, landscaping, drainage, water, lighting, structural concrete.

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

Amount of Contract, Subcontract or Sub-subcontract: \$13,800,000.00

Start Date and Completion Date: 11/05

Name of Contractor: Trocom Construction Corp.

Name of Project: Emergency Rock Wall Stabilization.

Location of Project: Highbridge Park, Manhattan

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

Name: David Goldstone

Title: Deputy Director Construction Phone Number: 718-760-8725

Brief description of the Project completed or the Project in progress: Rock scaling, netting, dental concrete.

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

Amount of Contract, Subcontract or Sub-subcontract: \$3,000,000.00

Start Date and Completion Date: 03/07



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: Trocom Construction Corp.

Name of Project: Reconstruction of 44th and 45th Avenue

Location of Project: Queens

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

Name: Evans Doleyes

Title: Assistant Commissioner Phone Number: 718-391-1901

Brief description of the Project completed or the Project in progress: watermain; sewer, drainage, curb, sidewalk, paving, lighting.

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

Amount of Contract, Subcontract or Sub-subcontract: \$5,100,000.00..

Start Date and Completion Date: 10/06

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: _____



Qualification Form

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

Name of Contractor: _____

Name of Project: _____

Location of Project: _____

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

Name: _____

Title: _____ Phone Number: _____

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

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

Amount of Contract, Subcontract or Sub-subcontract: _____

Start Date and Completion Date: _____

Name of Contractor: _____

Name of Project: _____

Location of Project: _____

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

Name: _____

Title: _____ Phone Number: _____

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

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

Amount of Contract, Subcontract or Sub-subcontract: _____

Start Date and Completion Date: _____

(NO TEXT ON THIS PAGE)



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

Contract PIN 8502013HW0069C
Project ID HWPLZ008M

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 - 41 [REVISION # 1]



09/27/2013

1:56PM

BID PAGES

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

Contract PIN 8502013HW0069C

Project ID HWPLZ008M

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
207.26 (001)	249.0 S.Y.	PREFABRICATED COMPOSITE STRUCTURAL DRAIN	\$ 45	00	\$ 11205	00
4.02 AG (002)	560.0 S.Y.	ASPHALTIC CONCRETE WEARING COURSE, 3" THICK	\$ 48	00	\$ 26,880	00
4.02 CB (003)	153.0 TONS	ASPHALTIC CONCRETE MIXTURE	\$ 200	00	\$ 30,600	00
4.04 AP (004)	4.0 C.Y.	CONCRETE BASE FOR PAVERS, 4" TO 7" THICK, CLASS A-40	\$ 300	00	\$ 1200	00

09/27/2013

1:56PM

BID PAGES



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

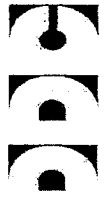
Contract PIN

8502013HW0069C

Project ID

HWPLZ008M

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 H (005)	100.0 C.Y.	CONCRETE BASE FOR PAVEMENT, VARIABLE THICKNESS FOR TRENCH RESTORATION, (HIGH-EARLY STRENGTH)	\$ 240	00	\$ 24,000	00
4.06 (006)	13.0 C.Y.	CONCRETE IN STRUCTURES, CLASS A-40	\$ 1000	00	\$ 13,000	00
4.09 ADB (007)	145.0 L.F.	STRAIGHT STEEL FACED CONCRETE CURB (20" DEEP)	\$ 44	00	\$ 6,380	00
4.09 BDB (008)	15.0 L.F.	DEPRESSED STEEL FACED CONCRETE CURB (20" DEEP)	\$ 44	00	\$ 660	00



09/27/2013
1:56PM
BID PAGES

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

Contract PIN 8502013HW0069C
Project ID HWPLZ008M

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 CDB (009)	32.0 L.F.	CORNER STEEL FACED CONCRETE CURB (20" DEEP)	\$ 75	00	\$ 2,400	00
4.11 AS (010)	380.0 C.Y.	EARTH EXCAVATION FOR STRUCTURES	\$ 75	00	\$ 28,500	00
4.11 CA (011)	75.0 C.Y.	FILL, PLACE MEASUREMENT	\$ 40	00	\$ 3,000	00
4.13 AAS (012)	3,400.0 S.F.	4" CONCRETE SIDEWALK (UNPIGMENTED)	\$ 8	00	\$ 27,200	00



09/27/2013
1:56PM
BID PAGES

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

Contract PIN 8502013HW0069C
Project ID HWPLZ008M

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 BAS (013)	473.0 S.F.	7" CONCRETE SIDEWALK (UNPIGMENTED)	\$ 9	00	\$ 4257	-
4.13 BRP (014)	5.0 S.F.	REINFORCED 7" CONCRETE SIDEWALK (PIGMENTED)	\$ 700	00	\$ 3500	00
4.13 DE (015)	16.0 S.F.	EMBEDDED PREFORMED DETECTABLE WARNING UNITS	\$ 30	00	\$ 480	00
4.14 (016)	19,593.0 LBS.	STEEL REINFORCEMENT BARS	\$ 3	00	\$ 58,779	00



09/27/2013
1:56PM
BID PAGES

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

Contract PIN 8502013HW0069C
Project ID HWPLZ008M

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
4.15 SSM (017)	110.0 C.Y.	STRUCTURAL TOPSOIL	\$ 90	00	\$ 9900	00
4.15 UPMB (018)	158.0 C.Y.	URBAN PLANTING MIX	\$ 100	00	\$ 15,800	00
4.16 ADE (019)	2.0 EACH	TREES REMOVED (24" TO UNDER 48" CALIPER)	\$ 1200	00	\$ 2400	00
4.16 FA (020)	3.0 EACH	TREES PLANTED, 4-1/2" TO 5" CALIPER, ALL TYPES	\$ 2400	00	\$ 7200	00



09/27/2013
1:56PM
BID PAGES

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

Contract PIN 8502013HW0069C
Project ID HWPLZ008M

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
4.16 GA (021)	3.0 EACH	TREES PLANTED, 5" TO 5-1/2" CALIPER, ALL TYPES	\$ 3800	00	\$ 11400	00
4.17 HA (022)	597.0 EACH	ORNAMENTAL GRASS PLANTED. 2 GALLON. HAKONECHLOA AUREOLA	\$ 35	00	\$ 20895	00
4.17 OG10G (023)	20.0 EACH	ORNAMENTAL GRASS PLANTED, 10 GALLON	\$ 350	00	\$ 7000	00
4.17 OG3G (024)	522.0 EACH	ORNAMENTAL GRASS PLANTED, 3 GALLON	\$ 50	00	\$ 26,100	00



09/27/2013
1:56PM
BID PAGES

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

Contract PIN 8502013HW0069C
Project ID HWPLZ008M

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
4.17 OG5G (025)	92.0 EACH	ORNAMENTAL GRASS PLANTED, 5 GALLON	\$ 60	00	\$ 5520	00
4.18 RDM (026)	202.0 S.Y.	RODENT DETERRENT MESH	\$ 28	00	\$ 5656	00
4.21 (027)	20.0 P/HR	TREE CONSULTANT	\$ 92	00	\$ 1840	00
50.41C6E16 (028)	84.0 L.F.	16" D.I.P. CLASS 56 COMBINED SEWER, ENCASED IN CONCRETE	\$ 600	00	\$ 50,400	00

09/27/2013
1:56PM
BID PAGES



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

Contract PIN 8502013HW0069C
Project ID HWPLZ008M

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
50.4186C08 (029)	50.0 L.F.	8" D.I.P. CLASS 56 SANITARY SEWER, ON CONCRETE CRADLE	\$ 600	00	\$ 39,000	00
51.11R007 (030)	1.0 EACH	STANDARD 7'-0" DIAMETER PRECAST DROP-PIPE MANHOLE TYPE II	\$ 15,000	00	\$ 15,000	00
51.41P000 (031)	1.0 EACH	SPECIAL CATCH BASIN	\$ 4000	00	\$ 4000	00
51.41S002 (032)	1.0 EACH	STANDARD CATCH BASIN, TYPE 2	\$ 3600	00	\$ 3600	00



09/27/2013

1:56PM

BID PAGES

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

Contract PIN 8502013HW0069C

Project ID HWPLZ008M

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 (033)	220.0 L.F.	12" DUCTILE IRON PIPE BASIN CONNECTION	\$ 240	00	\$ 52800	00
52.31D06C16 (034)	1.0 EACH	6" DUCTILE IRON PIPE SPUR FOR HOUSE CONNECTION ON 16" D.I.P. COMBINED SEWER	\$ 1000	00	\$ 1000	00
52.41C06N (035)	33.0 L.F.	NEW 6" C.I.S.P. HOUSE CONNECTION DRAIN ON STONE BEDDING Unit price bid shall not be greater than: \$ 75.00	\$ 150	00	\$ 4950	00
551.40200017 (036)	1.0 L.S.	FURNISHING EQUIPMENT FOR INSTALLING MICROPILES	\$ 52,000	00	\$ 52,000	00



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

Contract PIN 8502013HW0069C
Project ID HWPLZ008M

09/27/2013
1:56PM
BID PAGES

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 (033)	220.0 L.F.	12" DUCTILE IRON PIPE BASIN CONNECTION	\$ 240	00	\$ 52800	00
52.31D06C16 (034)	1.0 EACH	6" DUCTILE IRON PIPE SPUR FOR HOUSE CONNECTION ON 16" D.I.P. COMBINED SEWER	\$ 1000	00	\$ 1000	00
52.41C06N (035)	33.0 L.F.	NEW 6" C.I.S.P. HOUSE CONNECTION DRAIN ON STONE BEDDING Unit price bid shall not be greater than: \$ 75.00	\$ 75 150 10/20/13	00	\$ 2475 4950	00
551.40200017 (036)	1.0 L.S.	FURNISHING EQUIPMENT FOR INSTALLING MICROPILES	\$ 52,000	00	\$ 52,000	00





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

Contract PIN 8502013HW0069C
Project ID HWPLZ008M

09/27/2013
1:56PM
BID PAGES

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
551.50220017 (037)	1.0 EACH	STATIC PILE LOAD TEST	\$ 89,000	02	\$ 89,000	02
551.99400017 (038)	8.0 EACH	MICROPILES (CONTRACTOR DESIGNED) - DESIGN LOAD LESS THAN 100 TONS	\$ 19,000	02	\$ 129,000	02
551.99450017 (039)	120.0 L.F.	PERMANENT CASING FOR MICROPILES	\$ 300	02	\$ 36,000	02
555.0105 (040)	168.0 C.Y.	CONCRETE FOR STRUCTURES, CLASS A	\$ 950	02	\$ 159,600	02



09/27/2013
1:56PM
BID PAGES

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

Contract PIN 8502013HW0069C
Project ID HWFLZ008M

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
564.510001 (041)	24,015.0 LBS.	STRUCTURAL STEEL	\$ 5	25	\$ 130,086	25
572.010001 (042)	1,703.0 S.F.	STRUCTURAL STEEL PAINTING: SHOP APPLIED	\$ 11	00	\$ 18733	00
6.02 AAN (043)	464.0 C.Y.	UNCLASSIFIED EXCAVATION	\$ 75	00	\$ 34,800	00
6.02 XHEC (044)	30.0 C.Y.	INCREMENTAL COST FOR MODIFYING WORK METHODS NEAR (WITHIN 3 FEET OF) TRANSIT FACILITIES AND BUILDING VAULTS	\$ 20	00	\$ 600	00



09/27/2013
1:56PM
BID PAGES

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

Contract PIN 8502013HW0069C
Project ID HWPLZ008M

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
6.02 XSCW (045)	431.0 C.Y.	INCREMENTAL COST FOR USING SPECIAL CARE WORK METHODS NEAR (FROM 3 FEET TO 50 FEET) TRANSIT FACILITIES	15	00	6465	00
6.06 AB (046)	29.0 S.Y.	GRANITE BLOCK SIDEWALK (GROUTED JOINTS) (FURNISH BLOCK)	300	00	8700	00
6.06 AC (047)	5.0 S.Y.	GRANITE BLOCK SIDEWALK (SAND AND GROUTED JOINTS) (FURNISH BLOCK)	275	00	1375	00
6.18 AAM (048)	15.0 L.F.	MANHATTAN STYLE PEDESTRIAN BARRIER	250	00	3750	00



09/27/2013

1:56PM

BID PAGES

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

Contract PIN 8502013HW0069C

Project ID HWPLZ008M

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
6.18 PS (049)	64.0 L.F.	CLEAN AND PAINT STEEL FENCE	\$ 30	00	\$ 1920	00
6.21 AD (050)	1.0 EACH	RELOCATE LOW PRESSURE HYDRANT AND RESET VALVE BOX HEAD	\$ 3500	00	\$ 3500	00
6.21 FE (051)	2.0 EACH	FURNISHING, DELIVERING AND INSTALLING HYDRANT FENDERS	\$ 350	00	\$ 700	00
6.25 RS (052)	530.0 S.F.	TEMPORARY SIGNS	\$ 8	00	\$ 4240	00

09/27/2013
1:56PM
BID PAGES



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

Contract PIN 8502013HW0069C
Project ID HWPLZ008M

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
6.28 BA (053)	110.0 L.F.	LIGHTED TYPE III BREAKAWAY BARRICADES	\$ 30	00	\$ 3300	00
6.30 AR (054)	20.0 L.F.	REMOVE EXISTING GUIDE RAIL	\$ 100	31	\$ 2000	31
6.34 AET (055)	200.0 L.F.	TEMPORARY CHAIN LINK FENCE, 10'-0" HIGH	\$ 35	00	\$ 7000	00
6.34 BET (056)	10.0 L.F.	TEMPORARY CHAIN LINK FENCE GATE FOR 10'-0" HIGH FENCE	\$ 200	00	\$ 2000	00



09/27/2013

1:56PM

BID PAGES

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

Contract PIN 8502013HW0069C

Project ID HWPLZ008M

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
6.34 X (057)	132.0 L.F.	REMOVE AND DISPOSE OF EXISTING CHAIN LINK FENCE	\$ 10	00	\$ 1320	00
6.40 B (058)	18.0 MONTH	ENGINEER'S FIELD OFFICE (TYPE B)	\$ 6500	00	\$ 117,000	00
6.43 (059)	600.0 SETS	PHOTOGRAPHS	\$ 19	00	\$ 11400	00
6.44 (060)	2,345.0 L.F.	THERMOPLASTIC REFLECTORIZED PAVEMENT MARKINGS (4" WIDE)	\$ 2	00	\$ 4690	00

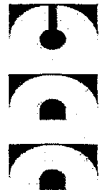


09/27/2013
1:56PM
BID PAGES

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

Contract PIN 8502013HW0069C
Project ID HWPLZ008M

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
6.47 PCB (061)	3,950.0 S.F.	FURNISH AND INSTALL CONCRETE PAVERS	35	00	\$ 138,250	00
6.49 (062)	250.0 L.F.	TEMPORARY PAVEMENT MARKINGS (4" WIDE)	2	00	\$ 500	00
6.52 (063)	1,500.0 P/HR	UNIFORMED FULL-TIME FLAGPERSON	50	00	\$ 75,000	00
6.53 (064)	500.0 L.F.	REMOVE EXISTING LANE MARKINGS (4" WIDE)	2	00	\$ 1,000	00



09/27/2013

1:56PM

BID PAGES

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

Contract PIN 8502013HW0069C

Project ID HWPLZ008M

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
6.55 (065)	200.0 L.F.	SAWCUTTING EXISTING PAVEMENT	\$ 8	00	\$ 1600	00
6.59 PF (066)	825.0 L.F.	TEMPORARY CONCRETE BARRIER WITH FENCE	\$ 45	00	\$ 37125	-
6.67 (067)	201.0 C.Y.	SUBBASE COURSE, SELECT GRANULAR MATERIAL	\$ 45	00	\$ 9045	00
6.74 G (068)	193.0 L.F.	GALVANIZED STEEL EDGING	\$ 40	00	\$ 7720	-



09/27/2013
1:56PM
BID PAGES

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

Contract PIN 8502013HW0069C
Project ID HWPLZ008M

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
6.77 R (069)	2.0 EACH	METAL TRASH RECEPTACLE	\$ 1400	92	\$ 2200	92
6.82 A (070)	4.0 S.F.	REMOVING EXISTING TRAFFIC AND STREET NAME SIGNS	\$ 1	4	\$ 4	4
6.82 B (071)	28.0 L.F.	REMOVING EXISTING TRAFFIC AND STREET NAME SIGN POSTS	\$ 1	28	\$ 28	28
6.83 AB (072)	21.0 L.F.	FURNISHING NEW TRAFFIC SIGN POSTS	\$ 1	21	\$ 21	21



09/27/2013
1:56PM
BID PAGES

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

Contract PIN 8502013HW0069C
Project ID HWPLZ008M

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
6.83 AR (073)	7.0 S.F.	FURNISHING NEW REFLECTORIZED TRAFFIC SIGNS	\$ 25	-	\$ 175	-
6.83 BA (074)	7.0 S.F.	INSTALLING TRAFFIC SIGNS	\$ 10	-	\$ 70	-
6.83 BB (075)	21.0 L.F.	INSTALLING TRAFFIC SIGN POSTS	\$ 1	-	\$ 21	-
6.85 A (076)	1.0 F.S.	TRAFFIC ENFORCEMENT AGENTS PRICE BID SHALL BE FOR THE FIXED SUM OF \$ 448,177.72	\$ 448,177.72	-	\$ 448,177.72	-

09/27/2013

1:56PM

BID PAGES



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

Contract PIN

8502013HW0069C

Project ID

HWPLZ008M

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
6.87 (077)	230.0 EACH	PLASTIC BARRELS	\$ 7	-	\$ 1610	-
60.11R606 (078)	155.0 L.F.	FURNISHING AND DELIVERING 6-INCH DUCTILE IRON RESTRAINED JOINT PIPE (CLASS 56)	\$ 60	-	\$ 9300	-
60.12D06 (079)	155.0 L.F.	LAYING 6-INCH DUCTILE IRON PIPE AND FITTINGS	\$ 60	-	\$ 9300	-
623.12 (080)	53.0 C.Y.	CRUSHED STONE (IN- PLACE MEASURE)	\$ 50	-	\$ 2650	-



09/27/2013

1:56PM

BID PAGES

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

Contract PIN 8502013HW0069C

Project ID HWPLZ008M

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
7.01 SSG (081)	256.0 S.F.	STAINLESS STEEL GRATING	\$ 415	-	\$ 106,240	-
7.07 TPM (082)	2.0 EACH	TEMPORARY OUTDOOR PARABOLIC MIRROR	\$ 750	-	\$ 1500	-
7.13 B (083)	12.0 MONTH	MAINTENANCE OF SITE Unit price bid shall not be less than: \$ 10.00	\$ 3000	-	\$ 36,000	-
7.36 (084)	830.0 L.F.	PEDESTRIAN STEEL BARRICADES	\$ 8	00	\$ 6640	-



09/27/2013
1:56PM
BID PAGES

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

Contract PIN 8502013HW0069C
Project ID HWPLZ008M

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
7.39 SSD (085)	438.0 S.F.	SLIP-RESISTANT STAINLESS STEEL DECKING	\$ 675	-	\$ 295,650	-
7.53 KBC (086)	27.0 EACH	CHAIR	\$ 150	-	\$ 4050	-
7.53 KBT (087)	9.0 EACH	TABLE	\$ 275	-	\$ 2475	-
7.54 AFD (088)	1.0 EACH	CAST IRON FLOOR DRAIN FRAME AND GRATE	\$ 4000	-	\$ 4000	-



Contract PIN 8502013HW0069C
 Project ID HWPLZ008M

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

09/27/2013
 1:56PM
 BID PAGES

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
7.55 SS1 (089)	89.0 L.F.	STAINLESS STEEL GUARD RAILING AT BIKEWAY	\$ 600	-	\$ 53400	-
7.55 SS2 (090)	98.0 L.F.	STAINLESS STEEL GUARD RAILING AT EXTERIOR RAMP	\$ 675	-	\$ 66150	-
7.55 SS3 (091)	65.0 L.F.	STAINLESS STEEL STAIR HANDRAIL	\$ 260	-	\$ 16900	-
7.55 SS4 (092)	64.0 L.F.	STAINLESS STEEL RAMP HANDRAIL, SINGLE RAIL	\$ 260	-	\$ 16640	-



09/27/2013
1:56PM
BID PAGES

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

Contract PIN 8502013HW0069C
Project ID HWPLZ008M

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
7.55 SS5 (093)	95.0 L.F.	STAINLESS STEEL RAMP HANDRAIL, DOUBLE RAIL	\$ 375	—	\$ 35,625	—
7.55 SS6 (094)	42.0 L.F.	STAINLESS STEEL SIDEWALK GUIDE RAILING	\$ 340	—	\$ 14,280	—
7.55 SS7 (095)	1.0 EACH	STAINLESS STEEL SWING GATE	\$ 5200	—	\$ 5200	—
7.88 AA (096)	1.0 L.S.	RODENT INFESTATION SURVEY AND MONITORING	\$ 500	—	\$ 500	—
		Unit price bid shall not be less than: \$ 10.00				



09/27/2013

1:56PM

BID PAGES

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

Contract PIN 8502013HW0069C

Project ID HWPLZ008M

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
7.88 AB (097)	10.0 EACH	RODENT BAIT STATIONS Unit price bid shall not be less than: \$ 60.00	\$ 60	-	\$ 600	-
7.88 AC (098)	10.0 EACH	BAITING OF RODENT BAIT STATIONS Unit price bid shall not be less than: \$ 8.50	\$ 8	75	\$ 85	-
7.88 AD (099)	1.0 BLOCK	WATERBUG BAIT APPLICATIONS Unit price bid shall not be less than: \$ 65.00	\$ 65	-	\$ 65	-
73.31AE0 (100)	100.0 C.Y.	ADDITIONAL EARTH EXCAVATION INCLUDING TEST PITS (ALL DEPTHS) Unit price bid shall not be less than: \$ 20.00	\$ 20	-	\$ 2000	-

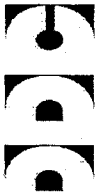


09/27/2013
1:56PM
BID PAGES

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

Contract PIN 8502013HW0069C
Project ID HWPLZ008M

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
8.01 C1 (101)	700.0 TONS	HANDLING, TRANSPORTING AND DISPOSAL OF NON-HAZARDOUS CONTAMINATED SOIL	1	-	\$ 700	-
8.01 C2 (102)	2.0 SETS	SAMPLING AND TESTING OF CONTAMINATED/POTENTIALLY HAZARDOUS SOIL FOR DISPOSAL PURPOSES	2500	-	\$ 5,000	-
8.01 H (103)	1.0 TONS	HANDLING, TRANSPORTING AND DISPOSAL OF HAZARDOUS SOIL	350	-	\$ 350	-
8.01 S (104)	1.0 L.S.	HEALTH AND SAFETY	10,000	-	\$ 10,000	-



09/27/2013

1:56PM

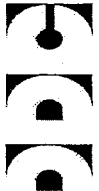
BID PAGES

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

Contract PIN 8502013HW0069C

Project ID HWPLZ008M

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
8.01 W1 (105)	7.0 DAY	REMOVAL, TREATMENT, AND DISCHARGE/DISPOSAL OF CONTAMINATED WATER	\$ 1500		\$ 10,500	
8.01 W2 (106)	2.0 SETS	SAMPLING AND TESTING OF WATER	\$ 2500		\$ 5000	
8.15 WXY (107)	1.0 EACH	DRINKING FOUNTAIN, TYPE WXY	\$ 9500		\$ 9500	
8.23 SSP (108)	1.0 EACH	PERFORATED STAINLESS STEEL ENCLOSURE	\$ 49,000		\$ 49,000	



09/27/2013
1:56PM
BID PAGES

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

Contract PIN 8502013HW0069C
Project ID HWPLZ008M

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
8.23 SST (109)	1.0 EACH	STAINLESS STEEL THRESHOLD	\$ 69,000	-	\$ 69,000	-
8.26 R (110)	16.5 C.Y.	STONE MASONRY WALL RESTORATION	\$ 3500	-	\$ 57,750	-
9.04 HW (111)	1.0 F.S.	ALLOWANCE FOR ANTI-FREEZE ADDITIVE IN CONCRETE PRICE BID SHALL BE FOR THE FIXED SUM OF \$ 62,500.00	\$ 62,500.00	-	\$ 62,500.00	-
9.95 GSI (112)	90.0 L.F.	GRANITE SEATING INSTALLATION	\$ 225	-	\$ 20,250	-



09/27/2013

1:56PM

BID PAGES

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

Contract PIN 8502013HW0069C

Project ID HWPLZ008M

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
9.95 GSP (113)	257.0 S.F.	GRANITE SLAB PAVING	\$ 75 -	-	\$ 19,275 -	-
9.95 GST (114)	456.0 L.F.	GRANITE STAIR TREADS	\$ 180 -	-	\$ 82,080 -	-
9.95 GTS (115)	43.0 L.F.	GRANITE TERRACED SEATING UNITS	\$ 800 -	-	\$ 34,400 -	-
9.95 GV (116)	54.0 S.F.	GRANITE VENEER	\$ 150 -	-	\$ 8,100 -	-

09/27/2013
1:56PM
BID PAGES



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

Contract PIN 8502013HW0069C
Project ID HWPLZ008M

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
BL-1 (117)	1.0 EACH	INSTALL PREFORMED BICYCLE DETECTOR LOOPS IN ASPHALT	\$ 11,000	—	\$ 11,000	—
BL-2 (118)	1.0 EACH	INSTALL CONNECTING WIRE FROM LOOP TO COUNTER IN ASPHALT AND CONCRETE	\$ 2,100	—	\$ 2,100	—
BL-3 (119)	1.0 EACH	INSTALL COUNTER IN RECESSED CABINET BUILT INTO PLAZA	\$ 11,500	—	\$ 11,500	—
E 260519 B (120)	400.0 L.F.	LOW-VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES (NO. 2 AWG WIRE)	\$ 5	—	\$ 2,000	—



09/27/2013

1:56PM

BID PAGES

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

Contract PIN 8502013HW0069C

Project ID HWPLZ008M

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 260519 D (121)	150.0 L.F.	LOW-VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES (NO. 6 AWG WIRE)	\$ 3	50	\$ 525
E 260519 E (122)	2,000.0 L.F.	LOW-VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES (NO. 8 AWG WIRE)	\$ 3	50	\$ 7,000
E 260519 F (123)	5,000.0 L.F.	LOW-VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES (NO. 12 AWG WIRE)	\$ 2	75	\$ 13,750
E 260526 (124)	525.0 L.F.	GROUNDING AND BONDING FOR ELECTRICAL SYSTEMS	\$ 6	—	\$ 3,150



09/27/2013
1:56PM
BID PAGES

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

Contract PIN 8502013HW0069C
Project ID HWPLZ008M

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
E 260533 AD (125)	150.0 L.F.	METAL CONDUIT AND TUBING (4" GALVANIZED RIGID STEEL CONDUIT)	\$ 70		\$ 10,500	
E 260533 D (126)	1.0 EACH	HANDHOLES AND BOXES FOR EXTERIOR UNDERGROUND WIRING	\$ 2300		\$ 2300	
E 262713 B (127)	1.0 EACH	ELECTRICITY METERING, 200 A UTILITY METER	\$ 6800		\$ 6800	
NYC-564.510002 (128)	1,127.0 LBS.	STAINLESS STEEL FLATS AND CHANNELS	\$ 28		\$ 31,556	



09/27/2013

1:56PM

BID PAGES

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

Contract PIN 8502013HW0069C

Project ID HWPLZ008M

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
NYCT-7A.1 (129)	1,140.0 S.F.	MEMBRANE WATERPROOFING	\$ 10 -	-	\$ 20,520 -	-
NYCT-7A.2 (130)	380.0 S.F.	WATERPROOFING PROTECTION BOARD	\$ 15 -	-	\$ 5,700 -	-
PK-124 KBDI (131)	3.0 EACH	SPECIAL DROP INLET	\$ 1,800 -	-	\$ 5,400 -	-
PK-124 W (132)	1.0 EACH	SPECIAL CATCH BASIN WITH HOOD	\$ 750 -	-	\$ 750 -	-



09/27/2013
1:56PM
BID PAGES

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

Contract PIN 8502013HW0069C
Project ID HWPLZ008M

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
PK-12D (133)	1.0 EACH	WATER TAP, 2" DIAMETER	\$ 5000	—	\$ 5000	—
PK-13D (134)	40.0 L.F.	TYPE K COPPER TUBING, 1" DIAMETER	\$ 40	—	\$ 1600	—
PK-13F (135)	230.0 L.F.	TYPE K COPPER TUBING, 2" DIAMETER	\$ 48	—	\$ 11,040	—
PK-143 (136)	1.0 EACH	RPZ & WATER METER WITH REMOTE & STRUCTURE - 2" DIA.	\$ 22,000	—	\$ 22,000	—



09/27/2013
1:56PM
BID PAGES

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

Contract PIN 8502013HW0069C
Project ID HWPLZ008M

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
PK-14D (137)	5.0 EACH	CURB GATE VALVE, 2" DIAMETER	\$ 875	-	\$ 4375	-
PK-17 (138)	4.0 EACH	CAST IRON VALVE BOX, 5-1/4" DIAMETER	\$ 675	-	\$ 2700	-
PK-184-GH1 (139)	1.0 EACH	GROUND HYDRANT - 1" DIAMETER	\$ 2100	-	\$ 2100	-
SL-20.09.03 (140)	4.0 EACH	FURNISH AND INSTALL FOUNDATION FOR LAMPEPOST WITHOUT TRANSFORMER BASE AS PER DWG E-3691 ON HIGHWAYS.	\$ 2300	-	\$ 9200	-



09/27/2013

1:56PM

BID PAGES

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

Contract PIN

Project ID

8502013HW0069C

HWFLZ008M

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
SL-21.04.55 (141)	4.0 EACH	FURNISH AND INSTALL TYPE "FLUSHING MEADOWS PARK" LAMPPOST AS PER STD. DWG. H-5305.	\$ 2500	-	\$ 10,000	-
SL-21.09.01 (142)	4.0 EACH	REMOVE PARK TYPE LAMPPOST ON FOUNDATION, WITH ALL ATTACHMENTS, IF ANY.	\$ 600	-	\$ 2400	-
SL-29.01.01 (143)	5.0 EACH	FURNISH, INSTALL, MAINTAIN AND REMOVE EQUIPMENT FOR TEMPORARY LIGHTING (PYLON), AS PER DRAWINGS F-5005 AND F-5005A	\$ 2000	-	\$ 10,000	-
SL-35.01.03 (144)	600.0 L.F.	FURNISH AND INSTALL 1-1/2" HOT DIPPED GALVANIZED STEEL CONDUIT IN PAVED AREA.	\$ 36	-	\$ 21,600	-



09/27/2013
1:56PM
BID PAGES

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

Contract PIN 8502013HW0069C
Project ID HWPLZ008M

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
SL-35.06.01 (145)	250.0 L.F.	FURNISH AND INSTALL 2" PVC SCHEDULE 40 CONCRETE ENCASED CONDUIT IN OPEN TRENCH AREA.	\$ 18	00	\$ 4625	—
SL-35.11.01 (146)	250.0 L.F.	REMOVE CONDUIT(S) WITH OR WITHOUT CONDUCTORS AND ASSOCIATED EQUIPMENT ON STRUCTURE OR BUILDING.	\$ 20	—	\$ 5000	—
SL-37.05.04 (147)	1.0 EACH	FURNISH AND INSTALL TYPE 2418 SIDEWALK CONCRETE BOX WITH CAST IRON FRAME AND COVER WITH TAMPER PROOF BOLTS AS PER DWG J-3179A.	\$ 2100	—	\$ 2100	—
T-60000B (148)	500.0 L.F.	FURNISH 2 c # 10B (BREAKDOWN = 2#10 WITH 3RD WIRE FOR GROUNDING).	\$ 3	—	\$ 1500	—



09/27/2013
1:56PM
BID PAGES

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

Contract PIN 8502013HW0069C
Project ID HWPLZ008M

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
6.39 A (149)	1.0 LUMP SUM	MOBILIZATION PRICE BID SHALL NOT EXCEED 4% OF THE ABOVE SUB-TOTAL PRICE.			\$ 3,448,273	92
SUB-TOTAL:					\$ 1,37,930	96
TOTAL BID PRICE:					\$ 3,586,204	93

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)



09/27/2013
1:56PM
BID PAGES

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

Contract PIN 8502013HW0069C
Project ID HWPLZ008M

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	
6.39 A (149)	1.0 LUMP SUM	MOBILIZATION PRICE BID SHALL NOT EXCEED 4% OF THE ABOVE SUB-TOTAL PRICE.			\$ 3,448,273 <u>92</u>
					137,831 <u>96</u>
					137,930
					3,583,630 <u>93</u>
					3,586,264
			SUB-TOTAL:		
			TOTAL BID PRICE:		

PLEASE BE SURE A LEGIBLE BID IS ENTERED FOR EACH ITEM.

THE BIDDER SHALL INSERT THE TOTAL BID PRICE IN
THE BID FORM ON PAGE C-4 OF THIS BID BOOKLET.



BID FORM
Trocon Construction Corp

PROJECT ID.: HWPLZ008M

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)

3,583,630.93
3,586,204.00

10/20/13

10/16/13 ✓
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: Trocon Construction Corp.

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
Trocon Construction Corp

PROJECT ID.: HWPLZ008M

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)

\$ 3,586,204 ⁹³

10/16/13
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: *Trocon Construction Corp.*

By: _____
(Signature of Partner or corporate officer)

[Signature]

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 Queens ss:

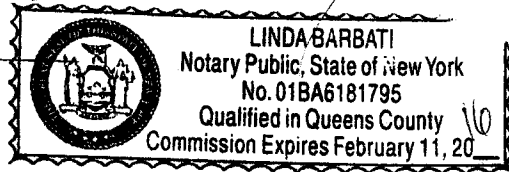
_____ being duly sworn says:

I am the V. President of the above named corporation whose name is subscribed to and which executed the foregoing bid. I reside at Staten Island.
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
2 day of Oct, 2013

Notary Public



BID BOND 1
FORM OF BID BOND

KNOW ALL MEN BY THESE PRESENTS. That we, Trocom Construction Corp.
46-27 54th Road, Maspeth, NY 11378

hereinafter referred to as the "Principal", and Liberty Mutual Insurance Company
1200 MacArthur Blvd., Mahwah, NJ 07043

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 AMOUNT BID

(10% Amt Bid), 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 _____

Cont. #HWPLZ008M - Reconstruction of Forsyth Street Plaza - Boro 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 6th day of September, 2013.

(Seal)

Trocom Construction Corp.

(L.S.)

Principal

By: 

(Seal)

Liberty Mutual Insurance Company

Surety

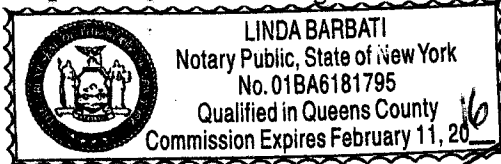
By: 

Susan P. Hammel, Attorney-in-Fact

BID BOND 3

ACKNOWLEDGMENT OF PRINCIPAL, IF A CORPORATION

State of New York County of Queens ss:
On this 2 day of Oct, 2013, before me personally came
ANTHONY J. SANTORO to me known, who, being by me duly sworn, did depose and say
that he resides at Staten Island
that he is the Vice President of Trocon Construction Corp
the corporation described in and which executed the foregoing instrument; that he knows the seal of said
corporation; that one of the seals affixed to said instrument is such seal; that it was so affixed by order of
the directors of said corporation, and that he signed his name thereto by like order.



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

ACKNOWLEDGEMENT OF PRINCIPAL, OF A CORPORATION

STATE OF New York

COUNTY OF Queens

ss:

On this 2 day of October, 2013 before me personally came ANTHONY J. SANTORO to me known, who, being by me duly sworn did depose and say that he resides at Staten Island that he is the Vice President of Ticon Construction Corp. the corporation described in and which executed the foregoing instrument; that he knows the seal of said corporation; that one of the seals affixed to the foregoing instrument is such seal; that it was an affixed by order of the board of directors of said corporation; and that he signed his name thereto by like order.

Notary Public

ACKNOWLEDGEMENT OF SURETY

STATE OF New York

COUNTY OF Nassau

ss:

On this 6th day of September, 2013, before me personally came Susan P. Hammel to me known, who, being by me duly sworn, did depose and say that he is an Attorney-In-Fact of Liberty Mutual Insurance Company the corporation described in and which executed the within instrument; that he knows the corporate seal of said corporation; that the seal affixed to the within instrument is such corporate seal, and that he signed and said instrument and affixed the said seal as Attorney-In-Fact by authority of the Board of Directors of said corporation and by authority of this office under the Standing Resolutions thereof.

LYNN ANN INFANTI
Notary Public, State of New York
No. 011N6004351
Qualified in Suffolk County 2014
Commission Expires March 23,

My commission expires _____

Notary Public

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. 6164632

American Fire and Casualty Company
The Ohio Casualty Insurance Company

Liberty Mutual Insurance Company
West American Insurance Company

POWER OF ATTORNEY

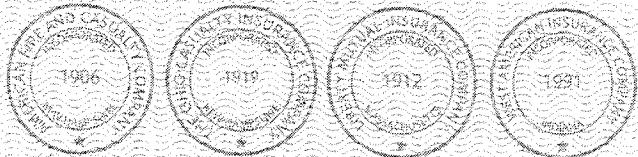
KNOWN ALL PERSONS BY THESE PRESENTS: That American Fire & Casualty Company and The Ohio Casualty Insurance Company are corporations duly organized under the laws of the State of New Hampshire; that Liberty Mutual Insurance Company is a corporation duly organized under the laws of the State of Massachusetts, 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, Joseph Sforzo; Robert Kempner; Robert W. O'Kane; Susan P. Hammel

all of the city of Plainview, 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 12th day of June, 2013.

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

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



STATE OF WASHINGTON ss
COUNTY OF KING

On this 12th day of June, 2013, 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, 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, and West American 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 attorneys-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, and West American 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 6th day of September, 2013.



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

Not valid for mortgage, note, loan, letter of credit, currency rate, interest rate or other financial 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.



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 Other Liabilities.....	<u>3,066,051,537</u>
Accrued Interest and Rents	144,016,763	Total.....	\$25,694,899,915
Other Admitted Assets	<u>14,732,623,458</u>	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

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 # 85014B008 FMS Project ID#: HWPLZ008M
 Project Title/ Agency PIN # RECONSTRUCTION OF FORSYTH STREET PLAZA/ 8502013HW0069C
 Bid/Proposal Response Date OCTOBER 3, 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 Lavidès Title MWBE Liaison & Compliance Analyst
 Telephone # (718) 391-1065 Email LavidèsJe@ddc.nyc.gov

Project Description *(attach additional pages if necessary)*

RECONSTRUCTION OF FORSYTH STREET PLAZA

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

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

M/WBE Participation Goals for Services

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

Prime Contract Industry: Construction

Group	Percentage
<u>Unspecified</u>	<u>4 %</u>
or	
Black American	UNSPECIFIED
Hispanic American	UNSPECIFIED
Asian American	UNSPECIFIED
Women	UNSPECIFIED
Total Participation Goals	4 % Line 1

Tax ID #: 112203562

APT E- 85014B0008
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 #	<u>112203562</u>	FMS Vendor ID #	<u>0000477450</u>
Business Name	<u>TROCOM CONSTRUCTION CORP</u>	Contact Person	<u>ANTHONY J. SANTORO</u>
Address	<u>46-27 54 Road, Middletown NY 11378</u>		
Telephone #	<u>7189372000</u>	Email	<u>ASANTORO@TROCOMCONSTRUCTION.COM</u>

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

PRIME CONTRACTOR ADOPTING AGENCY M/WBE PARTICIPATION GOALS

<input checked="" type="checkbox"/> For Prime Contractors (including Qualified Joint Ventures and M/WBE firms) adopting Agency M/WBE Participation Goals.	Total Bid/Proposal Value	Agency Total Participation Goals (Line 1, Page 13)	Calculated M/WBE Participation Amount
<p>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.</p> <p>Please review the Notice to Prospective Contractors for more information on how to obtain credit for M/WBE participation.</p>	\$ <u>3586,204⁹³</u> X	<u>4</u>	= \$ <u>143,448¹⁹</u> 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.	Total Bid/Proposal Value	Adjusted Participation Goal (From Partial Waiver)	Calculated M/WBE Participation Amount
<p>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.</p> <p>Please review the Notice to Prospective Contractors for more information on how to obtain credit for M/WBE participation.</p>	\$ _____ 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? % 33

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.

Time Frame	Description	Value
QUARTER →	1. IMPRONIA IRON (MBE) STEEL WORK	\$774,000
QUARTER	2. HESUMATI ELECTRICAL (NON MBE) ELECTRICAL	\$104,000
PAST 30 DAYS	3. ASH TREE PAINTING (MBE)	\$2000
LAST 90 DAYS	4. TESTANI - (NON MBE) PAINTING	\$40,000
LAST 120 DAYS	5. ALDON TREE (MBE) LANDSCAPE	\$80,000
PAST 6 MONTH	6. HOPKINS BAKEN. (NON MBE) PILES	\$196,000
	7.	
	8.	
	9.	
	10.	
	11.	
	12.	
	13.	
	14.	
	15.	
	16.	
	17.	

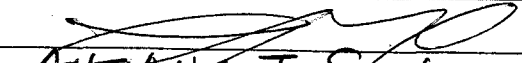
✓ Scopes of Subcontract Work

TOTAL SUBCONTRACT \$1,196,000
 TOTAL MBE SUBCONTRACT \$856,000

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	<u>10-2-13</u>
Print Name	<u>ANTHONY J. SANTORO</u>	Title	<u>Vice President</u>

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: HWPLZ008M

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

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

4. OSHA Information:

_____ 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.

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

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)

Certificate of No Change Form



- Please fill in all the fields and DO NOT leave any field blank.
- 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, Anthony J. Santoro, 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: Trocom Construction Corp.

Vendor's Address: 46-27 54th Road, Maspeth NY 11378

Vendor's EIN or TIN: 112203562 Requesting Agency: NYCDDC

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

Signature date on the last full vendor questionnaire signed by the submitting vendor: 08-01-13

Signature date on changed submission, if applicable, 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 Changed Submission (if applicable)
1	Joseph Trovato	8-21-13	
2	Anthony J. Santoro	8-1-13	
3	Antoinette Trovato	7-17-12	
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:

Anthony J. Santoro

Name (Print)

Vice President

Title

Trocom Construction Corp.

Name of Submitting Entity

Signature

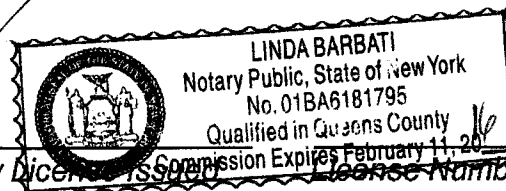
Date

10-2-13

Notarized By:

Notary Public

County License Number



Sworn to before me on:

Date

10-2-13

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: Queens, New York
2 Dec, 2013




SIGNATURE
Anthony J Santoro

PRINTED NAME
Vice President

TITLE

Sworn to before me this
2 day of Dec, 2013

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

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.

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

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) _____ 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 (A) Apprentice
 (H) Helper (TRN) Trainee
 (TOT) Total by Column

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

Trade:	MALES					FEMALES				
	(1) White Non Hisp.	(2) Black Non Hisp.	(3) 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								

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: _____

Union Affiliation, if applicable _____

Total (Col. #1-10): _____

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

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

MALES

FEMALES

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

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								

Total (Col. #1-10):

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

Total Female
(Col. #6 - 10):

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

FORM C: CURRENT WORKFORCE

Trade: _____

Union Affiliation, if applicable _____

Total (Col. #1-10): _____

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

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

MALES

FEMALES

	(1) Males			(2) Females		
	White Non Hisp.	Black Non Hisp.	Native Amer.	White Non Hisp.	Black Non Hisp.	Native Amer.
J						
H						
A						
TRN						
TOT		T				

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: HWPLZ008M

RECONSTRUCTION OF FORSYTH STREET PLAZA

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

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

Contractor.

Dated _____, 20____



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

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

VOLUME 2 OF 3

**INFORMATION FOR BIDDERS
CONTRACT
PERFORMANCE AND PAYMENT BONDS
PREVAILING WAGE SCHEDULE**

FOR FURNISHING ALL LABOR AND MATERIALS NECESSARY AND REQUIRED FOR:

PROJECT ID: HWPLZ008M

RECONSTRUCTION OF FORSYTH STREET PLAZA

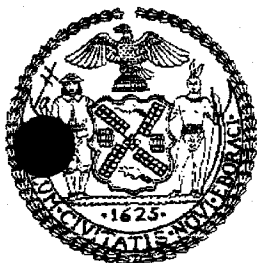
**INCLUDING SEWER, WATER MAIN,
STREET LIGHTING, AND TRAFFIC WORK**

Together With All Work Incidental Thereto

**BOROUGH OF MANHATTAN
CITY OF NEW YORK**

FOR THE DEPARTMENT OF TRANSPORTATION
PREPARED BY
URS CORPORATION

JULY 30, 2013



4-021





**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

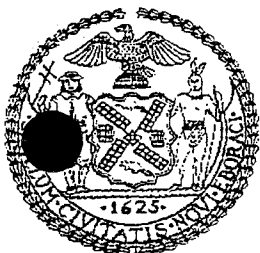
VOLUME 2 OF 3

**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 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.

(NO TEXT ON THIS PAGE)

CITY OF NEW YORK

**DEPARTMENT OF
DESIGN AND CONSTRUCTION
DIVISION OF INFRASTRUCTURES**

INFORMATION FOR BIDDERS

SEPTEMBER 2008

(NO TEXT ON THIS PAGE)

*CITY OF NEW YORK CITY
DEPARTMENT OF DESIGN AND CONSTRUCTION
INFORMATION FOR BIDDERS*

TABLE OF CONTENTS

SECTION 1.	DESCRIPTION AND LOCATION OF WORK	1
SECTION 2.	TIME AND PLACE FOR RECEIPT OF BIDS	1
SECTION 3.	DEFINITIONS	1
SECTION 4.	INVITATION FOR BIDS AND CONTRACT DOCUMENTS	1
SECTION 5.	PRE-BID CONFERENCE	2
SECTION 6.	AGENCY CONTACT	2
SECTION 7.	BIDDER'S OATH	2
SECTION 8.	EXAMINATION AND VIEWING OF SITE, CONSIDERATION OF OTHER SOURCES OF INFORMATION - AND CHANGED CONDITIONS	2
SECTION 9.	EXAMINATION OF PROPOSED CONTRACT	3
SECTION 10.	FORM OF BID	3
SECTION 11.	IRREVOCABILITY OF BID	3
SECTION 12.	ACKNOWLEDGMENT OF AMENDMENTS	4
SECTION 13.	BID SAMPLES AND DESCRIPTIVE LITERATURE	4
SECTION 14.	PROPRIETARY INFORMATION/TRADE SECRETS	4
SECTION 15.	PRE-OPENING MODIFICATION OR WITHDRAWAL OF BIDS	4
SECTION 16.	BID EVALUATION AND AWARD	4
SECTION 17.	LATE BIDS, LATE WITHDRAWALS AND LATE MODIFICATIONS	5
SECTION 18.	WITHDRAWAL OF BIDS.	5
SECTION 19.	MISTAKE IN BIDS	5
SECTION 20.	LOW TIE BIDS	6
SECTION 21.	REJECTION OF BIDS	6
SECTION 22.	RIGHT TO APPEAL DETERMINATIONS OF NON-RESPONSIVENESS OR NON-RESPONSIBILITY AND RIGHT TO PROTEST SOLICITATIONS AND AWARD	7
SECTION 23.	AFFIRMATIVE ACTION AND EQUAL EMPLOYMENT OPPORTUNITY	7
SECTION 24.	VENDEX QUESTIONNAIRES	7
SECTION 25.	COMPLAINTS ABOUT THE BID PROCESS	8
SECTION 26.	BID, PERFORMANCE AND PAYMENT SECURITY	8
SECTION 27.	FAILURE TO EXECUTE CONTRACT	9
SECTION 28.	BIDDER RESPONSIBILITIES AND QUALIFICATIONS	9
SECTION 29.	EMPLOYMENT REPORT	10
SECTION 30.	LABOR LAW REQUIREMENTS	10
SECTION 31.	INSURANCE	10
SECTION 32.	LUMP SUM CONTRACTS	11
SECTION 33.	UNIT PRICE CONTRACTS	11
SECTION 34.	EXCISE TAX	11
SECTION 35.	LICENSES AND PERMITS	11
SECTION 36.	MULTIPLE PRIME CONTRACTORS	11
SECTION 37.	LOCALLY BASED ENTERPRISE REQUIREMENTS (LBE)	12
SECTION 38.	BID SUBMISSION REQUIREMENTS	13
SECTION 39.	COMPTROLLER'S CERTIFICATE	14
SECTION 40.	PROCUREMENT POLICY BOARD RULES	14
SECTION 41.	DDC SAFETY REQUIREMENTS	14

(NO TEXT ON THIS PAGE)

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.

City of New York Department of Design and Construction: Safety Requirements
Technical Support Division – Bureau of Quality Assurance and Construction Safety

Construction Safety Unit: A part of QACS within the Division of Technical Support that assesses contractor safety on DDC jobsites and advises responsible parties of needed corrective actions.

Construction Superintendent: A representative of the contractor responsible for overseeing performance of the required construction work. This individual must engage in sound construction practices, and is responsible to maintain a safe work site. In the case of a project involving the demolition, alteration or new construction of buildings, the Construction Superintendent must be licensed by the NYC Department of Buildings.

Contractor: For purposes of these Safety Requirements, the term “Contractor” shall mean any person or entity that enters into a contract for the performance of construction work on a DDC project. The term “Contractor” shall include any person or entity which enters into any of the following types of contracts: (1) a prime construction contract for a specific project, (2) a prime construction contract using the Job Order Contracting System (“JOCS Contract”), and (3) a subcontract with a CM/Builder (“First Tier Subcontract”).

Director - Quality Assurance and Construction Safety (QACS): Responsible for the operations of the QACS Construction Safety Unit and the DDC Site Safety management programs.

Job Hazard Assessment (JHA): A process of identifying site-specific hazards that may be present during construction and establishing the means and methods to reduce or eliminate those hazards.

Jobsite Safety Coordinator: A person designated by the Contractor to be onsite during all activities. This individual shall have received, at a minimum, the OSHA 10-hour construction safety program. Other examples of acceptable training are the 30-hour OSHA Safety and Health Standards for the Construction Industry training program (OSHA 510) or a degree/certificate in a safety and health from a college-level curriculum. This person does not necessarily have to be dedicated full-time to site safety, but must have sufficient experience and authority to undertake corrective action and must qualify to be a competent person. For certain projects, as defined in NYC Construction Codes – Title 28, this person may be required to have a Site Safety Manager’s License issued by the NYC DOB.

Qualified Person: As defined by OSHA, an individual who, by possession of a recognized degree, certificate, license or professional standing, or who by extensive knowledge, training, and experience, has successfully demonstrated his or her ability to solve problems relating to the subject matter, the work, or the project. Qualified Persons are required under regulation to address issues pertaining, but without limit, to fall protection, scaffold design and trenching and shoring, among others.

Resident Engineer (RE) / Construction Project Manager (CPM): Representative of the Commissioner duly designated by the Commissioner to be his/her representative at the site of the work. (The RE/CPM may be a third-party consultant, including a CM, retained by DDC.)

Safety Program: Established by the Contractor that covers all operations of that Contractor and establishes the Contractor’s overall safety policy, regulatory compliance plan and minimum safety standards. The Safety Program must be submitted prior to the commencement of work at the site and is subject to review and acceptance by the Construction Safety Unit.

Safety Questionnaire: Used by DDC to evaluate Contractor’s current and past safety performance. It is required to be completed by all Contractors initially when submitting bids for Construction work, or when being pre-qualified and updated annually or as requested by the DDC.

Site Safety Plan: A site-specific safety plan developed by the Contractor for a specific project. The Site Safety Plan must identify hazards associated with the project, and include specific safety precautions and training appropriate and necessary to complete the work. The Site Safety Plan must be submitted prior to the commencement of work at the site and is subject to review and acceptance by the Construction Safety Unit.

City of New York Department of Design and Construction: Safety Requirements
Technical Support Division – Bureau of Quality Assurance and Construction Safety

Unsafe or Unhealthy Condition: A condition that could be potentially hazardous to the health and safety of personnel or the public, and/or damaging to equipment, machinery, property or the environment.

Weekly Safety Meetings: Weekly documented jobsite safety meetings, given to all jobsite personnel by contractor, with the purpose of discussing general safety topics and job specific requirements encountered at the DDC work site.

IV. RESPONSIBILITIES

All persons who manage, perform, and provide support for construction projects shall conduct operations in compliance with the requirements identified in this Policy and all applicable governing regulatory agency requirements and guidelines pertaining to safety in construction.

A. Resident Engineer / Construction Project Manager / Construction Manager

- Monitors the issuance of safety-related permits, approvals and drawings and maintains copies on site.
- Monitors construction-related work activities to confirm that they are conducted in accordance with DDC policies and all applicable regulations that pertain to construction safety.
- Maintains documentation and periodically attends weekly safety meeting.
- Notifies the Construction Safety Unit and the ACCO's Insurance and Risk Management Unit of project-related accidents and emergencies, as per DDC's Construction Safety Emergency Protocol.
- Gathers facts related to all accidents and prepares DDC Accident Reports.
- Notifies the Construction Safety Unit of outside regulatory agency inspections and forwards a copy of the inspection report within three days of its receipt.
- Monitors the conditions at the site for conformance with the Site Safety Plan and DDC construction documents.
- Notifies the contractor and DDC in the event that any condition or activity exists that is not in compliance with the Site Safety Plan, applicable federal, state or local codes or any condition that presents a potential risk of injury to the public or workers or possible damage to property.
- Notifies DDC of any emergency condition and directs the contractor to provide such labor, materials, equipment and supervision to abate such conditions.
- Reports gross safety violations to the Construction Safety Unit immediately.

B. Contractors

- Complete a Safety Questionnaire and submit with its bid or as part of a pre-qualification package.
- Provide a Written Job Hazard Assessment (JHA) that identifies expected safety issues of the work to be performed. JHA shall be included with the Site Safety Plan submitted by the contractor.
- Submit a Site Safety Plan and Safety Program within 15 days of issuance of the Notice to Proceed, or as otherwise directed. The Site Safety Plan and Safety Program are subject to review and acceptance by the Construction Safety Unit prior to the commencement of work at the site. The Site Safety Plan shall be revised and updated as necessary.
- Ensure that all employees are aware of the hazards associated with the project through formal and informal training and/or other communications. Conduct and document weekly safety meetings for the duration of the project. Documentation to be provided to the RE/CPM/CM on a monthly basis.
- Name a Construction Superintendent, if required.
- Name a Job Site Safety Coordinator. The Contractor will be required to identify the Job Site Safety Coordinator in the Site Safety Plan.
- Comply with all mandated federal, state and local safety and health rules and regulations.
- Comply with all provisions of the Site Safety Plan.
- As part of the Site Safety Plan, prepare a site specific MPT (if not otherwise provided in the contract documents) and comply with all of its provisions.

City of New York Department of Design and Construction: Safety Requirements
Technical Support Division – Bureau of Quality Assurance and Construction Safety

- Conduct and document site-specific safety orientation for Contractor personnel to review the hazards associated with the project as identified in the Site Safety Plan and the specific safety procedures and controls that will be used to protect workers, the general public and property. The Job Site Safety Coordinator will conduct this training prior to mobilization and provide documentation to the RE/CPM/CM.
- Provide, replace and adequately maintain at or around the project site, suitable and sufficient signage, lights, barricades and enclosures (fences, sidewalk sheds, netting, bracing, etc.).
- Report unsafe conditions or hazards to the DDC RE/CPM/CM as soon as practical, but no more than 24 hours after discovery, and take action to remove or abate such conditions.
- Report any accident involving injuries to workers or the general public, as well as property damage, to the DDC RE/CPM/CM within two (2) hours.
- Notify the DDC RE/CPM/CM within two (2) hours of the start of an inspection by any regulatory agency personnel, including OSHA.
- Maintain all records pertaining to all required compliance documents and accident and injury reports.
- Respond to DDC recommendations on safety, which shall in no way relieve the Contractor of its responsibilities for safety on the project. The Contractor has sole responsibility for safety.

V. SAFETY QUESTIONNAIRE

DDC requires that all Contractors provide information regarding their current and past safety and environmental performance and programs. This will be accomplished by the use of the DDC Safety Questionnaire. As a part of the bid submittal package, the contractor must submit a completed DDC Safety Questionnaire listing their workers' compensation experience modification rating and OSHA Incidence Rates for the three (3) years prior to the date of the bid opening. DDC may request a Contractor to update its Questionnaire at any time or to provide more detailed information. The Contractor must provide the requested update within 30 days.

The following criteria will be used by DDC in reviewing the Contractor's responsibility, which will be based on the information provided on the questionnaire:

- Criteria 1: OSHA Injury and Illness Rates (I&IR) are no greater than the average for the industry (based on the most current Bureau of Labor Statistics data for the Contractors SIC code); and
- Criteria 2: Insurance workers compensation Experience Modification Rate (EMR) equal to or less than 1.0; and
- Criteria 3: Any willful violations issued by OSHA or NYC DOB within the last three years; and
- Criteria 4: A fatality (worker or member of public) experienced on or near Contractor's worksite within the last three (3) years; and
- Criteria 5: An unacceptable rating by QACS based on past performance on DDC projects; and
- Criteria 6: Contractor has in place an acceptable corporate safety program and its employees shall have completed all documented relative safety training; and
- Criteria 7: Contractor shall provide OSHA Injury Records (currently OSHA 300 Log) for the last three (3) years.

If the Contractor fails to meet the basic criteria listed above, the Construction Safety Unit may request, through the ACCO, more detail concerning the Contractor's safety experience. DDC may request the Contractor to provide copies of, among other things, OSHA records, OSHA and DOB citations, EPA citations and written Safety Programs.

VI. SAFETY PROGRAM AND SITE SAFETY PLAN

Within fifteen (15) days of issuance of the Notice to Proceed, or as otherwise directed, the Contractor shall submit the following: (1) Safety Program, and (2) Site Safety Plan. The Safety Program shall set forth the Contractor's overall safety policy, regulatory compliance plan and minimum safety standard, and the Site Safety Plan shall identify hazards associated with the project, and include specific safety precautions and training appropriate and necessary to complete the work. The Safety Program and the Site Safety Plan are subject to review and acceptance by the Construction Safety Unit prior to the commencement of work at the site. Failure by the contractor to submit an acceptable Site Safety Plan and Safety Program shall be grounds for default.

The Site Safety Plan shall apply to all Contractor and subcontractor operations, and shall have at a minimum, the following elements. Each element shall be described in a separate section in the written document. It may be necessary to modify the basic format for certain unique or high-risk projects (such as tunnels or high-rise construction). The basic elements are as follows:

1. **Responsibility and Organization:** Identify the person or persons with authority and responsibility for implementing the Site Safety Plan. Provide an organization chart and define levels of authority and responsibility. Identify the Competent Person, the Construction Superintendent (if required), the Job Safety Coordinator and the Qualified Person required for this project.
2. **Communication:** Establish a system for communicating with employees and subcontractors on matters relating to worker and public safety and health and environmental protection, including provisions designed to encourage employees to inform the employer of hazards at the worksite without fear of reprisal. An emergency response notification protocol is to be established that also includes after hours contact numbers. The plan must also include provisions for weekly safety meetings held by the Job Site Safety Coordinator.
3. **Job Hazard Assessment:** A written document submitted by the contractor, used to identify expected job hazards and public safety risks and state the specific means and methods to reduce, control or eliminate those hazards. This part of the Site Safety Plan must also include how on-going evaluations of those risks and hazards will be carried out, including plans for periodic inspections to identify unsafe conditions, work practices and public safety hazards.
4. **Accident/Exposure Investigation:** Establish a procedure to investigate and report occupational and public injury or illness, property damage, vehicle accidents or other mishaps.
5. **Hazard Correction:** Establish means, methods and/or procedures for correcting unsafe or unhealthy conditions that might be exposing both the public and workers to hazards. Corrective actions must be taken immediately when observed or discovered. Should an imminent hazard exist which cannot be immediately abated without endangering employees, the public and/or property, remove or restrict all exposed persons from the area except those necessary to correct the existing condition. Employees necessary to correct the hazardous condition shall be provided the necessary safeguards. When corrective actions cannot be taken immediately, temporary measures should be taken until such time permanent measures are taken to eliminate the potential risks or hazards.
6. **Training:** Describe site-specific hazard training programs. In addition to the required safety orientation, additional site specific training, in the form of required weekly safety meetings, will be required. Contractors must also initiate training when: a) new employees are hired; b) employees are given new job assignments for which training has not been previously received; c) new substances, processes, procedures or equipment are introduced that might represent a new public or worker hazard; d) the employee is made aware of a new or previously unrecognized hazard; e) new supervisors are assigned to familiarize themselves with the safety and health hazards to which employees under their immediate direction and control may be exposed; and f) after a jobsite incident or accident has occurred.

City of New York Department of Design and Construction: Safety Requirements
Technical Support Division – Bureau of Quality Assurance and Construction Safety

7. Recordkeeping: Establish procedures to maintain records of scheduled and periodic inspections, weekly safety meetings, and training records. Updated records shall be maintained at the jobsite, accessible to the Construction Safety Auditors and/or Quality Assurance Auditors/RE/CPM, and retained in accordance with DDC policy.

The most critical component of the Site Safety Plan is the Job Hazard Assessment section. This section must address specific hazards that are anticipated throughout the project. Each Site Safety Plan must address, at a minimum:

- Public and pedestrian safety
- Fall protection
- Electrical hazards
- Scaffolding
- Fire protection
- Emergency notification & response
- Housekeeping / debris removal
- Dust control
- Maintenance and protection of traffic
- Trenching and excavating
- Heavy equipment operations
- Material / equipment storage
- Environmental contamination
- Sheeting and shoring
- Alcohol and Drug Abuse Policy

The following additional hazards must be addressed, if applicable, based on the contract safety specifications and/or the results of the JHA (the list is not all-inclusive):

- Basic Personal Protective Equipment
- Compressed Air
- Compressed Gas Cylinders
- Cranes, Derricks and Hoists
- Demolition
- Electrical safety
- Excavations and Trenching
- Fall Protection – Floor openings/Stairways
- Fall Protection – Guardrails Toe boards etc
- Fall Protection – Leading Edge
- Fall Protection – Personal Fall Protection Devices
- Fire Protection and Fire Prevention
- Hazard Communication (RIGHT TO KNOW)
- Hazardous Energy & Lock Out / Tag Out
- Housekeeping/ Sanitation
- Maintenance and Protection of Traffic (MPT)
- Man Lifts /Aerial Lifts
- Marine Operations
- Motor Vehicle Safety
- Overhead Power lines
- Permit Required Confined Space
- Portable Ladders
- Powered Actuated Tools
- Powered Material Handling Equipment
- Scaffolds – Mobile
- Scaffolds – Stationary
- Scaffolds – Suspended
- Slings
- Steel Erection

City of New York Department of Design and Construction: Safety Requirements
Technical Support Division – Bureau of Quality Assurance and Construction Safety

- Welding and Cutting (Hot Work)
- Airborne Contaminants – Particulates – General
- Asbestos
- Blood borne Pathogens
- Hearing Protection
- Lead in Construction
- Mercury in Construction
- PCB's
- Respiratory Protection
- Silica
- Thermal Stress
- West Nile Virus
- Rodents and Vermin
- Noise Mitigation Plan

Certain DDC programs, such as Job Order Contracting System (JOCS), may not necessarily require Site Safety Plans. The JOCS contractor will be required to submit a Safety Program. In addition, certain DDC Operating Units may establish program or client-specific safety requirements. The contractor's Site Safety Plan must address such program or client specific safety requirements.

VII. KICK-OFF MEETINGS/PRE-CONSTRUCTION AND SAFETY REVIEW

As part of the construction kick-off meeting, a Site Safety Plan review will be part of the agenda. A QACS representative will participate in this meeting with the contractor prior to the start of the project for the purpose of:

- A. Reviewing the safety issues detailed in the contract.
- B. Reviewing the Site Safety Plan.
- C. Reviewing any new issues or information that was not previously addressed.
- D. Discussing planned inspections and audits of the site by DDC personnel.

VIII. EVALUATION DURING WORK IN PROGRESS

The Contractor's adherence to these Safety Requirements will be monitored throughout the project. This will be accomplished by the following:

- A. Use of a safety checklist by a representative of the Construction Safety Unit or other designated DDC representative or Consultant during regular, unannounced inspections of the job site. Field Exit Conferences will be held with the RE/CPM, Contractor Superintendents or Safety Representatives.
- B. The RE/CPM will continually monitor the safety and environmental performance of the contractor's employees and work methods. Deficiencies shall be brought to the attention of the contractor's representative on site for immediate correction. The DDC representative will maintain a written record of these deficiencies and forward them to the Construction Safety Unit on a weekly basis. Any critical deficiencies shall be immediately reported to QACS phone# (718) 391-1624 or (718) 391-1911.
- C. If the Contractor's safety performance during the project is not up to DDC standards (safety performance measure, accident/incident rate, etc.) the Director- QACS, or designee will meet with the Contractor's safety representative, the DDC project manager, the RE/CPM, or the DDC Environmental Specialist (if environmental issues are involved). The purpose of this meeting is to 1) determine the level of non-compliance; 2) explain and clarify the safety/environmental provisions; 3) agree on a future course of action to correct the deficiencies.

City of New York Department of Design and Construction: Safety Requirements
Technical Support Division – Bureau of Quality Assurance and Construction Safety

- D. If the deficiencies continue to occur with inadequate attention by the contractor, this shall, among other remedies available, be grounds for default.
- E. The contractor shall inform the Construction Safety Unit and ACCO Insurance and Risk Management Unit of all medical injuries or illnesses that require doctors' treatment resulting from an on-the-job incident within 24 hours of the occurrence. The Construction Safety Unit shall also be immediately informed of all fatalities, catastrophic accidents with more than one employee hospitalized, any injuries to members of the general public and major equipment damage (e.g., property damage, equipment rollovers, loads dropped from crane). QACS shall maintain a record of all contractor injuries and illnesses during the project and provide regular reports to the Agency.
- F. The Construction Safety Unit shall be immediately notified at the start of any NYS-DOL/ NYC-COSH/ OSHA/ EPA inspections. The Director of Quality Assurance & Construction Safety shall maintain a log of all contractor OSHA/EPA inspections and citations during the project.

IX. SAFETY PERFORMANCE EVALUATION

The contractor's safety record, including all DDC inspection results, will be considered as part of the Contractor's performance evaluation at the conclusion of the project. Poor safety performance during the course of the project shall be a reason to rate a Contractor unsatisfactory which will be reflected in the City's Vendex system and will be considered for future procurement actions as set forth in the City's Procurement Policy Board Rules.

(NO TEXT ON THIS PAGE)

CITY OF NEW YORK

STANDARD CONSTRUCTION CONTRACT

SEPTEMBER 2008

(NO TEXT ON THIS PAGE)

**CITY OF NEW YORK
STANDARD CONSTRUCTION CONTRACT**

TABLE OF CONTENTS

**CHAPTER I
THE CONTRACT AND DEFINITIONS**

ARTICLE 1.	THE CONTRACT	1
ARTICLE 2.	DEFINITIONS	1

**CHAPTER II
THE WORK AND ITS PERFORMANCE**

ARTICLE 3.	CHARACTER OF THE WORK	4
ARTICLE 4.	MEANS AND METHODS OF CONSTRUCTION	4
ARTICLE 5.	COMPLIANCE WITH LAWS	4
ARTICLE 6.	INSPECTION	9
ARTICLE 7.	PROTECTION OF WORK AND OF PERSONS AND PROPERTY; NOTICES AND INDEMNIFICATION	10

**CHAPTER III
TIME PROVISIONS**

ARTICLE 8.	COMMENCEMENT AND PROTECTION OF THE WORK	11
ARTICLE 9.	PROGRESS SCHEDULES	11
ARTICLE 10.	REQUESTS FOR INFORMATION OR APPROVAL	12
ARTICLE 11.	NOTICE OF CONDITIONS CAUSING DELAY AND DOCUMENTATION OF DAMAGES CAUSED BY DELAY	12
ARTICLE 12.	COORDINATION WITH OTHER CONTRACTORS	13
ARTICLE 13.	EXTENSION OF TIME FOR PERFORMANCE	14
ARTICLE 14.	COMPLETION AND FINAL ACCEPTANCE OF THE WORK	16
ARTICLE 15.	LIQUIDATED DAMAGES	17
ARTICLE 16.	OCCUPATION OR USE PRIOR TO COMPLETION	18

**CHAPTER IV
SUBCONTRACTS AND ASSIGNMENTS**

ARTICLE 17.	SUBCONTRACTS	18
ARTICLE 18.	ASSIGNMENTS	20

**CITY OF NEW YORK
STANDARD CONSTRUCTION CONTRACT**

TABLE OF CONTENTS

CHAPTER V

CONTRACTOR'S SECURITY AND GUARANTY

ARTICLE 19.	SECURITY DEPOSIT	20
ARTICLE 20.	PAYMENT GUARANTEE	20
ARTICLE 21.	RETAINED PERCENTAGE	22
ARTICLE 22.	INSURANCE	23
ARTICLE 23.	MONEY RETAINED AGAINST CLAIMS	28
ARTICLE 24.	MAINTENANCE AND GUARANTY	28

CHAPTER VI

CHANGES, EXTRA WORK AND DOCUMENTATION OF CLAIM

ARTICLE 25.	CHANGES	29
ARTICLE 26.	METHODS OF PAYMENT FOR OVERRUNS AND EXTRA WORK	30
ARTICLE 27.	RESOLUTION OF DISPUTES	32
ARTICLE 28.	RECORD KEEPING FOR EXTRA OR DISPUTED WORK	36
ARTICLE 29.	OMITTED WORK	36
ARTICLE 30.	NOTICE AND DOCUMENTATION OF COSTS AND DAMAGES; PRODUCTION OF FINANCIAL RECORDS	37

CHAPTER VII

**POWERS OF THE RESIDENT ENGINEER, THE ENGINEER
OR ARCHITECT AND THE COMMISSIONER**

ARTICLE 31.	THE RESIDENT ENGINEER	38
ARTICLE 32.	THE ENGINEER OR ARCHITECT OR PROJECT MANAGER	38
ARTICLE 33.	THE COMMISSIONER	39
ARTICLE 34.	NO ESTOPPEL	39

CHAPTER VIII

LABOR PROVISIONS

ARTICLE 35.	EMPLOYEES	39
ARTICLE 36.	NO DISCRIMINATION	40
ARTICLE 37.	LABOR LAW REQUIREMENTS	42
ARTICLE 38.	PAYROLL REPORTS	47
ARTICLE 39.	DUST HAZARDS	47

**CITY OF NEW YORK
STANDARD CONSTRUCTION CONTRACT**

TABLE OF CONTENTS

CHAPTER IX

PARTIAL AND FINAL PAYMENTS

ARTICLE 40.	CONTRACT PRICE	47
ARTICLE 41.	BID BREAKDOWN ON LUMP SUM	47
ARTICLE 42.	PARTIAL PAYMENTS	48
ARTICLE 43.	PROMPT PAYMENT	48
ARTICLE 44.	SUBSTANTIAL COMPLETION PAYMENT	49
ARTICLE 45.	FINAL PAYMENT	50
ARTICLE 46.	ACCEPTANCE OF FINAL PAYMENT	51
ARTICLE 47.	APPROVAL BY PUBLIC DESIGN COMMISSION	51

CHAPTER X

CONTRACTOR'S DEFAULT

ARTICLE 48.	COMMISSIONER'S RIGHT TO DECLARE CONTRACTOR IN DEFAULT	52
ARTICLE 49.	EXERCISE OF THE RIGHT TO DECLARE DEFAULT	53
ARTICLE 50.	QUITTING THE SITE	53
ARTICLE 51.	COMPLETION OF THE WORK	53
ARTICLE 52.	PARTIAL DEFAULT	53
ARTICLE 53.	PERFORMANCE OF UNCOMPLETED WORK	54
ARTICLE 54.	OTHER REMEDIES	54

CHAPTER XI

MISCELLANEOUS PROVISIONS

ARTICLE 55.	CONTRACTOR'S WARRANTIES	54
ARTICLE 56.	CLAIMS AND ACTIONS THEREON	55
ARTICLE 57.	INFRINGEMENT	55
ARTICLE 58.	NO CLAIM AGAINST OFFICERS, AGENTS OR EMPLOYEES	55
ARTICLE 59.	SERVICES OF NOTICES	55
ARTICLE 60.	UNLAWFUL PROVISIONS DEEMED STRICKEN FROM CONTRACT	56
ARTICLE 61.	ALL LEGAL PROVISIONS DEEMED INCLUDED	56
ARTICLE 62.	TAX EXEMPTION	56
ARTICLE 63.	INVESTIGATION(S) CLAUSE	57
ARTICLE 64.	TERMINATION BY THE CITY	59
ARTICLE 65.	CHOICE OF LAW, CONSENT TO JURISDICTION AND VENUE	62

**CITY OF NEW YORK
STANDARD CONSTRUCTION CONTRACT**

TABLE OF CONTENTS

CHAPTER XI (CONT'D)

MISCELLANEOUS PROVISIONS

ARTICLE 66.	PARTICIPATION IN AN INTERNATIONAL BOYCOTT	62
ARTICLE 67.	LOCALLY BASED ENTERPRISE PROGRAM	63
ARTICLE 68.	ANTITRUST	63
ARTICLE 69.	MacBRIDE PRINCIPLES PROVISIONS	64
ARTICLE 70	HEALTH INSURANCE COVERAGE	65
ARTICLE 71.	PROHIBITION OF TROPICAL HARDWOODS	66
ARTICLE 72.	CONFLICTS OF INTEREST	66
ARTICLE 73.	MERGER CLAUSE	66
ARTICLE 74.	STATEMENT OF WORK	66
ARTICLE 75.	COMPENSATION TO BE PAID TO CONTRACTOR	66
ARTICLE 76:	ELECTRONIC FUNDS TRANSFER	66
ARTICLE 77:	PARTICIPATION BY MINORITY-OWNED AND WOMEN-OWNED BUSINESS ENTERPRISES IN CITY PROCUREMENT	67

SIGNATURES	75
ACKNOWLEDGMENT BY CORPORATION	76
ACKNOWLEDGMENT BY PARTNERSHIP	76
ACKNOWLEDGMENT BY INDIVIDUAL	76
ACKNOWLEDGMENT BY COMMISSIONER AUTHORITY	77
COMPTROLLER'S CERTIFICATE	78
MAYOR'S CERTIFICATE	79
PERFORMANCE BOND #1	80
PERFORMANCE BOND #2	84
PAYMENT BOND	88

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 sub-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 this **Contract**, may tend to or in any way cause or result in strikes, work stoppages, delays, suspension of **Work** or similar troubles by workers employed by the **Contractor** or its **Subcontractors**, or by any of the trades working in or about the buildings and premises where **Work** is being performed under this **Contract**, or by **Other Contractors** or their **Subcontractors** pursuant to other **Contracts**, or on any other building or premises owned or operated by the **City**, its **Agencies**, departments, boards or authorities. Any violation by the **Contractor** of this requirement may, upon certification of the **Commissioner**, be considered as proper and sufficient cause for declaring the **Contractor** to be in default, and for the **City** to take action against it as set forth in Chapter X of this **Contract**, or such other article of this **Contract** as the **Commissioner** may deem proper; or

35.1.3 In accordance with Section 220.3-e of the Labor Law of the State of New York (hereinafter "Labor Law"), the **Contractor** and its **Subcontractors** shall not employ on the **Work** any apprentice, unless he/she is a registered individual, under a bona fide program registered with the New York State Department of Labor. The allowable ratio of apprentices to journey-level workers in any craft classification shall not be greater than the ratio permitted to the **Contractor** as to its **Work** force on any job under the registered program. Any employee listed on a payroll at an apprentice wage rate, who is not registered as above, shall be paid the wage rate determined by the **Comptroller** of the **City** for the classification of **Work** actually performed. The **Contractor** or **Subcontractor** will be required to furnish written evidence of the registration of its program and apprentices as well as all the appropriate ratios and wage rates, for the area of the construction prior to using any apprentices on the **Contract Work**.

35.2 If the total cost of the **Work** under this **Contract** is at least two hundred fifty thousand 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 contraction 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 ONE THRU FIVE.

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: SEE BELDW Dollars, (\$ 3,583,630.93) 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. Three Million, Five Hundred Eighty Three, Six Hundred Thirty Dollars
93/100

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.

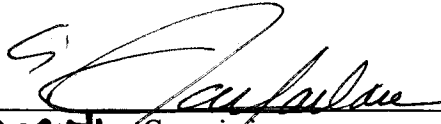
5. Whenever Agency has reason to believe that an MBE and/or WBE is not qualified for certification, or is participating in a contract in a manner that does not serve a commercially useful function (as defined in Section 6-129(c)(8)), or has violated any provision of Section 6-129, Agency shall notify 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.

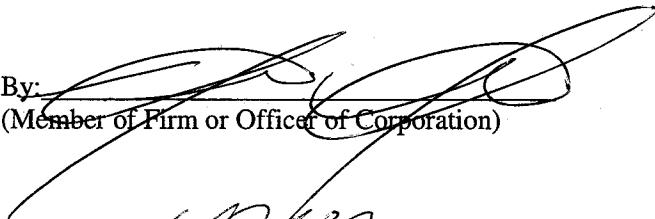
7. The Contractor's record in implementing its **M/WBE** Utilization Plan shall be a factor in the evaluation of its performance. Whenever Agency determines that a Contractor's compliance with an **M/WBE** Utilization Plan has been unsatisfactory, Agency shall, after consultation with the City Chief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

IN WITNESS WHEREOF, the Commissioner, on behalf of the City of New York, and the Contractor, have executed this agreement in quadruplicate, two parts of which are to remain with the Commissioner, another to be filed with the Comptroller of the City, and the fourth to be delivered to the Contractor.

THE CITY OF NEW YORK


By: 
Deputy Commissioner

CONTRACTOR: **Trocom Construction Corp**

By: 
(Member of Firm or Officer of Corporation)

Title: 

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


Secretary

(Seal)

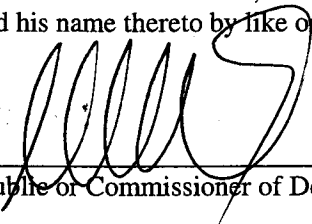
ACKNOWLEDGEMENT OF PRINCIPAL, IF A CORPORATION

State of NY County of Queens ss:

On this 3 day of Dec, 2013, before me personally came Anthony Santoro
to me known who, being by me duly sworn did depose and say that he resides at _____
SE NY that he is the UPres

of the corporation described in and which executed the foregoing instrument; that he knows the seal of said corporation; that one of the seals affixed to said instrument is such seal; that it was so affixed by order of the directors of said corporation, and that he signed his name thereto by like order.

VICTORIA AYO VAUGHAN
Notary Public, State of New York
Registration #01AY5014042
Qualified In Queens County
Commission Expires July 15, 2015



Notary Public or Commissioner of Deeds

ACKNOWLEDGEMENT OF PRINCIPAL, IF A PARTNERSHIP

State of _____ County of _____ ss:

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

Notary Public or Commissioner of Deeds

ACKNOWLEDGEMENT OF PRINCIPAL, IF AN INDIVIDUAL

State of _____ County of _____ ss:

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

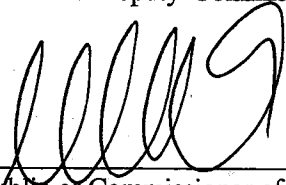
Notary Public or Commissioner of Deeds

ACKNOWLEDGEMENT BY COMMISSIONER

State of New York County of Queens ss:

On this 4th day of Dec, 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.

VICTORIA AYO-VAUGHAN
Notary Public, State of New York
Registration #01AY5014042
Qualified in Queens County
Commission Expires July 15, 2015



Notary Public or Commissioner of Deeds

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

Three Million, five hundred
Eighty Three Thousand, Six
Hundred Thirty Dollars 93/100
Dollars (\$ 3,583,630. 93/100

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

Department of Design and Construction

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


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

Performance Bond #1 (Pages 77 to 80): 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)

Bond #015042716

PERFORMANCE BOND #1

KNOW ALL PERSONS BY THESE PRESENTS, That we, _____

Trocom Construction Corp.

46-27 54th Rd.

Maspeth, NY 11378

hereinafter referred to as the "Principal", and _____

Liberty Mutual Insurance Company

1200 MacArthur Blvd.

Mahwah, NJ 07430

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

Three Million Five Hundred Eighty Three Thousand Six Hundred Thirty and 93/100

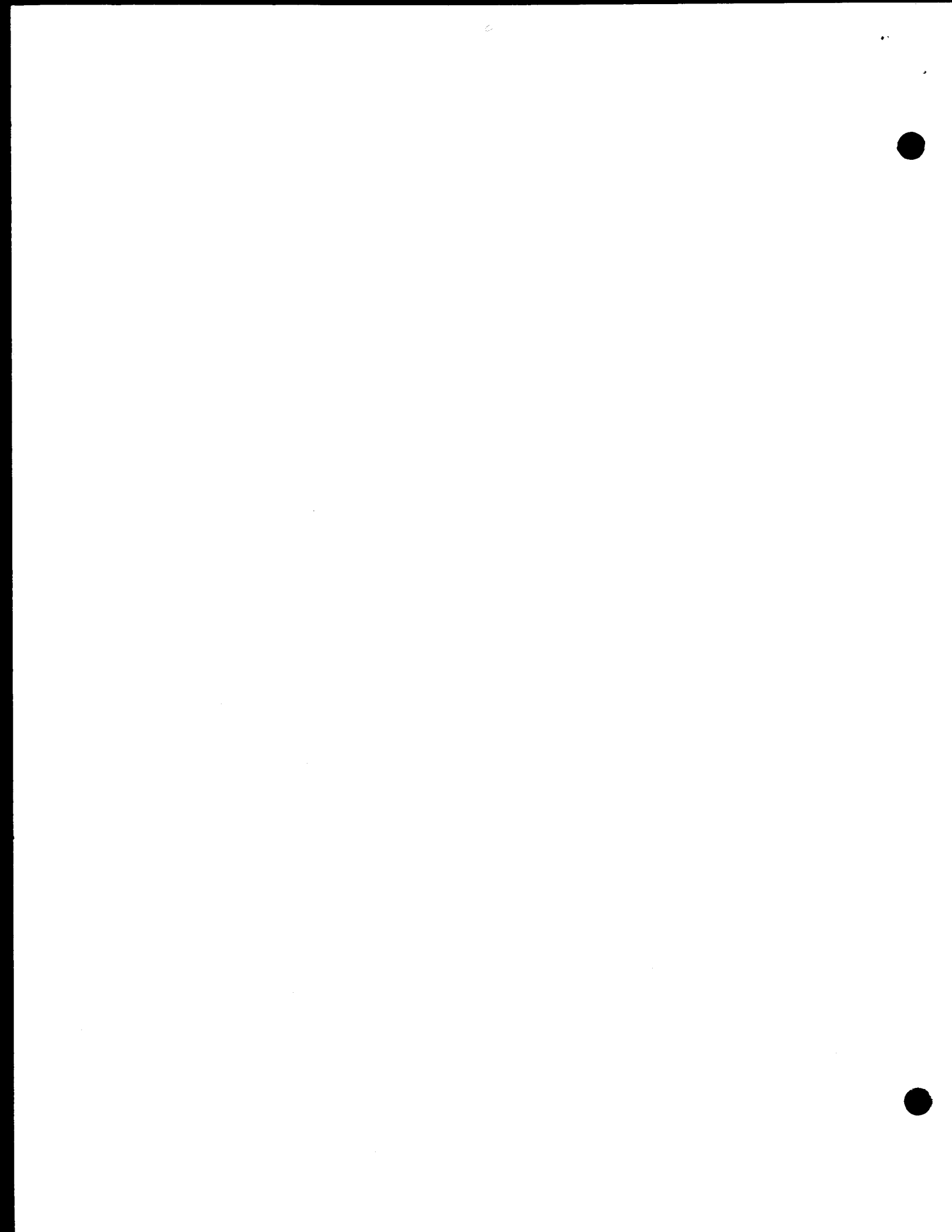
(\$ 3,583,630.93) Dollars, lawful money of the United States, for the payment of which said sum of money well and truly to be made, we, and each of us, bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

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

FMS ID: HWPLZ008M - E-PIN: 85014B0008001 - DDC PIN: 8502013HW0069C

Reconstruction of Forsyth Street Plaza - Boro 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;



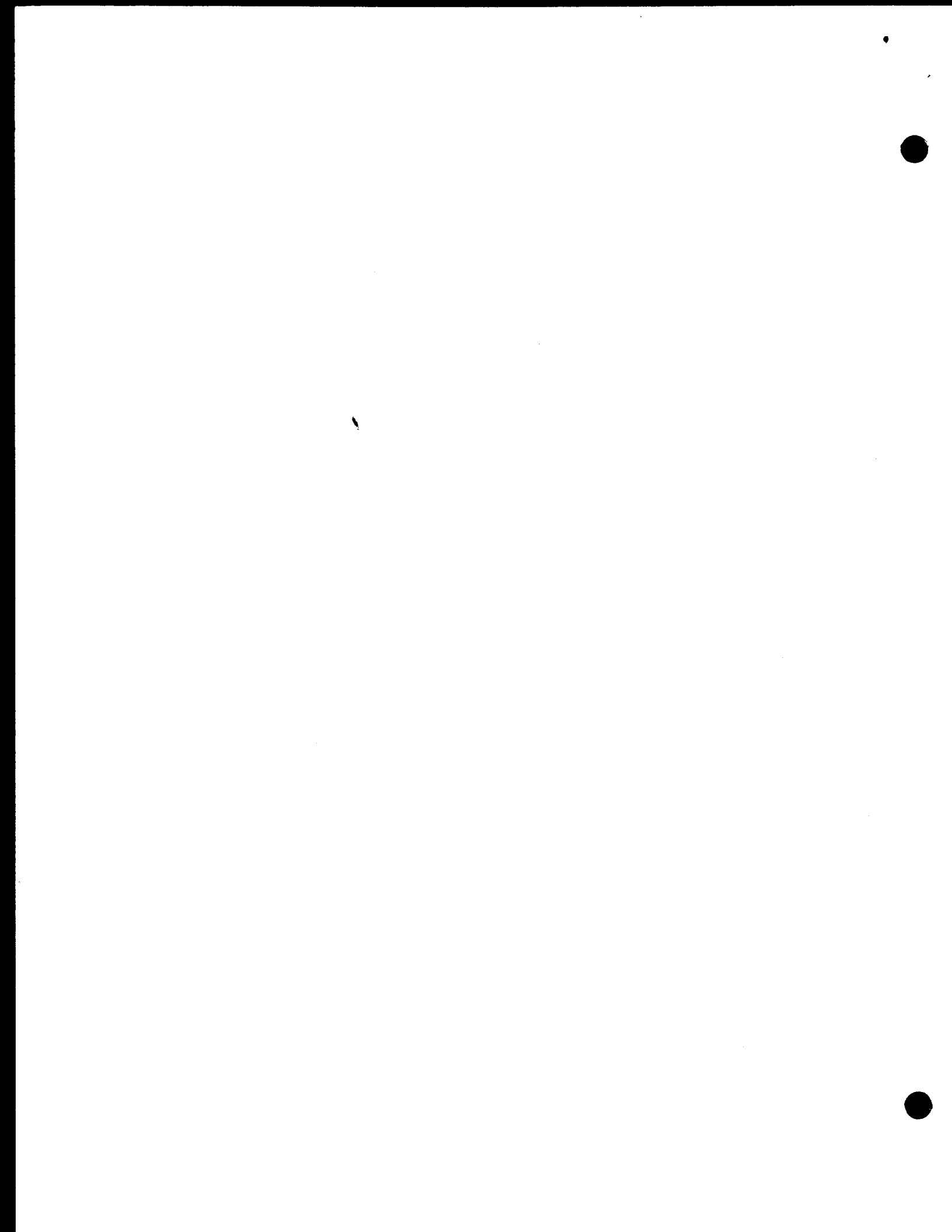
Performance Bond #1 (Pages 77 to 80): Use if the total contract price is \$5 Million Or Less. Performance Bond #1 has been approved by the U.S. Small Business Administration ("SBA") for participation in its Bond Guarantee Program.

PERFORMANCE BOND #1 (Page 2)

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 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 77 to 80): 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.

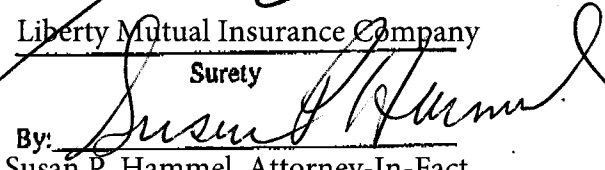
PERFORMANCE BOND #1 (Page 3)

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 18th day of November, 2013.

(Seal) _____
Trocom Construction Corp. (L.S.)
Principal

By: _____


(Seal) _____
Liberty Mutual Insurance Company
Surety

By: _____

Susan P. Hammel, Attorney-In-Fact

(Seal) _____
Surety

By: _____

(Seal) _____
Surety

By: _____

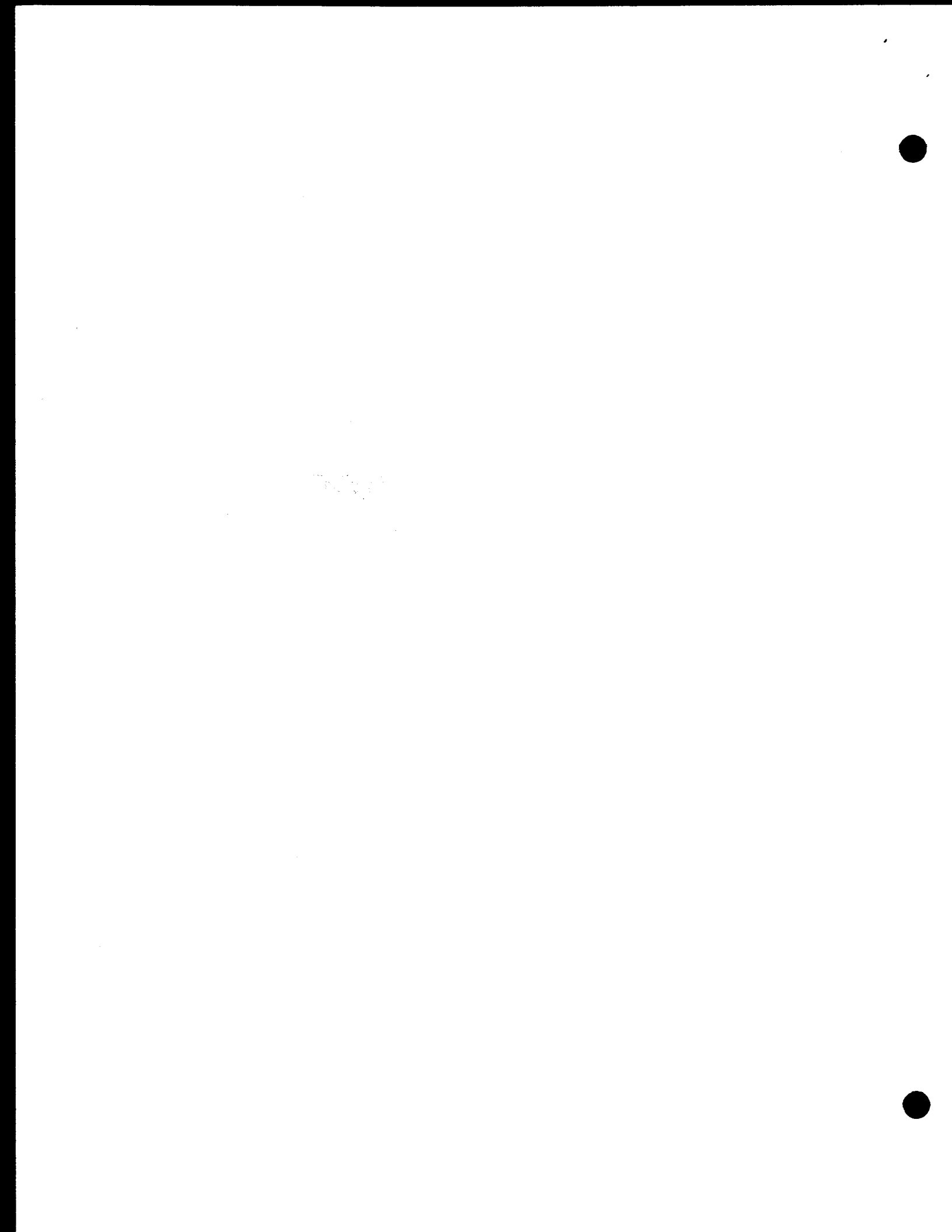
Bond Premium Rate _____

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 77 to 80): 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)

ACKNOWLEDGEMENT OF PRINCIPAL, IF A CORPORATION

State of New York County of Queens ss:

On this 19 day of Nov, 2013, before me personally came Anthony J SANTORO to me known, who, being by me duly sworn did depose and say that he resides at Staten Island that he is the Vice 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



LINDA BARBATI
Notary Public, State of New York
No. 01BA6181795
Qualified in Queens County
Commission Expires February 11, 2016

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

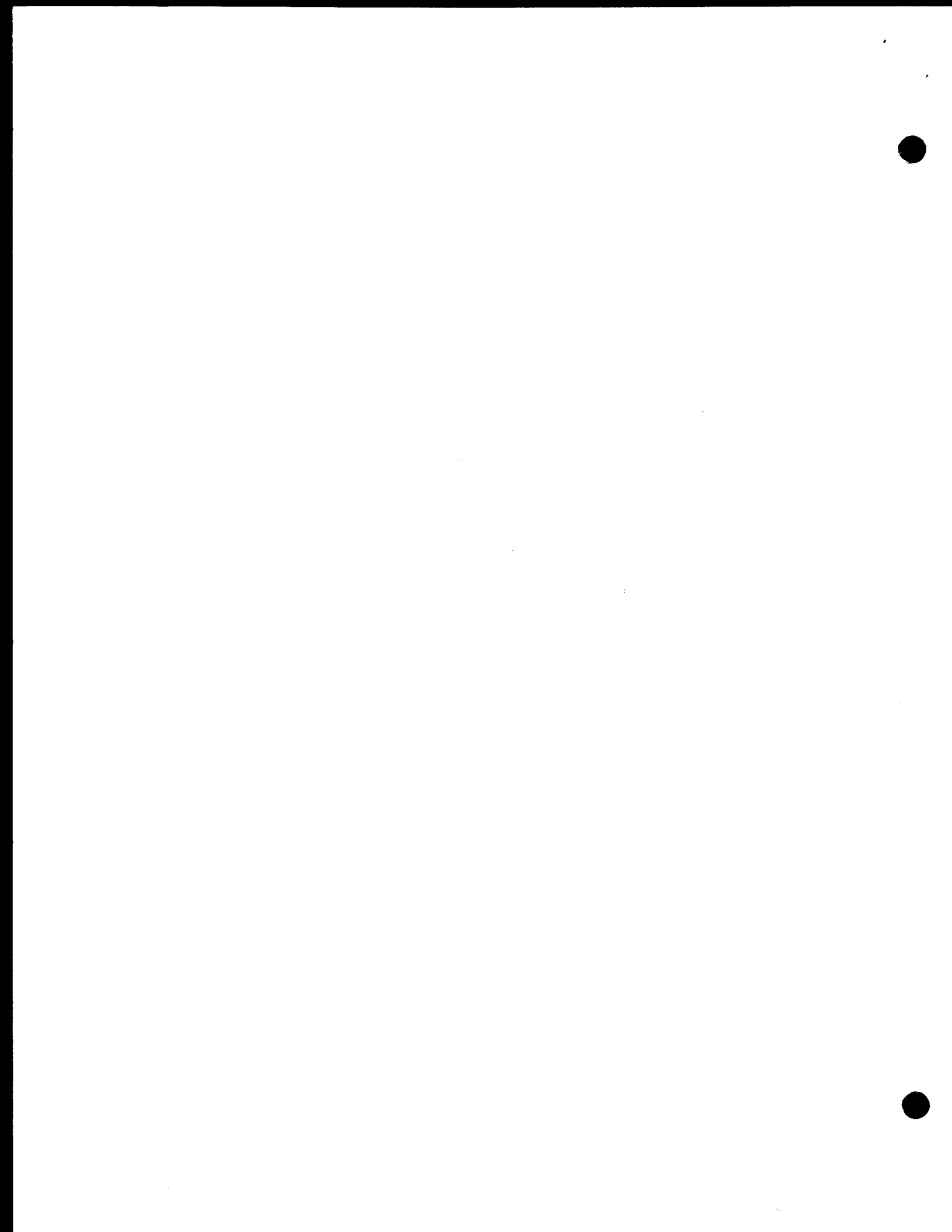
State of _____ County of _____ ss:

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

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.



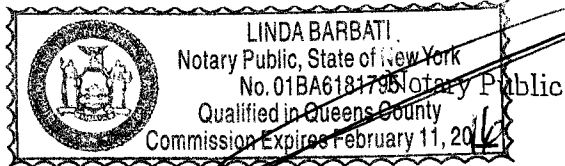
ACKNOWLEDGEMENT OF PRINCIPAL, OF A CORPORATION

STATE OF New York

COUNTY OF Queens

SS:

On this 19 day of November, 2013, before me personally came ANTHONY J. SANTORO to me known, who, being by me duly sworn did depose and say that he resides at Staten Island that he is the Vice President of Trojan Construction Corp the corporation described in and which executed the foregoing instrument; that he knows the seal of said corporation; that one of the seals affixed to the foregoing instrument is such seal; that it was an affixed by order of the board of directors of said corporation; and that he signed his name thereto by like order.



ACKNOWLEDGEMENT OF SURETY

STATE OF New York

COUNTY OF Nassau

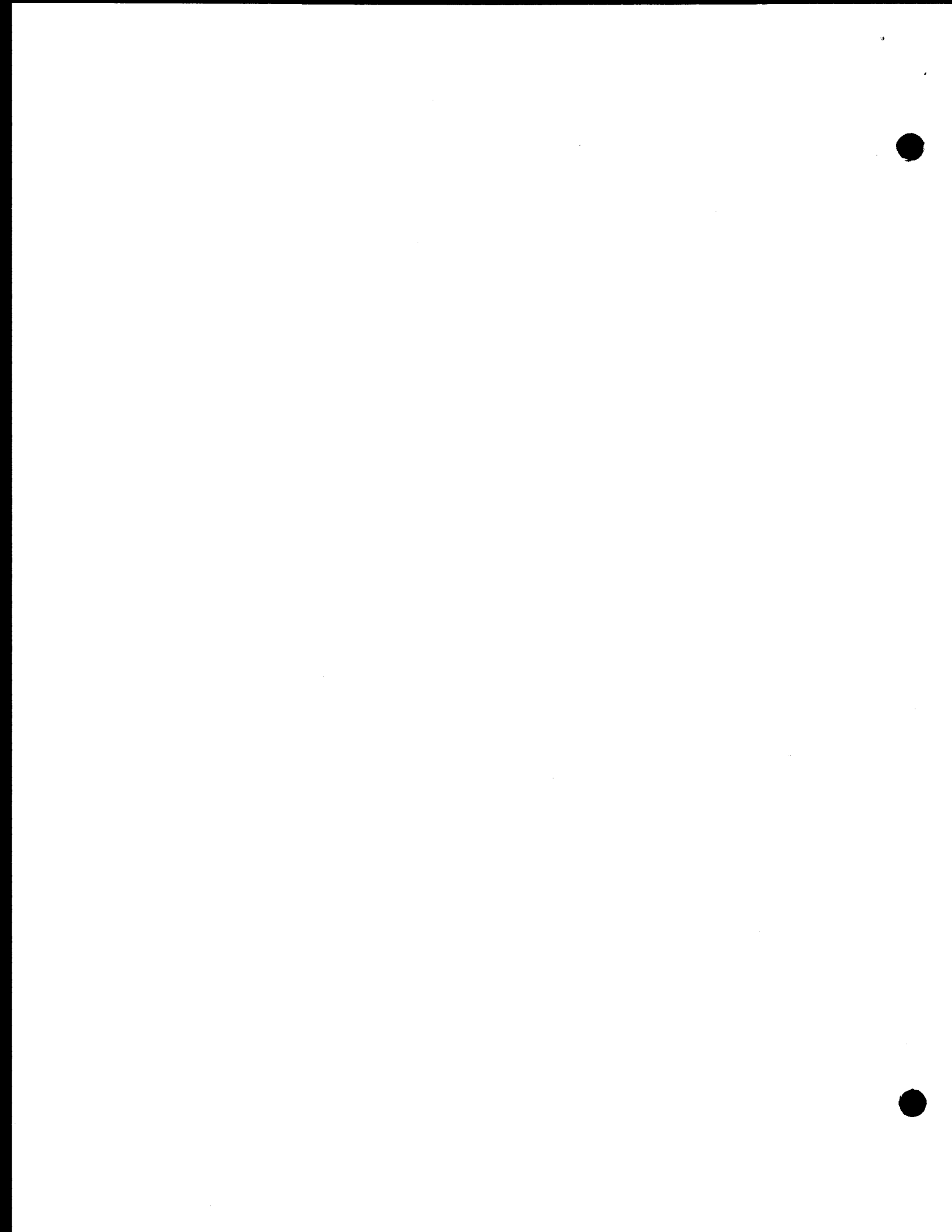
SS:

On this 18th day of November, 2013, before me personally came Susan P. Hammel to me known, who, being by me duly sworn, did depose and say that he is an Attorney-In-Fact of Liberty Mutual Insurance Company the corporation described in and which executed the within instrument; that he knows the corporate seal of said corporation; that the seal affixed to the within instrument is such corporate seal, and that he signed and said instrument and affixed the said seal as Attorney-In-Fact by authority of the Board of Directors of said corporation and by authority of this office under the Standing Resolutions thereof.

LYNN ANN INFANTI
Notary Public, State of New York
No. 011N6004351
Qualified in Suffolk County 2014
Commission Expires March 23, 2014

My commission expires _____

Notary Public



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. 6276055

American Fire and Casualty Company
The Ohio Casualty Insurance Company

Liberty Mutual Insurance Company
West American 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 New Hampshire, that Liberty Mutual Insurance Company is a corporation duly organized under the laws of the State of Massachusetts, 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, Joseph Sforzo; Robert Kempner; Robert W. O'Kane; Susan P. Hammel

all of the city of Plainview, 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 9th day of September, 2013.



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

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

STATE OF WASHINGTON ss
COUNTY OF KING

On this 9th day of September, 2013, 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, 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, and West American 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.

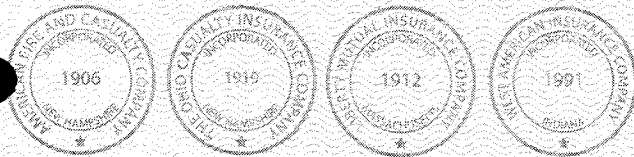
ARTICLE XIII – Execution of Contracts – SECTION 5. Surety Bonds and Undertakings. Any officer of the Company authorized for that purpose in writing by the chairman or the president, and subject to such limitations as the chairman or the president may prescribe, shall appoint such attorneys-in-fact, as 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 attorneys-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, and West American 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 18th day of November 2013.



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

Not valid for mortgage, note, loan, letter of credit, 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.





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
Total Admitted Assets	<u>\$40,205,366,577</u>	Special Surplus Funds	\$604,621,497
		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.

TAMIKOLAJEWSKI

Assistant Secretary



Payment Bond (Pages 85 to 88): Use for any contract for which a Payment Bond is required.

PAYMENT BOND (Page 1)

PAYMENT BOND

Bond #015042716

KNOW ALL PERSONS BY THESE PRESENTS, That we, _____

Trocom Construction Corp.

46-27 54th Rd.

Maspeth, NY 11378

hereinafter referred to as the "Principal", and _____

Liberty Mutual Insurance Company

1200 MacArthur Blvd.

Mahwah, NJ 07430

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

Three Million Five Hundred Eighty Three Thousand Six Hundred Thirty and 93/100

(\$3,583,630.93) 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

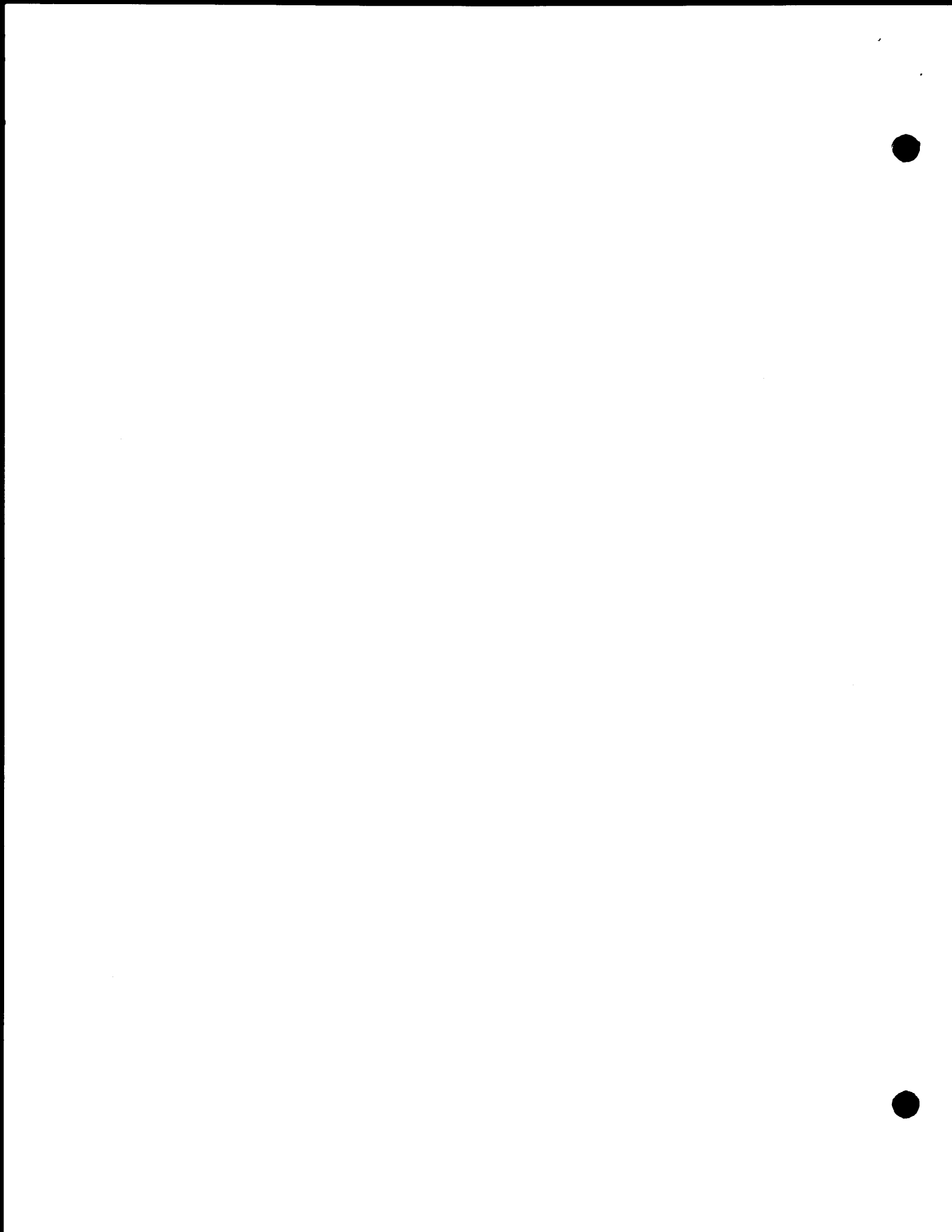
FMS ID: HWPLZ008M - E-PIN: 85014B0008001 - DDC PIN: 8502013HW0069C

Reconstruction of Forsyth Street Plaza - Boro 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 85 to 88): 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.

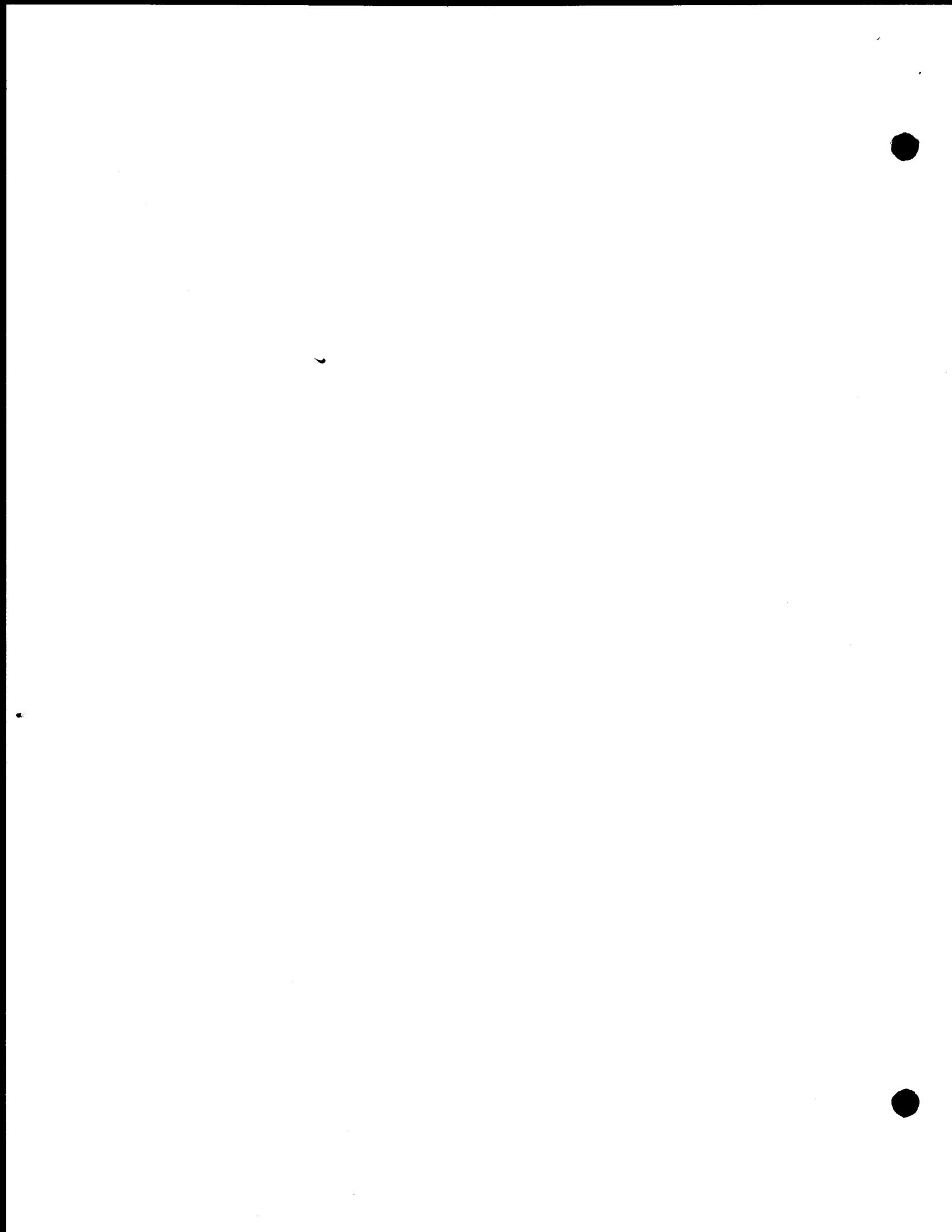
(c) The Principal and Surety (Sureties) agree that neither of them will hold the City liable for any judgment for costs of otherwise, obtained by either or both of them against a laborer or materialman in a suit brought by either a laborer or materialman under this bond for moneys allegedly due for performing 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 85 to 88): 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 18th day of November, 2013.

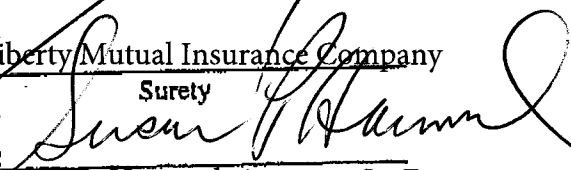
(Seal)

Trocom Construction Corp. (L.S.)
Principal

By: 

(Seal)

Liberty Mutual Insurance Company
Surety

By: 
Susan P. Hammel, Attorney-In-Fact

(Seal)

Surety

By: _____

(Seal)

Surety

By: _____

(Seal)

Surety

By: _____

If the Contractor (Principal) is a partnership, the bond should be signed by each of the individuals who are partners.

If the Contractor (Principal) is a corporation, the bond should be signed in its correct corporate name by a duly authorized officer, agent, or attorney-in-fact.

There should be executed an appropriate number of counterparts of the bond corresponding to the number of counterparts of the Contract.



1950
1951
1952
1953
1954
1955
1956
1957
1958
1959
1960



Payment Bond (Pages 85 to 88): Use for any contract for which a Payment Bond is required.

PAYMENT BOND (Page 4)

ACKNOWLEDGEMENT OF PRINCIPAL, IF A CORPORATION

State of New York County of Queens ss:

On this 19 day of Nov, 2013, before me personally came ANTHONY J. SANFORD to me known, who, being by me duly sworn did depose and say that he resides at Staten Island that he is the Vice 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.

[Signature]
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

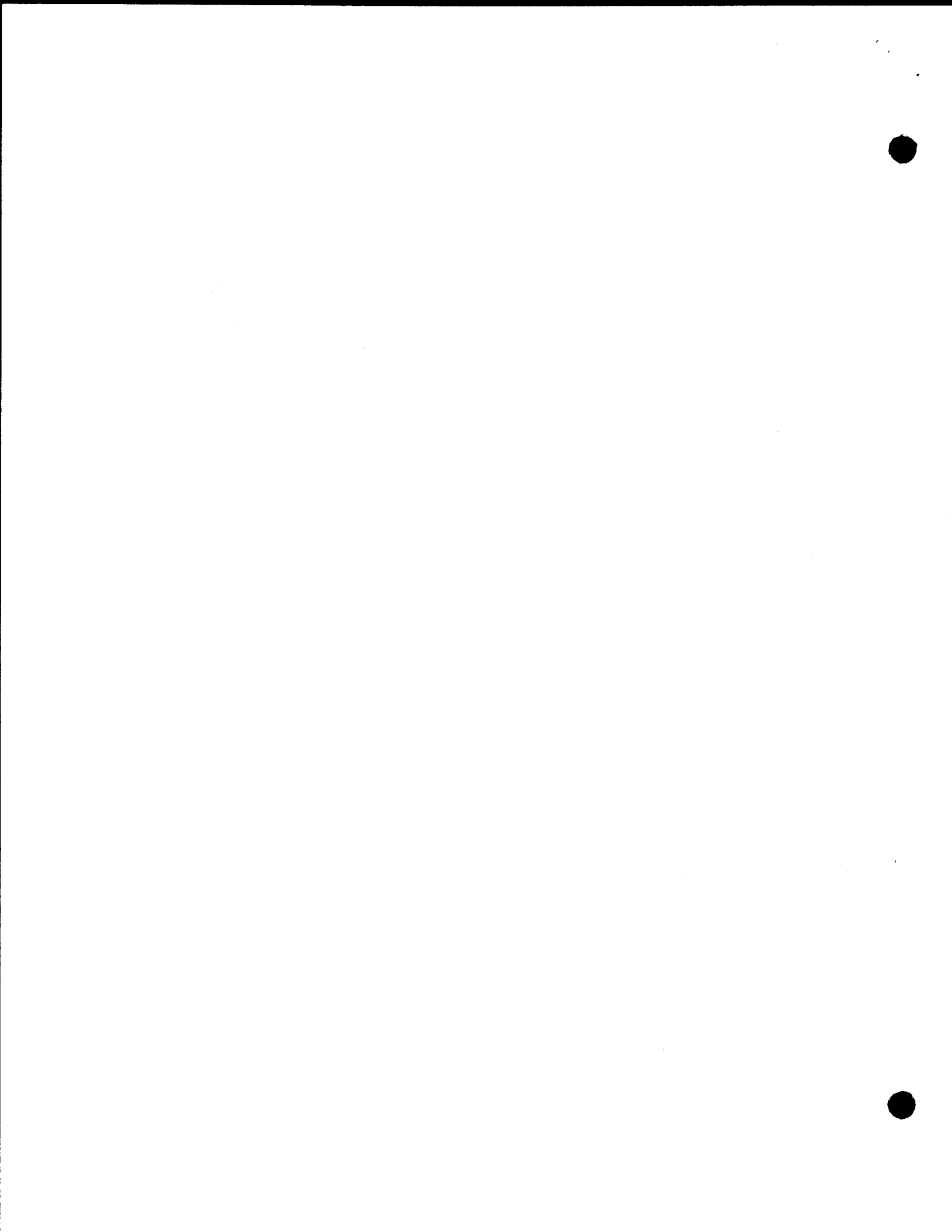
State of _____ County of _____ ss:

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

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.



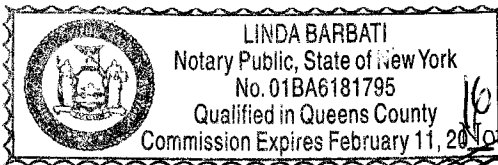
ACKNOWLEDGEMENT OF PRINCIPAL, OF A CORPORATION

STATE OF New York

COUNTY OF Queens

ss:

On this 19 day of November, 2013 before me personally came ANTHONY J. SANTORO to me known, who, being by me duly sworn did depose and say that he resides at Staten Island that he is the Vice President of Tidcom Construction Corp. the corporation described in and which executed the foregoing instrument; that he knows the seal of said corporation; that one of the seals affixed to the foregoing instrument is such seal; that it was an affixed by order of the board of directors of said corporation; and that he signed his name thereto by like order.



[Handwritten Signature]

ACKNOWLEDGEMENT OF SURETY

STATE OF New York

COUNTY OF Nassau

ss:

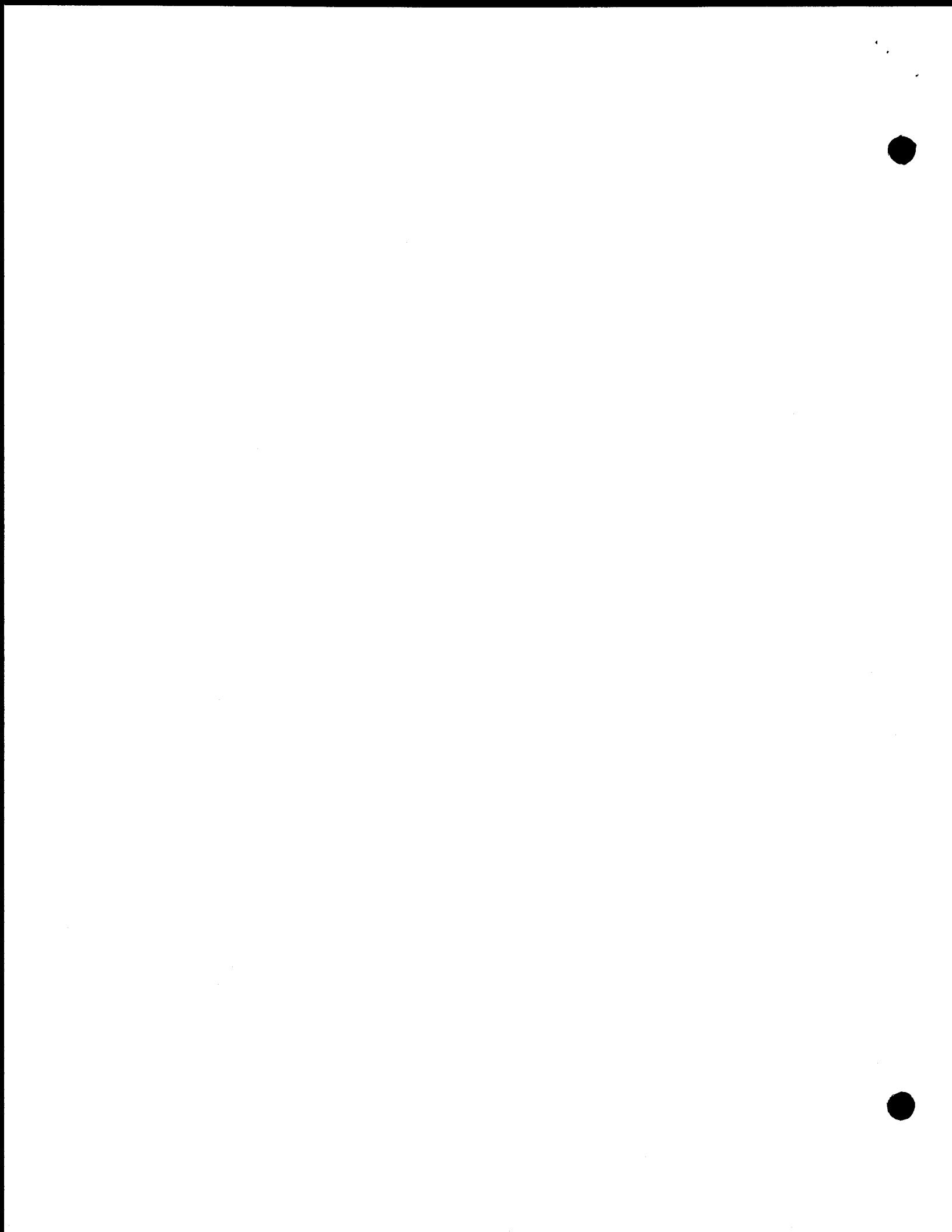
On this 18th day of November, 2013, before me personally came Susan P. Hammel to me known, who, being by me duly sworn, did depose and say that he is an Attorney-In-Fact of Liberty Mutual Insurance Company the corporation described in and which executed the within instrument; that he knows the corporate seal of said corporation; that the seal affixed to the within instrument is such corporate seal, and that he signed and said instrument and affixed the said seal as Attorney-In-Fact by authority of the Board of Directors of said corporation and by authority of this office under the Standing Resolutions thereof.

LYNN ANN INFANTI
Notary Public, State of New York
No. 011N6004351
Qualified in Suffolk County
Commission Expires March 23, 2014

My commission expires _____

[Handwritten Signature]

Notary Public



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. 6276054

American Fire and Casualty Company
The Ohio Casualty Insurance Company

Liberty Mutual Insurance Company
West American Insurance Company

POWER OF ATTORNEY

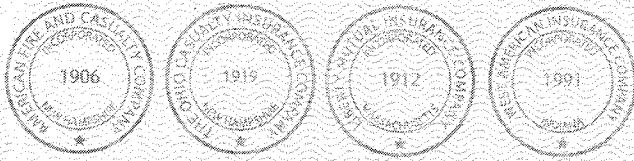
KNOWN ALL PERSONS BY THESE PRESENTS: That American Fire & Casualty Company and The Ohio Casualty Insurance Company are corporations duly organized under the laws of the State of New Hampshire, that Liberty Mutual Insurance Company is a corporation duly organized under the laws of the State of Massachusetts, 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, Joseph Sforzo; Robert Kempner; Robert W. O'Kane; Susan P. Hammel

all of the city of Plainview 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 9th day of September, 2013.

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

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



STATE OF WASHINGTON ss
COUNTY OF KING

On this 9th day of September, 2013, 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, 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, and West American 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 attorneys-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, and West American 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.

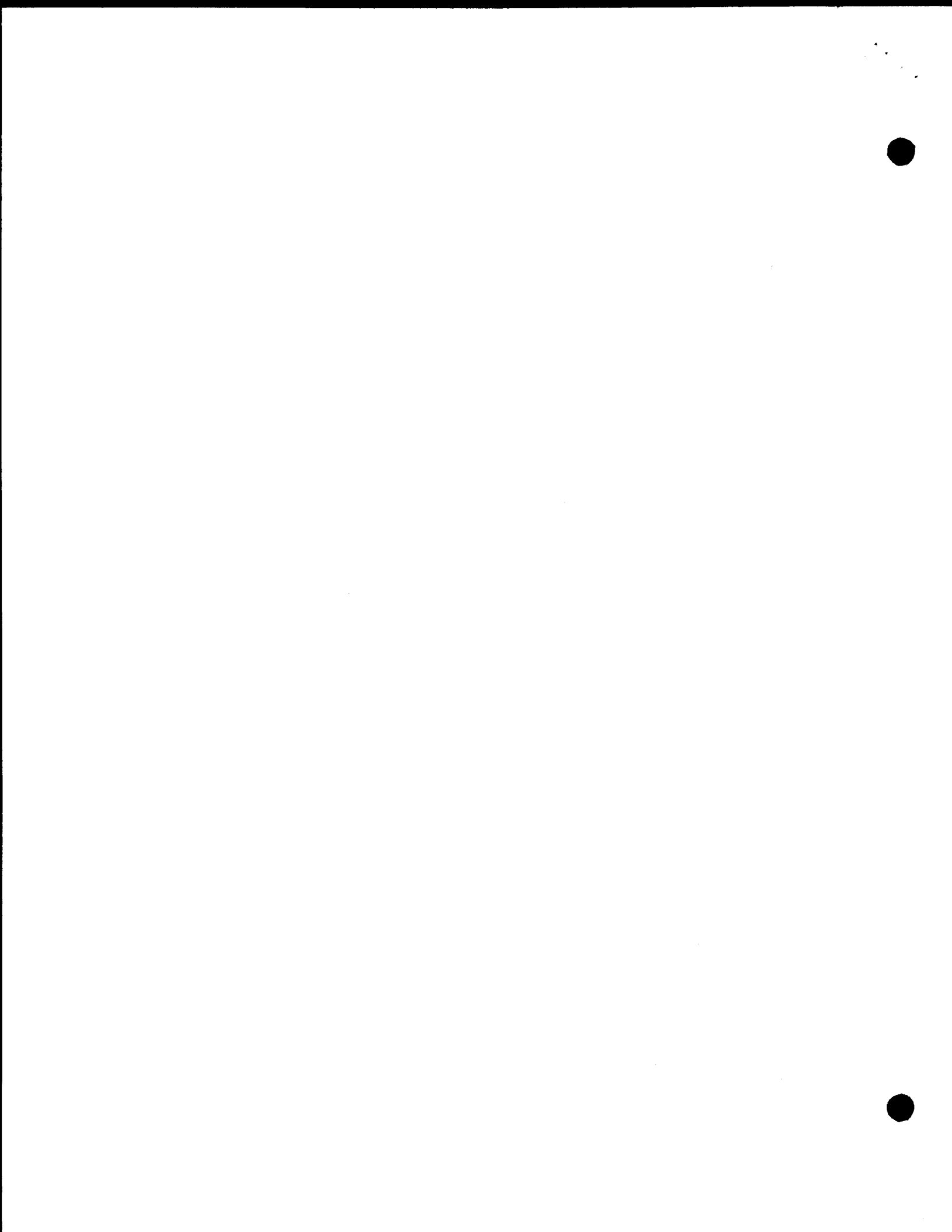
IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the seals of said Companies this 18th day of November 2013.



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

Not valid for mortgage, note, loan, letter of credit, 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.





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	<u>\$25,694,899,915</u>
Total Admitted Assets	<u>\$40,205,366,577</u>	Special Surplus Funds	\$604,621,497
		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>



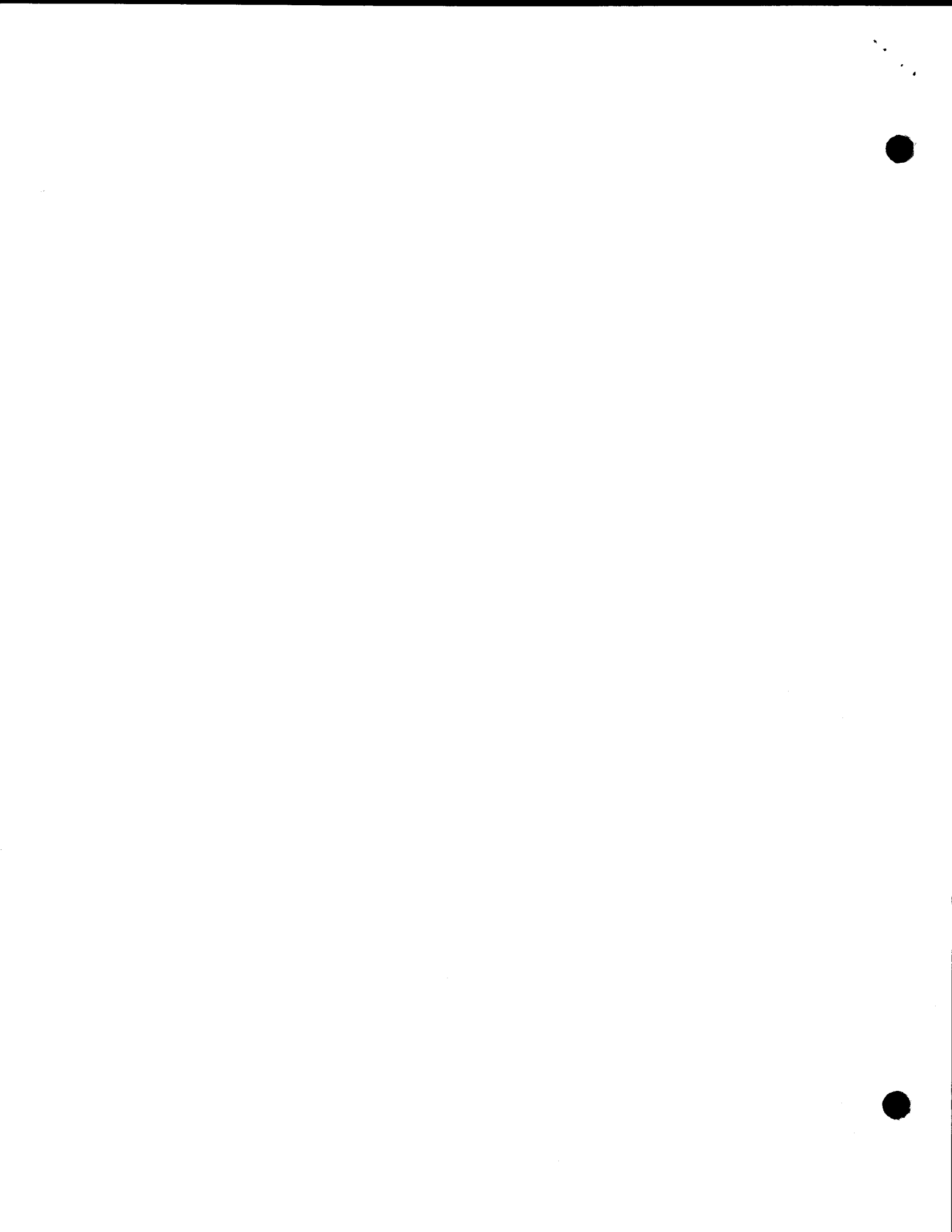
* Bonds are stated at amortized or investment value; Stocks at Association Market Values.
 The foregoing financial information is taken from Liberty Mutual Insurance Company's financial statement filed with the state of Massachusetts Department of Insurance.

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





CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)
11/18/13

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER Brown & Brown of New York, Inc 800 Westchester Avenue Rye Brook, NY 10873	914-253-8400	CONTACT NAME:	
	914-253-8650	PHONE (A/C, No, Ext):	FAX (A/C, No):
		E-MAIL ADDRESS:	
		INSURER(S) AFFORDING COVERAGE	NAIC #
		INSURER A: Liberty Insurance Underwriters	19917
		INSURER B: The State Insurance Fund	36102
		INSURER C: Zurich American Insurance	16535
		INSURER D:	
		INSURER E:	
		INSURER F:	

INSURED Trocom Construction Corp.
48-27 54th Road
Maspeth, NY 11378

COVERAGES CERTIFICATE NUMBER: REVISION NUMBER:

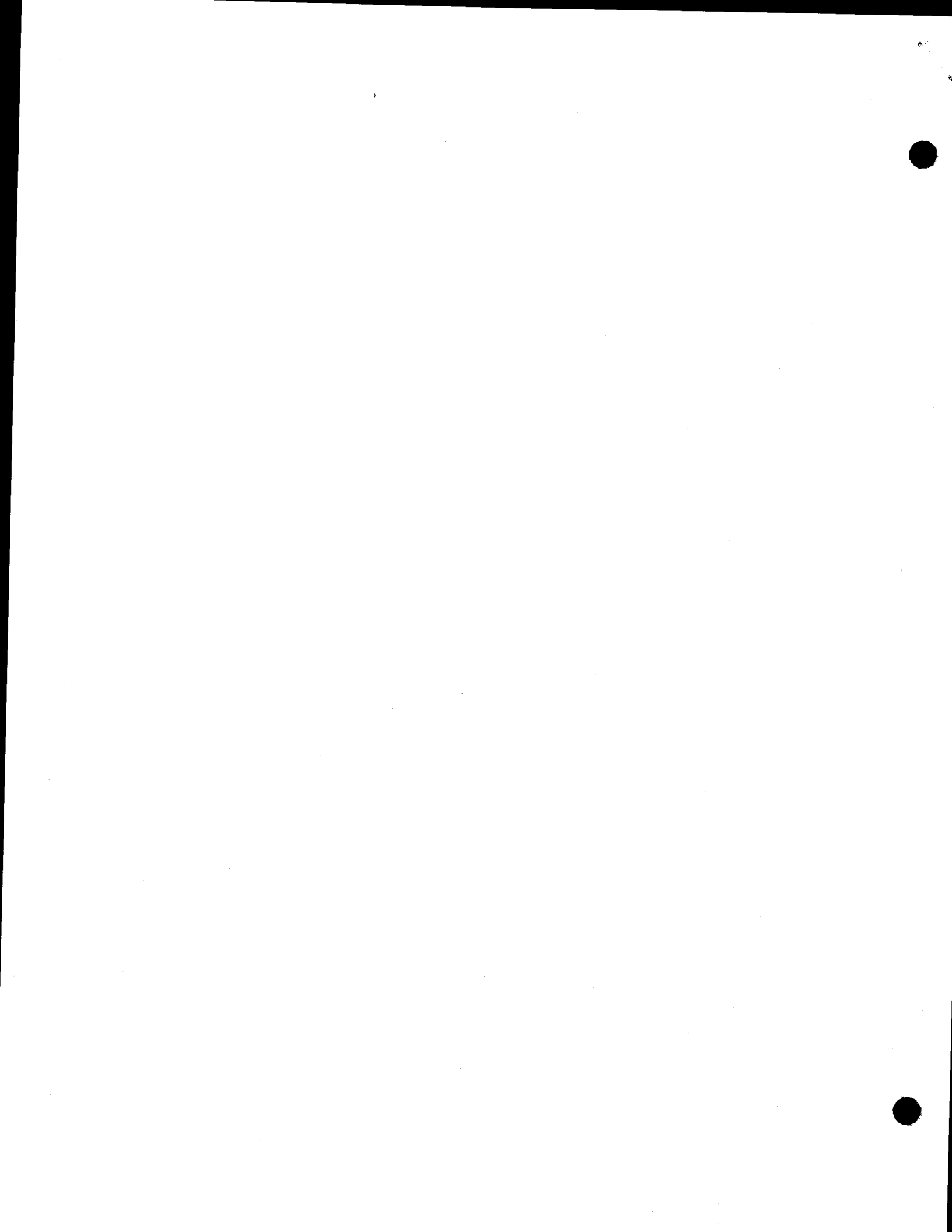
THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

NSR LTR	TYPE OF INSURANCE	ADDITIONAL INSR WORD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
	GENERAL LIABILITY <input type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input type="checkbox"/> OCCUR	X				EACH OCCURRENCE \$ DAMAGE TO RENTED PREMISES (Ea occurrence) \$ MED EXP (Any one person) \$ PERSONAL & ADV INJURY \$ GENERAL AGGREGATE \$ PRODUCTS - COMPIOP AGG \$ \$
	GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC					\$
A	AUTOMOBILE LIABILITY <input checked="" type="checkbox"/> ANY AUTO ALL OWNED AUTOS <input checked="" type="checkbox"/> HIRED AUTOS <input type="checkbox"/> SCHEDULED AUTOS <input checked="" type="checkbox"/> NON-OWNED AUTOS		GMIB00883-0313	07/07/13	07/07/14	COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$ \$
	UMBRELLA LIAB EXCESS LIAB					EACH OCCURRENCE \$ AGGREGATE \$ \$
	DED RETENTION \$					X WC STATUTORY LIMITS OTH-ER
B	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	Y/N <input type="checkbox"/> N/A	1388060-6	04/01/13	04/01/14	E.L. EACH ACCIDENT \$ Cert To E.L. DISEASE - EA EMPLOYEE \$ Follow From E.L. DISEASE - POLICY LIMIT \$ State Fund
C	NYS Disability		1913196	04/01/13	04/01/14	Statutory

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)
Re: FMS ID: HWPLZ008M, PIN# 85014B0008001, DDC PIN: 8502013HW0069C
Reconstruction of Forsyth Street Plaza - Borough of Manhattan

(Please see attached for additional wording)

CERTIFICATE HOLDER New York City Department of Design and Construction 30-30 Thomson Avenue Long Island City, NY 11101	CANCELLATION SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.
	AUTHORIZED REPRESENTATIVE <i>Miss Rollé III</i>



**STATE OF NEW YORK
WORKERS' COMPENSATION BOARD**

**CERTIFICATE OF INSURANCE COVERAGE UNDER THE NYS DISABILITY BENEFITS
LAW**

Part 1. To be completed by Disability Benefits Carrier or Licensed Insurance Agent of that Carrier

<p>1a. Legal Name and Address of Insured (Use Street Address only)</p> <p>Trocom Construction Corp. 46-27 54th Road Maspeth, NY 11378</p>	<p>1b. Business Telephone Number of Insured 718-937-2000</p> <p>1c. NYS Unemployment Insurance Employer Registration Number of Insured 07-86742</p> <p>1d. Federal Employer Identification Number of Insured or Social Security Number 112203562</p>
<p>2. Name and Address of the Entity Requesting Proof of Coverage (Entity Being Listed as the certificate holder)</p> <p>New York City Department of Design and Construction 30-30 Thomson Avenue Long Island City, NY 11101</p>	<p>3a. Name of Insurance Carrier Zurich American Insurance</p> <p>3b. Policy Number of entity listed in box "1a" 1913195</p> <p>3c. Policy effective period: <u>4/1/13</u> to <u>12/31/13</u></p>

4. Policy covers:

a. All of the employer's employees eligible under the New York Disability benefits Law

b. Only the following class or classes of the employees:

Under penalty of perjury, I certify that I am an authorized representative or licensed agent of the insurance carrier referenced above and that the named insured has NYS Disability Benefits insurance coverage as described above.

Date Signed 11/18/13 By Melanie O'Keefe
(Signature of insured's carrier's authorized representative of NYS Licensed Insurance Agent of that insurance carrier)

Telephone Number 914-253-8400 Title Key Account Manager

IMPORTANT: If box "4a" is checked and this form is signed by the insurance carrier's authorized representative or NYS Licensed Insurance Agent of that carrier, this certificate is COMPLETE. Mail it directly to the certificate holder. If box "4b" is checked, this certificate is NOT COMPLETE for purposes of Section 220. Subd. 6 of the Disability Benefits Law. It must be mailed for completion to the Workers' Compensation Board, DB Plans Acceptance Unit, 20 Park Street, Albany, New York 12207

PART 2. To be completed by NYS Workers' Compensation Board (Only if box "4b" of Part 1 has been checked)

State Of New York
Workers' Compensation Board

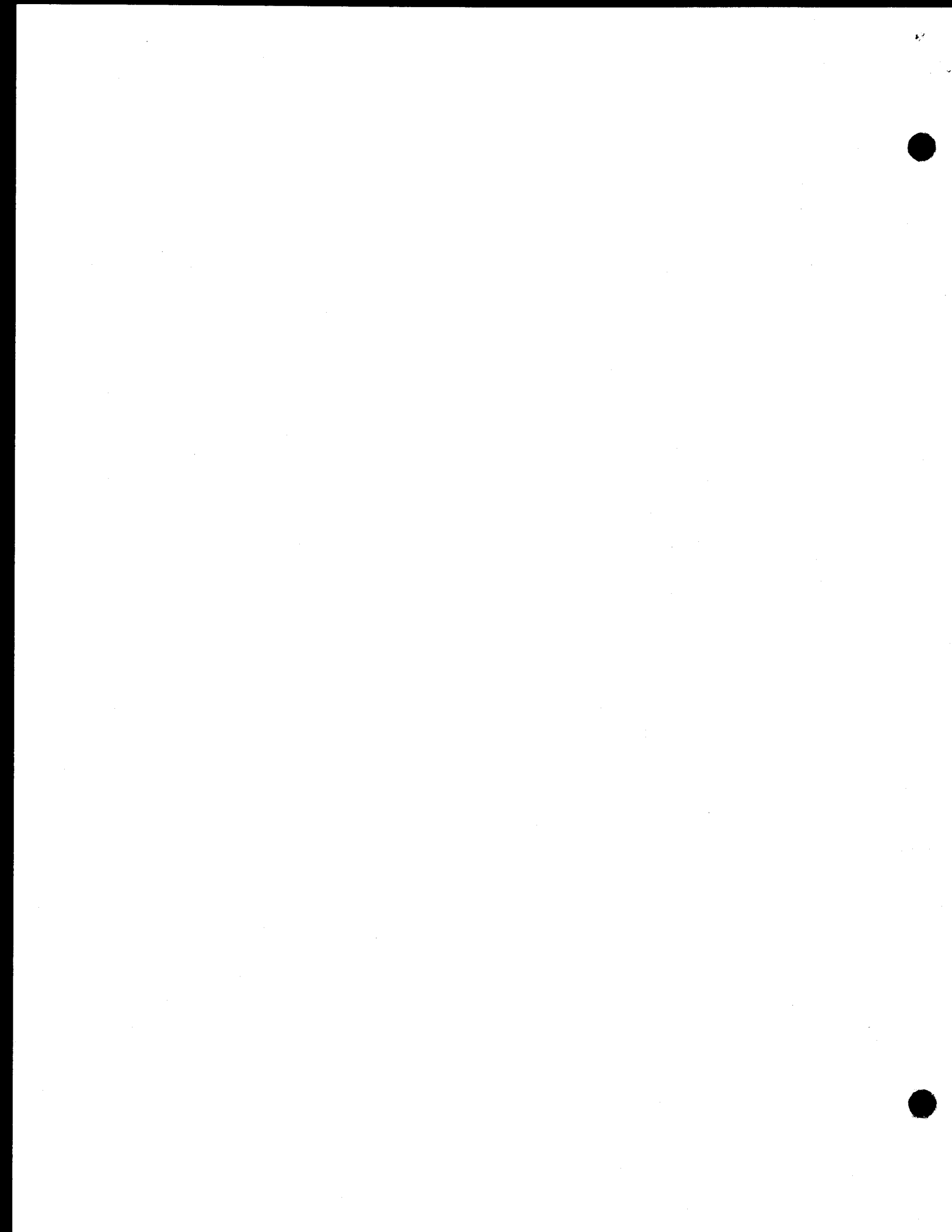
According to information maintained by the NYS Workers Compensation Board, the above- named employer has complied with the NYS Disability Benefits law with respect to all of his/her employees.

Date Signed _____ By _____
(Signature of NYS Workers' Compensation Board Employee)

Telephone Number _____ Title _____

Please note: Only insurance carriers licensed to write NYS Disability benefits insurance policies and NYS Licensed insurance agents of those insurance carriers are authorized to issue Form DB-120.1. Insurance brokers are NOT authorized to issue this form.

DB-120.1 (5-06)



Additional Instructions for Form DB-120.1

By signing this form, the insurance carrier identified in box "3" on this form is certifying that it is insuring the business referenced in box "1a" for disability benefits under the New York State Disability Benefits Law. The Insurance Carrier or its licensed agent will send this Certificate of Insurance to the entity listed as the certificate holder in box "2". *This Certificate is valid for the earlier of one year after this form is approved by the insurance carrier or its licensed agent, or the policy expiration date listed in box "3c".*

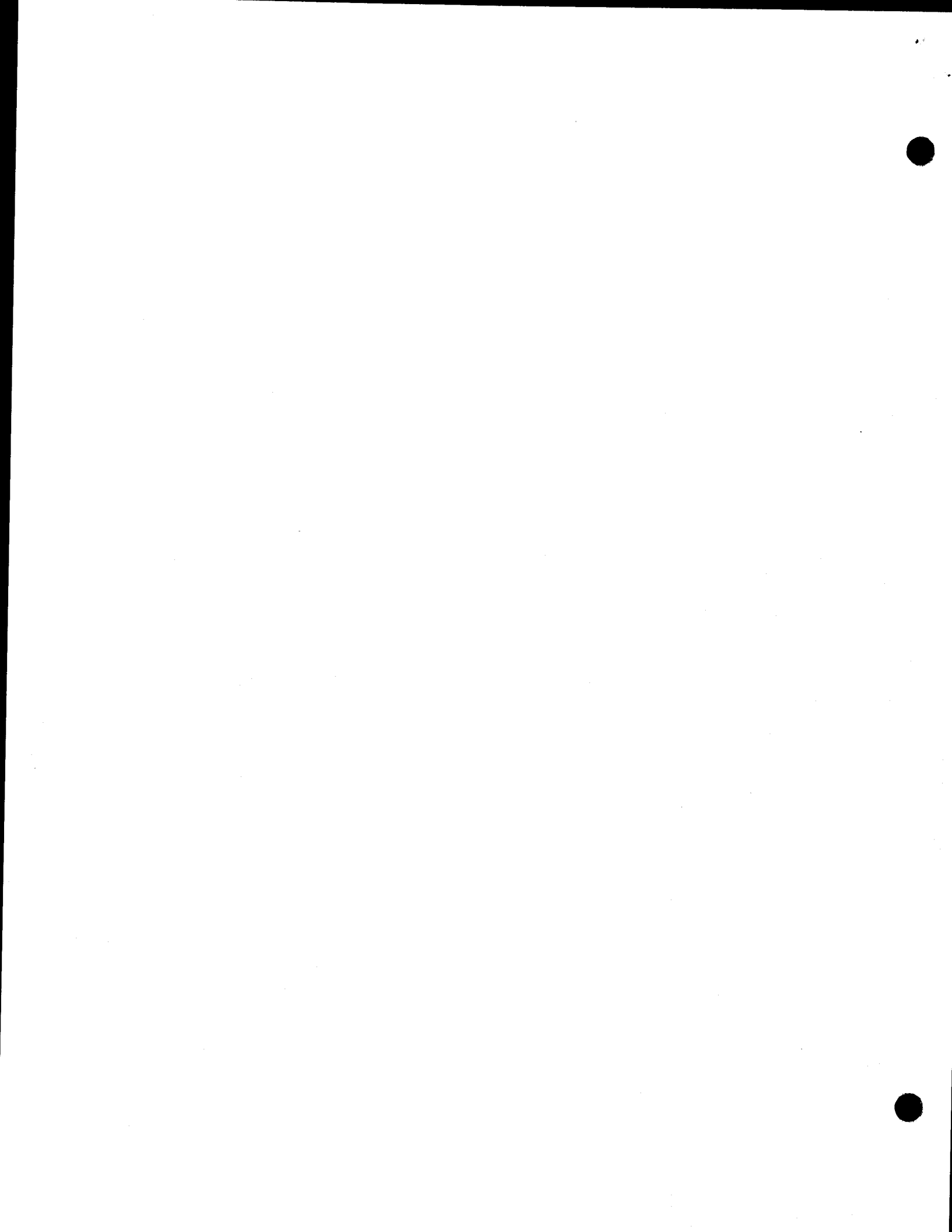
Please Note: Upon the cancellation of the disability benefits policy indicated on this form, if the business continues to be named on a permit, license or contract issued by a certificate holder, the business must provide that certificate holder with a new Certificate of NYS Disability Benefits Coverage or other authorized proof that the business is complying with the mandatory coverage requirements of the New York State Disability Benefits Law.

DISABILITY BENEFITS LAW

§ 220. Subd. 8

- (a) The head of a state or municipal department, board, commission or office authorized or required by law to issue any permit for or in connection with any work involving the employment of employees in employment as defined in this article, and notwithstanding any general or special statute requiring or authorizing the issue of such permits, shall not issue such permit unless proof duly subscribed by an insurance carrier is produced in a form satisfactory to the chair, that the payment of disability benefits for all employees has been secured as provided by this article. Nothing herein, however, shall be construed as creating any liability on the part of such state or municipal department, board, commission or office to pay any disability benefits to any such employee if so employed.
- (b) The head of a state or municipal department, board, commission or office authorized or required by law to enter into any contract for or in connection with any work involving the employment of employees in employment as defined in this article, and notwithstanding any general or special statute requiring or authorizing any such contract, shall not enter into any such contract unless proof duly subscribed by an insurance carrier is produced in a form satisfactory to the chair, that the payment of disability benefits for all employees has been secured as provided by this article.

DB-120.1 (5-06) Reverse



CERTIFICATION BY BROKER

The undersigned insurance broker represents to the City of New York that the attached Certificate of Liability Insurance, dated NOVEMBER 18, 2013, concerning insurance policy number GMI8006830313 is accurate in all material respects, and that the described insurance is effective as of the date of this Certification.

The undersigned insurance broker further represents to the City of New York that the Commercial General Liability insurance policy, referenced in the Certificate of Liability, is issued by a company or companies that may lawfully issue the required policy and has an A.M. Best rating of at least A-VII or a Standard and Poor's rating of at least AA.

BROWN & BROWN OF NEW YORK
[Name of broker (typewritten)]

800 WESTCHESTER AVE, SUITE N-311, PURCHASE, NY 10573
[Address of broker (typewritten)]

mhardja@bbinsny.com
[Email address of broker (typewritten)]

914-607-4562
[Phone number/Fax number of broker (typewritten)]

Melanie Hardja
[Signature of authorized official or broker]

KEY ACCOUNT MANAGER
[Name and title of authorized official (typewritten)]

State of NEW YORK.....)

) ss.:

County of WESTCHESTER.....)

Sworn to before me this 18th day of NOVEMBER 2013

Laura Barahona
NOTARY PUBLIC FOR THE STATE OF NEW YORK

LAURA BARAHONA
NOTARY PUBLIC-STATE OF NEW YORK
No. 01246174333
Qualified in Westchester County
My Commission Expires September 17, 2015



New York State Insurance Fund

Workers' Compensation & Disability Benefits Specialists Since 1914

199 CHURCH STREET, NEW YORK, N.Y. 10007-1100
Phone: (888) 967-3863

CERTIFICATE OF WORKERS' COMPENSATION INSURANCE

***** 112203562
LOVELL SAFETY MGMT CO., LLC
110 WILLIAM STREET 12TH FLR
NEW YORK NY 10038

POLICYHOLDER TROCOM CONSTRUCTION CORP 46-27 54TH ROAD MASPETH NY 11378	CERTIFICATE HOLDER NEW YORK CITY DEPARTMENT OF DESIGN AND CONSTRUCTION 30-30 THOMSON AVENUE LONG ISLAND CITY NY 11101
--	--

POLICY NUMBER G 1388 050-5	CERTIFICATE NUMBER 887083	PERIOD COVERED BY THIS CERTIFICATE 04/01/2013 TO 04/01/2014	DATE 11/18/2013
--------------------------------------	-------------------------------------	---	---------------------------

THIS IS TO CERTIFY THAT THE POLICYHOLDER NAMED ABOVE IS INSURED WITH THE NEW YORK STATE INSURANCE FUND UNDER POLICY NO. 1388 050-5 UNTIL 04/01/2014, COVERING THE ENTIRE OBLIGATION OF THIS POLICYHOLDER FOR WORKERS' COMPENSATION UNDER THE NEW YORK WORKERS' COMPENSATION LAW WITH RESPECT TO ALL OPERATIONS IN THE STATE OF NEW YORK, EXCEPT AS INDICATED BELOW.

IF SAID POLICY IS CANCELLED, OR CHANGED PRIOR TO 04/01/2014 IN SUCH MANNER AS TO AFFECT THIS CERTIFICATE, 30 DAYS WRITTEN NOTICE OF SUCH CANCELLATION WILL BE GIVEN TO THE CERTIFICATE HOLDER ABOVE. NOTICE BY REGULAR MAIL SO ADDRESSED SHALL BE SUFFICIENT COMPLIANCE WITH THIS PROVISION. THE NEW YORK STATE INSURANCE FUND DOES NOT ASSUME ANY LIABILITY IN THE EVENT OF FAILURE TO GIVE SUCH NOTICE.

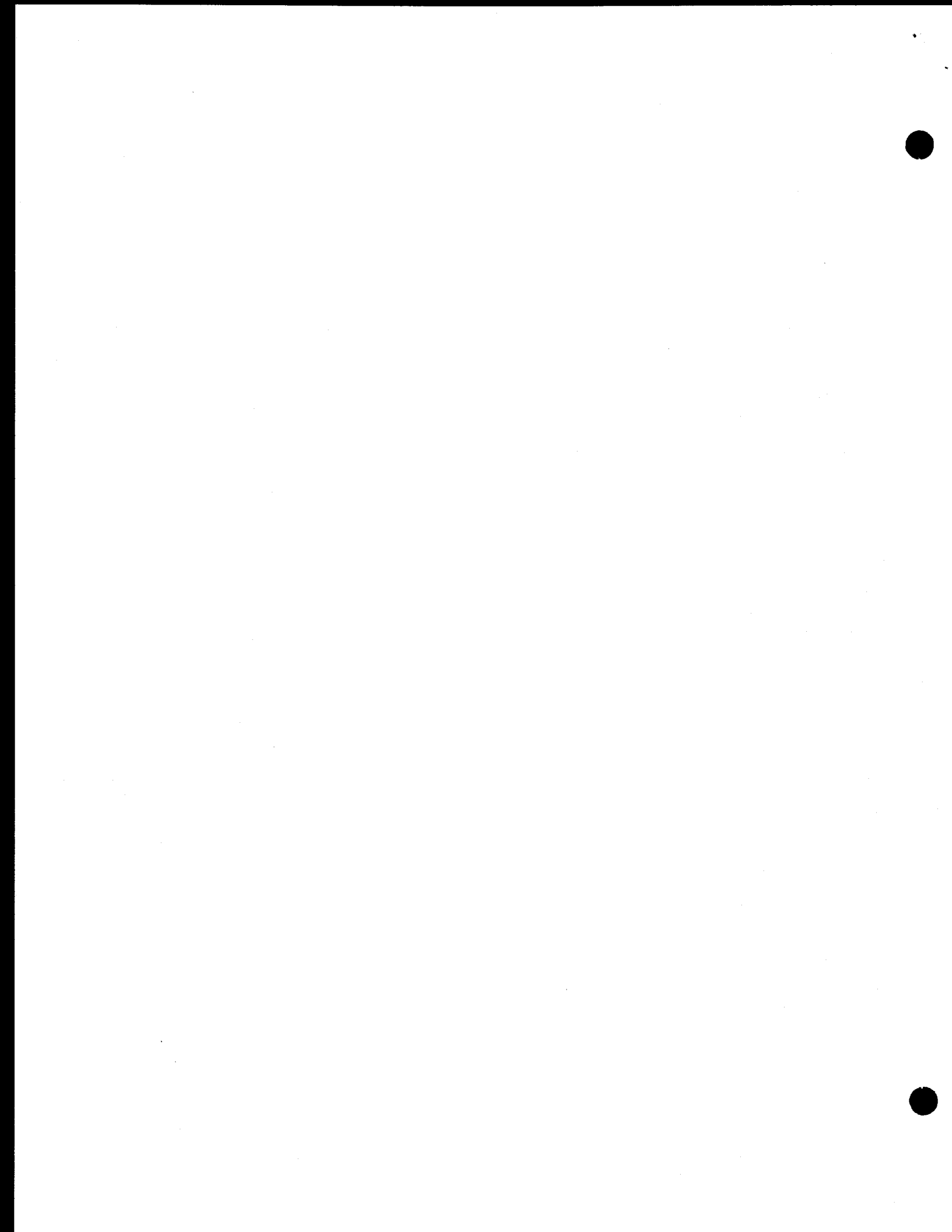
THIS CERTIFICATE DOES NOT APPLY TO THOSE JOB SITES WHICH ARE COVERED BY OTHER INSURANCE AND ARE SPECIFICALLY EXCLUDED BY ENDORSEMENT.

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS NOR INSURANCE COVERAGE UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICY.

NEW YORK STATE INSURANCE FUND

DIRECTOR, INSURANCE FUND UNDERWRITING

This certificate can be validated on our web site at <https://www.nysif.com/cert/certval.asp> or by calling (888) 875-5790
VALIDATION NUMBER: 373488349



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

TABLE OF CONTENTS

<u>CLASSIFICATION</u>	<u>PAGE</u>
ASBESTOS HANDLER	5
BLASTER.....	5
BOILERMAKER.....	7
BRICKLAYER.....	8
CARPENTER - BUILDING COMMERCIAL.....	9
CARPENTER - HEAVY CONSTRUCTION WORK.....	10
CEMENT & CONCRETE WORKER.....	11
CEMENT MASON.....	12
CORE DRILLER.....	12
DERRICKPERSON AND RIGGER.....	14
DIVER.....	14
DOCKBUILDER - PILE DRIVER.....	15
DRIVER: TRUCK (TEAMSTER).....	16
ELECTRICIAN.....	18
ELECTRICIAN - ALARM TECHNICIAN.....	22
ELECTRICIAN-STREET LIGHTING WORKER.....	23
ELEVATOR CONSTRUCTOR.....	24
ELEVATOR REPAIR & MAINTENANCE.....	25
ENGINEER.....	26
ENGINEER - CITY SURVEYOR AND CONSULTANT.....	31
ENGINEER - FIELD (BUILDING CONSTRUCTION).....	32
ENGINEER - FIELD (HEAVY CONSTRUCTION).....	33
ENGINEER - FIELD (STEEL ERECTION).....	33
ENGINEER - OPERATING.....	34
FLOOR COVERER.....	42
GLAZIER.....	43
GLAZIER - REPAIR & MAINTENANCE.....	44
HEAT AND FROST INSULATOR.....	45
HOUSE WRECKER.....	46
IRON WORKER - ORNAMENTAL.....	46
IRON WORKER - STRUCTURAL.....	47
LABORER.....	48
LANDSCAPING.....	49
MARBLE MECHANIC.....	51
MASON TENDER.....	52
MASON TENDER (INTERIOR DEMOLITION WORKER).....	52
METALLIC LATHER.....	53
MILLWRIGHT.....	54
MOSAIC MECHANIC.....	55
PAINTER.....	56
PAINTER - SIGN.....	57
PAINTER - STRIPER.....	58

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

Painter - Structural Steel	59
Paperhanger	59
Paver and Roadbuilder	60
Plasterer	62
Plasterer - Tender	63
Plumber	63
Plumber (Mechanical Equipment and Service)	64
Plumber (Residential Rates for 1, 2 and 3 Family Home Construction)	65
Plumber: Pump & Tank	66
Pointer - Waterproofing, Caulker Mechanic (Exterior Building Renovation)	66
Roofer	67
Sandblaster - Steamblaster	68
Sheet Metal Worker	69
Sheet Metal Worker - Specialty	70
Sign Erector	71
Steamfitter	71
Steamfitter - Refrigeration and Air Conditioner	73
Stone Mason - Setter	75
Taper	75
Telecommunication Worker	76
Tile Finisher	77
Tile Layer - Setter	78
Timberperson	79
Tunnel Worker	80
Welder	81

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

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§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.

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§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

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

Engineer - Heavy Construction Operating Engineer III

Minor Equipment such as Tractors, Post Hole Diggers, Ditch Witch (Walk Behind), Road Finishing Machines, Rollers five tons and under, Tugger Hoists, Dual Purpose Trucks, Fork Lifts, and Dempsey Dumpers, Fireperson.

Effective Period: 7/1/2013 - 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

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§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 GWW, 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, Gunite 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

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

4 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

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

(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)

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

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 (½) hour for lunch. Off-Hour Start shall commence after 3:30 P.M. and shall conclude by 6:00 A.M. The first consecutive seven (7) hours shall be at straight time with a differential of twelve dollars (\$12.00) per hour. Fringes shall be paid at the straight time rate.

(Local #46)

MILLWRIGHT

Millwright

Effective Period: 7/1/2013 - 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**

Journeyman

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

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

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

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

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

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

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.

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

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

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

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.

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

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.

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

(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

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

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

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

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.

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

(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

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

Shift Rates

Work that can only be performed outside regular working hours (seven hours of work between 7:30 A.M. and 3:30 P.M.) - First shift (work between 3:30 P.M. and 11:30 P.M.) - 10% differential above the established hourly rate.
Second shift (work between 11:30 P.M. and 7:30 A.M.) - 15% differential above the established hourly rate.

For Fan Maintenance: On all full shifts of fan maintenance work the straight time hourly rate of pay will be paid for each shift, including nights, Saturdays, Sundays, and holidays. No journey person engaged in fan maintenance shall work in excess of forty (40) hours in any work week.

(Local #28)

SHEET METAL WORKER - SPECIALTY (Decking & Siding)

Sheet Metal Specialty Worker

The first worker to perform this work must be paid at the rate of the Sheet Metal Worker. The second and third workers shall be paid the Specialty Worker Rate. The ratio of One Sheet Metal Worker, then Two Specialty Workers shall be utilized thereafter.

Effective Period: 7/1/2013 - 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

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**

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

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

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

Columbus Day
Veteran's Day
Thanksgiving Day
Day after Thanksgiving
Christmas Day

Paid Holidays

None

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.

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

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

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

(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

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

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.

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

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.

TABLE OF CONTENTS

<u>CLASSIFICATION</u>	<u>PAGE</u>
ASBESTOS HANDLER.....	3
BOILERMAKER.....	3
BRICKLAYER.....	5
CARPENTER.....	6
CEMENT MASON.....	6
CEMENT AND CONCRETE WORKER.....	7
DERRICKPERSON & RIGGER (STONE).....	8
DOCKBUILDER/PILE DRIVER.....	8
ELECTRICIAN.....	9
ELEVATOR CONSTRUCTOR.....	12
ELEVATOR REPAIR & MAINTENANCE.....	13
ENGINEER.....	13
ENGINEER - OPERATING.....	14
FLOOR COVERER.....	15
GLAZIER.....	15
HEAT & FROST INSULATOR.....	16
HOUSE WRECKER.....	16
IRON WORKER - ORNAMENTAL.....	17
IRON WORKER - STRUCTURAL.....	19
LABORER (FOUNDATION, CONCRETE, EXCAVATING, STREET PIPE LAYER & COMMON)....	19
MARBLE MECHANICS.....	20
MASON TENDER.....	21
METALLIC LATHER.....	22
MILLWRIGHT.....	23
PAVER AND ROADBUILDER.....	24
PAINTER.....	24
PAINTER - STRUCTURAL STEEL.....	25
PLASTERER.....	26
PLUMBER.....	27
POINTER - WATERPROOFER, CAULKER MECHANIC (EXTERIOR BUILDING RENOVATION) .	28
ROOFER.....	28
SHEET METAL WORKER.....	29
SIGN ERECTOR.....	30
STEAMFITTER.....	31
STONE MASON - SETTER.....	32
TAPER.....	33
TILE LAYER - SETTER.....	34
TIMBERPERSON.....	34

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 rate
Supplemental Benefit Rate Per Hour: \$33.49

Effective Period: 1/1/2014 - 6/30/2014
Wage Rate Per Hour: 80% of Journeyperson's rate
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 Journeyman's rate
Supplemental Benefit Rate Per Hour: \$38.20

Effective Period: 1/1/2014 - 6/30/2014
Wage Rate Per Hour: 95% of Journeyman's rate
Supplemental Benefit Rate Per Hour: \$39.65

(Local #5)

BRICKLAYER
(Ratio of Apprentice to Journeyman: 1 to 1, 1 to 4)

Bricklayer (First 750 Hours)

Effective Period: 7/1/2013 - 6/30/2014
Wage Rate Per Hour: 50% of Journeyman'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 Journeyman'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 Journeyman'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 Journeyman'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 Journeyman'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 Journeyman'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 Journeyman's Rate

Cement Mason (Second Year)

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

Wage and Supplemental Rate Per Hour: 60% of Journeyman's Rate

Cement Mason (Third Year)

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

Wage and Supplemental Rate Per Hour: 70% of Journeyman's Rate

(Local #780)

CEMENT AND CONCRETE WORKER
(Ratio of Apprentice to Journeyman: 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 Journeyman'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 Journeyman'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 Journeyman'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 Journeyman's rate

Supplemental Benefit Rate Per Hour: \$25.07

(Cement Concrete Workers District Council)

DERRICKPERSON & RIGGER (STONE)
(Ratio of Apprentice to Journeyperson: 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 Journeyperson's rate
Supplemental Benefit Rate Per Hour: 50% of Journeyperson's rate

Derrickperson & Rigger (stone) - Second Year: 1st Six Months

Effective Period: 7/1/2013 - 6/30/2014
Wage Rate Per Hour: 70% of Journeyperson's rate
Supplemental Benefit Rate Per Hour: 75% of Journeyperson's rate

Derrickperson & Rigger (stone) - Second Year: 2nd Six Months

Effective Period: 7/1/2013 - 6/30/2014
Wage Rate Per Hour: 80% of Journeyperson's rate
Supplemental Benefit Rate Per Hour: 75% of Journeyperson's rate

Derrickperson & Rigger (stone) - Third Year

Effective Period: 7/1/2013 - 6/30/2014
Wage Rate Per Hour: 90% of Journeyperson's rate
Supplemental Benefit Rate Per Hour: 75% of Journeyperson's rate

(Local #197)

DOCKBUILDER/PILE DRIVER
(Ratio of Apprentice to Journeyperson: 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 Journeyperson'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 Journeyperson'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 Journeyperson'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 Journeyperson's rate
Supplemental Rate Per Hour: \$28.34

(Local #1281)

**HEAT & FROST INSULATOR
(Ratio of Apprentice to Journeyperson: 1 to 1, 1 to 4)**

Heat & Frost Insulator (First Year)

Effective Period: 7/1/2013 - 6/30/2014
Wage and Supplemental Rate Per Hour: 40% of Journeyperson's rate

Heat & Frost Insulator (Second Year)

Effective Period: 7/1/2013 - 6/30/2014
Wage and Supplemental Rate Per Hour: 60% of Journeyperson's rate

Heat & Frost Insulator (Third Year)

Effective Period: 7/1/2013 - 6/30/2014
Wage and Supplemental Rate Per Hour: 70% of Journeyperson's rate

Heat & Frost Insulator (Fourth Year)

Effective Period: 7/1/2013 - 6/30/2014
Wage and Supplemental Rate Per Hour: 80% of Journeyperson's rate

(Local #12)

**HOUSE WRECKER
(TOTAL DEMOLITION)**

(Ratio of Apprentice to Journeyperson: 1 to 1, 1 to 3)

House Wrecker - First Year

Effective Period: 7/1/2013 - 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 Journeyman'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 Journeyman'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 Journeyman'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 Journeyman'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 Journeyman'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 Journeyman'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 Journeyman'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 Journeyman's rate
Supplemental Rate Per Hour: \$37.72

Iron Worker (Ornamental) - 29 - 36 Months - Hired After 8/1/08

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

Effective Period: 7/1/2013 - 6/30/2014
Wage Rate Per Hour: 80% of Journeyperson's rate
Supplemental Rate Per Hour: \$39.66

(Local #580)

IRON WORKER - STRUCTURAL
(Ratio of Apprentice to Journeyperson: 1 to 1, 1 to 6)

Iron Worker (Structural) - 1st Six Months

Effective Period: 7/1/2013 - 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 Journeyperson: 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 Journeyperson's rate
Supplemental Rate Per Hour: \$33.25

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§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

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: 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

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)

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§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

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

Supplemental Benefit Rate per Hour: \$44.63

(Local #740)

PAVER AND ROADBUILDER

(Ratio of Apprentice to Journeyman: 1 to 1, 1 to 3)

Paver and Roadbuilder - First Year (Minimum 1000 hours)

Effective Period: 7/1/2013 - 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 Journeyman: 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

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

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

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§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

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§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

Rofer - Second Year

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

Wage and Supplemental Rate Per Hour: 50% of Journeyman's Rate

Rofer - Third Year

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

Wage and Supplemental Rate Per Hour: 60% of Journeyman's Rate

Rofer - Fourth Year

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

Wage and Supplemental Rate Per Hour: 75% of Journeyman's Rate

(Local #8)

SHEET METAL WORKER

(Ratio of Apprentice to Journeyman: 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 Journeyman'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 Journeyman'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 Journeyman'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 Journeyman's rate

Supplemental Rate Per Hour: \$21.87

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

Sheet Metal Worker - Fourth Year (1st Six Months)

Effective Period: 7/1/2013 - 6/30/2014
Wage Rate Per Hour: 50% of Journeyperson'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 Journeyperson'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 Journeyperson'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 Journeyperson's rate
Supplemental Rate Per Hour: \$31.23

(Local #28)

SIGN ERECTOR

(Ratio of Apprentice to Journeyperson: 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 Journeyperson'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 Journeyperson'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 Journeyperson'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 Journeyman'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 Journeyman'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 Journeyman'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 Journeyman'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 Journeyman'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 Journeyman'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 Journeyman's rate
Supplemental Rate Per Hour: \$12.30

(Local #137)

STEAMFITTER

Ratio of Apprentice to Journeyman: 1 to 1, 1 to 3)

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

Steamfitter - First Year

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

Wage Rate and Supplemental Per Hour: 40% of Journeyman's rate

Steamfitter - Second Year

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

Wage Rate and Supplemental Rate Per Hour: 50% of Journeyman's rate.

Steamfitter - Third Year

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

Wage Rate and Supplemental Rate per Hour: 65% of Journeyman's rate.

Steamfitter - Fourth Year

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

Wage Rate and Supplemental Rate Per Hour: 80% of Journeyman's rate.

Steamfitter - Fifth Year

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

Wage Rate and Supplemental Rate Per Hour: 85% of Journeyman's rate.

(Local #638)

STONE MASON - SETTER

(Ratio Apprentice of Journeyman: 1 to 1, 1 to 2)

Stone Mason - Setters - First 750 Hours

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

Wage and Supplemental Rate Per Hour: 50% of Journeyman's rate

Stone Mason - Setters - Second 750 Hours

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

Wage Rate Per Hour: 60% of Journeyman's rate

Supplemental Rate Per Hour: 50% of Journeyman's rate

Stone Mason - Setters - Third 750 Hours

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

Effective Period: 7/1/2013 - 6/30/2014
Wage Rate Per Hour: 70% of Journeyman's rate
Supplemental Rate Per Hour: 50% of Journeyman's rate

Stone Mason - Setters - Fourth 750 Hours

Effective Period: 7/1/2013 - 6/30/2014
Wage Rate Per Hour: 80% of Journeyman's rate
Supplemental Rate Per Hour: 50% of Journeyman's rate

Stone Mason - Setters - Fifth 750 Hours

Effective Period: 7/1/2013 - 6/30/2014
Wage Rate Per Hour: 90% of Journeyman's rate
Supplemental Rate Per Hour: 50% of Journeyman's rate

Stone Mason - Setters - Sixth 750 Hours

Effective Period: 7/1/2013 - 6/30/2014
Wage Rate Per Hour: 100% of Journeyman's rate
Supplemental Rate Per Hour: 50% of Journeyman's rate

(Bricklayers District Council)

TAPER

(Ratio of Apprentice to Journeyman: 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 Journeyman's rate

Drywall Taper - Second Year

Effective Period: 7/1/2013 - 6/30/2014
Wage and Supplemental Rate Per Hour: 60% of Journeyman's rate

Drywall Taper - Third Year

Effective Period: 7/1/2013 - 6/30/2014
Wage and Supplemental Rate Per Hour: 80% of Journeyman'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)

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§6-109 PREVAILING WAGE SCHEDULE

NYC ADMINISTRATIVE CODE § 6-109 SCHEDULE OF "LIVING WAGES"

Contractors who provide the following services to the City of New York must post a copy of this Living Wage Schedule at their work site(s) as required by New York City Administrative Code § 6-109:

- Building Services,
- Day Care Services,
- Food Services,
- Head Start Services,
- Homecare Services,
- Services to Persons with Cerebral Palsy, and
- Temporary Services.

In accordance with NYC Administrative Code § 6-109, the Comptroller of the City of New York promulgated this schedule of living wages for the above services on contracts for non-emergency work in excess of the small purchase limit set by the Procurement Policy Board; contracting agencies must annex this schedule to such contracts.

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

TABLE OF CONTENTS

<u>CLASSIFICATION</u>	<u>PAGE</u>
BUILDING CLEANER AND MAINTAINER (OFFICE).....	4
BUILDING CLEANER AND MAINTAINER (RESIDENTIAL).....	4
CLEANER (PARKING GARAGE).....	4
DAY CARE SERVICES.....	4
FOOD SERVICE EMPLOYEES.....	4
GARDENER.....	5
HEAD START SERVICES.....	5
HOMECARE SERVICES.....	6
SECURITY GUARD (ARMED).....	6
SECURITY GUARD (UNARMED).....	6
SERVICES TO PERSONS WITH CEREBRAL PALSY.....	6
TEMPORARY OFFICE SERVICES.....	7
WINDOW CLEANER.....	8

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
§6-109 PREVAILING WAGE SCHEDULE

BUILDING CLEANER AND MAINTAINER (OFFICE)

For the above building service classification, see the Labor Law Section 230 Schedule.

BUILDING CLEANER AND MAINTAINER (RESIDENTIAL)

For the above building service classification, see the Labor Law Section 230 Schedule.

CLEANER (PARKING GARAGE)

For the above building service classification, see the Labor Law Section 230 Schedule.

DAY CARE SERVICES

Day Care Services

'Day Care Services' means provision of day care services through the city's center-based day care program administered under contract with the city's Administration for Children's Services. No other day care programs shall be covered, including family-based day care programs administered by city-contracted day care centers.

Effective Period: 7/1/2013 - 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) 669-3621
FAX NUMBER: (212) 669-8491

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

PROJECT ID: HWPLZ008M

RECONSTRUCTION OF FORSYTH STREET PLAZA

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

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

Trocom Construction
8502013HW0069C / 85014B0008 Contractor.
Dated December 4th, 2013

APPROVED AS TO FORM
CERTIFIED AS TO LEGAL AUTHORITY

Acting Corporation Counsel

JP
8-16-13

Dated August 16, 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 4**

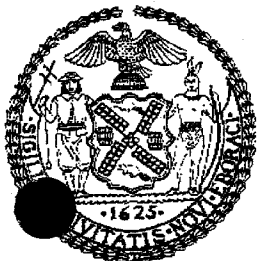
FOR FURNISHING ALL LABOR AND MATERIALS NECESSARY AND REQUIRED FOR:

RECONSTRUCTION OF FORSYTH STREET PLAZA

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

Together With All Work Incidental Thereto

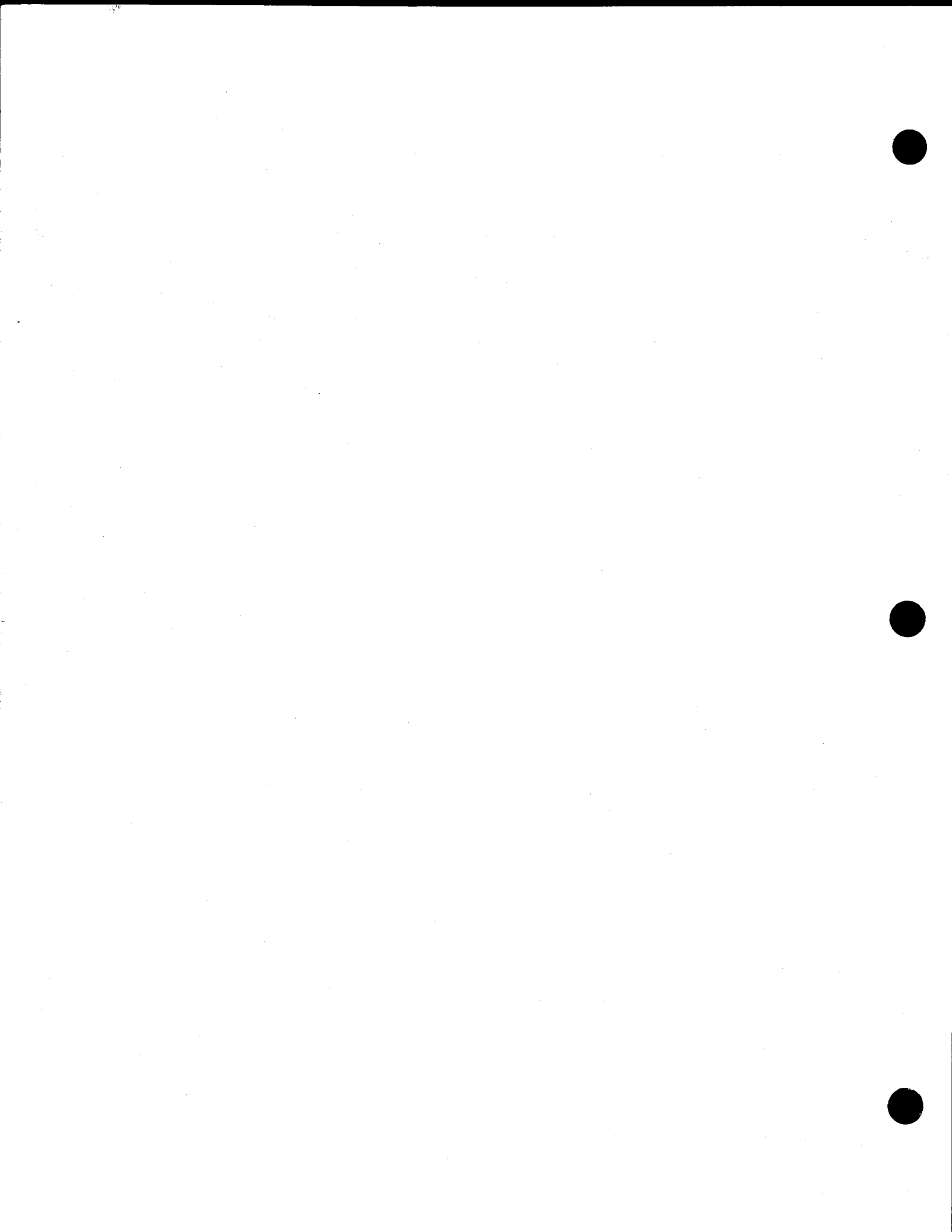
**BOROUGH OF MANHATTAN
CITY OF NEW YORK**



FOR THE DEPARTMENT OF TRANSPORTATION
PREPARED BY
URS CORPORATION

JULY 30, 2013

4-021



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 March 2012
4. Standards for Green Infrastructure, dated July 16, 2013

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

<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>\$1,200.00</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 365 consecutive calendar days ("ccds").

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

YES NO

When the Final Contract Duration is indicated above to be adjusted by the table below, the table may increase the Base Contract Duration depending on the date of scheduled substantial completion to avoid a scheduled substantial completion of the Work during the winter months. The date of 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:

- 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.
- 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>\$<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> <p>1. <u>City of New York, including its officials and employees, and</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. 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></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> <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	\$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, and</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>\$<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>■ 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: HWPLZ008M

RECONSTRUCTION OF FORSYTH STREET PLAZA

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

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

ADDENDUM NO. 1

DATED: August 5, 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 Kravchyk at NYCDEP (Tel. No. 718-595-7512) to determine the availability of RPA and from which recycling facility it can be obtained.

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

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

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

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

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

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

10. Refer to Pages 218 and 219, Subsection 4.13.4.(H) PIGMENTING,
first four paragraphs;

Delete the first four paragraphs under Subsection 4.13.4.(H), in
their entirety;

Substitute the following revised four paragraphs:

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

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

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

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

[Added 05-24-2013]

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

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

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

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

[Added 08-05-2013]

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

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, VG/DVI LCD Monitor.”
- “(m) Software Requirements: Microsoft Windows 7 Professional SP1, 64 bit; Microsoft Office Professional 2010; Microsoft Project 2010; Adobe Acrobat reader; Anti-Virus software package with 2 year updates subscription; and, either Auto Cad 2012 LT or Microsoft Visio 2010 Standard Edition, as directed by the Engineer.”

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

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

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

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

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

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

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

Heavy duty commercial grade diamond cut shredder with automatic start. The shredder shall be able to receive 8-1/2 inch wide paper and shred a minimum of 15 sheets simultaneously along with CDs and staples.	1	1	1	1	1	1
Projector – 1080p LCD with a min. of 2200 ANSI 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
--	---	---	---	---	---	---

[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

TABLE OF CONTENTS

<u>SECTIONS</u>	<u>DESCRIPTION</u>
4.15 A	SOIL PREPARATION AND MIXES
4.18 RDM	RODENT DETERRENT MESH
551.40200017	FURNISHING EQUIPMENT FOR INSTALLING MICROPILES
551.50220017	STATIC PILE LOAD TEST
551.99400017	MICROPILES (CONTRACTOR DESIGNED) - DESIGN LOAD LESS THAN 100 TONS
551.99450017	PERMANENT CASTING FOR MICROPILES
6.18 AAM	PEDESTRIAN BARRIER
6.18 PS	CLEAN AND PAINT STEEL FENCE
6.34 A	TEMPORARY CHAIN LINK FENCE AND GATE
6.47 PCB	FURNISH AND INSTALL CONCRETE PAVERS
6.59 PF	TEMPORARY CONCRETE BARRIER WITH FENCE
6.74 G	GALVANIZED STEEL EDGING
6.77 R	METAL TRASH RECEPTACLE
7.01 SSG	STAINLESS STEEL GRATING
7.07 TPM	TEMPORARY OUTDOOR PARABOLIC MIRROR
7.39 SSD	SLIP-RESISTANT STAINLESS STEEL DECKING
7.53 KB	TABLE AND CHAIR
7.55 SS	STAINLESS STEEL RAILINGS
8.15 WXY	DRINKING FOUNTAIN, TYPE WXY
8.23 S	METAL FABRICATIONS
8.26 R	EXISTING STONE WALL RESTORATION
9.95 G	DIMENSIONED GRANITE MASONRY
9.95 GSI	GRANITE SEAT INSTALLATION
BL	BICYCLYE LOOP DETECTOR
E 260500	COMMON WORK RESULTS FOR ELECTRICAL
E 260519	LOW-VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES
E 260526	GROUNDING AND BONDING FOR ELECTRICAL SYSTEMS
E 260529	HANGERS AND SUPPORTS FOR ELECTRICAL SYSTEMS
E 260533	RACEWAY AND BOXES FOR ELECTRICAL SYSTEMS
E 260553	IDENTIFICATION FOR ELECTRICAL SYSTEMS
E 262713	ELECTRICITY METERING

NYC-564.510002 STAINLESS STEEL FLATS AND CHANNELS
NYCT 7A WATERPROOFING
PK-124 SPECIAL DROP INLETS
PK-12D WATER TAP, 2" DIAMETER
PK-13 TYPE "K" COPPER TUBING
PK-14D CURB GATE VALVE - 2" DIA
PK-162B DOUBLE CHECK VALVE ASSEMBLY & WATER METER WITH
REMOTE READER AND ENCLOSURE - 2" DIA.
PK-17 CAST IRON VALVE BOX, 5-1/4" DIAMETER
PK-184-GH1 GROUND HYDRANT - 1" DIA
T-60000B CABLE SPEC. FOR 120 VOLT POWER SUPPLY

SECTION 4.15 A
Soil Preparation and Mixes

4.15A.1. INTENT. This Section describes the following:

- (A) Excavation and removal of subsoil as necessary to allow for full depth of Structural Topsoil and Urban Planting Mix installation per details and specifications.
- (B) Preparing, placing, and spreading Structural Topsoil mix for tree plantings in paved areas.
- (C) Preparing, placing, and spreading topsoil mixes for shrub and groundcover planting areas and planters.
- (D) Testing of both on-site and off-site borrow topsoil for approved use in Urban Planting Mix.
- (E) Preparing subgrade, including scarification of subgrade, prior to placement of planting soil mixes.
- (F) Protecting all plant mix stockpile and mix installations until substantial completion.
- (G) Protection of finished paving, light standards, utility or other finished work over the area of construction concurrent with any and all construction operations.

4.15A.2. MATERIALS.

Structural Topsoil: Shall conform with "CU Soil", as patented by Cornell University, patent #5,849,069. The product shall be obtained from a licensed supplier and proof of such licensing shall be submitted to the Engineer prior to delivery. Tri-State licensed providers as of this date are Second Nature, Stamford, CT (203) 327-9456 or East Coast Mines, Quogue, N.Y. (631) 653-5445. For further information on licensed providers or licensing requirements and application, contact Mike Comella at the Cornell Research Foundation, (607) 257-1081. Structural Topsoil components shall be mixed to the following proportion:

<u>Component</u>	<u>Unit of Weight (Dry)</u>
Crushed Stone	85%
Clay Loam	15%
Hydrogel	1 ounce per 210 pounds of stone

Crushed Stone for Structural Topsoil: Shall be crushed granite or traprock; no limestone or sandstone will be accepted. No recycled material will be accepted. Stone shall meet the AASHTO/ ASTM C33 requirements for #4 crushed angular stone graded within the following limits:

<u>Passing Sieve (dry analysis)</u>	<u>Percent by Weight</u>
2 inch	100%
1-1/2 inch	90-100%
1 inch	20-55%
3/4 inch	0-15%
3/8 inch	0-5%

Stone shall be clean and certified to meet NYCDOT aggregate soundness requirements for use in road construction. A single sized stone near one inch (1") will be preferable to a wider size distribution or smaller single size stone fitting the general description.

Clay Loam for Structural Topsoil: Shall be as determined by the USDA Classification System and mechanical analysis, as per ASTM D-422. Clay loam shall be of uniform composition, without admixture of subsoil, and free of stones greater than one-half inch (1/2") diameter, leaves, roots, debris, toxic materials, or lumps or clods over one inch (1") diameter. It shall have been obtained from naturally well drained areas which have never been previously stripped for topsoil and shall have a history of supporting satisfactory vegetative growth. It shall contain not less than two percent (2%) nor more than five percent (5%) organic matter, as determined by loss on ignition of oven-dried samples, dried to a constant weight at a temperature of 230°F, plus or minus 9°F. Mechanical analysis for clay loam shall be as follows:

<u>Textural Class</u>	<u>Percent of Total Weight (Dry)</u>
Gravel	Less than 5%
Sand	25 - 30%
Silt	20 - 40%
Clay	25 - 40%

Clay loam shall meet or be amended to meet the following chemical analysis criteria:

1. pH between 5.5 and 6.5.
2. Organic matter 2 - 5 percent by dry weight.
3. Nutrient levels as required by the testing laboratory recommendations for the types of plants to be grown in the Structural Topsoil.
4. Toxic elements and compounds below the US EPA Standards for Exceptional Quality Sludge, or local standards, whichever are more stringent.
5. Soluble salts less than 1.0 millimho per cm.
6. Cation exchange capacity (CEC) greater than 10.
7. Carbon/ Nitrogen ratio less than 33:1.

Clay loam shall be the product of a commercial processing facility specializing in production of stripped natural topsoil. No clay loam shall come from USDA classified prime farmland.

Slow Release Fertilizer for Structural Topsoil: Commercial fertilizer shall comply with U.S. and N.Y State fertilizer laws. Fertilizer shall be delivered in original unopened containers. The fertilizer shall be 15-2-15 liquid slow release (50%), or approved equal, formulated for mixing into the soil and certified by the manufacturer to provide controlled release of nitrogen continuously for a period of no more than twelve (12) months. Fertilizer shall be delivered in original unopened containers, which shall bear the manufacturer's certificate of compliance covering analysis, and shall be furnished to the Engineer.

pH Adjustment for Structural Topsoil: To lower the clay loam pH to acceptable levels, commercial granular ferrous sulfate, ninety-six (96%) percent pure sulfur may be added to lower soil pH above 6.5. To raise pH levels, the manufacturer may add agricultural limestone containing a minimum of eighty-five (85%) percent carbonates. Minimum gradation: 100% passing 10 mesh sieve, 98% passing 20 mesh sieve, 55% passing 60 mesh sieve, and 40% passing 100 mesh sieve.

Hydrogel: Shall be a potassium propenoate-propenamide copolymer hydrogel meeting the requirements of "CU Soil" patent.

Loam for Urban Planting Mix: Shall be as determined by the USDA Classification System and mechanical analysis, as per ASTM D 422. Loam shall be of uniform composition, without admixture of subsoil, and free of stones greater than one-half (1/2") inch diameter, leaves, roots, debris, toxic materials, or lumps or clods over one (1") inch diameter. It shall have been obtained from naturally well drained areas which have never been previously stripped for topsoil and shall have a history of supporting satisfactory vegetative growth. It shall contain not less than three (3%) percent nor more than eight (8%) percent organic matter, as determined by loss on ignition of oven-dried samples, dried to a constant weight at a temperature of 230°F, plus or minus 9°F. Mechanical analysis for loam shall be as follows:

<u>Textural Class</u>	<u>Percent of Total Weight (Dry)</u>
Gravel	Less than 5%
Sand	30 - 50%
Silt	30 - 50%
Clay	10 - 25%

Loam shall meet or be amended to meet the following chemical analysis criteria:

1. pH between 6 and 7.
2. Organic matter 5 - 8 percent by dry weight.
3. Nutrient levels as required by the testing laboratory recommendations for the types of plants to be grown in the Structural Topsoil.

4. Toxic elements and compounds below the US EPA Standards for Exceptional Quality Sludge, or local standards, whichever are more stringent.
5. Soluble salts less than 1.0 millimho per cm.

Loam shall be the product of a commercial processing facility specializing in production of stripped natural topsoil. No loam shall come from USDA classified prime farmland.

Compost for Urban Planting Mix: Shall be shredded leaf litter, composted for a minimum of one year (12 months) and tested to confirm requirements stated herein. Leaf mold must be free of debris such as plastic fragments, glass, metal fragments, stones larger than one-half (1/2") inch, large branches, and large roots. The leaf mold should have a pH value measured as a 1:5 dilute in the range from 6.5 - 7.2. The soluble salts measurement (Electric Conductivity) should not exceed 0.5 mmhos/cm measured as a 1: 5 dilute. The organic matter content should be from 60 - 90% by weight. The carbon/nitrogen ratio should fall between 12:1 and 25:1.

Heavy metal content of leaf mold shall not exceed the following indicated amounts:

<u>Element</u>	<u>Acetate Extract</u>	<u>HCL Extract</u>
Iron	0.5 ppm	3.1 ppm
Manganese	0.5 ppm	15.4 ppm
Molybdenum	0.4 ppm	0.8 ppm
Zinc	0.2 ppm	4.4 ppm
Aluminum	0.2 ppm	1.2 ppm
Boron	1.1 ppm	1.7 ppm,
Copper	0.2 ppm	0.08 ppm
Lead	0.1 ppm	0.4 ppm
Selenium	None	0.4 ppm
Mercury	None	None
Chromium	None	None
Cadmium	None	0.02 ppm
Nickel	None	0.04 ppm
Cobalt	None	0.05 ppm

Sand for Urban Planting Mix: Shall be washed coarse grit mason sand.

Bonemeal for Urban Planting Mix: Shall be finely ground and have the following N-P-K (Nitrogen-Phosphorus-Potassium) analysis: 4-12-0.

Commercial Fertilizer for Urban Planting Mix: Shall have the following N-P-K analysis: 10-6-4.

Controlled-release Fertilizer for Urban Planting Mix: Shall be in granular form and shall have the following N-P-K analysis: 10-6-4, as manufactured by Osmocote, Turf Line, Lebanon, or approved equivalent. If soil tests indicate need for a different composition, Contractor shall submit proposed alternate fertilizer for approval.

Limestone for Urban Planting Mix: Shall be granular limestone, produced from Dolomitic limestone specifically for use in planting, with a minimum of 86% of calcium and magnesium carbonates.

Sulphur for Urban Planting Mix: If lower pH is required for use with certain plant materials, the Contractor shall use a horticultural elemental sulfur product for amendment of soil used for planting of those plant materials. Peat moss or copper sulfate may not be used to lower pH.

Urban Planting Mix: shall consist of the following primary components, in proportions by volume: 70% Loam, 15% compost, and 15% sand. Additionally, Urban Planting Mix shall be amended with the following amendments and amounts per cubic yard:

5 pounds bonemeal, 1 pound commercial fertilizer, 1 pound controlled release fertilizer, 2 pounds Hydrogel (or as recommended by manufacturer), and Limestone as required for specified pH.

Urban Planting Mix shall conform to the following requirements:

Organic Matter: 4% minimum - 10% maximum.

pH: 6.0 - 7.0.

Soluble salts: Less than 2 milimhos per centimeter.

Macronutrients:

Nitrogen: 20 - 100 ppm

Phosphorus: 5 - 50 ppm

Potassium: 10 - 200 ppm

Secondary nutrients:

Calcium: 100 - 200 ppm

Magnesium: 10 - 180 ppm

Sulphur: 10 - 20 ppm

Micronutrients:

Boron: 0.05 - 0.5 ppm

Chlorine: 5 - 50 ppm

Copper: 0.001 - 0.5 ppm

Iron: more than 0.5 ppm

Manganese: more than 0.5 ppm

Molybdenum: less than 10 ppm

Zinc: 0.3 - 3 ppm

4.15A.3. SUBMITTALS. The Contractor shall submit test reports for soil components from an approved independent testing laboratory indicating the following:

License: Submit the manufacturer's license to produce the patented "CU Soil".

Clay Loam for Structural Topsoil: Submit test results for particle size, bulk density, pH, percent organic content by

weight, nutrient levels including nitrogen, phosphorus, and potassium, soluble salts in ppm, and chemical analysis. In addition, submit the locations of all field sources for the clay loam and a list of all chemicals, insecticides, and herbicides applied to the clay loam in the previous five (5) years, and a list of all crops grown in the clay loam source fields in the previous three (3) years.

Loam for Urban Planting Mix: Submit test results for particle size, bulk density, pH, percent organic content by weight, nutrient levels including nitrogen, phosphorus, and potassium, soluble salts in ppm, and chemical analysis. In addition, submit the locations of all field sources for the loam and a list of all chemicals, insecticides, and herbicides applied to the loam in the previous five (5) years, and a list of all crops grown in the loam source fields in the previous three (3) years.

Crushed Stone for Structural Topsoil: A three pound (3 lb.) bag of crushed stone shall be submitted with test results and contract name and number attached for approval prior to installation. Submit test results for particle size, loose and rodded unit weight, bulk specific gravity, soundness, absorbance, and stone dimension description, as per ASTM D 4791, for the crushed stone.

Soil Amendments for Urban Planting Mix: Submit technical descriptive data including, but not limited to, manufacturing company's or supplier's product testing and analysis and installation instructions for Organic Matter (including source, guaranteed analysis, and weight for packaged material), Ground Limestone (including guaranteed analysis, and weight for packaged material), Fertilizer (including guaranteed analysis), and Systemic Herbicide (including complete information including manufacturing companies recommendations for use).

4.15A.4. METHODS.

Soil Mixing and Quality Control Testing for Structural Topsoil: All Structural Topsoil shall be mixed using appropriate soil measuring, mixing, and shredding equipment of sufficient capacity and capability to assure proper quality control and consistent mix ratios. Structural Topsoil must be mixed in the presence of the licensee, and no soil shall be placed until inspected by the licensee. No mixing of Structural Topsoil at the project site will be permitted unless a large paved area is available for mixing and the site has been pre-approved for use by the Engineer. No Structural Topsoil shall be mixed or placed in air temperatures below 40° F or delivered or placed in frozen, wet, or muddy conditions. Material shall be delivered at or near optimal compaction moisture content, as determined by AASHTO T 99 (ASTM D 698). No material shall be delivered or placed in an excessively moist condition, beyond two percent (2%) above optimal compaction moisture content, as determined by AASHTO T 99 (ASTM D 698).

Warning: Do not mix or transport Structural Topsoil when rain is expected. Place pavement immediately after placing and compacting Structural Topsoil to prevent excessive hydration.

Structural Topsoil components and the finished mixture shall be protected from excess water absorption and erosion at all times. Do not store materials unprotected from rainfall, nor allow excess water to enter the site prior to compaction. If water is introduced into the material after grading, allow material to drain to near optimal compaction moisture content.

The mixing procedure, performed by a front end loader shall proceed as follows: On a flat asphalt or concrete paved surface, spread an eight inch to twelve inch (8-12") layer of the specified crushed stone. Spread evenly over the crushed stone a proportional amount of dry Hydrogel. Spread over the dry Hydrogel and crushed stone a proportional amount of clay loam. Blend the entire amount by using a front end loader or other suitable equipment until a consistent blend is achieved.

Add moisture gradually and evenly during the blending and mixing operation as required to produce the required moisture content. Add soil amendments to alter soil fertility, including fertilizer and pH adjustment at the rates recommended by soil test results. The soil pH shall be adjusted to fall between 5.5 and 6.5 two months after mixing, if the material is stored. The soil component Carbon/ Nitrogen ratio shall be adjusted to be less than 1:33 within two months after mixing.

The Contractor shall mix sufficient quantity in advance of the time the material is needed at the job site to allow adequate time for the required quality control testing. Storage piles shall be protected from rain and erosion by covering with plastic sheeting.

Soil Mixing and Quality Control Testing for Urban Planting Mix: Adequate quantities of mixed planting soil materials shall be provided to attain, after compaction and natural settlement, all design finish grades. Verify quantities for placement to suit conditions.

Uniformly mix ingredients as specified (loam, sand and organic amendment, and other ingredients deemed to be necessary as a result of testing) by wind rowing/tilling on an approved hard surface area. Organic amendment material shall be maintained moist, not wet, during mixing.

Mixing of Amendments: Add leaf mold and sand in proportions as specified and as confirmed by testing. Other amendments shall not be added unless approved to extent and quantity by Engineer, and additional tests have been conducted to verify type and quantity of amendment is acceptable.

All amendments shall be thoroughly incorporated into the mixture to assure uniform distribution. Delay mixing of fertilizers if planting will not follow within a few days.

Planting mixture shall be pre-mixed and placed as specified. Bring to pH levels of 6.0 (minimum) to 7.5 for non-ericaceous plants and for ericaceous plants. PH shall be verified by testing. Lower pH by using elemental sulfur product.

Stockpiling: Stockpiling on-site, off-site and at source should be restricted to no more than the needs of what can be used in a 24-hr. period. Stockpiles should be no more than 6 feet in height to prevent anaerobic conditions within the pile(s). Stockpiles shall be sheltered from weather to prevent excessive water absorption and blowing by winds.

Dispose of refuse and debris offsite from these operations. Do not dump or burn materials on site. Maintain the site in an orderly condition during the progress of the Work.

Installation of Structural Topsoil and Urban Planting Mix: The Contractor shall notify the Engineer of any subsurface conditions which will affect the Contractor's ability to complete the work, and shall locate and confirm the locations of all underground utility lines and structures prior to starting any excavation in the area to receive soil mixes by calling New York City/Long Island Call One Center, (800) 272-4480. The Contractor shall be liable to repair any damage to underground City owned utilities or structures caused by their activity during the progress of this work, at their own expense. Where tree roots larger than one (1") inch diameter are damaged, the Contractor shall ensure that damaged root sections are cleanly cut with sterilized pruning equipment.

Soil mixes shall only be installed after the installation of all walls, curbs, footings, and utility work in the area has been completed. For site elements dependent on the Structural Topsoil for foundation support, postpone installation until immediately after the installation of the Structural Topsoil. The Contractor shall be responsible for any and all damage caused by the installation of Structural Topsoil and all disturbed areas shall be restored to their original condition, to the satisfaction of the Engineer.

The Contractor shall excavate and compact the proposed subgrade to the required depths and dimensions indicated on the drawings or as directed in the field. Do not over excavate compacted subgrades of adjacent pavement or structures. Confirm that the subgrade is at the proper elevation and compacted as required. The excavation shall be cleared of all construction debris, trash, rubble, and foreign material.

Any soils polluted by gasoline, oil, plaster, construction debris, unacceptable soils, or other substances, which would render soils unsuitable for plant growth shall be removed from the premises whether or not such pollution occurs or exists prior to or during the Contract period. All remedial operations associated with soil mixes and controlled fill shall be reviewed and approved by the Engineer.

Special Installation Requirements for Structural Topsoil: When planting trees in the Structural Topsoil, the rootball shall rest on

the Structural Topsoil or the prepared subgrade at such a level that the crown of the tree is at finished grade. Cut and remove rope or wire from the top fifty (50%) percent of the rootball and pull the burlap back to the edge of the rootball, removing as much burlap and twine as possible. All plastic or synthetic product must be completely removed from the rootball at the time of planting. If soil is covering the crown, it must be removed so that the crown sits at the proper level. Any wire basket enclosed rootball will need to have at least two-thirds (2/3) of the basket cut away from the sides and top to prevent future root disturbance. Wire must not be galvanized or aluminum wire.

Install the first six (6") inch lift of Structural Topsoil mix over the prepared subgrade. Install succeeding layers in six (6") inch lifts and compact each lift. Compact all materials to not less than ninety-five (95%) percent of peak dry density from a standard AASHTO compaction curve (AASHTO T 99). No compaction shall occur when moisture content exceeds the maximum listed herein. Delay compaction at least twenty-four (24) hours if moisture content exceeds the maximum allowable, and protect the Structural Topsoil during delays in compaction with plastic or plywood, as directed by the Engineer.

Prior to placing pavement, the licensed CU Soil provider and the Engineer shall check the CU Soil material for consistency with the color and texture of the approved sample supplied by the Contractor. In the event that the material supplied varies significantly from the approved sample, the Engineer may request that the Contractor test the installed Structural Topsoil. Any mix which varies significantly from the approved testing results, as determined by the Engineer, shall be removed and new Structural Topsoil installed that meets the specifications.

Special Installation Requirements for Urban Planting Mix: Place and spread planting soil mix over approved subsurface to a depth sufficiently greater than the depth required for and planting areas so that after natural settlement, misting or light rolling, as previously approved by Engineer, the completed work will conform to the lines, grades, and elevations shown or otherwise indicated. Compaction of mix shall not exceed 85%. Required planting soil depths shall be as indicated on drawings as measured in place in a settled position. Place soil lightly in layers of a maximum of 12" lifts and very carefully settle soils to eliminate air pockets and to minimize future settling. Lightly scarify previously placed surfaces prior to placing subsequent lifts. Proposed method of settlement shall be as previously approved by Engineer. Method may include, but is not limited to, natural settlement over an approved period of time or light hand temp and light water misting of each layer. After natural settlement has occurred, add soil to maintain finished grades. If for any reason soil is left exposed for a longer duration prior to planting, add soil and re-grade as required. Soil shall not be so compacted as to in any way restrict the flow of water or air through soil. Planting beds shall be fine graded within $\pm 1/10$ (0.10) feet of grades indicated on drawings. Maintain all "flat" areas and slopes to allow free flow of surface drainage without ponding.

4.15A.5. MEASUREMENT. The quantity of STRUCTURAL TOPSOIL and URBAN PLANTING MIX to be paid for under these items shall be the number of CUBIC YARDS actually placed in final compacted position to the satisfaction of the Engineer, computed from payment lines indicated on the Contract Drawings.

4.15A.6. PRICES TO COVER.

(A) STRUCTURAL TOPSOIL

The price bid for STRUCTURAL TOPSOIL shall be a unit price per CUBIC YARD of Structural Topsoil and shall include the cost of all labor, materials, plant, equipment, insurance, and incidentals necessary to prepare and place the Structural Topsoil mix, including, but not limited to, clay loam, Hydrogel, crushed stone, fertilizer, pH adjustment, all required testing, submittals, licensing fees, and incidental expenses; all in accordance with the Contract Drawings, the specifications and the directions of the Engineer.

Excavation, pavements and plant material shall be paid for separately under their respective contract items.

(B) URBAN PLANTING MIX

The price bid for URBAN PLANTING MIX shall be a unit price per CUBIC YARD of Urban Planting Mix and shall include the cost of all labor, materials, plant, equipment, insurance, and incidentals necessary to furnish, prepare and place the mix, including, but not limited to, all amendments specified, all required testing, submittals, licensing fees, and incidental expenses; all in accordance with the Contract Drawings, the specifications and the directions of the Engineer.

Excavation and plant material shall be paid for under the respective contract items.

Payment will be made under:

Item No.	Item	Pay Unit
4.15 SSM	STRUCTURAL TOPSOIL	C.Y.
4.15 UPMB	URBAN PLANTING MIX	C.Y.

SECTION 4.18 RDM
Rodent Deterrent Mesh

4.18RDM.1. DESCRIPTION. Under this section, the Contractor shall furnish and install rodent deterrent mesh in the manner shown on the Contract Drawings. The purpose of the rodent deterrent mesh is to provide a permeable layer which allows water and soil particles to pass through, and that inhibits passage of rodents.

4.18RDM.2. MATERIALS. The rodent deterrent mesh shall be an industrial woven wire cloth conforming to ASTM E 2016, having 0.5" square openings, 0.0630" wire diameter, and provided in 100' rolls by 48" in width. The wire shall conform to ASTM A 478, Type 304 stainless steel. Wire and hardware for splicing and anchoring shall be of the same wire diameter and material as the mesh.

4.18RDM.3. SUBMITTALS. Follow the procedures in the General Conditions of **Section 1.06.31** of the NYCDOT Standard Highway Specifications. Provide product data for both rodent deterrent mesh and anchoring hardware, and minimum 4" x 4" sample of rodent deterrent mesh material, for approval by the Engineer.

4.18RDM.4. METHODS. Rodent deterrent mesh shall be placed as shown on the Contract Drawings and in accordance with the manufacturer's directions. Except where otherwise specified, the mesh shall be placed in planted areas at a consistent depth of eight (8) inches below finish grade. Fabric splices shall overlap a minimum of four inches (4"), and shall be joined with wire crimps, bolts/nuts/washers, or other means spaced a maximum of 12" apart. Mesh shall be bent with 2" height vertical rise along edges and continuously secured at edges as necessary to provide a durable gap of maximum 1/4" between mesh and edges.

Install rodent deterrent mesh before planting and after installation of initial base course of soil mix. Place rodent deterrent mesh on smoothly-graded soil mix base course surface free of objects which may interfere with barrier, to minimum depths as defined in the Contract Drawings. Mesh shall be secured using "U" shaped metal stakes or hook-end wooden stakes sufficiently to allow placement of surface course of soil mix and finish grading without distortion of the rodent deterrent mesh. No opening greater than 0.5" shall be allowed.

4.18RDM.5. MEASUREMENT. The quantity of rodent deterrent mesh to be measured for payment shall be the number of square yards actually installed in place, computed between the limits shown on the Contract Drawings or within the limits established in writing by the Engineer prior to performing the work.

No quantity will be included for material used for repair of tears or for material used at the overlaps.

4.18RDM.6. **PRICE TO COVER.** The unit price bid per square yard for this item shall include the cost of furnishing all labor, materials, plant, equipment, insurance, and incidentals necessary to complete the work including, but not limited to, the cost of preparing the surface upon which the rodent deterrent mesh is placed; 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
4.18 RDM	RODENT DETERRENT MESH	S.Y.

**ITEM 551.40200017
FURNISHING EQUIPMENT FOR INSTALLING MICROPILES**

DESCRIPTION

This work shall consist of furnishing the necessary equipment at the work site for installing micropiles or permanent casings for micropiles as indicated in the contract documents.

The equipment shall be capable of advancing drill casing and permanent casing, and drilling holes for micropiles by rotating the casing(s) and applying a static vertical load. The equipment shall be capable of cleaning out the inside of the casing(s) without disturbing the surrounding soil or excavating more than 1 foot ahead of the casing. The equipment shall be equipped with gauges conveniently located at the pile installation site to measure the volume of grout being pumped into the pile and the grouting pressure. The equipment shall be able to perform the work without removing or relocating existing utilities, structures or structural members.

MATERIALS

Not Specified.

CONSTRUCTION DETAILS

Submit literature fully describing the type of equipment proposed for use to the Engineer for approval by the Deputy Chief Engineer Structures, at least 30 days prior to commencing installation. At any time, remove all equipment deemed unsatisfactory by the Engineer from the site and replace it with satisfactory equipment at no additional cost to the State.

METHOD OF MEASUREMENT

This work will be measured on a lump sum basis.

BASIS OF PAYMENT

The unit price bid for furnishing equipment for installing micropiles shall include the cost of all labor, material and equipment necessary for transporting, erecting, maintaining, making any ordered equipment replacement, dismantling and removing all installation equipment.

Payment shall be as follows: Seventy-five percent (75%) of the lump sum amount bid will be paid when the required equipment for installing the micropiles is furnished and at least one pile for each piece of equipment specified has been installed to the Engineer's satisfaction. The remainder will be paid when the work of installing all micropiles is complete.

Payment will be made under:

Item No.	Item	Pay Unit
551.402000017	FURNISHING EQUIPMENT FOR INSTALLING MICROPILES	L.S.

**ITEM 551.50220017
STATIC PILE LOAD TEST**

DESCRIPTION

The work shall consist of furnishing all testing materials and equipment and performing a static pile load test on the pile indicated in the contract documents or where directed by the Engineer. The work shall be done in accordance with the requirements of the current version of the Geotechnical Control Procedure, GCP-18, Static Pile Load Test Manual.

Engage the services of a Professional Engineer, experienced in all aspects of pile load testing and acceptable to the Deputy Chief Engineer Structures to perform the load tests and to prepare reports of test results, as outlined in GCP-18. The Contractor's agreement with the Professional Engineer shall provide for additional technically qualified personnel to be at the test site at all times during testing to assure that loads are being maintained and to record data.

In instances where the pile being tested is a Contractor Designed Micropile, the work shall also include the installation of the test pile.

MATERIALS

These shall be as required by GCP-18.

CONSTRUCTION DETAILS

A Contractor Designed Micropile test pile shall be installed in accordance to the Micropile (Contractor Designed) specification. The pile shall be tested in accordance with the requirements of GCP-18.

METHOD OF MEASUREMENT

The work will be measured by the number of load tests satisfactorily performed in accordance with the specification.

BASIS OF PAYMENT

The unit price bid shall include the cost of all labor, materials, and equipment necessary to satisfactorily complete the work.

Contractor Designed Micropiles that are tested and fail to meet the acceptance criteria will be rejected. No payment will be made for the Static Pile Load Test or for the test pile.

Design Provided Micropiles, Drilled Shafts, or Driven Piles that are tested and fail to meet the acceptance criteria will be rejected. However, payment will be made for the Static Pile Load Test under this pay item and for the installation of the micropile/shaft/pile under its respective item.

Payment will be made under:

Item No.	Item	Pay Unit
551.50220017	STATIC PILE LOAD TEST	EACH

ITEM 551.99400017

MICROPILES (CONTRACTOR DESIGNED) - DESIGN LOAD LESS THAN 100 TONS

DESCRIPTION

A. General. This work shall consist of designing micropiles, furnishing all labor and materials, and performing all operations necessary to install micropiles at the locations and to the required capacities indicated in the contract documents. Micropiles with extended lengths include an additional pile length as described in the Definitions below. The Contractor's Engineer shall incorporate this requirement into the design of the micropile with extended lengths.

B. Definitions. Definitions that apply within this specification are:

Bond Breaker. A device or special treatment incorporated into a length of a micropile that will allow no load to be transferred to the soil over that length. A bond breaker also provides full lateral support of the pile over the length of the bond breaker. Grout placed in contact with the soil using gravity pressure only will not be considered to constitute a bond breaker.

Bond Zone. The gravity grouted, pressure grouted, and/or post grouted length of a micropile that provides the pile's capacity.

Design Load. The load permitted on a pile. The design load is indicated in the contract documents.

Drill Casing. Steel pipe of flush joint type used in the drilling process to stabilize the drill hole.

Duplex drilling. A method of progressing and cleaning out a hole for installing a micropile in which the outer drill casing is progressed simultaneously with an inner drill rod string. The drill casing is cleaned using reverse circulation. Intimate contact between the soil and an outer drill casing is maintained during drilling.

Extended Length. An additional pile length resulting from a requirement that the pile capacity be achieved below a given elevation. Typically, extended lengths are prompted by a conflict with subsurface elements (e.g., underground structure, utilities, etc.) or unreliable soil strata. Bond breakers may be required.

Micropile. A small-diameter (typically less than 12 inches), friction pile formed by removing material using non-vibratory and non-displacement methods to create a cased open, cylindrical hole in the ground, which is subsequently filled with grout and steel reinforcement.

Mill Secondary. Mill rejected American Petroleum Institute (API) casing, a.k.a. "Mill Rejects," "Structural Grade," "Limited Service," or "Minimum Test Pipe."

Non-production pile. Non-production piles are piles that are not incorporated into the substructure. For example, test piles which are abandoned after testing has been completed.

Permanent Casing. A steel casing installed in the upper portion of a micropile to increase the pile's moment capacity and lateral capacity against horizontal loads.

Positive circulation or flush. A method of progressing and cleaning out a hole for a micropile wherein drilling fluid is injected into the hole and returns upward along the outside of the drill casing.

Post grouting. A method used to increase pile capacity after the grout column has reached initial set by pumping grout at very high pressure (up to 1000 psi) through a sleeved port pipe (post grout tube).

Pressure grouting. A method used to develop pile capacity wherein pressure is applied continuously to the top of the fluid grout column through the drill head as the casing is removed from the bond zone.

Production pile. A pile which will be incorporated into the structure's foundation.

Recirculation. A method of handling drilling fluid where the fluid coming back out of the hole is captured in a pan and reused.

Reverse circulation. A method of cleaning the inside of the drill casing. Drilling fluid is circulated down through the drill rods and returns upwards through the inside of the drill casing to flush the drill casing clean.

Static Pile Load Test. A test to verify design assumptions and the adequacy of the contractor's installation methods.

Telltale. A simple mechanical device, a.k.a. "strain rod," that is used to measure deflection in concrete or steel. The device consists of a small-diameter steel rod that is fixed at a selected point along or within the pile. This rod is encased, and free to move, in a slightly larger pipe or tube which extends up to the pile top. Dial gages are used to measure the deflections at the top of the rod.

Tremie grouting. A method used to place grout in a wet hole. A grout tube is placed to the bottom of the drill hole. While keeping the tube opening submerged in the grout, grout is pumped into the hole, causing the drilling fluid to be displaced.

MATERIALS

For all steel remaining as a permanent part of the work, all Buy America provisions shall apply.

A. Drill Casing. Provide drill casing consisting of flush joint type steel pipe of appropriate thickness to withstand the stresses

associated with advancing it into the ground, in addition to the stresses due to hydrostatic and earth pressures.

B. Drill Casing/Pipe Used As Reinforcement. Provide steel drill casing/pipe used as reinforcement conforming to ASTM A252, with the exception that spiral welded pipe shall not be allowed. Mill secondaries cannot be used for reinforcement.

Approval of the steel drill casing/pipe used as reinforcement shall be done in accordance with the following procedure:

1. Requirements for Micropile Structural Casing. Structural casing that is installed in coupled (spliced) sections shall meet the following requirements:

The casing shall be flush joint and the pipe joint shall be completely shouldered and with no stripped threads. All welded connections shall be performed by a NYSDOT Certified Welder in conformance with NYSDOT Steel Construction Manual (SCM), the approved Welding Procedure Specification (WPS) and the Approved Welding Procedure Qualification Record (WPQR). Welds shall be full penetration welds for full structural load capacity. For piles with bending or tension stress, welds shall be Ultrasonic (UT) or Radiograph Tested (RT). These requirements do not apply to minor welding that does not carry structural load, such as cutting teeth and tacking on bearing plates.

If significant tension loads are being considered, the Department will require the Contractor to provide data demonstrating the adequacy of the proposed detail. The design shall limit the maximum yield stress of steel (F_y) to 87 ksi.

C. Bar Reinforcement. Provide Bar reinforcement meeting the requirements of §709-01, Bar Reinforcement Grade 60, or continuously threaded "Uncoated High-Strength Steel Bars for Prestressing Concrete"-ASTM A722.

D. Grout. Provide a pumpable grout consisting of, as a minimum, Portland Cement - Type 2 and Water meeting the following Specification requirements:

Material	Subsection
Portland Cement, Type 2	§701-01
Grout Sand	§703-04
Fly Ash	§711-10
Water	§712-01

The use of Grout Sand and Fly Ash in the mix is optional. Field sampling and testing shall be done in accordance with the current procedural directives of the Materials Bureau of the Office of Technical Services.

E. Centralizers and Spacers. Provide centralizers and spacers fabricated from schedule 40 PVC pipe, tube, steel, or material non-detrimental to the reinforcing steel. Wood shall not be used.

CONSTRUCTION DETAILS

Engage a professional engineer, licensed and registered to practice in New York State, to design the piles in accordance with FHWA's "Micropile Design and Construction, Reference Manual," Publication No. FHWA-NHI-05-039. The Contractor's Engineer shall design the piles to perform satisfactorily for both structural and geotechnical requirements. The Contractor's Engineer shall design the diameter, length, reinforcement, pile connections, grout strengths, and grouting pressures, and select the equipment, procedures and methods so that each pile meets the pile acceptance criteria, can support the ultimate tension and compression loads, and meet other requirements, indicated in the contract documents. Progress all micropiles using steel drill casing.

The Contractor performing the work described in this specification shall submit proof of the following:

1. Two projects in the past two years on which the Contractor has successfully installed micropiles or soil tiebacks using non-displacement methods, under similar site conditions to those indicated in the contract documents.
2. The proposed On-Site Supervisor for this work having supervised the successful installation of micropiles or soil tiebacks on at least two projects in the past two years.

A. Submittals. Submit the design and method-of-installation information outlined below to the Engineer for approval by the Deputy Chief Engineer Structures (DCES). The DCES will require 20 work days to review the submittal. Do not begin work prior to receiving approval by the DCES. Approval of the installation method by the DCES does not constitute a guarantee of acceptable pile installations. Acceptable installations are the responsibility of the Contractor. Include in the submittal:

1. Pile computations and details for each design capacity including, but not limited to, nominal diameter, length, reinforcement, pile connections, post grout tube and grouting pressures.
2. Details of equipment for pile installation.

3. Details of procedures for pile installation including, but not limited to, installation sequence and the approximate time required for each sequence step.
4. Procedures for advancing through boulders and other obstructions.
5. Procedures for containment of drilling fluid and spoil, and disposal of spoil.
6. Where applicable, drawings that show the specific work can be performed under limited headroom conditions and as close to obstructions, as site conditions warrant, to install the piles at the locations indicated in the contract documents. Provide information on the length of the casing sections to be used, as dictated by the length of the drill mast and by the available overhead clearance, and the resulting location of joints.
7. When steel drill casing/pipe is used as reinforcement, account for the reduced area of the threaded joint in the structural design of the pile, particularly for the capacity in tension and bending. Identify any joint location restrictions that must be followed in construction.
8. Procedures and equipment for placing grout.
 - a. Prepare the mix design for the grout and obtain documentation from an independent laboratory showing the following:
 - i. The mix design conforms to the submitted mix and meets the strength requirements set by the Contractor.
 - ii. The compressive strength of the mix, tested at 3, 7, 14, and 28 days.
 - iii. The specific gravity of the mix.
 - b. Identify a method for monitoring quality control of the mix. At a minimum, the Contractor shall use a Baroid Mud Balance per American Petroleum Institute (API) Recommended Practice (RP) 13B-1: Standard Procedure for Testing Water-Based Drilling Fluids, to check the specific gravity of the mixed grout prior to placement of the grout into each micropile.
 - c. Provide pressure gages capable of measuring the actual grout pressures used and such that actual pressure readings are within the middle third of the gage.
9. If proposed, details of post-grouting equipment and procedures, including the method, sequence of operations and equipment required.
10. Layout drawings showing the proposed sequence of pile installation. Coordinate this sequence with the proposed phasing and scheduling.

B. Drilling and Excavation. Advance the hole using a duplex drilling method. Do not drill or flush ahead of the drill casing by more than 1 foot. Perform drilling and excavation in such a manner as to prevent the collapse of the hole. Use of bentonite slurry is not permitted. Use of polymer slurry to remove cuttings from the cased hole must be approved by the Engineer.

If obstructions are encountered during excavation for a pile, progress through them by means of coring or a tricone roller bit. Use of drop type impact hammers and blasting are not permitted. Use of a down-the-hole hammer shall be approved by the DCES.

Control the procedures and operations so as to prevent mining, damage or settlement to adjacent structures, tunnels, utilities or adjacent ground. If any mining, damage or settlement occurs, halt operations. Provide a written plan to the Engineer for review with procedures to avoid reoccurrence. Resume work only after the Engineer has approved the plan in writing. Repair all damage and settlement at no additional cost to the State.

Control the procedures and operations so as to prevent the soil at the bottom of the hole from flowing into the hole at all times during installation and cleaning out. Monitor the rate of fluid flow used to progress the holes. Control drilling fluid and dispose of spoil in accordance with the approved procedure.

Do not progress a hole, pressure grout, or post-grout, within a radius of 5 pile diameters or 5 feet, whichever is greater, of a micropile until the grout for that micropile has set for 24 hours or longer if a retarder is used.

C. Piles with Extended Lengths. Design and install piles with extended lengths at the locations shown on the plans. The specified ultimate tension and compression resistance derived from the soil and/or bedrock will be achieved below the elevations indicated in the contract documents.

D. Reinforcement and Post Grout Tube Placement. Provide centralizers sized to position the reinforcement within 3/8 inches of plan location from the center of the pile; sized to allow grout tremie pipe insertion to the bottom of the drillhole; and sized to allow grout to freely flow up the drill hole and casing and between adjacent reinforcing bars. Centralizers, spaced not to exceed 10 feet, must be used to center the reinforcement for its entire length. Securely attach the centralizers to withstand installation stresses. Do not drop, but lower the steel reinforcement to its specified location in the hole. If a post grout tube is used, attach it to the steel reinforcement prior to lowering it.

E. Grout Placement and Casing Removal. Provide quality control of the mix by monitoring grout quality. Measure grout consistency by determining grout density per API Recommended Practice (RP) 13B-1 by

the Baroid Mud Balance Test at a frequency, of at least one test per micropile, and provide the information to the inspector.

The Engineer will perform quality assurance of the mix in accordance with the current procedural directives of the Materials Bureau.

Place grout by means of a tremie pipe from the bottom of the pile upward. Record the initial volume of grout required to fill the hole. Record grouting pressure and volume of grout being pumped into the pile during pressure grouting. Upon completion, maintain the grout level at or above the pile cut off elevation until the grout has set.

Locate the grout pressure and volume measuring gages at the pile installation site so that they are accessible and legible to the inspector.

F. Post Grouting. Provide the equipment and materials to perform post grouting. Perform post grouting after the grout has reached initial set. Record the pressure at which the grout was pumped, the total volume pumped, and the volume pumped through each port (if applicable).

G. Construction Tolerances. Install the piles so that the center of each micropile does not vary from the plan location by more than 3 inches. Do not allow the micropile to vary from the vertical or established batter by more than 1/4 inch per foot, as measured above ground.

Cut off the top of the pile at the elevation indicated in the contract documents.

If the soil at the pile tip is post grouted, monitor the elevation of the pile top during post grouting. If movement occurs, the Engineer will immediately notify the DCES.

H. Pile Acceptance Criteria

1. Pile meets Construction Tolerance criteria.
2. Pile was installed in accordance with the approved submittal.
3. Pile is not damaged.
4. Pile was installed using the same method, grout volumes, and pressures as the accepted test pile, if applicable.

I. Unacceptable Piles. Unacceptable piles are piles which do not meet the acceptance criteria identified in Paragraph H above.

Submit to the Engineer a written plan of remedial action, for approval by the DCES, showing how to correct the problem and prevent its reoccurrence. Repair, augment, or replace the unacceptable pile in accordance with the approved remedial plan at no additional cost to the State.

METHOD OF MEASUREMENT

This work will be measured as the number of acceptable micropiles installed.

BASIS OF PAYMENT

The unit price bid shall include the cost of the design of the micropiles and furnishing all labor and materials necessary to satisfactorily complete the work. Micropiles that fail to meet the acceptance criteria will be rejected and no payment will be made for these piles. Furnishing equipment for installing micropiles will be paid for separately under the appropriate item.

Payment will be made under:

Item No.	Item	Pay Unit
551.99400017	Micropiles (Contractor Designed) - Design Load Less Than 100 Tons	Each

ITEM 551.99450017
PERMANENT CASING FOR MICROPILES

DESCRIPTION

This work shall consist of installing permanent casing for micropiles with the specified diameter, length, and minimum thickness at all micropile locations indicated in the contract documents or as directed by the Engineer. The Contractor performing this work shall be the same contractor who installs the micropiles.

MATERIALS

For all steel remaining as a permanent part of the work, all Buy America provisions shall apply.

A. Permanent Casing. Permanent casing shall be of flush-joint or welded type and shall be of appropriate thickness to withstand the stresses associated with advancing it into the ground. Provide permanent casing as indicated in the contract documents and conforming to ASTM A252, with the exception that spiral welded pipe shall not be allowed. Mill secondaries cannot be used for permanent casings.

Approval of the structural casing shall be done in accordance with the following procedure:

1. Requirements for Micropile Casing. Structural casing that is installed in coupled(spliced) sections shall meet the following requirements:

- a. The casing shall be flush joint and the pipe joint shall be completely shouldered and with no stripped threads.
- b. All welded connections shall be performed by a NYSDOT Certified Welder in conformance with NYSDOT Steel Construction Manual (SCM), the approved Welding Procedure Specification (WPS) and the Approved Welding Procedure Qualification Record (WPQR). Welds shall be full penetration welds for full structural load capacity. For piles with bending or tension stress, welds shall be Ultrasonic (UT) or Radiograph Tested (RT). These requirements do not apply to minor welding that does not carry structural load, such as cutting teeth and tacking on bearing plates.
- c. If significant tension loads are being considered, the Department will require the Contractor to provide data demonstrating the adequacy of the proposed detail.
- d. The design shall limit the maximum yield stress of steel (Fy) to 87 ksi.

B. Water. Provide water conforming to §712-01 Water for any drilling fluid.

C. Grout. Provide a pumpable grout consisting of, as a minimum, Portland Cement - Type 2 and Water meeting the following Specification requirements:

Material	Subsection
Portland Cement, Type 2	§701-01
Grout Sand	§703-04
Fly Ash	§711-10
Water	§712-01

The use of Grout Sand and Fly Ash in the mix is optional. The mix design for the grout shall be approved in the submittal process for the installation methods in the respective micropile specification.

CONSTRUCTION DETAILS

A. Submittals. Submit the following information in accordance with the requirements in the contract documents to the Engineer for approval by the Deputy Chief Engineer Structures (DCES). The DCES will require 20 work days for review. Include in the submittal:

1. Details of equipment for permanent casing installation.
2. Details of procedures for permanent casing installation.
3. Procedures for advancing through boulders and other obstructions.
4. Procedures for containment of drilling fluid and spoil and disposal of spoil.
5. Where applicable, drawings that show the specific work can be performed under limited headroom conditions and as close to obstructions, as site conditions warrant, to install the permanent casing at the locations and to the depths indicated in the contract documents. Provide information on the length of the casing sections to be used, as dictated by the length of the drill mast and by the available overhead clearance and the resulting location of joints.
6. Layout drawings which show the proposed sequence of permanent casing installation and how it will be coordinated with micropile installation.

B. Permanent Casing Installation and Soil Removal. Install the permanent casing prior to or in conjunction with the micropile installation. Install the permanent casing so that the center of each casing does not vary from the plan location by more than 3 inches. Do not allow the permanent casing to vary from the vertical or established batter by more than 1/4 inch per foot as measured above ground. Install

the top of the permanent casing to the elevation indicated in the contract documents.

Advance the hole using a duplex drilling method. Do not drill or flush ahead of the drill casing by more than 1 foot. Perform drilling and excavation in such a manner as to prevent the collapse of the hole. Use of bentonite slurry is not permitted. Use of polymer slurry to remove cuttings from the cased hole must be approved by the Engineer.

If obstructions are encountered during excavation for a permanent casing, progress through them by means of coring or a tricone roller bit. Use of drop-type impact hammers or blasting is not permitted. Use of a down-the-hole hammer must be approved by the DCES.

Control the procedures and operations so as to prevent mining, damage or settlement to adjacent structures, tunnels, utilities or adjacent ground. If any mining, damage or settlement occurs, halt operations. Provide a written plan with procedures to avoid reoccurrence to the Engineer for review. Resume work only after the Engineer has approved the plan in writing. Repair all damage and settlement at no additional cost to the State.

Control the procedures and operations so as to prevent the soil at the bottom of the hole from flowing into the hole at all times during installation and cleaning out. Control drilling fluid and dispose of spoil in accordance with the approved procedure.

Fill annular space between the permanent casing and the micropile with the grout meeting the requirements of the approved mix design.

METHOD OF MEASUREMENT

This work will be measured as the number of feet, measured to the nearest foot, of permanent casing for micropiles satisfactorily installed below cut off elevation as indicated in the contract documents.

BASIS OF PAYMENT

The unit price bid shall include the cost of furnishing all labor and materials necessary to satisfactorily complete the work including the placement of grout in the annular space between the permanent casing and the micropile. Include the cost of furnishing equipment for installing permanent casing for micropiles in the item for Furnishing Equipment for Installing Micropiles.

Item No.	Item	Pay Unit
551.99450017	Permanent Casing for Micropiles	L.F.

SECTION 6.18 AAM
Manhattan Style Pedestrian Barrier

6.18AAM.1. DESCRIPTION. Under this Section, the Contractor shall furnish Manhattan Style Pedestrian Barriers of the type and size shown on the Contract Drawings, Specifications and directions of the Engineer.

6.18AAM.2. MATERIALS. Pedestrian Barrier Panels and Support Anchor Posts shall be constructed of hot rolled steel as per the types, sizes and specific standards detailed on the Contract Drawings.

6.18AAM.3. FABRICATION. No fabrication work is to be performed until shop drawings are approved by the Engineer.

Fences, complete with gates where required, shall be fabricated in strict accordance with plans and shop drawings. Posts and rails shall be formed into panels of the shapes shown on the plans and joints completely welded with welds of proper size and shape, riveted or bolted all as directed or shown on the plans. All welds shall be ground smooth to a neat finish. Connections shall be provided as indicated on the plans.

Posts, braces and pickets shall in all cases be truly vertical; rails and bars shall be parallel to grade as shown on the plans. Panels shall be curved as required by the work.

6.18AAM.4. PAINTING. The Pedestrian Barrier Panels and Support Anchor Posts and all attached items shall receive three (3) coats of paint. The paint shall be applied by the manufacturer and be completely dry prior to shipping. Prior to painting all surfaces that are rust free shall be treated in accordance with SP-1, Solvent Cleaning. Treatment shall be performed with a solvent such as mineral spirits, xylol, or turpentine to remove all dirt, grease, and foreign matter. Surfaces that show evidence of scale and rust shall be cleaned in accordance with SP-2, Hand Tool Cleaning, a method generally confined to wire-brushing, sandpaper, hand scrapers, or hand impact tools or SP-3, Power Tool Cleaning, a method generally confined to power wire brushes, impact tools, power sanders, and grinders in order to achieve a sound substrate. After the Pedestrian Barriers have been cleaned and prepared, they shall be painted as follows:

First Coat: Metal Primer, Brown. Primer is alkyd oil, flat finish coating having a dry film thickness of 3 to 4 mils. Paint requires twenty-four (24) hours drying time before re-coating. Performance shall meet or exceed the standards of Federal Specification TT-P-86H.

Second Coat: High Solids Alkyd Metal Primer, Reddish Brown. Primer is an alkyd, low luster coating having a dry film thickness of 3-5mils. Paint requires four (4) hours drying time before re-coating (with alkyds).

Third Coat: Silicone Alkyd Low Black, or an approved equal. Topcoat silicon alkyd, high gloss coating having a dry film thickness of 2-4mils. Paint requires sixteen (16) hours drying time at 77 degrees F. All paints shall be applied with strict adherence to paint manufacturer's application standards.

6.18AAM.5. SUBMITTALS. Follow the procedures in the General Conditions of **Section 1.06.31** of the NYCDOT Standard Highway Specifications.

Provide product data for each product used including but not limited to steel, non-shrink grout, primer and paint.

Provide shop drawings showing fabrication and installation of steel railing, inserts including dimensioned elevation and details of components and attachments to other units of work. Indicate materials, profiles of each member and fitting, joinery, finishes, fasteners, anchorages and accessory items. Shop drawings shall incorporate accurate, field-verified topographic elevations and dimensions. Show and identify adjustments in the work made to accommodate field conditions, if any. Identify field dimensions. Include setting drawings, templates and directions for installation of anchorages. All shop drawings for this item shall be coordinated and submitted concurrently.

If so directed, submit for the approval of the Engineer, finished samples of parts of the Pedestrian Barrier. The workmanship and finish of the final product shall be equal to the approved samples.

6.18AAM.6. MEASUREMENT. The quantity measured for payment shall be the number of Linear Foot of the Manhattan Style Pedestrian Barrier actually installed on site to the satisfaction of the Engineer. Measurement shall be made along the centerline of the top rail, from center to center of end posts.

6.18AAM.7. PRICES TO COVER. The unit price bid per linear foot of Manhattan Style Pedestrian Barrier shall include the cost of all labor, material, equipment, insurance, and incidentals required to furnish and install fence of the type specified including, but not limited to, the cost of furnishing shop drawings, samples, gates, and painting as required, all in accordance with the Contract Drawings, the specifications, and the directions of the Engineer.

Payment shall be made under:

Item No.	Item	Unit
6.18 AAM	MANHATTAN STYLE PEDESTRIAN BARRIER	L.F.

SECTION 6.18 PS
Clean and Paint Steel Fence

6.18PS.1. INTENT. Under this section, the Contractor shall clean, prepare, and paint existing steel fence in accordance with the Contract Drawings, specifications and direction of the Engineer.

6.18PS.2. MATERIALS. The existing steel fence shall be cleaned and painted with three coats of paint as follows:

Cleaning: All surfaces shall be cleaned in accordance with SP-1, Solvent Cleaning. Cleaning shall remove all dirt, grease and foreign matter using solvents such as mineral spirits, turpentine, etc. Surfaces that show evidence of non-adherent rust, peeling paint and other deleterious matter shall be cleaned in accordance with SP-2, Hand Tool Cleaning and/or SP-3 Power Tool Cleaning in order to achieve a sound substrate. Paint shall be applied immediately after a final SP-1 solvent cleaning and drying.

First Coat: Sherwin Williams #E41N1 Metal Primer, Brown, as manufactured by Sherwin Williams Company, Woodside, NY, Pratt and Lambert, Inc., Pittsburgh Plate Glass Company, Benjamin Moore, or approved equivalent. Primer is an alkyd oil, flat finish coating having a dry film thickness of 3 to 4 Mills. Paint requires 24 hours drying time before recoating. Performance shall meet or exceed the standards of Federal Specification TT-P-86H.

Second Coat: Sherwin Williams High Solids Alkyd Metal Primer, B50 Series, Reddish Brown, as manufactured by Sherwin Williams Company, Woodside, NY, Pratt and Lambert, Inc., Pittsburgh Plate Glass Company, Benjamin Moore, or approved equivalent. Primer is an alkyd, low luster coating having a dry film thickness of 3-5 Mills, requires 4 hours drying time before recoating (with alkyds).

Third Coat: Sherwin Williams Steel Master 9500 Silicone Alkyd #B56-300, as manufactured by Sherwin Williams Company, Woodside, NY, Pratt and Lambert, Inc., Pittsburgh Plate Glass Company, Benjamin Moore, or approved equivalent. Color shall be as specified on drawings. Topcoat is a silicon alkyd, high gloss coating having a dry film thickness of 2-4 mils. Paint requires 16 hours drying time at 45 degrees F; 8 hours at 77 degrees F (tack free).

6.18PS.3. METHODS. The Contractor shall first clean the existing fence.

All paints shall be applied when the ambient air temperature is 45 degrees F and rising and surfaces to be painted are moisture free. No painting will be allowed below the minimum ambient air temperature. In addition, no painting will be allowed below the temperature at which moisture will condense on surfaces or when the surface temperature is less than 5 degrees F greater than the dew point temperature of the surrounding air. All painting shall be performed in a neat and workmanlike manner. The paint shall be applied by brush and thoroughly worked into the surface and into all cracks and fissures without

leaving fins or runs. Drop cloths shall be used to protect existing ground surfaces and adjacent appurtenances.

6.18PS.5. MEASUREMENT. The quantity of steel fence to be measured for payment under this item shall be the number of linear feet of steel fence, measured in place along the center line of the fence, actually cleaned, repaired, and painted to the satisfaction of the Engineer.

6.18PS.6. PRICE TO COVER. The contract price bid per linear foot for the cleaning, and painting Steel Fence shall cover the cost of all labor, materials, equipment, insurance and incidentals required to clean, and paint fence surfaces, as required, as well as properly disposal of waste materials, all in accordance with the Contract Drawings, the specifications, and the direction of the Engineer.

Payment shall be made under:

Item No.	Item	Unit
6.18 PS	CLEAN AND PAINT STEEL FENCE	L.F.

SECTION 6.34 A
Temporary Chain Link Fence and Gate

6.34A.1. DESCRIPTION. The Contractor shall furnish and install Temporary Chain Link Fence, with top and bottom tension wires, and shall furnish and install gates at the locations shown on the contract drawings or as directed by the Engineer. All materials and methods shall be done in accordance with the applicable requirement of the Section 6.34, Chain Link Fence of the NYCDOT Standard Highway Specifications, as amended below.

Any fence not set plumb and true to line and grade shall be removed and replaced at the Contractor's expense. The Contractor shall maintain the fence during the life of the contract and shall repair/replace all members that are disturbed, damaged or destroyed. Gates shall be equipped with locks and 3 sets of keys which shall be given to the Engineer. Fence and gates shall become the Contractor's property when the Contract work is completed and shall be removed from the site when so directed by the Engineer.

6.34A.2. MEASUREMENT. The quantities of Temporary Chain Link Fence and Temporary Chain Link Fence Gate, to be measured for payment shall be the number of linear feet of each type satisfactorily installed, complete, measured in place, from center to center of end posts.

Payment will be made for Temporary Chain Link Fence and Temporary Chain Link Fence Gate only for the initial installation at the site. Whenever they are moved to a new location, as required by the Contract Drawings or directed by the Engineer, no additional payment will be made to the Contractor.

6.34A.3. PRICES TO COVER. The unit prices bid for **Item No. 6.34 AET**, Temporary Chain Link Fence, and, **Item No. 6.34 BET**, Temporary Chain Link Fence Gate, shall be a unit price per linear foot of each size fence or gate, 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 and gates in their entirety, all in accordance with the Contract Drawings, the specifications and directions of the Engineer.

Payment will be made under:

Item No.	Item	Pay Unit
6.34 AET	TEMPORARY CHAIN LINK FENCE, 10'-0" HIGH	L.F.
6.34 BET	TEMPORARY CHAIN LINK FENCE GATE FOR 10'-0" HIGH FENCE	L.F.

SECTION 6.47 PCB
Furnish and Install Concrete Block Pavers

6.47PCB.1. Intent. This section describes the furnishing and installation of both permeable concrete pavers and impermeable concrete paver bands for areas of the plaza as shown on the Contract Drawings and directed by the Engineer. It also describes the installation of the same types of pavers on sloped areas on bituminous setting bed and specially-filled joints, as shown on the Contract Drawings and directed by the Engineer.

6.47PCB.2. MATERIALS.

- (A) The pavers shall be concrete with special surface composition designed for durability and stain-resistance. Horizontal dimensions of paver units shall be as indicated on the Contract Drawings. Minimum thickness for permeable pavers shall be 3". Minimum thickness of non-permeable pavers shall be 2.7". All pavers shall have a minimum compressive strength of 7,000 psi.

Basis of Design: Products shall be "Eco-Priora" for permeable pavers and "Select" for non-permeable paver bands, both as manufactured by Unilock New York. Both permeable and non-permeable pavers shall be "Midnight Sky" in color. Permeable pavers shall be provided with two (2) different finishes per zig-zag pattern details, with alternating standard "Umbriano" finish and "Umbriano" finish without speckles. Non-permeable paving bands shall be standard "Umbriano" finish.

Acceptable Manufacturers are:

1. Hanover Architectural Products
240 Bender Road
Hanover, PA 17331
Phone#: (717) 637-0500
www.hanoverpavers.com
2. Pavestone
18 Cowan Drive
Middleboro, MA 02346
Phone#: (508) 947-6001
www.pavestone.com
3. Unilock New York
51 International Blvd.
Brewster, NY 10509,
Phone#: (845) 278-6700
www.unilock.com
4. or approved equivalent.

- (B) Crushed Stone Filler and Bedding shall be Type 2 conforming to the grading requirements of ASTM C 33, No. 8 in accordance with **Section 2.02** of the NYCDOT Standard Highway Specifications.

- (C) Base Aggregate shall be Type 2 conforming to the grading requirements of ASTM C 33, No. 57 in accordance with **Section 2.02** of the NYCDOT Standard Highway Specifications.
- (D) Subbase Aggregate shall be Type 2 conforming to the grading requirements of ASTM C 33, No. 2 in accordance with Section 2.02 of the NYCDOT Standard Highway Specifications.
- (E) Polymeric Sand joint material for sloped areas, to be utilized where indicated on the Contract Drawings, shall be a mix of crystalline silica, quart sand, and Portland cement, specially blended and packaged for use as a paver joint material, dark grey in color, as Unicare® Polymeric Sand Max supplied by Unilock, Inc, www.unilock.com, or Techniseal Hp2 Polymeric Sand as supplied by Hanover Pavers, Inc., www.hanoverpavers.com, or Joint-Lock Sand as supplied by Package Pavement, Inc., www.packagepavement.com, or approved equivalent.
- (F) **SUBMITTALS.** Follow the procedures in the General Conditions of **Section 1.06.31** of the NYCDOT Standard Highway Specifications. The Contractor shall submit a statement of compliance with the requirements of Quality Control article below, a copy of installer certification, a list of installer's projects and locations, and photographs of at least 5 previous installations. The Contractor shall submit product data for each product and paver type. The Contractor shall submit four sample pavers of each type, finish and shape clearly identified by the manufacturer's name, date of production and contract number and these sample pavers shall represent the range of colors to be produced, the size, shape, intensity, and surface texture of the blocks he plans to use in the work. Blocks with discolorations, cracks, honeycombs, or other similar surface irregularities shall not be considered acceptable for the work or as samples. The Contractor shall hand deliver samples to Department of Design and Construction, 30-30 Thomson Avenue, Long Island City, NY 11101 with transmittal letter and obtain a signed receipted acceptance of delivery. There shall be no material delivery to job site without prior written approval from the Engineer; all material delivered to site without such approval will be rejected. Contractor shall submit samples in sufficient time as to not delay progress of construction.
- (G) **MOCK-UP.** The Contractor shall install an initial 10' x 10' mock-up in an area approved by the Engineer that incorporates all paver types, alternating finishes, and conditions required for the full installation. If necessary the mock-up shall be reinstalled until it is approved by the Engineer. This area shall be used as the standard by which the work will be judged. Subject to acceptance by the Engineer, mock-up may be retained as part of finished work. If mock-up is not retained, remove and properly dispose of mock-up.

6.47PCB.3. METHODS.

- (A) **QUALITY CONTROL.** The Company performing this work shall have installation of concrete pavers representing a substantial proportion, if not a majority, of its regular work. The installer shall hold a current Concrete Paver Installer Certification certificate from the Interlocking Concrete Pavement Institute.
- (B) **SUBBASE AND BASE INSTALLATION.** The Contractor shall remove from the subgrade all debris, foreign material, and all other undesirable material designated by the Engineer. The graded surface shall not be muddy or otherwise unsatisfactory when material is placed upon it. If the graded surface becomes rutted or displaced, due to any cause whatsoever, the Contractor shall regrade same without additional cost to the City.

Subbase and Base Aggregates for pavers shall be installed at proper elevation to accept pavers and crushed stone bedding. Before any pavement is placed upon the graded surface, the surface shall be prepared to line and grade and compacted to a minimum of 95% standard Proctor density per ASTM D698. All hollows and depressions shall be filled with acceptable material and shall again be compacted. This process of shaping, filling, and rolling shall be repeated until no depressions develop. Provide written density test results for soil subgrade to the Engineer.

Prior to placing the subbase and base aggregates, the finished subgrade surface shall not extend above the design elevation at any location and filter fabric material shall be furnished and installed in accordance with **Section 6.68** of the NYCDOT Standard Highway Specifications on the prepared surface.

Subbase and base aggregates shall be evenly spread on a prepared subgrade in the position shown on the Contract Drawings or directed by the Engineer, in four inch (4") layers, each layer to be rolled while wet with a seven (7) to twelve (12) ton tandem roller (or other approved method satisfactory to the Engineer), to the thickness shown on the Contract Drawings or as directed by the Engineer.

- (C) **INSTALLATION OF CONCRETE PAVERS.** Pavers shall be laid on a compacted two (2") inch crushed stone bedding, in straight courses with hand tight joints and uniform top surfaces, keeping good alignment and starting rows alternately with full and half pavers, or according to pattern shown on the Contract Drawings. Newly laid pavers must be protected at all times by panels of plywood on which the paver stands. These panels can be advanced as work progresses; however, the plywood protection must be kept in areas which will be subjected to the continued movement of material and equipment. These precautions must be taken in order to avoid depressions and protect paver alignment.

Pavers shall also be adequately protected from discoloration, due to adjacent paving operations, by an approved method.

Permeable and impermeable pavers shall be placed at right angles to the adjacent stone wall face, except where indicated on the Contract Drawings. Alignment shall be verified periodically.

Pavers shall be arranged with the rows touching so that the "ends" of the pavers will form the proper corresponding angle and the proper distance between "ends" not to exceed 1/8 inch. Joints between the pavers shall be maintained according to the unit integral spacer bars. Where pavers must be cut to abut adjacent edges, paver banding, or stair handrail supports per layout plans, edges shall be cut to achieve clean straight or curving lines as required by the Contract Drawings, with hand tight joints.

A plate vibrator shall be used to compact and level the pavers after they have been installed. It is important that the correct type and size compactor be used.

After the pavers are laid, crushed stone filler is to be swept into the joints until the joints are filled.

For sloped areas where indicated on the Contract Drawings, Polymeric Sand be installed in lieu of crushed stone filler, and installed in accordance with manufacturer's instructions. Care shall be taken to prevent Polymeric Sand from spilling onto permeable paver areas.

All uncompleted edges and end of pavers shall be adequately braced and/or retained at the end of each work-day with temporary asphaltic concrete mixture or other approved method.

All cutting and setting of pavers shall progress with the setting operation. Under no circumstances shall areas requiring cut pavers be permitted to remain at the end of each work day.

After a sufficient area of pavement has been laid, the pavement shall be tested with a ten foot straight edge and any depressions exceeding one-quarter (1/4") inch shall be corrected and brought to proper grade. Any pavers disturbed in making replacements or correcting depressions shall be settled into place by ramming.

To allow for settlement, the surface elevation of pavers shall be three-sixteenth (3/16") inch above adjacent drainage inlets or adjacent walking surfaces.

6.47PCB.5. MEASUREMENT. The quantity to be measured for payment shall be the number of square feet of Concrete Block Pavers actually installed to the satisfaction of the Engineer, measured in place. In determining the area of pavers or to be paid for, the areas occupied by bases of columns, manhole heads, gate boxes, road boxes and similar structures will be deducted when their superficial areas measure more than one (1) square foot and will not be deducted when they measure one (1) square foot or less.

6.47PCB.6. PRICE TO COVER. The unit price bid per square foot for Furnish and Install Concrete Block Pavers shall cover the cost of all labor, materials, plant, equipment, insurance, and incidentals necessary to furnish and install both permeable and impermeable concrete pavers in designated areas. The unit price bid shall also include, but not be limited to, the cost of furnishing and installing filter fabric, subbase aggregate, base aggregate, crushed stone bedding, joint filler, and Polymeric Sand joint material; 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
6.47 PCB	FURNISH AND INSTALL CONCRETE PAVERS	S.F.

SECTION 6.59 PF
Temporary Concrete Barrier with Fence

6.59PF.1. INTENT. This section describes the work to be done in connection with temporary concrete barriers with chain link fence.

6.59PF.2. DESCRIPTION. The Contractor shall furnish, install, move maintain and remove temporary concrete barriers with chain link fence in accordance with the Contract Drawings, the specifications and the directions of the Engineer.

6.59PF.3. MATERIALS. The temporary concrete barrier shall conform to the requirements of New York State Department of Transportation Standard Sheet No. 619-01, modified to accommodate a chain link fence with posts. Top and bottom rails will not be required for the fence.

Chain link fencing and incidentals shall be in accordance with **Section 607** and Materials **Section 710** of the current NYSDOT Standard Specifications, Construction and Materials. The Engineer will inspect all chain link fence material for conformance with specifications.

The Contractor shall be required to provide a solid, secure chain link fence system consisting of posts, post embedment, fence fabric, and all other incidentals as may be required. Fence posts shall be embedded in the concrete barrier and the chain link fence shall extend from the barrier to a height of at least four feet above grade.

Maximum spacing of fence posts shall be eight feet from center to center. Minimum embedment of fence posts into the barrier shall be 4 inches deep.

Fence fabrication shall be continuous for the length of the concrete barrier; however, at joints between concrete barriers, the gap between fence sections shall not be more than four inches.

The barrier sections shall be precast portable concrete units. The Manufacturer shall certify that the temporary concrete barrier units conform to the details shown on the aforementioned NYSDOT's Standard Sheet or approved drawing.

The Engineer will inspect the temporary concrete barrier sections, complete with fence, upon delivery to the project site for conformance to specifications. Any barrier sections having damage and/or defects in the concrete, fence and/or joint connections will be rejected by the Engineer when in his judgment the performance of the barriers will be affected.

The temporary concrete barrier sections with fence shall form a smooth and continuous barrier when joined together. Any sections damaged or misaligned while in service shall be corrected or replaced to the satisfaction of the Engineer.

Striped reflectorization of the barriers is required. Striping pattern is to be alternating twelve inch wide stripes of white and orange sloped downwards in the direction of traffic at 45 degrees.

Reflective sheeting material shall be used and it shall conform to photometric and color (Orange and White) requirements of **Subsection 730-05.02**, Reflective Sheeting (Class B), of the current NYSDOT Standard Specifications, Construction and Materials.

6.59PF.4. METHODS. The Contractor shall furnish, erect, move, and remove temporary concrete barriers with chain link fence where and as indicated on the Contract Drawings or as directed by the Engineer.

Each run, or bay, of temporary concrete barrier unit with chain link fence shall be fastened together to form a continuous chain. After placement, each successive unit shall be moved longitudinally to remove the slack in the joint between units. The units at each end of a run or bay shall be anchored as shown on the Standard Sheet. Where shown on the Contract Drawings or directed by the Engineer, the ends of the barrier run shall be fitted with a tapered end section, flared back.

6.59PF.5. MEASUREMENT. The quantity to be measured for payment shall be the number of linear feet of temporary concrete barrier with chain link fence actually placed including transition sections, measured along the centerline of the top surface of each barrier.

6.59PF.6. PRICE TO COVER. The contract price bid per linear foot for temporary concrete barrier with chain link fence shall cover the cost of all labor, materials, equipment, and insurance necessary to erect, maintain, and remove the required temporary concrete barrier with chain link fence including, but not limited to, any required connection devices, orange and white reflective stripes on the faces of the barriers; all in accordance with the Contract Drawings, the specifications and the directions of the Engineer.

Any movement of temporary concrete barrier with chain link fence except movements of the concrete barrier necessary to maintain, realign, or replace damaged units will be considered as a movement to a new location and the Contractor will be entitled to payment for the movement.

Payment will be made under:

Item No.	Item	Pay Unit
6.59 PF	TEMPORARY CONCRETE BARRIER WITH FENCE	L.F.

SECTION 6.74 G
Galvanized Steel Edging

6.74G.1. DESCRIPTION: This section describes fabrication and installation of Galvanized Steel Edging. Under this item, qualified fabricators and installers shall procure materials, fabricate all necessary components including edging and anchoring elements for all installation conditions, galvanize after fabrication, and install edging.

6.74G.2. MATERIALS.

All sheet, bar, and angle stock for edging shall be steel of sizes shown on the Contract Drawings in conformance with ASTM A 36/A 36M.

Galvanization of steel sheet, bar, and angle stock shall conform to ASTM A 123/A 123M.

Provide nuts, bolts, washers, shims as needed, all hot-dip galvanized steel per ASTM F 2329.

6.74G.3. QUALITY CONTROL.

Quality Control: Except as modified by governing codes and by this Specification, the Contractor shall comply with the applicable provisions and recommendations of the AWS "Structural Welding Code" including all supplements, addenda and special rulings applicable to building construction. All welding in the shop or field shall be subject to controlled inspection of the NYC Building Code.

Fabricator and installer shall demonstrate prior experience with fabrication of similar galvanized fabrications incorporating accurate cutting and bending to accurate radii.

Tolerances: Maximum variation from flush conditions for all elements shall be one eighth inch. Maximum variation in horizontal alignment from true dimensions shall be quarter inch. Maximum variation from true vertical alignment shall be quarter inch per foot. Maximum variation in horizontal alignment where abutting granite shall be maintained within one eighth inch in either direction.

Protection: Store product in fabricator's packaging until ready to install.

6.74G.4. SUBMITTALS.

Follow the procedures in the General Conditions of **Section 1.06.31** of the NYCDOT Standard Highway Specifications.

(A) Qualifications: Submit statement of compliance with Quality Control section above, including qualifications for all

fabricators and installers with images and address locations of previous similar installations of galvanized steel fabrications.

- (B) Shop Drawings: Follow the requirements of the **Section 1.06.13** of NYCDOT Standard Highway Specifications for submission of the shop and workings drawings. Shop Drawings shall be submitted at the scale of 1" = 1'-0" for plans and elevations, and 3" = 1'-0" or larger for detailed cross-sections. Shop drawings shall take into account field measurements for horizontal and vertical alignment, and shall indicate typical weld types for each installation condition. All shop drawings for items under this Section shall be coordinated and submitted concurrently.
- (C) MOCK-UP. Fabricate at the earliest possible time before proceeding with work and after approval of shop drawings. The mock-up/sample must be as approved by Engineer before the actual work may proceed. If necessary refabricate until approved by the Engineer. Provide and construct a mock-up of a minimum one (1) linear foot of Galvanized Steel Edging incorporating anchor tab as per Contract Drawings and specifications, with specified finish. Clear digital photographs of the mock-up shall be submitted for review prior to physical submission of the mock-up. Digital photographs of mock-up shall be submitted not less than one month prior to scheduled installation.

6.74G.5. METHODS. Workmanship shall be in accordance with AISC Specifications and as specified herein. Temporary bracing shall be provided wherever necessary during assembly and erection, and shall be left in place as long as required. It is the Contractor's responsibility for safe practice in this regard. Install materials and systems in proper relation with adjacent construction and with uniform appearance. Coordinate with work of other sections. Install edging after danger of damage from construction traffic has past.

Examine the areas and conditions where the edging is to be installed. Notify the Engineer of any conditions detrimental to the proper installation and subsequent use, and timely completion of the work. If substrate preparation is the responsibility of another installer, notify Engineer of unsatisfactory preparation before proceeding. Do not proceed with the work until unsatisfactory conditions are corrected to permit proper installation of the work. Verify in writing.

All elements shall be fabricated in strict accordance with the Contract Drawings and shop drawings. Curved elements shall be formed to accurate radii and alignment per layout plans, and shall incorporate slopes based on grading plans and verified by field measurements. All joints shall be completely welded with welds of proper size and shape, all welds ground smooth to a neat finish. Connection shall be provided as indicated on the Contract Drawings. Face of Steel shall be set plumb, and top shall be set flush with required finish grade of adjacent grating, granite and pavers. The top of edgings shall be of a constant height following parallel with the required finish grades.

Galvanized Steel Edging shall be shop-cut and formed to allow accurate setting and proper alignment, following slopes and meeting topographic elevations per grading plans and shop drawings. Do not begin welding until joint elements are bolted in intimate contact and adjusted to dimensions with allowance for any weld shrinkage that is expected. All welds on exposed surfaces shall be ground smooth before finishing. If cracks of any size appear in installed items, the components shall either be repaired in the shop or refabricated as necessary to remediate cracking, at the discretion of the Engineer.

All exposed edges of steel edging shall be eased to a consistent 1/8" radius. The minimum fabricated length of curbing shall be 10 linear feet. All edging, including attached anchor tabs and end connectors shall be hot-dip galvanized after fabrication.

Butt ends of edging sections shall be mechanically attached below finish grade. Joints between sections should be smooth, with less than 1/16th inch variation horizontally or vertically, without kinks or other discontinuity of alignment. Joints shall be located along gently-curved or straight segments, not at corners or where radius of curvature is than four (4) feet.

Avoid any welding, cutting, or abrading of surfaces of edging that have been hot-dip galvanized after fabrication. Remove any damaged sections and repair galvanization in shop, or repair galvanizing in the field to comply with ASTM A 780.

Galvanized Steel Edging shall be accurately set in place, properly aligned, and anchored securely per Contract Drawings and shop drawings.

6.74G.7. MEASUREMENT. The quantities to be measured for payment shall be the number of linear feet of Galvanized Steel Edging actually installed at the site to the satisfaction of the Engineer.

6.74G.8. PRICES TO COVER. The unit price bid per linear foot for Galvanized Steel Edging shall cover the cost of all labor, materials, fabrication, equipment, insurance, and necessary incidentals required to complete work of furnishing and installing galvanized steel edging; 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
6.74 G	GALVANIZED STEEL EDGING	L.F.

SECTION 6.77 R
Metal Trash Receptacle

6.77R.1. INTENT. This section describes the furnishing and installation of metal trash receptacles.

6.77R.2. DESCRIPTION. Under this Section, the Contractor shall furnish and install trash receptacles, in accordance with the Contract Drawings, the specifications and directions of the Engineer.

6.77R.3. MATERIALS. Materials shall comply with the following:

6.77R.3.1. REFERENCES.

(A) ASTM Testing Standards:

1. ASTM B 108 - Standard Specification for Aluminum-Alloy Permanent Mold Castings.
2. ASTM B 117 - Standard Practice for Operating Salt Spray (Fog) Apparatus.
3. ASTM B 221 - Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes.
4. ASTM D 522 - Standard Test Methods for Mandrel Bend Test of Attached Organic Coatings.
5. ASTM D 523 - Standard Test Method for Specular Gloss.
6. ASTM D 2247 - Standard Practice for Testing Water Resistance of Coatings in 100% Relative Humidity.
7. ASTM D 2794 - Standard Test Method for Resistance of Organic Coatings to the Effects of Rapid Deformation (Impact).
8. ASTM D 3359 - Standard Test Methods for Measuring Adhesion by Tape Test.
9. ASTM D 3363 - Standard Test Method for Film Hardness by Pencil Test.
10. ASTM G 155 - Standard Practice for Operating Xenon Arc Light Apparatus for Exposure of Non-Metallic Materials.

(B) ISO Testing Standards:

1. ISO 1520 - Paints and Varnishes - Cupping Test.
2. ISO 2815 - Paints and Varnishes - Buchholz Indentation Test.

6.77R.3.2. SUBMITTALS. Follow the procedures in the General Conditions of **Section 1.06.31** of the NYCDOT Standard Highway Specifications.

- (A) Product Data: Submit manufacturer's product data, storage and handling requirements and recommendations, installation methods and available colors, styles, patterns and textures.
- (B) Samples: Submit three (3) samples of specified color as applied to an 8 inch by 8 inch square of specified metal for approval by Engineer.
- (C) Warranty: Guarantee for a minimum of three years.

6.77R.3.3. QUALITY CONTROL.

- (A) Manufacturer's Qualifications: Manufacturer shall be regularly engaged in manufacture of site furnishings for a minimum of ten years.
- (B) Product Support: All Products shall be supported with complete engineering drawings and design patents.
- (C) Production: Orders shall be filled within 10 weeks.

6.77R.3.4. DELIVERY, STORAGE, AND HANDLING.

- (A) Delivery: Deliver materials to site in manufacturer's original, unopened containers and packaging, with labels clearly identifying product name and manufacturer.
- (B) Storage: Store materials in clean, dry area in accordance with manufacturer's instructions. Keep materials in manufacturer's original, unopened containers and packaging until installation.
- (C) Handling: Protect materials and finish during handling and installation to prevent damage.

6.77R.3.5. WARRANTY.

- (A) Warranty Information:
 - 1. Products shall be free from defects in material and/or workmanship for a period of three years from the date of substantial completion.
 - 2. The warranty may exclude damage resulting from accident, misuse, tampering, negligence, or abuse.
 - 3. Products or any items found defective upon inspection by an authorized manufacturer service representative and Engineer shall be repaired or replaced to the satisfaction of the Engineer.

6.77R.3.6. MANUFACTURER. Product to be as manufactured by:

(A) Manufacturer:

- 1. Landscape Forms, Inc.
431 Lawndale Avenue
Kalamazoo, Michigan 49048.
Phone#: (800) 521-2546 or (269) 381-0396.
Fax #: (269) 381-3455.
Website: www.landscapeforms.com
E-mail: denises@landscapeforms.com,
Studio431-Sales@landscapeforms.com.

(B) Trash Receptacle distributors:

- 1. Arenson
Attn: Marianne Adinolfi
Phone#: 212-633-2400
Website:
E-mail: MAdinolfi@aof.com

2. AFD
Attn: Ted Cohen
Phone#: 212-721-7100
Website:
E-mail: tcohen@afd-inc.com

3. Empire
Attn: Lauren Woodie
Phone#: 212.607.5566
Website:
E-mail: lwoodie@empireoffice.com

4. or other approved distributor.

6.77R.3.7. PRODUCTS.

- (A) Trash Receptacle: shall be "Lakeside", top-opening, 35 gallon capacity, with "Grass" pattern, 36" height, 21" diameter, surface mounted, with black liner. Top shall be fabricated of 14 gauge spun steel. Body shall be fabricated of 10 gauge HRPO steel welded to a 2" tall toe ring. Liner shall be constructed of low-density polyethylene with 0.100" wall thickness.
- (B) Anchor Bolts shall be of the maximum size fitting provided anchor openings, and shall be 4" in length, and shall be Type 316 stainless steel. Wherever Stainless Steel and Structural Steel are in contact with each other, the Contractor shall provide a 1/4-inch thick separator gasket as approved by the Engineer.
- (C) Recycled Content:
1. Recycled Material Content: Minimum 83 percent.
 2. Post-Consumer Material Content: Minimum 54 percent.
 3. Pre-Consumer Material Content: Minimum 29 percent.
 4. Recyclable: 100 percent.

6.77R.3.8. FINISHES.

- (A) Finish on Metal:
1. Primer: Rust inhibitor.
 2. Topcoat: Thermosetting TGIC polyester powder coat. UV, chip, and flake resistant.
 - a. Gloss Consistency, Gardner 60 Degrees, ASTM D 523: Plus or minus 5 percent from standard.
 - b. UV Resistance, Color and Gloss, ASTM G 155, Cycle 7: Delta E less than 2 at 2.0 mils and less than 20 percent loss.
 - c. Cross-Hatch Adhesion, ASTM D 3359, Method B: 100 percent pass.
 - d. Flexibility Test, Mandrel, ASTM D 522: 3 mm at 2 mils.
 - e. Erichsen Cupping, ISO 1520: 8 mm.
 - f. Impression Hardness, Buchholz, ISO 2815: 95.
 - g. Impact Test, ASTM D 2794: 60 inch-pounds at 2.5 mils.

- h. Pencil Hardness, ASTM D 3363: 2H minimum.
- i. Corrosion Resistance, 1,500-Hour Test, ASTM B 117: Max undercutting 1 mm.
- j. Humidity Resistance, 1,500-Hour Test, ASTM D 2247: Max blisters 1 mm.

3. Powdercoat Color: Shall be "Silver".

6.77R.4. METHODS. The following methods of installation shall be used:

(A) Examination:

- 1. Examine areas to receive trash receptacle.
- 2. Notify the Engineer of conditions that would adversely affect installation or subsequent use.
- 3. Do not begin installation until unacceptable conditions are corrected and acceptance verified in writing by Engineer.

(B) Assembly: Trash receptacle shall be shop assembled.

(C) Installation:

- 1. Install receptacles level and plumb on concrete foundations, as shown on the drawings, in accordance with manufacturer instructions.
- 2. Anchor trash receptacles securely in place.

(D) Damage Repair: Repair minor damages to finish in accordance with manufacturer's instructions and as approved by the Engineer. Remove and replace damaged components that cannot be successfully repaired as determined by Engineer.

(E) Cleaning: Clean receptacles promptly after installation in accordance with manufacturer's instructions. Do not use harsh cleaning materials or methods that could damage finish.

(F) Protection: Protect installed trash receptacles to ensure trash receptacles will be without damage or deterioration at time of Substantial Completion.

6.77R.5. MEASUREMENT. The quantity of Metal Trash Receptacles to be measured for payment shall be the actual number of receptacles installed at the site, to the satisfaction of the Engineer.

6.77R.6. PRICES TO COVER. The unit price bid for EACH Metal Trash Receptacle shall include the cost of furnishing all labor, materials, equipment, insurance, and incidentals necessary to furnish, assemble and install receptacles including, but not limited to, hardware; 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
6.77 R	METAL TRASH RECEPTACLE	EACH

SECTION 7.01 SSG
Stainless Steel Grating

7.01SSG.1. INTENT. This section describes stainless steel gratings.

7.01SSG.2. DESCRIPTION. Under this section, the Contractor shall furnish all labor, materials, equipment, and incidentals necessary to manufacture, deliver and install stainless steel gratings as shown on the Contract Drawings and as specified herein.

7.01SSG.3. MATERIALS.

- (A) Grating: The Stainless Steel Gratings shall be Type 316 Stainless Steel Swage Lock Rectangular Bar Grating type 7-SGSS-4, as manufactured by Ohio Gratings Inc. (www.ohiogratings.com), or equivalent by McNichols (www.mcnichols.com), or Harsco Industrial IKG (www.harscoikg.com). Grating shall be fabricated by assembling tubular stainless steel bars through round shaped holes in rectangular bearing bars that are then permanently locked in place by swaging. Bearing bar spacing shall be 0.4375" on center. Bearing bar depth shall be 1.5 inches. Bearing bar thickness shall be 0.1875". Open space between bars shall be 0.25". Cross bar spacing shall be 4" on center. Bearing bars and banding shall be ASTM A 666 Stainless Steel Strip. Stainless steel tube cross bars shall be ASTM A 269 Stainless Steel Tubing. Gratings shall be fabricated from top surface of bearing bars and banding bars shall be "ALGrip Slip Resistant" as provided by Ohio Gratings, or equivalent slip-resistant finish by the other manufacturers. Gratings shall be sandblast finished to SP6 after fabrication and passivated per ASTM A 967. Grating shall be designed and manufactured to meet the live load conditions of 100 lbs/sf with maximum deflection of 1/4" for the clear spans shown on the Contract Drawings. Fabrication Tolerances shall be in accordance with ANSI/NAAMM MBG 531-09 Metal Bar Grating Manual. Bearing bars shall extend the full width of the ramp, without splicing. Grating panels shall be minimum 3-6" nominal width, with joints spaced equally, to the nearest bearing bar in accuracy.
- (B) Railing Collar Tubes: Collar tubes around railing support holes shall be stainless steel of same type as bearing bars, of inside and outside diameter as indicated on Contract Drawings.
- (C) Fastening accessories: Including but not limited to anchor bolts, shall be Type 316 stainless steel. Provide appropriate fasteners for type, grade, and class required for the approved anchorage system, including 1/4" hex head bolt, washers, and nylon-insert hex nuts. Fasteners shall be accurately aligned and equally spaced. Wherever Stainless Steel and Structural Steel are in contact with each other, the Contractor shall provide a 1/4-inch thick separator gasket as approved by the Engineer.

- (D) Support Frames. The Stainless Steel Gratings shall be supported by heavy rigid structural stainless steel side frames as shown on the Contract Drawings. The frame shall be securely fastened to the concrete as shown on Contract Drawings.
- (E) Lifting Devices: The fabricator shall provided a minimum of four re-usable lifting inserts ("lifters") to allow lifting and placement of grating units without damage.
- (F) Anchor Bolts. All anchor bolts shall be Type 316 stainless steel. The stainless steel anchors shall be drilled and securely attached to the steel support structure as shown on the Contract Drawings.
- (G) Field Measurements. Take field measurements prior to preparation of final shop drawings and fabrication to ensure proper fitting of the work. The Contractor shall have full responsibility for proper fit.
- (H) Sample: Submit 6"x6" sample of stainless steel grating of the type and thickness required.
- (I) Shop Drawings. Follow the requirements of the **Section 1.06.13** of NYCDOT Standard Highway Specifications for submission of the shop and working drawings. The Contractor shall submit to the Engineer for approval shop drawings and other material required to substantiate conformance with the requirements set forth on the plans. Shop drawings shall include dimensional drawings including detailed sections of structural steel support, grating, fastening, and complete identification and material specifications.

Shop drawings for gratings shall be coordinated with railing shop drawings and railing field dimensions to allow accurate location of holes for railing supports.

7.01SSG.4. METHODS.

- (A) Field Measurements. Take field measurements prior to preparation of final shop drawings and fabrication to ensure proper fitting of the work. The Contractor shall have full responsibility for proper fit.
- (B) Sample: Submit 6"x6" sample of grating of the type and thickness required.
- (C) Fabrication. Welding shall conform to the applicable requirements of the American Welding Society Structural Welding Codes AWS D1.1 and D1.2 - latest edition. Welding shall be done in a manner that will prevent permanent buckling and all welds exposed in the finished and/or machined faces shall be true to line and level. Sections shall be well formed to shape and size with sharp lines and angles; curved work shall be sprung evenly to curves and shall accurately follow curvature of adjacent curved edges. The intersection of bearing bars and curved banding bars shall be cleanly and accurately cut and welded for neat appearance. Grating

shall be fabricated to allow for accurate 1/4" gap between bearing bars of adjacent panels. Holes for railing collars shall be accurately and cleanly drilled, without deformation of bearing bars. Collar tubes shall be welded in place cleanly and flush at walking surface, and excess weld material shall be ground smooth. The intersection of bearing bars and collars shall be cleanly and accurately cut and welded for neat appearance.

- (D) Installation. Prior to grating installation, Contractor shall inspect supports for correct alignment and conditions for proper attachment and support of the gratings. Any inconsistencies between Contract Drawings and fabricated ramp supporting structure deemed detrimental to grating placement shall be reported in writing to the Engineer prior to placement. Install grating in accordance with shop drawings and standard installation clearances as recommended by ANSI/NAAMM MBG 531-09 Metal Bar Grating Manual. Holes for bolts and screws shall be drilled. Each grating panel shall be attached with a minimum of 6 anchor bolts. Fastenings shall be concealed where practicable. Joints exposed to the weather shall be formed to exclude water. Gap between bearing bars of adjacent grating panels shall match typical gap width between bearing bars. Work shall be fabricated and installed in a manner that will provide for expansion and contraction, prevent the shearing of bolts, screws and other fastenings, insure rigidity, and provide close fitting of sections.

7.01SSG.5 MEASUREMENT. The quantity to be measured for payment shall be the total number of square feet of stainless steel gratings supplied and installed according to the Contract Drawings, specifications and to the satisfaction of the Engineer.

7.01SSG.6 PRICE TO COVER. The unit price bid per square foot for Stainless Steel Grating shall cover the cost of all labor, materials, equipment, plant, insurance and all incidentals necessary to complete the work in accordance with the Contract Drawings, specifications and the directions of the Engineer.

Payment will be made under:

Item No.	Item	Pay Unit
7.01 SSG	STAINLESS STEEL GRATING	S.F.

SECTION 7.07 TPM
Temporary Outdoor Parabolic Mirror

7.07 TPM.1. DESCRIPTION. Under this section, the Contractor shall furnish and install the Temporary outdoor parabolic mirror, pole and attachments as described here in and indicated in the Contract Drawings. The purpose of the temporary outdoor parabolic mirror is to provide bicycle operators additional site distance during construction phases where bicycle path reconfiguration is necessary.

7.07 TPM.2. MATERIALS. Each temporary outdoor parabolic mirror shall be 18 inches in diameter, 1 ¼" deep, with a 10 millimeter Vinyl Celuka back, and include pole, and mounting system. The mirror face shall be 2 millimeter Acrylic and mounting system as per manufacturer's recommendation. Each temporary outdoor parabolic mirror shall include a 6 foot high, 2 inch diameter hollow aluminum post for mounting, or approve equal as recommended by the assembly manufacturer, and approved by the Engineer.

The Temporary Outdoor Parabolic Mirror listed shall be supplied by the following:

- (1) Nessa Corporation
331 Page St., Suite 4
Stoughton, MA 02072
Phone#: 781-344-8411
Website: www.nessaco.com
 - (2) Norix Group, Inc.
1000 Atlantic Drive,
West Chicago, IL 60185
Phone#: (800) 234-4900
Website: <http://www.norix.com/>
 - (3) PJ Polke
Unit #1, 628 Route 10
Whippany, NJ 07981, US
Phone#: (973) 515-7278
Website: www.pjpolke.com
 - (4) or another approved distributor.
- (A) Performance: The temporary outdoor parabolic mirror shall be constructed of weather resistant heavy duty Acrylic. It shall provide a minimum of 93 feet of view distance. The Engineer shall be the sole arbiter of such compatibility.

7.07 TPM.3. SUBMITTALS. Follow the procedures in the General Conditions of **Section 1.06.31** of the NYCDOT Standard Highway Specifications. The Contractor shall have the manufacturer of the Temporary Outdoor Parabolic Mirror submitted to the Engineer for review and approval of the following material:

- (A) Product Data: For each type of product indicated prior to purchasing.
- (B) Shop Drawings: List of legends and description of materials and installation.

7.07 TPM.4. METHODS.

- (A) Delivery: The vendor shall enclose the mirror and ancillary equipment in the necessary packaging to prevent breakage and damage and shall provide 48 business hour prior notification of delivery.
- (B) Installation: Prior to the installation of the mirror, the contractor shall implement the appropriate traffic control devices in accordance with the latest version of the FHWA Manual on Uniform Traffic Control Devices and the plans necessary to ensure the safety of the cyclists.

The temporary outdoor parabolic mirror, including all ancillary equipment, shall be placed as shown on the Contract Drawings and installed in accordance with the manufacturer's installation guidelines and requirements.

If at the time of the installation Contractor considers the designated procedures or materials to be in conflict with these guidelines and requirements, he or she will so inform the Engineer prior to carrying out the task and totally agreeable resolution will be affected.

The pole and mounting system shall be installed in accordance with the manufacturer's recommendations and to the satisfaction of the Engineer.

- (C) GUARANTEES: If the temporary outdoor parabolic mirror provided does not meet specifications, to the sole satisfaction of the Engineer, the City has the right to reject the loop induction counter and will not be responsible for any payment to the vendor.

At the end of use, the parabolic mirror including the mounting system shall be returned to the city.

7.07 TPM.5. MEASUREMENT. The quantity measured for payment shall be the number of temporary outdoor parabolic mirrors provided and installed per the Contract Drawings, and to the satisfaction of the Engineer.

No quantity will be included for material used to repair any damage to new or existing pavement.

7.07 TPM.6. PRICE TO COVER. The unit price bid for temporary outdoor parabolic mirror shall include the cost of furnishing all labor, materials, plant, equipment, insurance, and incidentals necessary to complete the work including, but not limited to, the cost of installation of the temporary outdoor parabolic mirror; all in

accordance with the Contract Drawings, the specifications and the directions of the Engineer. After use temporary outdoor parabolic mirror and all attachments shall be returned to the City at no additional cost.

Payment will be made under:

Item No.	Item	Pay Unit
7.07 TPM	TEMPORARY OUTDOOR PARABOLIC MIRROR	EA

SECTION 7.39 SSD
Slip-Resistant Stainless Steel Decking

7.39SSD.1. INTENT. This section describes stainless steel plate decking with a slip-resistant surface finish.

7.39SSD.2. DESCRIPTION. Under this section, the Contractor shall furnish all labor, materials, equipment, and incidentals necessary to manufacture, deliver and install slip-resistant stainless steel decking as shown on the Contract Drawings and as specified herein.

7.39SSD.3. REFERENCE STANDARDS.

- (A) ASTM C 633 - Standard Test Method for Adhesion or Cohesion Strength of Thermal-Spray Coatings.
- (B) ASTM E 140 - Standard Hardness Conversion Tables for Metals.
- (C) ASTM E 384 - Standard Test Methods for Microindentation Hardness of Materials.

7.39SSD.4. MATERIALS.

- (A) The Slip-Resistant Stainless Steel Decking shall be Type 304 Stainless Steel, thickness and plan dimensions as indicated on the Contract Drawings. All materials must be straight and true. The surface finish shall be a factory-applied finish designed and manufactured for superior performance and durability as slip-resistant walking surface. The surface finish shall be a Grade 2 (medium-textured) anti-slip surface composed of stainless steel nodules bonded on the stainless steel substrate with a uniformly random pattern without lines or waves, or other visible pattern. The surface hardness of the slip-resistant surface shall be a minimum of 55 on the Rockwell C Scale per ASTM E 140 and E 384. The bond strength of the surface to substrate shall be a minimum of 4,000 psi per ASTM C633. The coefficient of friction for the non-slip surface shall be a minimum of 0.8. The surface finish shall be listed as "Slip-Resistant" by Underwriter Laboratories.
- (B) Support Frames. The stainless steel decking shall be supported by steel stringers as shown on the plans. The frame shall be securely fastened to the concrete as shown on Contract Drawings.
- (C) Anchor Bolts. All anchor bolts shall be Type 316 stainless steel, with flush, with vandal-resistant spanner or torx flat heads countersunk flush into the decking surface as shown on the Contract Drawings. The support frame shall be securely anchored to concrete foundations or structural steel with stainless steel anchors.

7.39SSD.5. QUALITY CONTROL.

- (A) Quality Control: Except as modified by governing codes and by this Specification, the Contractor shall comply with the applicable provisions and recommendations of the AWS "Structural Welding Code" including all supplements, addenda and special rulings applicable to building construction. All welding in the shop or field shall be subject to controlled inspection of the NYC Building Code.
- (B) Tolerances: Maximum variation from flush conditions for all elements shall be 1/16". Maximum variation in vertical alignment shall be 1/8". Maximum variation in horizontal alignment from true dimensions shall be 1/8".

7.39SSD.6. SUBMITTALS.

- (A) Follow the procedures in the General Conditions of Section 1.06.31 of the NYCDOT Standard Highway Specifications.
- (B) Product Data. The Contractor shall submit manufacturer's product data for the slip-resistant stainless steel decking material.
- (C) Samples. The Contractor shall submit minimum of 4"x4" sample of exact material and finish required.
- (D) Shop Drawings. Follow the requirements of the **Section 1.06.13** of NYCDOT Standard Highway Specifications for submission of the shop and working drawings. The Contractor shall submit to the Engineer for approval shop drawings and other material required to substantiate conformance with the requirements set forth on the Contract Drawings. Shop drawings shall include dimensional drawings including detailed sections of structural steel, stringers, complete identification and material specifications. Shop drawings shall incorporate dimensions and grades from the as-built survey described in the "Methods" section of this specification. Shop drawings shall be coordinated with those of adjacent grating and structural steel elements.

7.39SSD.7. METHODS.

- (A) As-Built Conditions. The Contractor shall perform an as-built survey of structural supports and edges to verify all pertinent dimensions prior to fabrication of the Stainless Steel Decking. The Contractor shall have full responsibility for the proper fit of the decking at the locations designated on the plans.
- (B) Delivery, Storage and Handling: Deliver materials to site in manufacturer's original, unopened containers and packaging, with labels clearly identifying product name and manufacturer. Store materials in a clean, dry area in accordance with manufacturer's instructions. Allow adequate ventilation of products to prevent condensation forming in the surfaces. Do not store for extended time in original banding such that distortion may occur in the sheets. Protect materials, surfaces, and finishes during handling

and installation to prevent damage. Avoid all metal on metal contact with the slip-resistant surface.

- (C) Fabrication. Welding shall conform to the applicable requirements of the American Welding Society Structural Welding Codes AWS D1.1 and D1.2 - latest edition. Welding shall be done in a manner that will prevent permanent buckling and all welds exposed in the finished and/or machined faces shall be true to line and level. Sections shall be well formed to shape and size with sharp lines and angles; curved edges shall be cut to accurate radial curvature. Holes for bolts and screws shall be drilled. Fastenings shall be spaced at equal and accurate intervals, except where otherwise indicated on shop drawings. Fastenings shall be concealed where practicable. Joints exposed to the weather shall be formed to exclude water. Work shall be fabricated and installed in a manner that will provide for expansion and contraction, prevent the shearing of bolts, screws and other fastenings, insure rigidity, and provide close fitting of sections.
- (D) Examination. Examine areas to receive slip-resistant metal fabrications. Notify Engineer if areas do not conform to the standards set herein.
- (E) Installation. Install slip-resistant metal fabrications at locations indicated on the drawings and in accordance with manufacturer's instructions. All materials must be straight and true and held firmly and accurately in place by means of mechanical attachment and spot-welding as required and as shown on the Contract Drawings. Install slip-resistant metal fabrications, square, rigid, with flush installation, to accurate grades as indicated on the Contract Drawings. Fasten slip-resistant metal fabrications to support steel as indicated on the Contract Drawings.
- (F) Repair and Replacement. Repair damaged factory-applied finishes as directed by the Engineer. Replace defective or damaged slip-resistant metal fabrications as directed by the Engineer.

7.39SSD.8. MEASUREMENT. The quantity to be measured for payment shall be the total number of square feet of slip-resistant stainless steel decking actually installed at the site to the satisfaction of the Engineer.

7.39SSD.9. PRICE TO COVER. The unit price bid per square foot for Slip-Resistant Stainless Steel Decking shall cover the cost of all labor, materials, equipment, plant, insurance and all incidentals necessary to complete the work in accordance with the Contract Drawings, specifications and the directions of the Engineer.

Payment will be made under:

Item No.	Item	Pay Unit
7.39 SSD	SLIP-RESISTANT STAINLESS STEEL DECKING	S.F.

**SECTION 7.53 KB
Table and Chair**

7.53KB.1. INTENT. This section describes the furnishing and installation of tables and chairs.

7.53KB.2. DESCRIPTION. Under this Section, the Contractor shall furnish and install tables & chairs, in accordance with the Contract Drawings, the specifications and directions of the Engineer.

7.53KB.3. MATERIALS. Materials shall comply with the following:

7.53KB.3.1. REFERENCES.

(A) ASTM Testing Standards:

1. ASTM B 108 - Standard Specification for Aluminum-Alloy Permanent Mold Castings.
2. ASTM B 117 - Standard Practice for Operating Salt Spray (Fog) Apparatus.
3. ASTM B 221 - Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes.
4. ASTM D 522 - Standard Test Methods for Mandrel Bend Test of Attached Organic Coatings.
5. ASTM D 523 - Standard Test Method for Specular Gloss.
6. ASTM D 2247 - Standard Practice for Testing Water Resistance of Coatings in 100% Relative Humidity.
7. ASTM D 2794 - Standard Test Method for Resistance of Organic Coatings to the Effects of Rapid Deformation (Impact).
8. ASTM D 3359 - Standard Test Methods for Measuring Adhesion by Tape Test.
9. ASTM D 3363 - Standard Test Method for Film Hardness by Pencil Test.
10. ASTM G 155 - Standard Practice for Operating Xenon Arc Light Apparatus for Exposure of Non-Metallic Materials.

(B) ISO Testing Standards:

1. ISO 1520 - Paints and Varnishes - Cupping Test.
2. ISO 2815 - Paints and Varnishes - Buchholz Indentation Test.

(C) ANSI/BIFMA Testing Standards:

1. ANSI/BIFMA X5.4 - Standard Test for Lounge Seating.

7.53KB.3.2. SUBMITTALS. Follow the procedures in the General Conditions of **Section 1.06.31** of the NYCDOT Standard Highway Specifications.

(A) Product Data: Submit manufacturer's product data, storage and handling requirements and recommendations, installation methods and available colors, styles, patterns and textures.

- (B) Samples: Submit three (3) samples of specified color as applied to an 8 inch by 8 inch square of specified metal for approval by Engineer.
- (C) Warranty: Guarantee for a minimum of three years.

7.53KB.3.3. QUALITY CONTROL.

- (A) Manufacturer's Qualifications: Manufacturer shall be regularly engaged in manufacture of site furnishings for a minimum of ten years.
- (B) Product Support: All Products shall be supported with complete engineering drawings and design patents.
- (C) Production: Orders shall be filled within 10 weeks.

7.53KB.3.4. DELIVERY, STORAGE, AND HANDLING.

- (A) Delivery: Deliver materials to site in manufacturer's original, unopened containers and packaging, with labels clearly identifying product name and manufacturer.
- (B) Storage: Store materials in clean, dry area in accordance with manufacturer's instructions. Keep materials in manufacturer's original, unopened containers and packaging until installation.
- (C) Handling: Protect materials and finish during handling and installation to prevent damage.

7.53KB.3.5. WARRANTY.

- (A) Warranty Information:
 - 1. Products will be free from defects in material and/or workmanship for a period of three years from the date of substantial completion.
 - 2. The warranty may exclude damage resulting from accident, misuse, tampering, negligence, or abuse.
 - 3. Products shall be repaired or replaced to the satisfaction of the Engineer any items found defective upon inspection by an authorized manufacturer service representative and Engineer.

7.53KB.3.6. MANUFACTURER. Product to be as manufactured by:

FermobUSA
62 Industrial Park Road
Dawsonville, Georgia 30534
Phone: 678-267-2025
Fax: 706-216-6609
Website: www.fermobusa.com
Email address: info@fermobUSA.com

Table and Chair Distributors:
1. Academy Chair Renting Co Inc
Contact: Sharon Gold
Address: 82-33 Queens Blvd
Elmhurst, NY 11373
Phone #: 718-457-1122

Website: www.partytimeofcourse.com
Email: info@partytimeofcourse.com

2. Kolo Collection

Address: 1189 Howell Mill Road
Atlanta, GA 30318
Phone#: 404-355-1717
Website: www.kolocollection.com
Email: info@kolocollection.com

3. American Country, Inc

Address: 327 Main St
Ames, IA 50010
Phone#: 515-232-7813
Website: www.americancountryhomestore.com
Email: info@americancountryhomestore.com

4. or equivalent

7.53KB.3.7. PRODUCTS.

- (A) Table: shall be Bistro Collection, 0233 Table 30", folding steel table 30" diameter top, with polyester powdercoating on all metal parts, with parasol cap and plastic foot protectors in matching colors. Color shall be "Paprika" and shall match chairs.
- (B) Chair: shall be Bistro Collection, 0101 Metal Chair, folding metal chair with curved steel slats, all metal components to be polyester powdercoated. Color shall be "Paprika", and shall match tables.

7.53KB.4. METHODS. The following methods of installation shall be used:

- (A) Examination:
1. Examine areas to receive tables and chairs.
 2. Notify the Engineer of conditions that would adversely affect installation or subsequent use.
 3. Do not begin installation until unacceptable conditions are corrected and acceptance verified in writing by the Engineer.
- (B) Assembly:
1. Assemble tables and chairs in accordance with manufacturer's instructions.
 2. Locate tables and chairs as directed by the Engineer.
- (C) Adjusting:
1. Finish Damage: Repair minor damages to finish in accordance with manufacturer's instructions and as approved by the Engineer.
 2. Component Damage: Remove and replace damaged components that cannot be successfully repaired as determined by the Engineer.

(D) Cleaning: Clean tables and chairs promptly after installation in accordance with manufacturer's instructions. Do not use harsh cleaning materials or methods that could damage finish.

(E) Protection: Protect installed tables and chairs to ensure tables and chairs will be without damage or deterioration at time of Substantial Completion.

7.53KB.5. MEASUREMENT.

(A) TABLE

The quantity of Tables to be measured for payment shall be the actual number of Tables installed at the site, to the satisfaction of the Engineer.

(B) CHAIR

The quantity of Chairs to be measured for payment shall be the actual number of Chair installed at the site, to the satisfaction of the Engineer.

7.53KB.6. PRICES TO COVER.

(A) TABLE

The unit price bid for EACH Table shall include the cost of furnishing all labor, plant, materials, equipment, insurance, and incidentals necessary to furnish, assemble and install tables including, but not limited to, hardware; all in accordance with the Contract Drawings, the specifications and the directions of the Engineer.

(B) CHAIR

The unit price bid for EACH Chair shall include the cost of furnishing all labor, plant, materials, equipment, insurance, and incidentals necessary to furnish, assemble and install chairs including, but not limited to, chair arm rests and glides, and hardware; 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
7.53 KBC	CHAIR	EACH
7.53 KBT	TABLE	EACH

SECTION 7.55 SS
Stainless Steel Railings

7.55SS.1. INTENT. Under this section, the Contractor shall furnish and install fully welded, custom-fabricated, stainless steel railings including: guard rails, stair handrails, ramp handrails, sidewalk guide rail, and swing gate. Guard rails shall include stainless steel cable infill and related hardware. Railings shall include horizontal rails, vertical supports, base cover plates, inserts, fittings, anchors, stainless steel cable infill, and other components in accordance with the plans, the specifications, and the directions of the Engineer.

7.55SS.2. REFERENCES.

- (A) American National Standards Institute (ANSI)
AI 17.1 Accessible and Usable Buildings and Facilities
- (B) American Society for Testing and Materials (ASTM)
- (C) American Welding Society (AWS) Structural Welding Code
- (D) All railings must meet ADA requirements.
- (E) Provide railing conforming to AASHTO 2.7.3-Pedestrian Railings.

7.55SS.3. SUBMITTALS. Follow the procedures in the General Conditions of **Section 1.06.31** of the NYCDOT Standard Highway Specifications.

- (A) Submit product data for each product used including but not limited to stainless steel tubing, sheet, bar, and cable stock, cable hardware, anchoring devices, hinges, and locking device. The Contractor shall submit splice locations and splice details to the Engineer as part of shop drawings.
- (B) Follow the requirements of the **Section 1.06.13** of NYCDOT Standard Highway Specifications for submission of the shop and working drawings. Submit shop drawings showing fabrication and installation of stainless steel railings, inserts including dimensioned elevation and details of components and attachments to other units of work. Indicate materials, profiles of each member and fitting, joinery, splices and concealed connections for expansion, finishes, fasteners, anchorages and accessory items. Shop drawings shall incorporate accurate, field-verified topographic elevations and dimensions. Show and identify adjustments in the work made to accommodate field conditions, if any. Identify field dimensions. Include design loads. Include setting drawings, templates and directions for installation of anchorages to be installed as unit of work of other sections. Provide clear indication of alloy types covering each condition. All shop drawings for items under this Section shall be coordinated and submitted concurrently.
- (C) Samples for verification purposes of type of metal prepared of metal of same thickness and alloy indicated for final unit of work. Where finishes involve normal color and texture variations, include

sample sets composed of two or more units showing full range of variations expected.

1. Provide three (3), 12 inch long samples of all linear shapes
2. Provide one sample of each type of cable hardware assembly
3. Provide one (1) mock-up for splice of each railing type.
4. Provide mock-up of six linear feet of guard railing at exterior ramp, incorporating two vertical supports, three horizontal strands of stainless steel cable and hardware, and attached ramp handrail.

(D) Maintenance Data: Include manufacturer's standard cleaning and maintenance instructions to avoid detrimental actions to finishes and performance.

7.55SS.4. QUALITY ASSURANCE. Contractor shall provide the following qualifications:

Fabricator Qualifications: Firm experience in successfully producing stainless steel railings similar to that indicated for this project, with sufficient production capacity to produce required units without causing delay in the work.

Installer Qualifications: Arrange for installation of stainless steel railings specified in this section by a firm experienced in the installation of railing work of type and extent specified.

7.55SS.5. MATERIALS. Provide stainless steel railings composed of metals of the forms and types which comply with requirements of referenced standards and which are free from surface blemishes where exposed to view in the finished unit. Exposed-to-view surfaces exhibiting pitting, seam marks, roller marks, "oil canning", stains, discolorations, or other imperfections on finished units are not acceptable.

All stainless steel tube, sheet, and bar stock shall be Type 316, ASTM A 554, #4 maintenance-free finish. Standards for tube and pipe shall be ASTM A 312. Bars and shapes shall be ASTM A 276. Plate shall be ASTM A 240 or ASTM A 666.

Skateboard Deterrent Tabs for railings shall be milled from solid Type 316 stainless steel rod stock in the shape and size required, and shall be continuously welded to railings, with welds ground smooth and clean.

Countersunk flathead screws, nuts, bolts, and washers shall be stainless steel Type 316. Wherever Stainless Steel and Structural Steel are in contact with each other, the Contractor shall provide a 1/4-inch thick separator gasket as approved by the Engineer.

Stainless steel cable infill and hardware shall be exterior-grade, ASTM A 492 Type 316, 8mm size "I-SYS" system as manufactured by Carl Stahl-DecorCable LLC, or equivalent system as manufactured by Jakob, Inc. or Johnson Architectural Hardware, or approved equivalent. Cable assemblies shall be configured for superior performance, durability, and vandal-resistance, in conformance with manufacturer recommendations.

Threadlocking Agent: Shall be a single-component adhesive fluid specifically designed for permanent locking of machine threads, as Loctite Threadlocker Red 271 as manufactured by Loctite Products, Inc., or equivalent product manufactured by Permatex or 3M, or approved equivalent.

Hinges shall be weld-on type as shown on Contract Drawings, 316 stainless steel, rated for 2000 lbs. capacity.

Padlock for swing gate shall be heavy-duty key-type suitable for superior performance for outdoor use, with stainless steel body, minimum 3/8" shackle diameter, with high-security key type. Provide with 2 keys.

Non-Shrink Grout: for anchoring handrail supports in concrete or stone masonry, shall be two-part epoxy grout, compatible with sealant.

Adhesive Sealant: for setting railing support base covers in concrete or stone masonry, shall be a flexible, clear-drying, two-part epoxy adhesive/sealant, compatible with non-shrink grout.

Acceptable Fabricators: Subject to compliance with requirements, fabricators offering stainless steel railing systems and that may be incorporated in the work include the following:

1. L & J Specialty Corporation
2671 Bobmeyer Rd
Fairfield, OH 45014
2. Daniel Industrial Metals, Inc.
6045 Southern Industrial Dr
Birmingham, AL 35235
3. Architectural Metal Works
153 E Oakwood St.
Tarpon Springs, Fl. 34689
4. R. J. Donaldson, Inc.
1287 Glassboro Rd.
Williamstown, NJ 08094
5. or approved equivalent.

PROJECT CONDITIONS. Take field measurements prior to preparation of shop drawings and fabrication, to ensure proper fitting of stainless steel components on granite, concrete, and steel surfaces.

DELIVERY, STORAGE AND HANDLING. Store stainless steel railing components and materials in clean, dry location.

7.55SS.6. METHODS. The Contractor shall be required to manufacture, install, and protect the railings as shown on the Contract Drawings and in accordance with approved shop drawings to be furnished by the Contractor prior to fabrication.

1. Performance Requirements

- (A) Engineer stainless steel railing to withstand structural loads indicated, and determine allowable design working stresses of railing materials based on ASCE 8, "Specification for the Design of Cold-Formed Stainless Steel Structural Members."
- (B) Thermal Movements: Provide railings that allow for thermal movements resulting from the following maximum change (range) in ambient and surface temperatures 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.
 - a. Temperature Change (Range): 67 deg. C, ambient; 100 deg. C, material surfaces.
- (C) Control of Corrosion: Prevent galvanic action and other forms of corrosion by insulating metals and other materials from direct contact with incompatible materials.
- (D) Gate Swing and Anchorage: Swing Gate shall be fabricated to allow for full swing and secure anchorage. Sidewalk elevations shall be verified and incorporated into the shop drawings and installation to allow anchored and locked gate to stand rigid, with less than 1/8" vertical movement. Slide bolt should slide easily, and shall fall cleanly into sidewalk sleeve. Padlock should hang freely, and shall not bind on locking mechanism.

2. Fabrication

- (A) Assemble railings in the shop to greatest extent possible to minimize field splicing and assembly.
- (B) Fabrication and welding to comply with NYSDOT Steel Construction Manual.
- (C) All welds shall be continuous unless otherwise specified on the Contract Drawings. At exposed connections, finish exposed surfaces smooth and blended so no roughness shows after finishing and welded surface matches contours of adjoining surfaces.
- (D) Fabricate anchorage devices capable of withstanding loads imposed by railings.

- (E) Accurately form curved railings to radii indicated on the drawings, without kinks. Where curvature is required is required on sloping railings, curvature shall be accurate in horizontal dimension while also providing the required slope. Except where otherwise indicated on the Contract Drawings, all railing supports shall be set plumb. Railing anchor plates shall be fabricated with slopes and bends as required to allow plumb setting of railing supports.
- (F) Tolerances: Railings shall be fabricated to the following tolerances: within 1/8" from plumb in all directions for 36" vertical distance. Maximum variation from flush conditions for all elements shall be 1/16". Maximum variation in horizontal alignment from true dimensions for top rails shall be 1/4". Maximum variation from true vertical alignment of railings shall be 1/4".
- (G) Cut, drill, shear, and punch metals cleanly and accurately. Remove burrs from exposed cut edges. Ease exposed edges to a radius of approximately 1mm, unless otherwise indicated.
- (H) Provide weep holes or another means to drain entrapped water in hollow sections of railing members that are exposed to exterior or to moisture from condensation or other sources.
- (I) Fabricate joints in watertight manner.
- (J) Coordinate and furnish anchorages and setting drawings, diagrams, templates, instructions and directions of installation of items having integral anchors which are to be embedded in other construction, if any. Coordinate delivery of such items to the project site.
- (K) Cable Infill components shall be fabricated and installed to keep all cable taut, free of abrasion, and secure. Components shall be of the type allowing maximum resistance to vandalism and unauthorized removal.
- (L) Stainless Steel Cables and Fittings shall be dimensioned and fabricated to specified size and labeled according to shop drawings and installer's specifications. Preassemble items in shop to greatest extent practicable to minimize assembly at project site. Disassemble units only to extent necessary for shipping and handling limitations. Mark units for reassembly. Clean and/or descale cables and fittings in accordance with ASTM A 380. Passivate in accord with ASTM B912, to provide the following finish: Exterior and Interior: 330 grain satin finish (equivalent to #4 satin finish).

3. Installation

- (B) Provide anchorage devices and fasteners where necessary for securing railing systems to in-place construction; and other connectors as required.

- (C) Perform cutting, core-drilling and fitting required for installation of railing. Set products accurately in location, alignment and elevation, plumb, level and true, measured from established lines and levels. Set posts plumb within a tolerance of 1/32" per foot and align rails so variations from level for horizontal or from parallel with wall slope do not exceed 3/16" per 10 Feet. Holes to receive railings shall be cleanly core-drilled in granite and other masonry surfaces using the smallest size diameter to fit the support base covers, with not more than 1/8" additional diameter. Holes shall be accurately located per layout plans, and railing shop drawings shall be prepared to fit the hole locations as field-verified. The holes shall be of the depths indicated on the Contract Drawings, or eight inches, whichever is greater. Care shall be taken while drilling in granite such that no damage will be done. Any damage to masonry surfaces resulting from drilling operations shall be remediated by the Contractor at no additional cost to the City, which may include replacement of whole granite units. No repair of granite involving gluing or patching will be allowed.
- (D) For railing installation at concrete and granite surface, the railings shall be erected as detailed on Contract Drawings, with base covers held on the supports above finish grade as necessary to allow grout filling. After posts have been set in place and properly supported to hold them to line and grade, the annular space shall be filled to the depth shown on the Contract Drawings with non-shrinking grout. After the grout has hardened, the remaining space shall be filled with clear epoxy adhesive sealant, and support base cover shall be set precisely flush with finish grade and fully bedded in the material, with sealant fully filling the perimeter gap to within 1/16" of finish grade. In no case should sealant protrude above finish grade. Mask around drill holes as necessary to prevent sealant from contacting or staining adjacent surfaces.
- (E) Fit exposed connections accurately together to form tight, hairline joints or, where indicated, with uniform reveals and spaces for sealants and joint fillers. Where cutting, welding and grinding are required for proper shop fitting and jointing of ornamental metal items, restore finishes to eliminate any evidence of such corrective work.
- (F) Do not cut or abrade finishes that cannot be completely restored in the field. Return items with such finishes to the shop for required alterations, followed by complete refinishing or provide new units as required.
- (G) Field Welding: Comply with applicable AWS specification for procedures of manual shielded metal-arc welding, for appearance and quality of welds made, and for methods used in correcting welding work. Weld connections that are not to be left as exposed joints, but cannot be shop welded because of shipping size limitations.

Grind exposed welded joints smooth and restore finish to match finish of adjacent rail surfaces.

- (H) Cable Infill: Install rope assemblies in accordance with manufacturer's instructions and the approved shop drawings. Provide anchorage devices and fittings to secure to in-place construction; including threaded fittings for concrete inserts, toggle bolts and through-bolts. Install system plumb, level, square, and taut. Anchor system to mounting surfaces as indicated on the drawings. Separate dissimilar materials with bushings, grommets or washers to prevent electrolytic corrosion. Use manufacturer's supplied mounting hardware. Terminate and tension cable system in accordance with manufacturer's instructions. Ensure ropes are clean, and without kinks or sags. After final adjustment and acceptance of cable installation by the Engineer, all threaded components of cable infill shall be threadlocked using the specified threadlocking product, in conformance with threadlock and cable railing manufacturer recommendations.

4. Protection

- (A) Protect finish of railing systems from damage during construction period by use of temporary protective coverings approved by stainless steel fabricator. Remove protective covering as soon as need for protection has passed, but no later than time of Substantial Completion.
- (B) Restore protective coverings that have been damaged during shipment or installation of the work. Remove protective coverings only when there is no possibility of damage from other work yet to be performed at the same location. Retain protective coverings intact and remove simultaneously from similarly finished items to preclude non-uniform oxidation and discoloration.
- (C) Restore finishes damaged during installation and construction period so that no evidence remains of correction work. Return items which cannot be refinished in the field to the shop; make required alterations and refinish entire unit, or provide new units as required.

5. Spare Railing Components

The Contractor shall supply the following spare railing components:

- 1. Cable and Hardware: provide 100 lf of the specified cable, and hardware required for each type of anchorage condition.

Spare railing components shall be labeled, protectively wrapped and delivered to a designated NYCDOT Maintenance Yard to the satisfaction of the Engineer.

7.55SS.7. MEASUREMENT. The quantity to be measured for payment shall be:

STAINLESS STEEL GUARD RAILING AT BIKEWAY: The number of linear feet of stainless steel guard railing measured along the center line of the railing, actually installed to the satisfaction of the Engineer.

STAINLESS STEEL GUARD RAILING AT EXTERIOR RAMP: The number of linear feet of stainless steel guard railing measured along the center line of the top rail, actually installed to the satisfaction of the Engineer.

STAINLESS STEEL STAIR HANDRAIL: The number of linear feet of stainless steel stair handrail measured along the center line of the railing, actually installed to the satisfaction of the Engineer.

STAINLESS STEEL RAMP HANDRAIL, SINGLE RAIL: The number of linear feet of stainless steel ramp handrail measured along the center line of the railing, actually installed to the satisfaction of the Engineer, irrespective of wall- or ground- support.

STAINLESS STEEL RAMP HANDRAIL, DOUBLE RAIL: The number of linear feet of stainless steel ramp handrail measured along the center line of the railing, actually installed to the satisfaction of the Engineer, irrespective of wall- or ground- support.

STAINLESS STEEL SIDEWALK GUIDE RAILING: The number of linear feet of stainless steel sidewalk guide railing measured along the center line of the railing, actually installed to the satisfaction of the Engineer.

STAINLESS STEEL SWING GATE: The quantity measured for payment shall be the number of Stainless Steel Swing Gates actually installed, to the satisfaction of the Engineer.

7.55SS.8. PRICES TO COVER. The unit price bid per linear foot for all railings shall cover the cost of all labor, material, plant, equipment, insurance, and incidentals necessary to furnish and install stainless steel railings, but not limited to, all railings, posts, wall-supports, base plates, brackets, expansion joints, anchor bolts, nuts, washers, drilling of holes, welding, and shop drawings to complete the work, all in accordance with the Contract Drawings, the specifications, and the directions of the Engineer.

The unit price bid per each swing gate shall cover the cost of all labor, material, plant, equipment, insurance, and incidentals necessary to furnish and install stainless steel swing gate in accordance with the Contract Drawings, the specifications, and the directions of the Engineer.

Payment will be made under:

Item No.	Item	Pay Unit
7.55 SS1	STAINLESS STEEL GUARD RAILING AT BIKEWAY	LF
7.55 SS2	STAINLESS STEEL GUARD RAILING AT EXTERIOR RAMP	LF
7.55 SS3	STAINLESS STEEL STAIR HANDRAIL	LF
7.55 SS4	STAINLESS STEEL RAMP HANDRAIL, SINGLE RAIL	LF
7.55 SS5	STAINLESS STEEL RAMP HANDRAIL, DOUBLE RAIL	LF

7.55 SS6	STAINLESS STEEL SIDEWALK GUIDE RAILING	LF
7.55 SS7	STAINLESS STEEL SWING GATE	EA

**SECTION 8.15 WXY
DRINKING FOUNTAIN, TYPE WXY**

8.15WXY.1. WORK: Under this item, the Contractor shall furnish all labor, materials and equipment necessary or required to furnish and install cast iron accessible **DRINKING FOUNTAIN, TYPE WXY**, in compliance with all A.D.A. and A.N.S.I. standards, including all internal plumbing, precast concrete foundation, crushed stone base, miscellaneous iron and steel, all external plumbing work, and connection to water service and drain within five (5) feet of the edge of the foundation walls, all in accordance with the Contact Drawings, specifications, and directions of the Engineer. Drinking Fountain design and installation shall comply with Americans with Disabilities Act (ADA) provisions as described in ANSI A117.1 -1998 (or most recent edition).

8.15WXY.2. PRECAST CONCRETE FOUNDATION: The drinking fountain shall be installed on a precast concrete foundation as indicated in the Contract Drawings.

Cement: Air entrained Portland cement shall comply with the requirements of the ASTM Designation C 150. It shall be Type IIA, moderate sulfate resistant.

Precast Concrete: Precast concrete shall have a compressive strength of not less than forty-five hundred (4,500) pounds per square inch when tested as 2" x 2" x 2" cubes at an age of not more than twenty-eight (28) days and shall have an absorption rate not to exceed seven (7%) percent of the dry weight after being dried to constant weight at 150 degrees Fahrenheit. No chipped, broken, or checked stone showing fine hair cracks or checks on the surface will be accepted.

Aggregate: Natural Sand and gravel shall conform to the requirements of ASTM C33.

Calcium Chloride: Do not use calcium chloride in precast concrete.

Reinforcing bars: ASTM A 615, Grade 40 or Grade 60 as necessary. Bars are to be used to handle transportation and handling stresses.

Welded Wire Fabric: Shall meet ASTM A 185.

Supports for Reinforcement: Provide supports for reinforcement including bolster, chairs, spacers, and other devices for spacing, supporting, and fastening reinforcing.

Crushed Stone Base: Shall consist solely of crushed ledge rock. Stone shall be No. 3 size as specified in **Section 2.02** of the Standard Highway Specifications.

8.15WXY.3. CAST IRON DRINKING FOUNDATION: The drinking fountain shall be delivered as a preassembled cast iron body, with custom integrated bubbler, push buttons, bottle filler and all internal plumbing, as manufactured by the following or approved equal, as per the drawings and specifications:

Manufacturer:

1. X2 US LLC
1560 Standing Ridge Drive,
Powhatan, VA 23139.
Phone#:(804) 378-5020

Distributers:

1. SHOW CANADA INDUSTRIES
5555 Maurice-Cullen Laval (Qc)
Canada H7C 2T8
Phone#:(888) 329-5556
2. SURE IRON WORKS,
86 Georgia Avenue
Brooklyn, NY 11207.
Phone#:(718) 485-6500
3. SOHEIL MOSUN LTD
34 Greensboro Drive, Toronto,
Ontario Canada M9W 1E1

Ductile Iron: The tensile strength shall meet a minimum of 65,000 psi, in accordance with ASTM Designation A 536 for Grade 65-45-12.

Finishes for Cast Ductile Iron Drinking Fountain: The finish of the cast ductile iron drinking fountain shall be powdercoated, as per the specifications.

Powdercoating: All surfaces of the cast iron drinking fountain shall be powdercoated with a polyester thermosetting powder coating as manufactured by Tiger Drylac U.S.A., Reading PA, PPG Industries, Sherwin Williams, or approved equivalent. Finish shall be semi-gloss, Metallic Silver in color.

Powdercoating shall be applied to the metal in such a manner that the coating will not peel off. Insure surfaces to be coated are clean and dry and free of grease, dust, rust, etc. All surfaces shall first receive phosphating and chromatizing treatments to improve the adhesion of the surface coating.

Powdercoating shall be applied at a film thickness of 3 to 4 mils by electrostatic spray process and bake finished per the manufacturer's directions. It shall be applied without voids, tears or cuts that

reveal the substrate and shall thoroughly adhere to the metal without peeling when scratched with a pick device or knife blade point. All visible nuts, washers, and ends of all bolts shall be painted with touch-up paint as described below.

Touch-up and Repair: For minor damage caused by installation or transportation, touch-up finish in conformance with manufacturer's recommendations. Provide touch-up such that repair is not visible from a distance of two (2) feet.

Laboratory Test For TGIC-Polyester Powdercoat: At the discretion of the Engineer, a sample TGIC-Polyester powdercoated bench standard may be laboratory tested for bonding of the powdercoating to the metal. Test shall be the Cross Hatch test per ASTM D3359, method B. Failure to satisfactorily pass this test shall be a basis for rejection.

Hardware: All hardware shall be 18-8 stainless steel type 304 in accordance with ASTM F593. All heads shall be vandal resistant.

Plumbing: Bubblers, push buttons, bottle fillers and all internal plumbing shall be preassembled by the drinking fountain manufacturer and shall meet the requirements of the plumbing section of this specification and the contract drawings. The drinking fountain manufacturer shall have all factory installed plumbing components pre-tested installed before delivery to site. All factory connections shall be made by a licensed plumber.

The drinking fountain is to be handled at lifting locations designated by the manufacturer; no chipped, cracked, or otherwise defective fountains will be acceptable. All parts and installation shall meet applicable requirements of N.Y.C. Codes.

8.15WXY.4. PLUMBING:

Water Piping: All water lines up to the valve system shall be of rigid hard temper type "k" copper tubing, meeting the specification for A.S.T.M. Designation No. B 88. Fittings shall be approved wrought copper and bronze solder joint pressure fittings (A.N.S.I. B 16.22). Above the valve system, piping to be 3/8" soft temper copper tubing with copper sweat fittings.

Freeze-Resistant Valve System: Freeze-resistant valve system for use with single bubbler head pedestal fountains shall include a brass pneumatic operated valve installed below the frost line, check valve to drain water from unit when not in use and to prevent back-flow cross contamination, self-regulating 0.4 gpm flow control, separate valve access and pull-out design for easy maintenance, 6" diameter PVC pipe to encase valve assembly, and 1/2" water supply. Freeze-resistant valve system shall be installed eighteen (18) inches minimum below frost line.

Haws Model # 6519FR, with Haws Model # VRKFR1 repair kit, Elkay, HRP, or approved equals.

Miscellaneous Iron and Steel: Access to the plumbing valves shall be

via a two (2) foot diameter ductile cast iron frame and "Parks Leaf" cover with locking bolts, as shown on the standard details, or approved equal.

Push Button Assembly: Valve shall be brass with a polished chrome-plated push button. All exposed parts to have a polished chrome-plated finish. Push button controls shall be a polished chrome-plated brass push button activated by a maximum of five (5) pounds of pressure.

Haws Model # 5881PBA, Elkay, HRP, or approved equal.

Bubbler Assembly: Bubbler assembly shall be one piece brass including the tail piece. Provide a vandal-resistant lock washer. All exposed parts to be brass with a polished chrome-plated finish.

Haws Model # 5705, Elkay, HRP or approved equal.

Push Button: Push button shall be brass with a polished chrome-plated finish.

Bottle Filler: Bottle filler shall be brass with a polished chrome-plated finish.

Hose Bib: Hose bib shall be *Haws Model # 6275, Elkay, HRP or approved equal.*

Drainage: Drinking fountain shall drain into a waste drain line, as indicated on the Contract Drawings.

Pipe Supports: Pipe clamps shall be made up of 1" x 3/8" galvanized strap iron and shall be rigidly constructed to hold the pipe firmly in place. Clamps shall be held in place with anchor bolts drilled into the fountain shaft or base.

Factory Installation: All pipes except the bubbler tailpiece passing through walls shall be run through pipe sleeves. The stainless steel push button rod shall be protected with sleeves where it passes through walls.

8.15WXY.5. FIELD INSTALLATION: The precast concrete foundation shall be set level on a bed of compacted crushed stone installed to the dimensions as shown on the Contract Drawings. The drinking fountain is to be handled at lifting locations designated by the manufacturer; no clipped, cracked, or otherwise defective fountains will be acceptable. All field connections to be made by a Licensed Plumber. The factory installed portion of the cold water supply shall be extended from the drinking fountain base at lengths indicated on the Contract Drawings.

Field Connections required to complete the installation include gate valve and supply connections within the plumbing pit, and any other miscellaneous work required to complete the work. All parts to be installed in such a manner as to facilitate removal for purposes of replacement. Drain cock shall be oriented on the pipe at an angle which will allow easier access, per the direction of the Engineer.

Winterization: Drinking Fountain shall be winterized by shutting off water supply and opening bleeder valve (outside of fountain). The fountain shall be designed to allow internal water to drain by gravity.

Water lines shall be pitched away from the Drinking Fountain. Pockets in rigid piping that cannot be drained by gravity will be rejected. The plumber will be required to reinstall piping until gravity drain is achieved.

8.15WXY.6. SUBMITTALS: Follow the procedures in the General Conditions of **Section 1.06.31** of the NYCDOT Standard Highway Specifications.

Catalogue Cuts: The Contractor shall submit Catalogue Cuts of the hardware, manhole frame and cover, brass bubblers, push buttons, and all other plumbing parts for approval twelve (12) weeks prior to proposed installation.

Shop Drawings: Follow the requirements of the **Section 1.06.13** of NYCDOT Standard Highway Specifications for submission of the shop and working drawings. The Contractor shall submit a complete dimensional shop drawing, for approval, twelve (12) weeks prior to proposed installation, showing details of construction, reinforcement, plumbing, etc., including gauges of metal and thickness of wall construction.

Foundry Certificates: A foundry certificate verifying authenticity of ductile iron supplied on this item shall be submitted. The certificate shall be on foundry letterhead, dated and signed by an officer of the company with the contract name and number, Contractor name, and class of ductile iron provided.

Paint Finishes: The Contractor shall submit 6" x 6" samples of paint finish.

8.15WXY.7. MOCK-UP/CASTING: Before commencing fabrication of drinking fountain, provide full-size mock-up to verify conformance to drawings and to demonstrate aesthetic effects and qualities of materials and execution.

Obtain approval of mock-up from the Engineer, before starting drinking fountain fabrication.

8.15WXY.8. MEASUREMENT: The quantity to be measured for payment shall be the number of Drinking Fountain - WXY actually installed at the site to the satisfaction of the Engineer.

8.15WXY.9. PRICE TO COVER: The price bid shall be a unit price for EACH drinking fountain, and shall include the cost of all labor, materials, equipment, insurance necessary to complete the work, including but not limited to, excavation and backfilling, furnishing and placing crushed stone, precast concrete foundation, miscellaneous iron and steel, Parks Leaf manhole cover, locking bolts, and all plumbing work and connections to water and drain service within five (5) feet from the edges of the foundation, all in accordance with the Contract Drawings,

specifications, and directions of the Engineer.

Payment will be made under:

Item No.	Item	Pay Unit
8.15 WXY	DRINKING FOUNTAIN, TYPE WXY	EACH

SECTION 8.23 S
Metal Fabrications

8.23S.1. DESCRIPTION: This section describes fabrication and installation of Stainless Steel Threshold and Perforated Stainless Steel Enclosure.

- (A) Stainless steel threshold: Under this item, qualified fabricators and installers shall procure materials; fabricate all necessary components including stainless steel plate threshold facing, stainless steel coping support, stainless steel anchor plates, and slip-resistant walking surface; and install assembly to provide secured opening through existing granite balustrade wall, in accordance with the Contract Drawings, the specifications, and the directions of the Engineer.
- (B) Perforated stainless steel enclosure: Under this item, qualified fabricators and installers shall procure stainless steel materials; fabricate all necessary components including perforated panels, panel frames, panel supports, operable door mechanisms, locking mechanism and anchoring elements; and install all elements to enclose storage area under ramp, in accordance with the Contract Drawings, the specifications, and the directions of the Engineer.

8.23S.2. REFERENCES.

- (A) American National Standards Institute (ANSI)
AI 17.1 Accessible and Usable Buildings and Facilities
- (B) American Society for Testing and Materials (ASTM)
- (C) American Welding Society (AWS) Structural Welding Code

8.23S.3. QUALITY CONTROL.

- (A) Quality Control: Except as modified by governing codes and by this Specification, the Contractor shall comply with the applicable provisions and recommendations of the AWS "Structural Welding Code" including all supplements, addenda and special rulings applicable to building construction. All welding in the shop or field shall be subject to controlled inspection of the NYC Building Code.

Fabricator and installer shall demonstrate prior experience with fabrication of similar stainless steel elements incorporating welding of stainless steel surfaces.

- (B) Acceptable Fabricators: Subject to compliance with requirements, fabricators offering stainless steel railing systems and that may be incorporated in the work include the following:

- 1. L & J Specialty Corporation
2671 Bobmeyer Rd
Fairfield, OH 45014

2. Daniel Industrial Metals, Inc.
6045 Southern Industrial Dr
Birmingham, AL 35235
3. Architectural Metal Works
153 E Oakwood St.
Tarpon Springs, Fl. 34689
4. R. J. Donaldson, Inc.
1287 Glassboro Rd.
Williamstown, NJ 08094
5. or approved equivalent.

Installer Qualifications: Arrange for installation of stainless steel elements specified in this section by a firm experienced in the installation of metal work of type and extent specified.

- (C) Tolerances: Maximum variation from flush conditions for all elements shall be 1/16". Maximum variation in horizontal alignment from true dimensions for shall be 1/4". Maximum variation from true vertical alignment shall be 1/4". Maximum variation in horizontal alignment where abutting granite shall be maintained within 1/8" in either direction.
- (D) Protection: Store materials in fabricator's packaging until ready to install.

8.23S.4. MATERIALS. Fabricated Stainless Steel Elements: Stainless steel tube, sheet, perforated sheet, and bar stock shall be AISI Type 316 alloys, ASTM A 554, #4 maintenance-free finish. Standards for tube and pipe shall be ASTM A312/A312M. Bars and shapes shall be ASTM A276. Plate shall be ASTM A240/A240M OR ASTM A666.
Perforated Stainless Steel Sheet: Shall be staggered layout, 3/16" thickness, with 0.5" diameter holes spaced 0.6875" apart, with an open area of 48%. Panels shall be cut out of whole sheets, and shall not be spliced.

Provide stainless steel elements composed of metals of the forms and types which comply with requirements of referenced standards and which are free from surface blemishes where exposed to view in the finished unit. Exposed-to-view surfaces exhibiting pitting, seam marks, roller marks, "oil canning", stains, discolorations, or other imperfections on finished units are not acceptable.

Non-shrink epoxy grout for setting stainless anchor rods at threshold shall be a high-modulus, low-viscosity, high-strength epoxy grouting/sealing/binder adhesive such as "Sikadur 35 Hi-Mod LV" as manufactured by Sika Corporation, www.usa.sika.com, or equivalent product by Integra Adhesives, www.integra-adhesives.com, or Mapei, www.mapei.com, or equivalent type specifically intended for superior performance in grouting metal into masonry. Grout for threshold anchor

plate and enclosure support installation shall be a packaged, two-component, shrinkage-free, self-curing, high-strength, cement-based topping screed mortar suitable for horizontal exterior applications, with the following minimum characteristics:

- a. Compressive Strength ASTM C 109 - Greater than 6,000 psi
- b. Flexural Strength ASTM C 348 - Greater than 1,500 psi
- c. Slant / shear bond strength ASTM C 882 - Greater than 1,450 psi
- d. Volume change ASTM C 157 - +0.015%
- e. Freeze / thaw resistance ASTM C 666 Procedure A - 100%
- f. Resistance to de-icing salts ASTM C 672 - 0 rating, no scaling.
- g. Permeability to chlorides ASTM C 1202 - very low, in the range of 100 to 1000 coulombs.

For caulk/sealant joints: Backer rod shall be closed cell polyethylene of diameter to fit snugly and control depth of sealant. Sealant shall be "Sonolastic NP II" multi-part elastomeric polyurethane, or approved equivalent type by Sika or Pecora, or approved equivalent. Color shall be as selected from a full range of manufacturer's colors by the Engineer. A suitable primer shall be used when applying sealant to stainless steel surfaces, in accordance with sealant manufacturer recommendations.

Slip-Resistant Stainless Steel Decking: shall match specification for **Item 7.16 SSF Slip-Resistant Stainless Steel Decking.**

Hex bolts, nuts, locknuts and washers shall be stainless steel Type 316. All other fittings for attachment and anchorage shall be stainless steel Type 316 unless indicated otherwise on Contract Drawings. Wherever Stainless Steel and Structural Steel are in contact with each other, the Contractor shall provide a 1/4-inch thick separator gasket as approved by the Engineer.

Hinges shall be fabricated as shown on Contract Drawings.

Padlock for locking of enclosure doors shall be heavy-duty key-type suitable for superior performance for outdoor use, with shackle length as required to fit easily through stainless steel pin, with stainless steel body, minimum 3/8" shackle diameter, with high-security key type. Provide with 2 keys for each padlock, all matching.

8.23S.5. SUBMITTALS. Follow the procedures in the General Conditions of **Section 1.06.31** of the NYCDOT Standard Highway Specifications.

(A) Qualifications: Submit statement of compliance with Quality Control section above, including qualifications for all fabricators and installers with images and address locations of previous similar installations of metal fabrications.

(B) Shop Drawings: Follow the requirements of **Section 1.06.13** of NYCDOT Standard Highway Specifications for submission of the shop

and working drawings. Shop Drawings shall be submitted at the scale of 1" = 1'-0" for plans and elevations, and 3" = 1'-0" or larger for detailed cross-sections. Shop drawings shall take into account field measurements for horizontal and vertical alignment, and shall indicate typical weld types for each installation condition. All shop drawings for items under this Section shall be coordinated and submitted concurrently. Show and identify adjustments in the work made to accommodate field conditions, if any. Identify field dimensions. Include design loads. Include setting drawings, templates and directions for installation of anchorages to be installed as unit of work of other sections. Provide clear indication of alloy types covering each condition. Where fabricated steel is to be installed adjacent or in contact with newly-fabricated stone elements, shop drawings shall be coordinated with stone fabrication shop drawings.

- (C) Product Data: Submit product information for all fabricated metals, welding materials, anchor devices, hinges, locking devices, and setting materials. All product data shall be submitted concurrently with samples.
- (D) Samples: Submit 6" x 6" sample of perforated steel in thickness required and 6" length perimeter channel for enclosure panels, and 6" x 6" samples of each stainless steel metal type to be utilized.
- (E) MOCK-UP. Fabricate at the earliest possible time before proceeding with work and after approval of submitted samples and product data. The mock-up/sample must be as approved by Engineer before the actual work may proceed. If necessary refabricate until approved by the Engineer. Provide and construct a mock-up of a minimum one (1) operable perforated stainless steel enclosure door incorporating support, hinge mechanism, perforated panel and frame, and locking device all welded as per Contract Drawings and specifications, with specified finish. Hinge plate may be bolted to support column for review of balance, alignment, and positioning prior to acceptance and final welding. Clear digital photographs of mock-up shall be submitted for review prior to physical submission of the mock-up. Digital photographs of mock-up shall be submitted not less than one month prior to scheduled installation.
- (F) Maintenance Data: Include manufacturer's standard cleaning and maintenance instructions to avoid detrimental actions to finishes and performance.

8.23S.6. METHODS. The Contractor shall be required to manufacture, install, and protect the fabrications as shown on the Contract Drawings and in accordance with approved shop drawings to be furnished by the Contractor prior to fabrication.

- (A) Performance Requirements

1. Engineer fabrications to withstand structural loads indicated, and determine allowable design working stresses of materials based on ASCE 8, "Specification for the Design of Cold-Formed Stainless Steel Structural Members."
2. Thermal Movements: Provide fabrications that allow for thermal movements resulting from the following maximum change (range) in ambient and surface temperatures 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.
 - a. Temperature Change (Range): 67 deg. C, ambient; 100 deg. C, material surfaces.
3. Control of Corrosion: Prevent galvanic action and other forms of corrosion by insulating metals and other materials from direct contact with incompatible materials.
4. Door Swing and Locking: Enclosure doors shall be fabricated to allow full and smooth 90-degree swing without binding on pavement, ramp structure, adjacent fixed panels, or adjacent operable panels. Doors shall be balanced such that they do not swing open or shut by themselves. Stops shall be provided as shown to prevent over-rotation and closure with adjacent panels in proper alignment. Sidewalk elevations shall be verified and incorporated into the shop drawings and installation to allow doors to swing clear. Locking hasps shall coincide accurately to allow easy insertion of pin and padlock.
5. Threshold Fabrication and Installation: Stainless steel veneer at threshold shall match sectional profile of existing granite wall to within 1/8" accuracy at any point. Stainless steel threshold installation shall be executed to prevent movement or disturbance of existing granite wall units to remain.

(B) Fabrication: All elements shall be fabricated in strict accordance with the Contract Drawings and shop drawings. All joints shall be completely welded with welds of proper size and shape, all welds ground smooth to a neat finish. All welds shall be continuous unless otherwise specified on the Contract Drawings. Connection shall be provided as indicated on the Contract Drawings.

Sectional shape of existing granite wall shall be carefully traced on stable surface to allow accurate shop-cutting of stainless steel threshold sheets matching profile of cut through existing wall. Template shall be traced on each side of cut following removal of existing stone units, and accuracy shall be confirmed in the field before fabrication.

Threshold and enclosure elements shall be shop-cut and fabricated to allow accurate setting and proper alignment, meeting topographic elevations per grading plans and shop drawings. Do not begin welding until joint elements are bolted in intimate contact and adjusted to dimensions with allowance for any weld shrinkage that is expected. Weld stainless steel-to-stainless steel sections with low hydrogen-type electrodes. No members are to be spliced without prior review by the Engineer. All welds on exposed surfaces shall be ground smooth before finishing. If cracks of any size appear in installed items, the components shall either be repaired in the field or removed and refabricated as necessary to remediate cracking, at the discretion of the Engineer.

Fabricate perforated stainless steel panels such that hole pattern maintains the same orientation for all panels, with one direction of holes being precisely level. Care shall be taken in tack-welding the interior of panels to avoid interfering the hole pattern. Such obstructions shall be ground and removed to the satisfaction of the Engineer.

All exposed edges of stainless steel shall be eased to a consistent 1/16" radius, except where otherwise noted on the drawings.

Fabricate temporary steel bracing and support as necessary to support granite balustrade to allow installation of stainless steel threshold and coping support. Stone shall be protected from direct contact with bracing steel to prevent rust stains on existing stone to remain.

- (C) Installation: Workmanship shall be in accordance with AISC Specifications and as specified herein. Temporary bracing shall be provided wherever necessary during assembly and erection, and shall be left in place as long as required. It is the Contractor's responsibility for safe practice in this regard. Install materials and systems in proper relation with adjacent construction and with uniform appearance. Coordinate with work of other sections. Install enclosure elements after danger of damage from construction traffic has past.

Examine the areas and conditions where the fabrications are to be installed. Notify the Engineer of any conditions detrimental to the proper installation and subsequent use, and timely completion of the work. If substrate preparation is the responsibility of another installer, notify Engineer of unsatisfactory preparation before proceeding. Do not proceed with the work until unsatisfactory conditions are corrected to permit proper installation of the work. Verify in writing.

Provide anchorage devices and fasteners where necessary for securing fabricated elements to in-place construction.

Perform cutting, core-drilling and fitting required for installation of railing fabricated elements. Set fabricated elements accurately in location, alignment and elevation, plumb,

level and true, measured from established lines and levels. Set vertical elements plumb within a tolerance of 1/32" per foot and align so variations from level for horizontal or from parallel with wall slope do not exceed 3/16" per 10 feet. Holes to receive fabrications shall be cleanly core-drilled in granite and other masonry surfaces using the smallest size diameter to fit, with not more than 1/8" additional diameter. Holes shall be accurately located per layout plans, and shop drawings shall be prepared to fit the hole locations as field-verified. The holes shall be of the depths indicated on the Contract Drawings.

Care shall be taken while drilling in granite such that no damage will be done. Utilize low-vibration drilling equipment and methods. Any damage to masonry surfaces resulting from drilling operations shall be remediated by the Contractor at no additional cost to the City, which may include replacement of whole granite units. No repair of granite involving gluing or patching will be allowed.

Fit exposed connections accurately together to form tight, hairline joints or, where indicated, with uniform reveals and spaces for sealants and joint fillers. Where cutting, welding and grinding are required for proper shop fitting and jointing of ornamental metal items, restore finishes to eliminate any evidence of such corrective work.

Do not cut or abrade finishes that cannot be completely restored in the field. Return items with such finishes to the shop for required alterations, followed by complete refinishing or provide new units as required.

Field Welding: Comply with applicable AWS specification for procedures of manual shielded metal-arc welding, for appearance and quality of welds made, and for methods used in correcting welding work. Weld connections that are not to be left as exposed joints, but cannot be shop welded because of shipping size limitations. Grind exposed welded joints smooth and restore finish to match finish of adjacent rail surfaces.

Install perforated steel doors with hinge plate connections bolted and/or tack-welded to steel support columns until balancing and alignment of doors is approved by the Engineer, before final welding.

- (D) Protection: Restore protective coverings that have been damaged during shipment or installation of the work. Remove protective covering as soon as need for protection has passed, but no later than time of Substantial Completion.

Retain protective coverings intact and remove simultaneously from similarly finished items to preclude non-uniform oxidation and discoloration.

Restore finishes damaged during installation and construction period so that no evidence remains of correction work. Finish

shall be fully restored to the satisfaction of the Engineer at time of Substantial Completion. Return items which cannot be refinished in the field to the shop; make required alterations and refinish entire unit, or provide new units as required.

Protect existing stone to remain from rust or abrasion from temporary steel bracing.

8.23S.7. MEASUREMENT.

(A) STAINLESS STEEL THRESHOLD

The quantity measured for payment shall be the number of Stainless Steel Thresholds actually installed at the site to the satisfaction of the Engineer.

(B) PERFORATED STAINLESS STEEL ENCLOSURE

The quantity measured for payment shall be the number of Perforated Stainless Steel Enclosures actually installed at the site to the satisfaction of the Engineer.

8.23 S.8. PRICES TO COVER.

(A) STAINLESS STEEL THRESHOLD

The contract price bid for Stainless Steel Threshold shall cover the cost of all labor, materials, fabrication, equipment, plant, insurance, and necessary incidentals required to complete work of installing complete threshold; all in accordance with the Contract Drawings, the specifications and the directions of the Engineer.

(B) PERFORATED STAINLESS STEEL ENCLOSURE

The contract price bid for Perforated Stainless Steel Enclosure shall cover the cost of all labor, materials, fabrication, equipment, plant, insurance, and necessary incidentals required to complete work of installing complete enclosure, including but not limited to, all setting, anchoring, and finishing, 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
8.23 SSP	PERFORATED STAINLESS STEEL ENCLOSURE	EACH
8.23 SST	STAINLESS STEEL THRESHOLD	EACH

SECTION 8.26 R
Existing Stone Wall Restoration

8.26R.1. DESCRIPTION. Under this Section the Contractor shall furnish all labor, materials, plant, equipment, and necessary incidentals required to modify the existing granite wall and balustrade wall as necessary to allow stair and ramp construction through the wall and balustrade as shown on the Contract Drawings or as ordered by the Engineer. The work shall include scaffolding, stabilizing, and protecting the existing portions of the wall to remain; accurate cutting of existing wall stone in place in order to remove part of specific stone units; removal of existing wall stones, balusters and anchoring devices where required; partial reconstruction of portions of the wall; repair of damage; repointing of existing walls as deemed necessary by the Engineer; cleaning of the stone to remain; transport and delivery of salvaged wall stone removed from the project site to the NYC DOT 207th Street Bronx storage yard; all in accordance with the Contract Drawings, the specifications and as directed by the Engineer.

Granite stairs, exterior steel ramp, and related steel threshold shall be covered under their respective items as described on the Contract Drawings.

Reference Standards shall conform to **Section 9.95 G: Dimensioned Granite Masonry** herein Addendum 1.

Delivery, storage, fabrication and installation standards for new and replacement granite shall conform to **Section 9.95 G: Dimensioned Granite Masonry** herein Addendum 1, except that stone and joints shall match existing granite as described herein.

8.26R.2. MATERIALS. Stone for wall reconstruction shall comply with **Section 9.95G.2.A** of Addendum 1, except that stone shall match existing granite in color, texture, and finish, to the satisfaction of the Engineer. No separate payment will be made to remedy any damage to existing stones and/or balusters. The contractor shall replace such stone to the satisfaction of the Engineer at no additional cost to the City.

Mortar shall be Type 1 and shall be in accordance with the requirements of **Section 3.07** of the NYCDOT Standard Highway Specifications. Color of sand and pigment to be added shall be subject to approval by the Engineer. Color of mortar shall match color of the existing mortar used in joints of the existing rubble masonry wall.

Anchors: Provide anchors of type and size indicated on Contract Drawings and as required to support stonework. Unless otherwise indicated, each stone unit shall be set with a minimum of two 0.5" x 6" length stainless steel dowels set in drilled holes, set the maximum distance apart and approximately 6" from each end. Dowels shall be anchored with epoxy grout. Stainless steel shall be Type 304 unless otherwise indicated on the Contract Drawings.

Epoxy grout for attaching granite to stainless steel anchors and supports shall be a high-modulus, low-viscosity, high-strength epoxy grouting/sealing/binder adhesive such as "Sikadur 35 Hi-Mod LV" as manufactured by Sika Corporation, www.usa.sika.com, or equivalent product by Integra Adhesives, www.integra-adhesives.com, or Mapei, www.mapei.com, or other approved equivalent.

Epoxy adhesive for installing granite "Dutchman" for repairs shall be a two-part epoxy adhesive suitable for exterior applications requiring strong bond of granite materials. Cured color shall match granite to the satisfaction of the Engineer.

Joints: Width shall match that of equivalent areas of adjacent existing walls, and shall be approved by Engineer prior to work.

Lead or plastic buttons used shall be of the thickness required for the joint size shown or specified, and of the size required to maintain a uniform joint width, and meet the load requirements of stone installation condition.

Concrete shall conform to **Section 4.06** of the NYCDOT Standard Highway Specifications, and shall be paid under the **Item 4.06**.

Steel Reinforcement shall conform to **Section 4.14** of the NYCDOT Standard Highway Specifications, and shall be paid under the **Item 4.14**.

Prior to Commencement of Work, the Contractor shall submit the name of the stone setters he proposes to use, along with their respective work history experience for approval of the Engineer.

8.26R.3. SUBMITTALS. All submittals shall be as per NYC DOT Standard Highway Specifications, under Division 1 Contract Requirements, **Section 1.06.31**.

- (A) Submit qualifications data as required under Quality Assurance.
- (B) The Contractor shall submit Shop Drawings when required, in accordance with the requirements of the **Section 1.06.13** of NYC DOT Standard Highway Specifications. Submit work plan and shop drawings describing methods for scaffolding, stabilizing existing stone to remain, protecting existing portions of the wall to remain, accurate cutting of existing wall stone in place in order to remove part of specific stone units, removal of existing wall stone where required, fabrication of new stone units, partial reconstruction of portions of the wall, repair of damage, cleaning of the stone to remain, transport and delivery of salvaged wall stone removed from the project site to NYC DOT 207th Street Bronx storage yard.
- (C) Photographs: Submit clear, high-resolution color digital images in jpg format recording existing conditions for all stone to be modified, or adjacent to any stone to be modified, including overall and detail images of front, top, bottom, and rear views of

balustrade wall and installation configuration of materials to be reconstructed, taken prior to the commencement of excavation.

- (D) Sawcut Marking: Prior to sawcutting of existing stone, mark in non-permanent media all lines to be cut on existing stone, for approval of the Engineer. Marking for all sawcuts shall be prepared concurrently for one review by the Engineer.
- (E) Submit minimum 1"x6"x6" stone sample, quarry source information, and material properties data for stone to be supplied for the work in conformance with **Section 9.95 G** Dimensioned Stone Masonry.
- (F) Submit product data and samples for each installation material item including fitting hardware, fastening devices, accessories, mortars, caulk, grouts, and the like. Provide color samples for epoxy adhesive matching granite, for selection by the Engineer.
- (G) Mock-ups: Prepare mock-ups for radius treatment, repointing, granite filling and repairing, and other mock-ups as required herein for review by the Engineer prior to executing actual work.
- (H) Contractor Qualifications: Restoration work shall be performed by a firm that can exhibit proof of a minimum seven (7) years of prior successful experience with stone restoration of equivalent type and similar scope to this project.

8.26R.4. METHODS.

- (A) Stone Fabrication: Fabricate new stone for pier modifications, replacement of any stone damaged in the course of restoration work, or where existing stone units cannot be utilized. For any existing granite masonry damaged in the course of the work, replace or repair masonry to the satisfaction of the Engineer at no additional cost to the City. Fabricated replacement units shall match existing shapes including curvature, indentations, and angles of sectional profile.
- (B) Preparation: Verify all measurements and dimensions and coordinate the installation of support structures for this work. Coordinate and schedule stonework fabrications and installations with the work of other related trades. Fabricate and install temporary and permanent support, bracing, or shoring structures as required to protect and support existing masonry, and as indicated on the Contract Drawings.
- (C) Protection: Protect existing masonry and other elements to remain. Care shall be taken to prevent rust stains or other staining of stone to remain by contact with temporary metal support structures. Protect mortar materials and stone accessories from weather, moisture, and contamination with earth and other foreign materials. Do not use mortar materials to install stone when the temperature is below 4 degrees Celsius (40 degrees Fahrenheit). When exposed during construction activities, protect

partially completed stonework against weather when work is not in progress. Cover top of uncompleted work sections with strong, waterproof, non-staining membrane extending down both sides of walls and anchor securely in place.

- (D) Excavation and Removal: Excavate with hand tools the interior side of balustrade wall as necessary to allow installation of structural reinforcement, installation of temporary support structures, removal of required stone units, and installation of new or salvaged stone as required. Remove dirt and debris from surfaces upon which concrete or other structural reinforcement shall contact.
- (E) Sawcutting: Accurately mark on existing granite, in non-permanent media, cutting lines for all sawcutting of the existing stone and masonry joints. Do not cut stone without prior approval of the Engineer of the sawcut lines. Erect jigs and other support as necessary to accurately guide sawcutting. Make vertical and horizontal cuts along straight lines, using equipment of minimum size necessary to achieve cuts, minimize vibration, and protect stone to remain.
- (F) Chiseling: Where access is limited, perform multiple sawcuts as necessary to limit vibration and disturbance of existing stone units to remain. Where necessary, sawcutting may alternate with use of small hand-held pneumatic chisel tools hand tools in order to remove granite surfaces to exact depth and planes required for the work.
- (G) Removal of Existing Stone Units: Using only hand tools and experienced workmen, carefully remove existing stone units designated for removal. Remove only those stone units that have been specifically identified on the drawings for removal, and any additional stone as directed by the Engineer. Sawcut through joints as necessary to sever metal dowels that may hinder removal. Lift stone units from position using webbed nylon slings, and guide from removal location using wood or steel supports as necessary to prevent impact with existing stones to remain that would cause damage or dislodgment.
- (H) Storage of Salvaged Stone: Place salvaged stone units individually and securely on wood pallets stored in location as directed by Engineer, being careful not to let units contact each other. Do not pile units. For any stone units that must be reinstalled, clearly identify removed units on non-exposed surfaces for later reconstruction.
- (I) Re-finishing and Repair of Stone: Using hand tools, remove existing mortar and other extraneous debris from surface of stone units that will remain or be re-installed. For previously-unexposed stone surfaces that will be visible after completion of the project, sandblast, texture with chisel, or flame the exposed surface to the satisfaction of the Engineer to remove mortar or other material and provide a clean finish. As directed by the

Engineer, install "Dutchman" inserts in dowel holes or other depressions as required utilizing matching existing stone pieces cut to accurate shapes, set with matching-colored epoxy repair adhesive. Epoxy joint width shall not exceed 1/8". Alternatively, if directed by the Engineer, the Contractor shall perform such filling or repairs utilizing a suitable mixture of matching granite dust and epoxy material. Filling and repairs shall match example granite surfaces in color and finish texture.

- (J) Radius Edge Treatment: Where existing stone corners must be finished to a radius as required on the Contract Drawings, utilize hand-operated power grinder with jig as necessary to form an accurate and consistent radius. Flame radiused surface to a thermal finish matching remainder of stone unit. Prior to executing the radius treatment on stone to remain, grind and finish a sample radius on minimum 12" length of unexposed stone corner or on excess stone units, for approval by Engineer before proceeding.
- (K) Anchorage Devices: Install stainless steel dowels and other anchorage devices as shown on the Contract Drawings. Drill holes in granite to receive anchorage devices using tools and support as required to allow accurate drilling and protection of the stone. Drill holes to depth required and install a compressible filler inside the cavity to prevent stone units from bearing on dowels or anchors such that cracking may occur. Set anchorage devices in stone with epoxy grout.
- (L) Stone Setting: Setting of new or salvaged stone shall be done by competent stone setters, in accordance with the Contract Drawings. Before being set, all stone shall be clean and free of ice, frost, and old mortar. Unless otherwise shown, each piece shall be carefully bedded in a full bed of mortar and tapped home with a rawhide mallet or by other suitable means to a full and solid bearing. Particular care shall be exercised to equalize bed and joint openings and eliminate the need for redressing of exposed surfaces. Exposed surfaces shall be kept free of mortar at all times. Tolerances and other standards for stone setting shall be same as specified in **Section 9.95 G Dimensioned Granite Masonry**.
- (M) Joints: Joint treatments shall match those of the existing wall, per specific example locations for each condition, to be approved by the Engineer. All joints and beds shall be completely filled, then raked out to a depth of not less than 3/4", and every precaution shall be taken to prevent direct bearing contact between pieces. Except where matching existing joints requires otherwise, all joints and beds, previously raked, shall be brushed clean and pointed with mortar to a flat cut joint. When thumb print hard, the joints and beds shall be tooled with a round jointer having a diameter 1/8" larger than the width of the joint. Joints shall match those of the existing wall in both size and grouting material.

- (N) Cleaning: After being pointed the stone work shall be carefully cleaned starting at the top, removing all dirt, excess mortar, stains and other defacements. Stainless steel wire brushes or wool may be used, but the use of other wire brushes or of acid or other solutions which may cause discoloration is expressly prohibited. Remove graffiti, stains, and other defacements from all stone surfaces to remain within the project limits, to the satisfaction of the Engineer.
- (O) Repointing: Repoint any joints deemed to require repair by the Engineer, matching approved mock-ups, utilizing skilled workers. Prepare mock-up matching sand, cement color and overall appearance of existing joints identified as "example" joints by the Engineer, for approval by the Engineer before proceeding. For joints designated for repointing, remove such existing joints to 2.5 times the width of the existing joints, or as directed by the Engineer. Any loose or disintegrated mortar beyond this minimum depth also should be removed. Utilize hand tools or small pneumatically-powered chisels as necessary to minimize vibration or disturbance of stone. Remove mortar cleanly from between the stone units, leaving square corners at the back of the cut. Before filling, the joints should be rinsed with a jet of water to remove all loose particles and dust. At the time of filling, the joints should be damp, but with no standing water present. Where existing mortar has been removed to a depth of greater than 1 inch, these deeper areas should be filled first, compacting the new mortar in several layers. The back of the entire joint should be filled successively by applying approximately 1/4 inch of mortar, packing it well into the back corners. This application may extend along the wall for several feet. As soon as the mortar has reached thumb-print hardness, another 1/4 inch layer of mortar approximately the same thickness may be applied. Apply successive layers in same manner to fill the joint flush with the outer surface of the masonry. Allow each layer time to harden before the next layer is applied. When the final layer of mortar is thumb-print hard, the joint should be tooled to match the existing example joint with uniform color and appearance. Mist with water and cover joints with burlap as necessary to maintain optimum curing appropriate for weather conditions.
- (P) Excess Stone: Transport and deliver all excess salvaged wall or balustrade stone to the NYC DOT 207th Street Bronx storage yard in New York City, as directed by the Engineer. If directed by the Engineer, specifically-identified units of stone may remain on the site to be utilized for seating, as defined in the Contract Drawings.

8.26R.5. MEASUREMENT. Quantity measured for payment shall be the number of cubic yards of the existing stone wall (granite blocks, piers, coping and balustrades) removed to allow for ramp and stair construction in accordance with the Contract Drawings, to the satisfaction of the Engineer.

8.26R.6. PRICES TO COVER. The cubic yard unit price bid shall cover the cost of all labor, materials, plant, insurance, equipment, and all necessary incidentals required to execute the work, including, but not

limited to, scaffolding, stabilizing, and protecting the existing portions of the wall to remain; cutting of existing wall stone in place in order to remove part of specific stone units; removal of existing wall stones, balusters and anchoring devices where required; partial reconstruction of portions of the wall, including blocks, piers, coping, and balusters; repair of damage; repointing of existing walls, cleaning of the stone to remain; transport and delivery of salvaged wall stone removed from the project site to the NYC DOT 207th Street Bronx storage yard; all in accordance with the Contract Drawings, the specifications, and direction of the Engineer.

Payment will be made under:

Item No.	Item	Pay Unit
8.26 R	STONE MASONRY WALL RESTORATION	C.Y.

SECTION 9.95 G
Dimensioned Granite Masonry

9.95G.1. DESCRIPTION. This Section describes the furnishing and installation of all dimensioned granite masonry indicated, including Granite Stair Treads, Granite Terrace Seating Units, Granite Slab Paving, and Granite Veneer, in accordance with Contract Drawings, the specifications and the directions of the Engineer. This section does not pertain to granite street curbs, which are specified in **Section 4.07** of the NYCDOT Standard Highway Specifications, to Granite Block Pavers, which are specified in **Section 6.06** of the NYCDOT Standard Highway Specifications, or to Granite Seating Installation, which are specified in **Section 9.95 GSI** herein Addendum 1.

9.95G.2. MATERIALS

(A) Stone Materials

All stone shall be carefully selected, from sound stock, and free from defects impairing strength, durability or appearance, such as cracks, seams, starts, holes, flaws, or imperfections, which have been patched or filled. All stone shall be uniformly consistent in color, value, graining texture, and other features to the extent inherent in the specified stone type. Color and value variations shall be within ranges established by approved samples.

Graining and texture variations, whether highly figured or uniform, shall be consistent in all material supplied. Material sources and quarry locations shall be approved by Engineer for each stone type.

All granite shall be "Laurentian Green", a medium-grained granite of dark grey/green color, with dark grey and medium green/grey grains veins, of compressive strength greater than 22,000 psi (MPa) per ASTM C 170, density of 177.9 lb/cf per ASTM C 97, and absorption rate of 0.12% per ASTM C 97, as supplied by the following:

- (1) Furlong & Lee Stone Sales, Inc.
51 East 42nd Street, Suite 1409
New York, NY 10017
Phone#: (212) 986-3828
- (2) Polycor Granite Corporation
139, St-Pierre Street
Quebec City Quebec
Canada, G1K8B9
Phone#: (418)692-0981
- (3) Granite Groupe Solutions,
47, Chemin du Brûlé
Lac-Beauport Quebec

Canada, G3B0P3
Phone#: (418)559-9423

(4) or approved equivalent.

Stone from other suppliers may be deemed acceptable as "equivalent" based on criteria including individual specimen color and texture, material properties, contrast and compatibility of texture and color with other material specified. The Engineer shall be the sole arbiter of such compatibility.

Source Quality Control of Stone Material: Furnish testing of each granite stone type and finish for this Project, prepared by an approved independent and qualified testing agency. Tests shall be performed at thickness of 1.5" and with selected finished stone top surface. Granite materials shall conform to ASTM C 615, Granite Building Stone. Test reports for stone materials shall show and list minimum values for the following physical characteristics as a minimum: Modules of rupture, ASTM C 99; Compressive strengths, ASTM C 170; Absorption, ASTM C 97; Flexural Strength, C 880. Provide mineral and chemical compositions of stone and identification of any material composition that may cause staining within stone or on surface of stone such as iron pyrites or other detrimental material.

(B) Stone Fabrication

Stone shall be cut to sizes, shapes, dimensions, and details shown for each type and condition. Relate to and adjust stone fabrication together with installation requirements specified, herein. Include all cutting, drilling, and fitting of stone required to accommodate the work of other trades.

Where shapes are indicated on Contract Drawings as curved, either graphically or in text, edges shall be cut to true radii. Where elements curve horizontally and slope vertically, curvature shall be accurate in the horizontal plane.

Exposed surfaces and edges of stone units shall be free from cracks, broken corners, chipped edges, scratches, or other defects affecting appearance. No patching, joining, or hiding of defects will be permitted.

Provide stone of the thickness specified or otherwise shown as a minimum. Maximum variations in thickness from that shown shall not exceed 1/8" on units 4" or less.

Cut stone full and true on faces, reveals, beds, joints, and top to the full dimensions required by Contract Drawings. All sawn edges shall be straight and true. Maximum deviation from straight line or radii indicated shall not exceed 1/16" when measured with a 10' straightedge or radial template, or plus or minus one-fourth the width of joints, whichever is more stringent. All units shall

fit together accurately. Final placement and locational tolerance per artist approval.

Fabricate stone so that joints between units shall be as shown on Contract Drawings typically for alignment and spacing. Make faces of stone in same plane flush at joints. All finished surfaces of stone panel and coping units shall be true and out of wind.

Typical joint width shall be 1/4" unless otherwise specified in the Contract Drawings.

Shop Cutting, Drilling, and Fitting: Include all cutting, drilling, and fitting of stone required to accommodate the work of other trades. In cutting and fitting, carefully cut and grind edges to a neat, tight, fit. Cutting shall be in such a manner so as not to impair strength or appearance. Use physical templates (not just drawing dimensions) for all cutting and drilling. Obtain required templates from appropriate trades and suppliers.

Exposed Faces and Edges: Provide finish characteristics and quality indicated for each stone material type, condition of use, and as approved. Exposed stone surfaces shall be "Thermal" and "Rock-Face" finishes as defined by National Building Granite Quarries Association (NGBQA). Thermal finish shall be mechanically applied by flame in the long dimension of finished work. The application of thermal finish shall be controlled to avoid any visible directionality. Rock-Face finishes shall be pitched from neat corners with a chisel, to the tolerances indicated on the Contract Drawings.

(C) Installation Materials

Furnish all anchors, cramps, dowels, tiebacks, and the like fitting hardware as necessary to properly secure stone units. Types to be approved, of sizes and shapes to fit each particular support condition encountered. Hex bolts, nuts, locknuts and washers shall be stainless steel Type 316. All other metal components for exterior work shall be stainless steel, Type 304, nonmagnetic, unless otherwise indicated on the drawings. Wherever Stainless Steel and Structural Steel are in contact with each other, the Contractor shall provide a 1/4-inch thick separator gasket as approved by the engineer.

Lead or plastic buttons used shall be of the thickness required for the joint size shown or specified, and of the size required to maintain a uniform joint width, and meet the load requirements of stone installation condition.

Non-shrink epoxy grout for setting stainless steel dowels, handrails, etc., shall be of a type specifically intended for excellent performance in grouting metal into masonry.

Grout for mortar joints shall be colored, packaged epoxy grout as Laticrete Spectralock Pro Premium Grout, or equivalent type by Sika or Sonneborn, or approved equivalent. Color shall be as

selected from a full range of manufacturer's colors by the Engineer.

Mortar Setting Beds shall be Laticrete 3701 Fortified Mortar Bed, or approved equivalent by Sika, Sonneborn, or approved equivalent.

Setting Adhesive and Slurry Bond Coat shall be Laticrete 254 Platinum, or approved equivalent adhesive type by Sika, Sonneborn, or approved equivalent.

Caulk/Expansion Joint Materials:

- (1) Joint filler material shall be an approved premolded non-bituminous material, compatible with backer rod and sealant.
- (2) Backer rod shall be closed cell polyethylene backer rod.
- (3) Sealant at horizontal surfaces shall be "Sonolastic NP II" two-part elastomeric polyurethane, or approved equivalent type by Sika or Pecora, or approved equivalent. Color shall be as selected from a full range of manufacturer's colors by the Engineer.

9.95G.3. QUALITY ASSURANCE.

- (A) References Standards (as applicable generically to stone type(s) or material specified: National Building Granite Quarries Association (NBGQA); American Society for Testing and Materials (ASTM); American National Standards Institute (ANSI); American Iron and Steel Institute (AISI). In case of conflict between the referenced standards, codes, or Contract Documents, the referenced standard, code, or Contract Document having the more stringent shall govern as approved by Engineer.
- (B) Fabrication Qualifications: Stone fabrications shall be by a firm or firms that have successfully fabricated stonework similar to the quality and in the quality shown of each material type and condition, specified, and in the quality specified, for a period of not less than 5 years. Special attention is drawn to the radially-curved, tapering granite stair treads of five steps above the stairs landing, and the rock-face finish of the radially-curved Granite Terrace Seating Units. Fabricator must demonstrate ability to fabricate these elements to the lines and contours as indicated on the Contract Drawings, by submission of photographs of similar projects.
- (C) Installation Company Qualifications: Erection of stonework shall be by a firm that can exhibit proof of expertise in the field and prior successful experience with stone installations of equivalent type and similar scope to this Project.

9.95G.4. SUBMITTALS. All submittals shall be as per NYC DOT Standard Highway Specifications, under Division 1 Contract Requirements, **Section 1.06.31.**

- (A) Submit complete data on quarry facilities for each stone type and on fabrication facilities for stonework. Include information of

location, production capabilities, and the nature and character of each stone selected.

- (B) **Installer Qualifications:** Submit to identify and exhibit installation company qualifications as specified herein.
- (C) **Stone Material Properties Data:** Material properties data for each stone material type shall be submitted by the stone suppliers and certified as representative of the properties of stone material to be supplied for the Project. Include references to appropriate ASTM tests as conducted by a certified testing laboratory.

Submit product information for each installation material item including fitting hardware, fastening devices, accessories, mortars, caulk, grouts, and the like.

- (D) **Shop Drawings:** The Contractor shall submit Shop Drawings when required, in accordance with the requirements of the **Section 1.06.13** of NYC DOT Standard Highway Specifications. Submit overall and detailed plans, sections, and elevations as necessary to accurately and fully describe the required elements for each stone material type furnished and each related application condition of the project work. Include necessary coordination and preparation of composite drawing information together with installation trades contractors of different components, including railings, edgings, and concrete foundations. Establish and verify locations of expansion joints, which shall be coordinated with concrete shop drawings. All shop drawings for items under this section shall be submitted concurrently.

Submit complete Cutting and Setting Drawings showing shop sizes, shapes, thickness, jointing, anchoring, connection with other work, typical and special anchoring details, supports, dimensions, and setting numbers for each piece. Setting Drawings shall show relationship to adjoining construction and, after fabrication and final selection, shall indicate the location of each stone unit with a number designation corresponding to number marked on each unit. Show location layouts and patterns coordinating with Contract Drawings and related survey control points and dimensions. Establish and verify dimensions with concrete work of on-site walls, masonry layouts and patterns, and other like conditions. Show location, type, and extent of anticipated field cutting and finishing. Do not fabricate any stone (except for samples) until Engineer has approved Shop Drawings for fabrication.

Submit product information for each installation material item including fitting hardware, fastening devices, accessories, mortars, caulk, grouts, and the like.

- (E) **Stone Samples:** Submit set of 3 unit samples, minimum 2 square feet surface area, of each stone material and each stone finish type. Include in each set the full and extreme range of exposed

color, texture, and finish to be expected in the completed work. Engineer's review will be in for color, texture, and finish only. Compliance with all other requirements is the exclusive responsibility of the Contractor. Approved samples shall set the finish standard for the work.

- (F) Grout and Sealant Material Samples: Submit samples for each condition of use to show selected colors. Submit samples of eight colors closest in coloration to the granite when the granite is wetted.
- (G) Stone Support and Accessory Items Samples: Submit samples for each type and material composition, full size.
- (H) Mock-Ups: Construct at the earliest possible time and at approved location, before proceeding with work and after Engineer's approval of submitted samples. Submit proposed locations for typical field samples/mockups, and receive approval of locations prior to construction of field samples. Mock-up shall be per Contract Drawings unless otherwise directed, using materials, setting bed, pattern and joint treatment. The field mock-up/sample must be approved by the Engineer before the actual work may proceed. If necessary remove and reconstruct field sample until approved. Accepted mock-up establishes minimum standard of quality and workmanship for granite masonry work of this section. Demolish and remove field sample at a time approved by Engineer when no longer required to serve as standard of work. Mock-up may be incorporated as part of work if conforming to the specified requirements, and if accepted by the Engineer. Provide and construct mock-ups as follows:
 - (1) Granite Stair Treads: minimum 6 linear feet, in combination with Granite Terrace Seating Units and Granite Slab Paving.
 - (2) Granite Terrace Seating Units: minimum 6 linear feet
 - (3) Granite Slab Paving: minimum 10 square feet.

(I) Delivery, Storage, and Handling

Protect, store, and handle stone materials as recommended by stonework fabricating company in addition to requirements specified herein.

Properly crate and band stone units for shipment receiving at job site. Crating of stone and packaging accessory item shall be respective and related to the conditions for installation.

Handle each stone material type to prevent chipping, breakage, soiling, or other damage. Do not use pinch or wrecking bars without protecting edges of stone with wood or other rigid materials.

Store stone materials on wood skids or pallets, covered with non-staining, waterproof membrane. Place and stack skids and stone to

distribute weight evenly and to prevent breakage or cracking of stone. Protect stone from detrimental weather conditions with waterproof, non-staining covers or enclosures, but allow air to circulate around stone during extended period of storage.

(J) Environmental Requirements

Protect mortar materials and stone accessories from weather, moisture, and contamination with earth and other foreign materials. Do not use mortar materials to install stone when the temperature is below 4 degrees Celsius (40 degrees Fahrenheit). When exposed during construction activities, protect partially completed stonework against weather when work is not in progress. Cover top of uncompleted work sections with strong, waterproof, non-staining membrane extending down both sides of walls and anchor securely in place.

9.95G.5. METHODS.

- (A) Preparation: Verify all measurements and dimensions and coordinate the installation of support structures for this work. Coordinate and schedule stonework fabrications and installations with the work of other related trades and separate contracts. Give particular attention to the location and size of cutouts required to accommodate mechanical, electrical, and other work or adjoining construction.

Verify that surface of foundation has suitably-roughened texture to receive setting mortar.

Clean dirty or stained stone surfaces by removing soil, stains, and foreign materials before setting. Clean stone by thoroughly scrubbing with fiber brushes and then drenching with clear water. Use only mild cleaning compounds that contain no caustic or harsh materials or abrasives.

Protection: Apply protective wax coating to stone surface if adhesive, mortar, epoxy adhesive or any other setting material would stain the stone. Wax shall be applied carefully to prevent contact with surfaces to be joined. Wax shall be steam-cleaned off after work is completed.

- (B) Installation: Do not use stone units with chips, cracks, voids, stains, or other defects that might be visible in the finished work. If installed, remove and replace with units meeting specification requirements and approval of the Engineer.

Execute work by skilled mechanics, and employ skilled stone fitters/cutters at site for necessary field cutting, as stone is set. Clean stone (especially edges) before setting.

Set stone in accordance with Contract Drawings and final approved shop drawings. Provide anchors, supports, fasteners, and other attachments shown, or necessary to secure stone in place. Shim and

adjust accessories as required for proper and correct setting of stone. Completely fill holes, slots and other sinkages for anchors, dowels, fasteners and supports with epoxy grout as applicable to conditions during setting of stone. Provide compressible filler in dowel holes as necessary to insure that stone units do not bear on dowels such that may cause cracking.

Setting Surfaces, General: Before starting the installation, the concrete slab, structural concrete, and all other surfaces to contact mortar materials shall be cleaned to remove soil and loose mortar. Dry or dusty concrete surfaces shall be wet down or washed and excess water removed just prior to the application of setting bed. Immediately prior to placing the setting bed, apply a slurry bond coat of approved setting adhesive to all surfaces to contact mortar materials. The mortar bedding course shall be placed, screeded and shaped upon the concrete base, its finished depth shall be as shown on the detail drawings and at correct depth to achieve required grades. The bedding shall be shaped to a true surface. For paving, the surface shall be parallel with surface of finished paving. For monolithic elements, the surface shall be parallel with the seating surface of the elements. The surface shall be formed by means of template or striking board (12' X 2" X 6" board). The bed shall then be struck off until proper alignment is secured. The area of bedding placed in any work day shall be scheduled so that no bedding course remains at the end of the day without stone installed. After final shaping, the bedding course shall not be disturbed prior to laying the stone.

Stone Setting, General: Wet stones thoroughly before setting and set stones before initial mortar set occurs. Do not set stone on dry mortar bed. To all surfaces of stone to contact mortar, apply slurry bond coat of approved Setting Adhesive. Care should be taken to prevent contact of Setting Adhesive with any surface of stone to be exposed. Do not apply slurry bond coat near exposed face of stone to any portion of stone that will contact grout.

For paving installation, apply slurry bond coat of approved Setting Adhesive to dry setting bed with a flat trowel according to manufacturer's directions. Apply skim coat of same slurry grout to underside of stones immediately before placement. After each section is laid, the entire area shall be beaten with a wooden block to produce a level surface and to embed the units in the mortar. Beating shall be done before mortar takes an initial set. Paving shall be laid in such a manner that units will not come loose from the effects of frost or water seepage.

Pavement areas shall be laid such that changes in slope shall be gradual. The intent of the grading and layout are to minimize instances where differential slopes result in instances where abutting stone pieces cannot be laid flush along joints. However, where differential condition occurs in excess of 1/16" variance in height or greater, the Contractor shall grind horizontal surfaces to eliminate differential, extending grinding as necessary to

eliminate differential, as determined by the Engineer. The Contractor shall then flame ground areas to match surrounding pavement finish. Cutting of stone pieces on lines other than joints indicated on Contract Drawings shall not be done without the written consent of the Engineer and approved layout of such additional joints.

For monolithic stone installation, including granite stair treads and granite terrace seating units, apply slurry bond coat and set stone unit in wet setting bed, providing supports as necessary to achieve accurate grades. Set stones with anchor dowels in full bed of mortar with back-up spaces and vertical joints slushed full, unless otherwise indicated. Stone surface shall be beaten with a wooden block as necessary to embed units in the mortar. Rake out joints for grouting before setting mortar has hardened. Rake joints to uniform depths with square bottoms and clean sides.

For veneer installation, anchor stone masonry to concrete or other masonry structural wall with approved anchors secured per manufacturer instructions. Embed veneer anchors in mortar joints of stone masonry at least halfway, but not less than 1-1/2 inches, through stone masonry and with at least a 5/8-inch cover on exterior face. Space anchors to provide not less than one anchor per 2 sq. ft. of wall area. Install additional anchors within 12 inches of openings, sealant joints, and perimeter at intervals not exceeding 12 inches.

Anchor veneer stone with stone anchors where indicated. Install anchors by fastening to substrate and inserting tabs and dowels into kerfs and holes in stone units. Provide compressible filler in ends of dowel holes and bottoms of kerfs to prevent end bearing of dowels and anchor tabs on stone. Fill remainder of anchor holes and kerfs with mortar.

After application of Setting Adhesive, set veneer stone in full bed of mortar with full head joints unless otherwise indicated. Build anchors into mortar joints as stone is set. Rake out joints for pointing with grout before setting mortar has hardened. Rake joints to uniform depths with square bottoms and clean sides.

For all granite installation, grout joints shall be installed with approved color and type of grout material in accordance with manufacturer instructions. Grout joints as soon as possible after initial set of setting bed. Employ all methods necessary to prevent dirt or other debris to enter ungrouted joints. If dirt or debris of any kind enters ungrouted joints despite these measures, clean joints completely according to grout manufacturer requirements before proceeding to grout installation. Force grout into joints, taking care not to smear grout on adjoining exposed stone surfaces. Compact each layer thoroughly and allow to it become thumbprint hard before applying next layer. Tool joints, when pointing mortar is thumbprint hard, with a smooth jointing tool to produce slightly concave profile. Cure grout as recommended by manufacturer.

Provide caulk joints when meeting adjacent vertical elements, at expansion joints, where shown on Contract Drawings, and where required to prevent stone cracking.

Caulk/Expansion Joints: Keep sealant joints free of dirt, debris, mortar, and other rigid materials. Caulk joints shall be finished cleanly per approved sample installation, with slightly concave section. Joints shall be one-quarter (1/4") inch in width unless otherwise specified on the Contract Drawings. Expansion joints shall be filled with non-extruding premolded joint filler to within 3/4" of the pavement surface. All caulk and expansion joints shall then be filled with two part urethane sealant over a foam backer rod. Sealant to be of an approved color to match surface of pavement, or other color as directed by the Engineer. Prepare joints and apply sealants of type and at locations indicated to comply with applicable requirements of the sealant manufacturer's instructions.

Include all field cutting, drilling, and fitting of stonework not performed in the shop and required to accommodate the work of other trades or contracts. In cutting and fitting, carefully cut and grind edges to a neat tight fit. Do cutting in such manner so as not to impair strength or appearance of stone.

Use physical templates for all cutting and drilling and obtain required templates from appropriate trades.

(C) Erection Tolerances:

Variation from true horizontal alignment or curvature: Do not exceed 1/8".

Variation from Plumb for lines and surfaces of walls and arises: Do not exceed 1/8" in 10'.

Variation from Level, Slope, and Grade: For grades, slopes, level conditions, and other conspicuous lines indicated, surfaces shall be true to grade, slope, and line indicated within 1/8" in any 20'.

Variation in Cross-Sectional Dimensions: For thickness of walls and other conditions from dimensions shown, do not exceed minus 1/8", nor plus 1/8".

Offset at Joints: Do not exceed plus or minus 1/16".

Tolerances shall not be accumulative.

(D) Protection: Prevent materials used for installing work of this Section from staining or damaging the exposed surfaces of stone units or the exposed surfaces of the adjoining construction. Immediately remove mortar, grout, wax, or other detrimental materials from exposed surfaces of stone or adjoining

construction. After installation, protect stonework from damage during subsequent construction activities.

- (E) **Cleaning and Repairing:** At Completion of Work, replace defective, broken, or damaged stone units installed as work of this Section. Unfilled or defective joints shall be properly repaired. After completion of any repair work, clean exposed surfaces of all stone units installed as work of this Section with clean water and stiff fiber brushes until all dirt, stains, efflorescence, mortar, and other defacements are removed. Use cleaner and procedures recommended by stone quarry and stone fabricating company. Do not use wire brushes, metal scrapers or acids. Protect adjacent surfaces from damage during cleaning operations.

9.95G.6. MEASUREMENT. The quantity to be measured for payment shall be:

- (A) **GRANITE SLAB PAVING**

The number of square feet of granite slab paving actually installed on setting bed with joints as indicated on the Contract Drawings, to the satisfaction of the Engineer.

- (B) **GRANITE STAIR TREADS**

The number of linear feet of granite stair treads as measured along the nose of the tread actually installed at the site, to the satisfaction of the Engineer, in accordance with the Contract Drawings, irrespective of thickness, depth or width of tread section.

- (C) **GRANITE TERRACE SEATING UNITS**

The number of linear feet of granite terrace seating units as measured along the nose of the seat actually installed at the site, to the satisfaction of the Engineer, in accordance with the Contract Drawings, irrespective of thickness, depth or width of unit section.

- (D) **GRANITE VENEER**

The number of square feet of granite veneer actually installed on setting bed with joints as indicated on the Contract Drawings, to the satisfaction of the Engineer.

9.95G.7. PRICES TO COVER.

- (A) **GRANITE SLAB PAVING**

The contract price for Granite Paving Bands per square foot shall cover that cost of all labor, materials, fabrication, plant, equipment, insurance, and necessary incidentals required for completing the work; all in accordance with the Contract Drawings, the specifications and the directions of the Engineer.

(B) GRANITE STAIR TREADS

The contract price for Granite Stair Treads per linear foot shall cover that cost of all labor, materials, fabrication, plant, equipment, insurance, and necessary incidentals required for completing the work; all in accordance with the Contract Drawings, the specifications and the directions of the Engineer.

(C) GRANITE TERRACE SEATING UNITS

The contract price for Granite Terrace Seating Units per linear foot shall cover that cost of all labor, materials, fabrication, plant, equipment, insurance, and necessary incidentals required for completing the work; all in accordance with the Contract Drawings, the specifications and the directions of the Engineer.

(D) GRANITE VENEER

The contract price for Granite Veneer per square foot shall cover that cost of all labor, materials, fabrication, plant, equipment, insurance, and necessary incidentals required for completing the work; 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
9.95 GSP	GRANITE SLAB PAVING	S.F.
9.95 GST	GRANITE STAIR TREADS	L.F.
9.95 GTS	GRANITE TERRACE SEATING UNITS	L.F.
9.95 GV	GRANITE VENEER	S.F.

SECTION 9.95 GSI
Granite Seating Installation

9.95GSI.1. DESCRIPTION. Under this Section the Contractor shall furnish all labor, materials, plant, equipment, and necessary incidentals required to install granite seating in accordance with the Contract Drawings, the specifications and the directions of the Engineer. The engraved granite seating units shall be provided by the project artist, Xu Bing Studio, under a separate contract.

9.95GSI.2. MATERIALS. Granite seating units shall be delivered to the site by the artist.

Concrete for foundation shall conform to **Section 4.06** of NYCDOT Standard Highway Specifications, and shall be paid under the **Item 4.06**.

Steel reinforcement shall conform to **Section 4.14** of NYCDOT Standard Highway Specifications, and shall be paid under the **Item 4.14**.

Pigmented concrete planter edge to be installed in the joint between seating units shall comply with the requirements of **Section 3.05** of NYCDOT Standard Highway Specifications, Class B-32, Type IIA. Cement shall be Type II Portland. Coarse aggregate shall be broken stone or gravel and comply with the requirements of **Section 2.02** of NYCDOT Standard Highway Specifications, Type 1, Grade B, or Type 2, Size No. 57. An approved air-entraining agent shall be added at the time concrete ingredients are mixed with water. Pigmenting material shall comply with the requirements of **Section 2.19** of NYCDOT Standard Highway Specifications, except that color admixture color shall be "C-24 Charcoal" as manufactured by L.M. Scofield, or equivalent color as manufactured by Davis Colors, or Lansco, or approved equivalent. Payment for pigmented concrete planter edge shall be included in this Item 9.95GSI, Granite Seating Installation.

The artist shall provide metal signage describing artwork, and the artist, to be placed on site per the Contract Drawings.

9.95GSI.2. QUALITY ASSURANCE. Reference Standards shall conform to **Section 9.95 G: Dimensioned Granite Masonry** herein in the Addendum 1.

Storage and installation standards for granite seating units shall conform to **Section 9.95 G: Dimensioned Granite Masonry**, herein in the Addendum 1 except as described herein.

Contractor Qualifications: Setting work shall be performed by a firm that can exhibit proof of a minimum five (5) years of prior successful experience with stone installation of equivalent type and similar scope to this Project.

9.95GSI.2. SUBMITTALS. All submittals shall be as per NYC DOT Standard Highway Specifications, under Division 1 Contract Requirements, **Section 1.06.31**.

Submit qualifications data as required under Quality Assurance.

Submit work plan describing methods for storage, moving, and setting granite seating units, describing materials and equipment to be used.

Submit product data and samples for concrete color admixture.

9.95GSI.3. METHODS.

- (A) Coordination: Prior to receipt of granite seating units from fabricator, the Contractor shall meet with the Engineer and Artist representative to review procedures and to receive Artist's layout plan from the Engineer. The Contractor shall review with the Artist and Engineer the details of the installation plan including methods for matching actual units with units identified on the plan, as well as required sequence, location, and orientation of each granite seating unit. The Contractor shall understand the granite seating units must be arranged such that text engraved in the surface of the granite can be read from a determined vantage point.

The Contractor shall review the Artist's layout plan for stone location, and signage location and inform the Engineer in writing if the layout plan conflicts with the construction documents and obtain the Engineer's approval prior to the installation of the above-mentioned.

The Contractor shall coordinate the etching of the stair landing after full completion of stair construction.

- (B) Delivery: The Contractor shall be responsible for lifting granite units from delivery vehicle and all subsequent placement.
- (C) Storage and Protection: The Contractor shall provide location on site for delivery of engraved granite seating units by the fabricator, and shall be responsible to protect existing and installed features of the project from damage due to delivery or installation activities. The Contractor shall be responsible to protect the engraved surface and all other exposed surfaces of the granite seating units, the engraved stair landing and artist signage from damage before, during and after installation, until final completion.
- (D) Stone Lifting and Placement: The Contractor shall provide equipment as necessary to lift granite seating units from delivery vehicle and to move and place them with engraved side facing outward. If stored on site prior to placement, granite seating units shall be placed individually and securely on wood pallets stored in location as directed by Engineer, being careful not to let units contact each other. Do not pile units. All lifting of granite seating units from delivery vehicle and during placement on site shall utilize only webbed nylon slings. Chains or cable

may not come into contact with granite seating units. Movement of granite seating units shall be guided with wood protection as necessary to prevent impact with other granite seating units or other features of the site.

Prior to installation of concrete foundation, the Contractor shall measure granite seating units to verify depth of foundation will allow sufficient clearance for proper installation of granite seating units in accordance with the top of seat elevations shown on the grading plan. The Contractor shall make adjustments in excavation depth as necessary for proper installation.

Install concrete base foundation for both curved segments of granite seating before proceeding to installation of granite units.

Following the layout plan provided by the Artist and Engineer, the Contractor shall place granite seating units in locations and orientation according to the Artist layout plan. The Contractor shall block up the units to the required elevation per Construction Document details and with the required slope according to the grading plan. Once all of the granite seating units have been blocked in proper position, the Engineer and the Artist shall review the installation. The Contractor shall notify the Engineer in writing 30 calendar days prior to the date the granite seating units will be ready for review. The Contractor shall prepare all the granite seating units for concurrent review, and shall provide grade stakes and string to indicate accurately the finish grades of concrete unit paving and planting soil adjacent to the granite seating units. The Contractor shall be present for Artist and Engineer review.

If the granite seating units are not ready for review on the date indicated by the Contractor, the Contractor shall notify the Engineer in writing of the revised date when the granite seating units will be ready for review. The Engineer will review the installation to verify that the granite seating units are ready for Artist review and shall notify the Artist if deemed ready. Once the Engineer has accepted the installation, a revised Artist review date shall be selected by the Artist and the Engineer for a date up to 30 calendar days from the date the granite seating units have been deemed by the Engineer as ready for review. The Contractor shall be responsible for protection of the granite seating units during that period. Any cost resulting from the delay shall be at the Contractor's expense.

The Contractor shall correct any vertical or horizontal alignment that is not accurate to the Artist layout plan, in the sole opinion of the Engineer. At the request of the Artist, the Engineer may request one additional relocation of any or all of the granite seating units up to 18" in any direction horizontally, 12" vertically in any orientation, and up to 60 degrees in rotation, at no additional cost irrespective of conformance with the Artist layout plan.

The Engineer shall be the sole judge of conformance with request for relocation. The Contractor shall perform further relocation requested by the Engineer, however such further relocation shall not be at the Contractor's expense.

Once the granite seating unit placement has been accepted, the Contractor shall pour setting concrete between the foundation and the bottom of the granite seating units in accordance with the drawings.

Prior to installation of pavers adjacent to the granite seating units, the Contractor shall install pigmented concrete planter edge in the joints between the granite seating units in accordance with the drawings and specifications, being careful to prevent staining of the granite seating units. After acceptance of the planter edge, the Contractor may install pavers and planting soil adjacent to the granite seating units.

- (E) Cleaning: The contractor shall protect and clean the granite seating units in accordance with the provisions of **Section 9.95 F Dimensioned Stone Masonry**.

9.95GSI.4. MEASUREMENT. The quantity to be measured for payment shall be the number of linear feet of granite seating units installed measured along the center line of the stone units actually installed to the satisfaction of the Engineer. The linear foot measurement shall include joint width between the stone units. Width of joints between stones shall vary between 0" and 8" at the discretion of the Artist.

9.95GSI.5. PRICES TO COVER. The price bid per linear foot of granite seating units installation shall cover the cost of all labor, materials, plant, equipment, insurance and all necessary incidentals required to execute the work, including but not limited to the installation of Artist signage, in accordance with the Contract Drawings, the specifications, the approved submittals, and the directions of the Engineer.

Payment will be made under:

Item No.	Item	Pay Unit
9.95 GSI	GRANITE SEATING INSTALLATION	L.F.

SECTION BL
Bicycle Loop Detector

BL.1. DESCRIPTION. Under this section, the Contractor shall furnish and install the Zelt Inductive preformed bicycle detector loops, connecting wire from loop to counter and counter in recessed cabinet as indicated in the Contract Drawings. The purpose of the Bicycle Loop Detector is to provide NYCDOT Bicycle Group with constant bicycle volume count at the Manhattan Bridge Bicycle Path.

BL.2. MATERIALS. Each Bicycle Loop Detector System consisting of preformed bicycle detector loops, connecting wire from loop to counter and counter in recessed cabinet shall include 5 feet wide by 16 inches in length Loop Detectors, counters, cellular transmission of data, 15-minute increment reporting, webpage development of count site, development of automated data transmission, pre-formed loops for installation, wire for saw-cut loops and delivery/shipping.

The counter shall be incased in a bucked-shaped manhole with the following dimensions; top diameter - 10 inches; bottom diameter - 13 inches and depth - 11 inches.

The items listed shall be supplied by the following:

Manufacturer:

Eco-Counter
600-3981 St-Laurent Blvd,
Montreal, QC, H2W 1Y5, Canada

Distributors:

- (1) Outdoor Counters
77 Atkinson Road Blibli, QLD 04560 Australia
- (2) Eco-Compteur
4 Charles Bourseul, 22300 Lannion Finland
- (3) Elmore Group
Kylemore Business Park, Kylemore Way, Dublin 10, Ireland
- (4) or approved equivalent.

(A) PERFORMANCE

The Loop induction counters shall be able to perform the following functions:

- (1) Count total amount of cyclists and also indicate cyclist direction
- (2) Reliably distinguish bicycles from other motorized traffic
- (3) Battery operated with a minimum one-year battery life
- (4) Able to transmit count data on a daily basis
- (5) Able to store count data for up to 11 months
- (6) Waterproof
- (7) Able to be installed either permanently or temporarily
- (8) Count data must be available in 15 minute increments

- (9) Count data must be accessible via a web-based interface
- (10) Count data must be transmitted to a NYCDOT server on a daily basis via an automated FTP (File Transfer Protocol)

The Engineer shall be the sole arbiter of such compatibility.

BL.3. SUBMITTALS. Follow the procedures in the General Conditions of **Section 1.06.31** of the NYCDOT Standard Highway Specifications.

- (A) Product Data: For each type of product indicated, prior to purchasing.
- (B) Shop Drawings: The Contractor shall submit Shop Drawings when required, in accordance with the requirements of **Section 1.06.13** of NYCDOT Standard Highway Specifications. List of legends and description of materials and installation.
- (C) Field quality-control test reports.
- (D) Operation and Maintenance Data: For wiring devices to include in all manufacturers' packing label warnings and instruction manuals that include labeling conditions.

BL.4. METHODS.

- (A) Delivery: The vendor shall enclose the counters and ancillary equipment in the necessary packaging to prevent breakage and damage and shall provide 48 business hour prior notification of delivery.
- (B) Installation: Prior to the installation of the bicycle loop detection system, the contractor shall implement the appropriate traffic control devices in accordance with the latest version of the FHWA Manual on Uniform Traffic Control Devices and the plans necessary to ensure the safety of the cyclists.

The bicycle loop detector system, including all ancillary equipment, shall be placed as shown on the Contract Drawings and installed in accordance with the manufacturer's installation guidelines and requirements. The final location of the loops and counter shall be approved by the Engineer prior to installation. The loop detection wires shall be placed after bicycle path pavement has been installed, with the counter installed prior to the installation of plaza pavement.

Final bicycle path pavement shall be sawcut as specified in **Section 6.55** of the NYCDOT Standard Highway Specifications and consistent with the pre-formed shape, size and layout of induction loop wires per the selected product's specifications and installation requirements. The loop shall be sealed/insulated with a joint sealant as specified in the product's installation manual, to the approval of the Engineer and shall not be paid separately. The contractor shall verify that there are no utility conflicts prior to its installation.

If at the time the installation Contractor considers the designated procedures or materials to be in conflict with this requirement, he or she will so inform the Engineer prior to carrying out the task and totally agreeable resolution will be affected.

- (C) Testing: The test described below shall be performed prior to and after the sealing of the loop slot. The slot and wire shall be checked for continuity, inductance, and insulation leakage. For the latter, a Megger meter shall be used (500 volts DC minimum). The resistance to ground shall be less than 2 ohms. Inductance shall be checked with a battery powered, portable "loop tester" which shall be approved by the Engineer. It shall have a minimum inductance measuring range from 80 to 150 micro henries, with an accuracy of 15 or better. The measurements shall be made without a vehicle over the loop.

The Contractor shall record the location and values of all measurements. Satisfactory results shall be obtained. These measurements shall be given to the Engineer.

- (D) Guarantees: The vendor shall guarantee the entire Bicycle Loop Detection System against defects to materials, parts, workmanship and failure to operate properly in a service period of ten (10) years after placed in service.

If the loop induction counter provided does not meet specifications, to the sole satisfaction of the Engineer, the City has the right to reject the loop induction counter and will not be responsible for any payment to the vendor.

BL. 5. MEASUREMENT.

- (A) Install Preformed Bicycle Detector Loops In Asphalt

The quantity measured for payment shall be the number of the preformed bicycle loops actually installed on site to the satisfaction of the Engineer.

- (B) Install Connecting Wire From Loop To Counter In Asphalt And Concrete

The quantity measured for payment shall be the number of the connecting wire installations from loop to counter actually completed on site to the satisfaction of the Engineer.

- (C) Install Counter In Recessed Cabinet Built Into Plaza

The quantity measured for payment shall be the number of the installations of the counter in recessed cabinet built into Plaza actually completed on site to the satisfaction of the Engineer.

No quantity will be included for material used for repair any damage to new or existing pavement.

BL.6. PRICE TO COVER.

(A) Install Preformed Bicycle Detector Loops In Asphalt

The unit price bid per each for this item shall cover the cost of furnishing all labor, materials, plant, equipment, insurance, and incidentals necessary to complete the work including, but not limited to, the installation of preformed bicycle detector loops, pavement sawcutting, all in accordance with the Contract Drawings, the specifications and the directions of the Engineer.

(B) Install Connecting Wire From Loop To Counter In Asphalt And Concrete

The unit price bid per each for this item shall cover the cost of furnishing all labor, materials, plant, equipment, insurance, and incidentals necessary to complete the work including, but not limited to, the installation of connecting wire from loop to the counter, pavement sawcutting, all in accordance with the Contract Drawings, the specifications and the directions of the Engineer.

(C) Install Counter In Recessed Cabinet Built Into Plaza

The unit price bid per each for this item shall cover the cost of furnishing all labor, materials, plant, equipment, insurance, and incidentals necessary to complete the work including, but not limited to, the installation of counter in recessed cabinet, bicycle detector system calibration and activation, 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
BL-1	INSTALL PREFORMED BICYCLE DETECTOR LOOPS IN ASPHALT	EACH
BL-2	INSTALL CONNECTING WIRE FROM LOOP TO COUNTER IN ASPHALT AND CONCRETE	EACH
BL-3	INSTALL COUNTER IN RECESSED CABINET BUILT INTO PLAZA	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, cables, 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: ASTM C 1107, factory-packaged, nonmetallic aggregate grout, noncorrosive, nonstaining, mixed with water to consistency suitable for application and a 30-minute working time.

PART 3 - EXECUTION

3.1 COMMON REQUIREMENTS FOR ELECTRICAL INSTALLATION

(A) Comply with NECA 1.

- (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

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 WC 70 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. O-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 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. 3 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 ITEMS E 260519 A, E 260519 B, E 260519 C, E 260519 D, E 260519 E and E 260519 F 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.	Pay Unit	Item
E 260519 B	LOW-VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES (NO. 2 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 F	LOW-VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES (NO. 12 AWG WIRE)	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 agency's 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 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.

2.2 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.

2.3 GROUNDING ELECTRODES

- (A) Ground Rods: Copper-clad steel; 5/8 by 96 inches in diameter.

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, nonshrink 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 corners 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 and Bonding for Electrical Systems to be paid for under ITEM E 260526 shall be the actual number

of linear feet of grounding conductors 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 conductor 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, and jumpers, 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	GROUNDING AND BONDING FOR ELECTRICAL SYSTEMS	L.F.

SECTION E 260529

(NOT A BID ITEM)

HANGERS AND SUPPORTS FOR ELECTRICAL SYSTEMS

PART 1 - GENERAL

1.1 SUMMARY

(A) This Section includes the following:

1. Hangers and supports for electrical equipment and systems.
2. Construction requirements for concrete bases and electrical enclosure bollards.

1.2 DEFINITIONS

(A) RMC: Rigid metal conduit.

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) Product Data: For the following:

1. Steel slotted support systems.
2. Steel pipe for electrical enclosure bollards.

(B) Shop Drawings: Signed and sealed by a qualified professional engineer. Show fabrication and installation details and include calculations for the following:

1. Steel slotted channel systems. Include Product Data for components.
2. Equipment supports.

(C) Welding certificates.

1.5 QUALITY ASSURANCE

(A) Welding: Qualify procedures and personnel according to AWS D1.1/D1.1M, "Structural Welding Code - Steel."

(B) Comply with New York City Electrical Code.

1.6 COORDINATION

(A) Coordinate size and location of concrete bases. Cast anchor-bolt inserts into bases. Concrete, reinforcement, and formwork requirements.

PART 2 - PRODUCTS

2.1 SUPPORT, ANCHORAGE, AND ATTACHMENT COMPONENTS

(A) Steel Slotted Support Systems: Comply with MFMA-4, factory-fabricated components for field assembly.

1. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include the following:

- a. Allied Tube & Conduit.
- b. Cooper B-Line, Inc.; a division of Cooper Industries.
- c. ERICO International Corporation.
- d. GS Metals Corp.
- e. Thomas & Betts Corporation.
- f. Unistrut; Tyco International, Ltd.
- g. Wesanco, Inc.
- h. Or an approved equivalent.

2. Metallic Coatings: Hot-dip galvanized after fabrication and applied according to MFMA-4.

3. Nonmetallic Coatings: Manufacturer's standard PVC, polyurethane, or polyester coating applied according to MFMA-4.
 4. Painted Coatings: Manufacturer's standard painted coating applied according to MFMA-4.
 5. Channel Dimensions: Selected for applicable load criteria.
- (B) Raceway and Cable Supports: As described in NECA 1 and NECA 101.
- (C) 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.
- (D) Support for Conductors in Vertical Conduit: Factory-fabricated assembly consisting of threaded body and insulating wedging plug or plugs for non-armored electrical conductors or cables in riser conduits. Plugs shall have number, size, and shape of conductor gripping pieces as required to suit individual conductors or cables supported. Body shall be malleable iron.
- (E) Structural Steel for Fabricated Supports and Restraints: ASTM A 36/A 36M, steel plates, shapes, and bars; black and galvanized.
- (F) 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 A 325.
 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.
- 2.3 STEEL PILE ELECTRICAL ENCLOSURE BOLLARDS
- (A) Description: Steel pipe bollards for electrical box enclosures shall be furnished and painted in accordance with the details shown on the Contract Drawings.

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: In addition to methods described in NECA 1, EMT, IMC, and RMC may be supported by openings through structure members, as permitted in New York City Electrical Code.
- (C) Strength of Support Assemblies: Where not indicated, select sizes of components so strength will be adequate to carry present and future static loads within specified loading limits. Minimum static design load used for strength determination shall be weight of supported components plus 200 lb.
- (D) 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 Steel: Beam clamps (MSS Type 19, 21, 23, 25, or 27) complying with MSS SP-69.
7. To Light Steel: Sheet metal screws.
8. Items Mounted on Hollow Walls and Nonstructural Building Surfaces: Mount cabinets, panelboards, disconnect switches, control enclosures, pull and junction boxes, transformers, and other devices on slotted-channel racks attached to substrate by means that meet seismic-restraint strength and anchorage requirements.

(E) 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 D1.1/D1.1M.

3.4 CONCRETE BASES FOR ENCLOSURE AND FOUNDATIONS FOR ELECTRICAL ENCLOSURE BOLLARDS

(A) Construct concrete bases of dimensions indicated but not less than 4 inches larger in both directions than supported unit, and so anchors will be a minimum of 10 bolt diameters from edge of the base. Concrete shall be pigmented to match that of the adjacent plaza pavement.

(B) Use 3000-psi, 28-day compressive-strength concrete.

(C) Anchor equipment to concrete base.

1. Place and secure anchorage devices. Use supported equipment manufacturer's setting drawings, templates, diagrams, instructions, and directions furnished with items to be embedded.
2. Install anchor bolts to elevations required for proper attachment to supported equipment.
3. Install anchor bolts according to anchor-bolt manufacturer's written instructions.

(D) Construct electrical enclosure bollards encased in concrete foundations in accordance with the details shown on the Contract Drawings and as directed by the Engineer. Concrete shall be pigmented to match that of the adjacent plaza pavement.

3.5 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

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 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) LFMC: Liquidtight flexible metal conduit.

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 handholes and boxes for underground wiring, 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 ASSURANCE

(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 METAL WIREWAYS

- (A) Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include the following:
1. Cooper B-Line, Inc.
 2. Hoffman.
 3. Square D; Schneider Electric.
 4. Or an approved equivalent.
- (B) Description: Sheet metal sized and shaped as indicated, NEMA 250, Type 1, unless otherwise indicated.
- (C) Fittings and Accessories: Include couplings, offsets, elbows, expansion joints, adapters, hold-down straps, end caps, and other fittings to match and mate with wireways as required for complete system.
- (D) Wireway Covers: Screw-cover type.
- (E) Finish: Manufacturer's standard enamel finish.

2.3 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.

2.4 HANDHOLES AND BOXES FOR EXTERIOR UNDERGROUND WIRING

- (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. Handholes 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 Handholes and 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.

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 tamp 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. 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 HANDHOLES AND BOXES

- (A) Install handholes and 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 E 260533 AA, E 260533 AB, E 260533 AC, and E 260533 AD 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 Metal Wireways to be paid for under ITEM E 260533 B shall be the actual number of linear feet of Metal Wireways, installed to complete the work, to the satisfaction of the Engineer.
- (C) The quantity of Boxes, Enclosures, and Cabinets to be paid for under ITEMS E 260533 CA, E 260533 CB and E 260533 CC shall be the actual number of Boxes, Enclosures, and Cabinets, installed to complete the work, to the satisfaction of the Engineer.
- (D) The quantity of Handholes and Boxes for Exterior Underground Wiring to be paid for under ITEM E 260533 D shall be the actual number of Handholes or Boxes for Exterior Underground Wiring, 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 E 260533 AA, E 260533 AB, E 260533 AC and E 260533 AD, 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, all in accordance with the Contract Drawings, the specifications, and the directions of the Engineer.
- (B) The unit price bid per linear foot of Metal Wireways, under ITEM E 260533 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 Metal Wireways, all in accordance with the Contract Drawings, the specifications, and the directions of the Engineer.
- (C) The unit price bid per each Enclosure, under ITEMS E 260533 CA, E 260533 CB and E 260533 CC, 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 concrete foundations and footings and Electrical Enclosure Bollards, as per Section E 260529, and furnishing and installing Enclosure, all in accordance

with the Contract Drawings, the specifications, and the directions of the Engineer.

- (D) The unit price bid per each Handholes and Boxes for Exterior Underground Wiring, under ITEM E 260533 D, 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 Handholes and Boxes for Exterior Underground Wiring, all in accordance with the Contract Drawings, the specifications, and the directions of the Engineer.

Payment will be made under:

Item No.	Pay Unit	Item
E 260533 AA	METAL CONDUIT AND TUBING (3/4" GALVANIZED RIGID STEEL CONDUIT)	L.F.
E 260533 AB	METAL CONDUIT AND TUBING (1" GALVANIZED RIGID STEEL CONDUIT)	L.F.
E 260533 AC	METAL CONDUIT AND TUBING (2" GALVANIZED RIGID STEEL CONDUIT)	L.F.
E 260533 AD	METAL CONDUIT AND TUBING (4" GALVANIZED RIGID STEEL CONDUIT)	L.F.
E 260533 B	METAL WIREWAYS	L.F.
E 260533 CA	FREESTANDING PANELBOARD ENCLOSURE	EACH
E 260533 CB	FREESTANDING COMPANY SWITCH ENCLOSURE	EACH
E 260533 CC	QUAD RECEPTACLE BANK ENCLOSURE	EACH
E 260533 D	HANDHOLES AND BOXES FOR EXTERIOR UNDERGROUND WIRING	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 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.

1.3 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.

1.4 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, 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.
- (E) Snap-Around, Color-Coding Bands for Raceways Carrying Circuits at 600 V or Less: 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.
- (F) Metal Tags: Brass or aluminum, 2 by 2 by 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 by 2 by 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 corners for mounting.
3. Nominal size, 7 by 10 inches.

(D) Metal-Backed, Butyrate Warning Signs:

1. Weather-resistant, nonfading, 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 corners for mounting.
3. Nominal size, 10 by 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 nonfading, 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 deg F, According to ASTM D 638: 12,000 psi.
3. Temperature Range: Minus 40 to plus 185 deg 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.
 - c. 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. Do not install at flush-mounted panelboards and similar equipment in finished spaces.
- (H) Warning Labels for Indoor 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. Power transfer 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) Emergency Operating Instruction Signs: Install instruction signs with white legend on a red background with minimum 3/8-inch- high letters for emergency instructions at equipment used for power transfer.
- (K) 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

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 262713
ELECTRICITY METERING**

PART 1 - GENERAL

1.1 SUMMARY

(A) Section includes equipment for electricity metering by utility company.

1.2 SUBMITTALS

(A) Product Data: For each type of product indicated.

(B) Shop Drawings: For electricity-metering equipment.

1. Dimensioned plans and sections or elevation layouts.

1.3 QUALITY ASSURANCE

(A) Electrical Components, Devices, and Accessories: Listed and labeled as defined in New York City Electrical Code, by a qualified testing agency, and marked for intended location and application.

1.4 COORDINATION

(A) Electrical Service Connections: Coordinate with utility companies and components they furnish as follows:

1. Comply with requirements of utilities providing electrical power services.
2. Coordinate installation and connection of utilities and services, including provision for electricity-metering components.

PART 2 - PRODUCTS

2.1 EQUIPMENT FOR ELECTRICITY METERING BY UTILITY COMPANY

(A) Meters will be furnished by utility company.

(B) Meter Sockets: Comply with requirements of electrical-power utility company.

1. Comply with requirements of utility company for meter center.
2. Housing: NEMA 250, Type 3R enclosure.
3. Minimum Short-Circuit Rating: 42,000 A symmetrical at rated voltage.
4. Main Disconnect Device: Circuit breaker, series-combination rated for use with downstream feeder and branch circuit breakers.
5. Meter Socket: Rating coordinated with indicated tenant feeder circuit rating.

PART 3 - EXECUTION

3.1 INSTALLATION

(A) Comply with equipment installation requirements in NECA 1.

(B) Install meters furnished by utility company. Install raceways and equipment according to utility company's written requirements. Provide empty conduits for metering leads and extend grounding connections as required by utility company.

3.2 IDENTIFICATION

(A) Comply with requirements for identification.

(B) Series Combination Warning Label: Self-adhesive type, with text as required by New York City Electrical Code.

1. Equipment Identification Labels: Adhesive film labels with clear protective overlay. For residential meters, provide an additional card holder suitable for typewritten card with occupant's name.

3.3 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. Connect a load of known kilowatt rating, 1.5 kW minimum, to a circuit supplied by metered feeder.
 - 2. Turn off circuits supplied by metered feeder and secure them in off condition.
 - 3. Run test load continuously for eight hours minimum, or longer, to obtain a measurable meter indication. Use test-load placement and setting that ensures continuous, safe operation.
 - 4. Check and record meter reading at end of test period and compare with actual electricity used, based on test-load rating, duration of test, and sample measurements of supply voltage at test-load connection. Record test results.
- (C) Electricity metering will be considered defective if it does not pass tests and inspections.
- (D) Prepare test and inspection reports.

PART 4 - MEASUREMENT AND PAYMENT

- (A) The quantity to be measured for payment shall be the number of EACH type of Electricity Meter actually installed to complete the work, to the satisfaction of the Engineer.
- (B) Meters will be furnished by utility company.
- (C) The price bid shall be a unit price for EACH type of Electricity Meter installation and shall include the cost of all labor, materials, equipment, insurance, and any incidental expenses necessary, including, but not limited to, installation of meter, meter equipment and socket, labels, testing and inspections, and coordination with the utility providing the meter, in accordance with the plans, specifications, and directions of the Engineer.

Payment will be made under:

Item No.	Description	Pay Unit
E 262713 B	ELECTRICITY METERING, 200 A UTILITY METER	EACH

**ITEM NYC-564.510002
STAINLESS STEEL FLATS AND CHANNELS**

DESCRIPTION

Under this work, the Contractor shall fabricate, furnish and erect stainless steel elements and other metal parts in accordance with the Contract Documents. The Contractor shall notify the Deputy Chief Engineer, Structures (DCES) of the name and address of the fabricator of all stainless steel elements in accordance with § 106-01 Sources of Supply.

MATERIALS

Materials for this work shall meet the requirements of the New York State Steel Construction Manual (SCM) in general and the following:

- Channels shall conform to the requirements ASTM A1069/A1069M, Grade 304L, meeting the following requirements:

ASTM	TITLE	REVISION
A276	Standard Specification for Stainless Steel Bars and Shapes	2008a
A370	Standard Test Methods and Definitions for Mechanical Testing of Steel Products	2009a
A479/A479M	Standard Specification for Stainless Steel Bars and Shapes for Use in Boilers and Other Pressure Vessels	2008
A484	Standard Specification for General Requirements for Stainless Steel Bars, Billets, and Forgings	2008
A1069	Standard Specification for Laser-Fused Stainless Steel Bars, Plates, and Shapes	2011

Mechanical properties

Grade	Tensile Strength (ksi)	Yield Strength (ksi) ⁽¹⁾	Elongation (%) ⁽¹⁾	Reduction in area (%) ⁽¹⁾	Hardness (HB)
304/304L	75-115	30	30	50	140-241

⁽¹⁾ Minimum values

- Flats (plate products) shall conform to the requirements of ASTM A582/A582M, ASTM A276, ASTM A479/A479M, ASME SA 479, Grade 304L. Certified copies of the results of tests conducted by the manufacturer shall be furnished to the Engineer in accordance with the requirements of §715-01, Structural Steel.

CONSTRUCTION DETAILS

All stainless steel work, including, but not limited to fabrication, inspection, transportation, and erection shall be done in accordance with the provisions of the SCM. Shop drawings shall be prepared, approved and distributed in accordance with the provisions of the SCM, except that the term "DCES" shall be interpreted as "the Engineer".

All welding shall be in accordance with the SCM. Unless otherwise specified in the Contract Documents, the SCM establishes the workmanship standards and standards of acceptance. Install high strength steel bolts, nuts and washers in accordance with AISC Specifications and the SCM. The Contractor is responsible for field quality control. Inspect field-assembled high-strength bolted construction in accordance with AISC Specification for Structural Joints using ASTM A325 Bolts, Section 9, unless otherwise noted on the Contract Plans.

METHOD OF MEASUREMENT

This work will be measured as the number of pounds of stainless steel furnished and installed, including connections.

BASIS OF PAYMENT

The unit price bid shall include the cost of furnishing and installing stainless steel, other materials and parts including labor, materials, and equipment necessary to satisfactorily complete the work as shown on the contract drawings.

Payment will be made under:

Item No.	Item	Pay Unit
NYC-564.510002	STAINLESS STEEL FLATS AND CHANNELS	LBS.

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.

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.

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.

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 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.

- a. 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.
- b. 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.

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 PK-124
SPECIAL DROP INLETS**

PK-124.1. WORK: Under this item, the Contractor shall furnish and install SPECIAL DROP INLETS of the sizes as shown on the Contract Drawings and as directed by the Engineer. All work shall be done in accordance New York City Department of Environmental Protection (NYCEDP) Standard Sewer Specifications.

PK-124.2. MATERIALS AND METHODS: All materials and methods shall conform to New York City Department of Environmental Protection, Standard Sewer Specification, **Section 5.09**, Catch Basins, with the following modifications and additions:

Frames & Grates shall be ADA compliant catch basin castings as per Model #41261408 by Campbell or approved equal.

Standard cast iron hood and hooks shall be installed on catch basins connected to combined sewer.

PK-124.3. EXCAVATING, BACKFILLING, AND DEWATERING: All excavating, backfilling, and dewatering required for storm drainage work shall be done by the Contractor.

Upon completion of the work, excavations shall be backfilled promptly with the earth tamped thoroughly.

The Contractor shall verify the location of existing utilities whether indicated on the drawings or not, and shall be responsible for damage to any existing utility, piping, conduit, etc. caused by their work. Such damage shall be repaired by the Contractor at no cost to the City. The Contractor shall furnish safety and warning lights and barricades as required.

Sub-surface structure excavation shall include work of excavation for storm drain, manholes, inlets, and catch basins. The excavation, unless otherwise specified, shall be made by open cut and shall be wide and deep enough to permit the installation of the sub-surface structure in a workmanlike manner.

The Contractor shall remove all water from the excavation promptly, and continuously throughout the progress of the work and shall keep the excavated areas dry at all times until the structure is completed.

Where required for a safe and proper installation of sub-surface structure and pipe, the Contractor will keep the sides of the excavation vertical by sheeting and bracing of adequate size and strength. Sheeting shall be driven to true alignment, in a proper manner to avoid splitting and to ensure contact of adjacent pieces. If required for the proper execution of the work, when running sand, quick-sand, or other semi-fluid material equally difficult to handle is encountered, the timber sheeting shall be tongued and grooved. All voids which may occur behind the sheeting, whether drawn or left in

place, must be carefully refilled with suitable material, and said material shall be thoroughly tamped.

Backfill shall follow immediately after sub-surface structure is in place and approved. Backfill of pipes shall be of selected materials, free of stones, and shall be hand placed and thoroughly compacted in such manner as will completely fill the space below and around the pipe, taking care not to displace the pipe or injure the joints. The backfill shall be hand placed to a point two feet (2') above the top of the pipe. The remaining backfill may be made with approved mechanical backfillers in layers twelve inches (12") thick and thoroughly compacted with approved mechanical or vibratory compactors, or the excavation may be backfilled with sand and gravel and compacted as above provided for.

PK-124.4. EQUIPMENT: All equipment shall be furnished and installed as indicated on the Contract Drawings. The Contractor shall verify the fit of the new equipment to be installed.

PK-124.5. SETTING FRAME: Frames shall be adjusted to the final grades by the use of cement mortar or by brick masonry set in cement mortar as directed by the Engineer.

PK-124.6. INCIDENTAL WORK: The Contractor shall furnish materials for, and do, all incidental work to complete the structures, including the work of setting and adjusting frames, and plastering.

PK-124.7. CONNECTING TO EXISTING CATCH BASIN shall be performed in accordance with the requirements of New York City Department of Environmental Protection, Bureau of Sewers.

PK-124.8. CONTRACT DRAWINGS: The Contract Drawings are diagrammatic, but shall be followed as closely as conditions at the site of work or the other trades will permit. As the work progresses, these drawings may be revised or supplemented by the Engineer, to illustrate the work further and the Contractor shall perform the work required by such revisions or supplements without additional compensation unless the Engineer determines that any such changes warrant additional compensation.

PK-124.9. TEST AND GUARANTEES:

When installation of any part thereof is completed and ready for operation and prior to final payment, inspection and tests may be made by the Engineer of all materials and appliances installed under this section. The Contractor shall furnish all materials, instruments, and labor required for such tests. Should inspection and tests show that any material or workmanship are not first class or not in the opinion of the Engineer in accordance with the drawings and specifications, the Contractor, on written notice, shall remove same and replace with other material in conformity with the specifications at no additional cost to the City. Any defects found shall be immediately repaired or replaced by the Contractor as directed by the Engineer, at no additional cost to the City.

PK-124.10. MEASUREMENT AND PAYMENT: The quantity to be measured for payment shall be the number of individual special drop inlets installed at the site, complete to the satisfaction of the Engineer.

The prices bid shall be a unit price for EACH Special Drop Inlet and shall include the cost of all labor, materials, insurances, and equipment necessary to furnish and place concrete, including, but not limited to, excavation, foundation materials, steel bars, expansion joints material, formwork, cast iron frame and grating, cast iron hood and hooks, brick, and other incidental work and expenses necessary to complete the work; all in accordance with the Contract Drawings, specifications and directions of the Engineer.

Payment will be made under:

Item No.	Item	Pay Unit
PK-124 KBDI	SPECIAL DROP INLET	EACH

**SECTION PK-12D
WATER TAP, 2" DIAMETER**

PK-12D.1. WORK: Under this Item, the Contractor shall obtain permits from the New York City Department of Environmental Protection, and install water tap(s) of the size(s) specified at existing New York City water mains where shown on the plans.

PK-12D.2. PERMIT: The Contractor shall employ a licensed Certified Master Plumber to obtain a permit from the New York City Department of Environmental Protection, Bureau of Water Supply and Wastewater Collection, Tapping Division, hereinafter referred to as D.E.P.

PK-12D.3. MATERIALS & EXECUTION: The Contractor shall notify the Engineer and the D.E.P. three (3) days prior to intended date of work. All sawcutting, excavation, installation of water tap, and restoration of street pavement (where applicable) shall be performed in accordance with D.E.P. and New York City Department of Transportation requirements.

Included under this item, the Contractor shall abandon, disconnect, cap, or plug any existing water service from the existing water main in accordance with the regulations of the Bureau of Water Supply, whether or not the existing service is in approximately the same location as the new water service, wet connection, or water tap.

All materials necessary for the installation of the tap(s) will be furnished by the D.E.P. and shall be paid for by the Contractor.

PK-12D.4. MEASUREMENT AND PAYMENT: The quantity of WATER TAP to be paid for shall be the number of Water Taps installed to the satisfaction of the Engineer.

The price bid shall be a unit price for EACH tap and shall include the cost of all labor, materials, equipment, insurance, and incidental expenses, including, but not limited to, disconnection and abandonment of the existing wet connection or water/tap, the cost of permits and the amounts paid to the D.E.P. necessary to complete the work in accordance with the plans, the specifications and directions of the Engineer.

No additional payment will be made for disconnection and abandonment of the existing wet connection or water/tap, as may necessary, the cost of which shall be deemed included under this item.

Excavation, Sawcutting, and Restoration of Street Pavement (where applicable) will be paid separately under the appropriately scheduled items.

Payment will be made under:

Item No.	Item	Pay Unit
PK-12D	WATER TAP, 2" DIAMETER	EACH

SECTION PK-13
TYPE "K" COPPER TUBING

PK-13.1. DESCRIPTION. Under this section the Contractor shall furnish, install and connect the water pipe of the size shown in accordance with the Contract Drawings, the specifications and directions of the Engineer.

PK-13.2. MATERIALS AND METHODS.

PIPE: The water service pipe shall be rigid hard temper type "k" copper tubing in straight lengths meeting the specification for ASTM designation No. B 88.

FITTINGS: Fittings shall be approved wrought copper and bronze solder - joint pressure fittings (ANSI B 16.22), Di-Electric fittings as required.

JOINTS: Joints shall be made by soldering, using 95-5 tin antimony solder. From the curb valve to the water tap, joints shall be of the "flared" type.

INSTALLATION: The pipe shall be laid true to line and grade with a cover as indicated on the Contract Drawings or as directed by the Engineer. When the foundation is good firm earth, the earth should be pared or molded to give a full support and if necessary a layer of fine sand or other suitable material should be placed. The same means of securing firm foundation should be adopted in case the excavation has been made deeper than necessary, in which case the Contractor shall furnish the gravel at his own expense.

Where the bottom of the trench is in rock, fresh fill, soil of low bearing power or other situations where special foundations are required, the Contractor shall provide such foundation in accordance with the written order of the Engineer. The work shall be paid for at the unit prices bid for the materials used in the work.

TESTS: The Contractor shall not backfill over any pipe until ordered by the Engineer. The pipe system shall be tight and show no leaks when filled with water, sealed and subjected to an internal hydrostatic pressure of 100 psi for thirty minutes. Temporary caps shall be placed where required to permit making the tests where valves are not available. The tests shall be made in the presence of the Engineer or his representative.

PK-13.3. MEASUREMENT. The quantity of TYPE K COPPER TUBING to be paid for under these items shall be the number of linear feet (laying length) of each size tubing incorporated in the work to the satisfaction of the Engineer, measured along the centerline of the tubing.

PK-13.4. PRICES TO COVER. The unit price bid for each size TYPE K COPPER TUBING shall include the cost of all labor, materials, equipment, insurance, and incidental expenses necessary to complete the work including, but not limited to, excavation and backfilling to

grade, furnishing and installing tubing, fittings and fine gravel; all in accordance with the Contract Drawings, the specifications, and the directions of the Engineer.

Water taps will be paid for under other items.

Payment will be made under:

Item No.	Item	Pay Unit
PK-13D	TYPE K COPPER TUBING, 1" DIAMETER	L.F.
PK-13F	TYPE K COPPER TUBING, 2" DIAMETER	L.F.

**SECTION PK-14D
CURB GATE VALVE - 2" DIA.**

PK-14D.1. WORK: Under this Item, the Contractor shall furnish and install CURB GATE VALVES of the size shown on the plans, in strict accordance with the plans, specifications, and directions of the DDC Resident Engineer.

PK-14D.2. SHOP DRAWINGS: The Contractor shall submit catalog cuts of the curb gate valve for approval.

PK-14D.3. VALVES: Valves shall be Stockham No. B-130 with bronze body, bronze bonnet, inside screw, non-rising stem, solid wedge disk, and threaded ends, or approved equivalent.

PK-14D.4. OPERATING KEY: An approved operating key of proper size for each valve shall be furnished by the Contractor. However, the Contractor need not furnish more than two (2) keys for each type of valve, regardless of the quantity of valves called for in the Contract. For valves 2" diameter, the operating key shall be Stockham No. 1V437, or approved equivalent.

PK-14D.5. MEASUREMENT: The quantity of CURB GATE VALVE to be paid for under this Item shall be the number of valves of each size, furnished and installed in accordance with the Contract Drawings, specifications, and to the satisfaction of the Engineer.

PK-14D.6. PRICE TO COVER The price bid shall be a unit price for EACH Curb Gate Valve of Each Size, and shall include the cost of all labor, materials, equipment, and other incidentals necessary to complete the Work in accordance with the Contract Drawing the specifications, and directions of the Engineer.

Payment will be made under:

Item No.	Item	Pay Unit
PK-14D	CURB GATE VALVE, 2" DIA.	EACH

SECTION PK-162B
Double Check Valve Assembly & Water Meter with Remote Reader and
Enclosure - 2" DIA.

PK-162B.1 INTENT. Under this section the Contractor shall provide all labor, materials and equipment necessary or required to furnish and install a complete Water Meter with Remote readout system and Double Check Valve Assembly (DCVA) including but not limited to:

- (A) Double Check Valve Assembly (DCVA) is also known as a type of Backflow Preventer;
- (B) Water Meter with Remote Reader shall include Water Meter, Water Meter Strainer and Automatic Reading & Billing System (also known as Remote Reading Device);
- (C) All piping, fittings, valves, test tee, and test tee valve, supports, if required and other incidentals necessary to complete plumbing work and connection to water service and water feed lines in accordance with the plans, specifications, and directions of the Engineer;
- (D) Provide a vandal resistant above ground enclosure for DCVA. Provide labor and materials for winterizing the system for the first winter after the system is operational and accepted by the Engineer. Provide a vandal resistant meter manhole.
- (E) Double Check Valve Assembly and Water Meter with Remote reader shall be type, material and manufacturer as listed and approved by New York City Department of Environmental Protection Cross Connection Unit.
- (F) Concrete pad for enclosure to be included in **Item 4.13 AAS**.

PK-162B.2 SUBMITTALS. Shall be submitted in accordance with the requirements of the **Section 1.06.31** of the NYCDOT Standard Highway Specifications.

- (A) Shop drawings: The Contractor shall submit Shop Drawings when required, in accordance with the requirements of the **Section 1.06.13** of the NYCDOT Standard Highway Specifications. A shop drawing is required showing installation of the complete Double Check Valve Assembly, water meter, piping, pipe supports, and the enclosure.
- (B) Catalog cuts: The Contractor shall submit Catalog Cuts of the Double Check Valve Assembly, water meter, meter reading system, control valve, and all connected piping for approval prior to installation.
- (C) Certifications: The Contractor shall be responsible for obtaining all certifications necessary to comply with the NYC Bureau of Water Supply & Wastewater Collection, Cross Connection Control Unit & the NYS Department of Health regulations for DCVA (after installation), including Certification by Backflow Prevention Device Tester; Certification of Master Plumber responsible for the DCVA installation, and a Professional Engineer's or Registered Architect's Certification that the installation is in

accordance with the approved Plans. The Contractor shall prepare and submit copies of N.Y.S.D.O.H. Form Gen. 215B to the NYS Dept. of Health & NYC Cross Connection Control Unit of the Bureau of Water Supply & Wastewater Collection. The Engineer shall receive copies in triplicate of all such submittals. In summation, the Contractor shall be held completely responsible to ensure that all Work is in compliance with N.Y.S. D.O.H., Form Gen. 215B.

PK-162B.3. MATERIALS. All materials shall be high quality, industry standard and capable of meeting the performance requirements stated herein. All "or approved equivalent" proposals will be reviewed by the Engineer, for acceptability. Submittal of "or approved equivalent" specifications does not guarantee acceptance of the product. All product acceptances will be made in writing.

All materials throughout the system shall be new and in perfect condition, made from corrosion-resistant materials when subjected to weather conditions, and supplied from an "authorized" dealer servicing the Metropolitan New York area, in order to assure prompt warranty repair and/or replacement. After award of the Contract, and prior to beginning the work, the Contractor shall submit for approval two copies of the complete list of materials which he proposes to furnish and install. Quantities of materials and equipment need to be included. No deviations from the specifications shall be allowed.

- (A) Underground water piping: Shall be hard temper type 'K' copper tubing meeting the Department of General Services; Division of Municipal Supplies, Dept. of Purchase, Specification No. 32-T-1.64 and ASTM No. B88-1974. Fittings shall be approved wrought copper and bronze solder-joint pressure fittings (ANSI B 16.22).
- (B) Above ground water piping: All above ground piping shall be Copper Tubing (type "L"), ASTM B 88, Type L, Drawn, Nominal Wall with Cast Bronze, ANSI B16.18, same wall as Tube fittings and Solder Joints.

All piping supports that will be in direct contact with brass or copper tubing shall be copper plated. Install piping with pitch toward low point for drainage.

Make soldered joints with non-corrosive paste flux and 95 per cent tin and 5 percent antimony solder. Cored or lead-containing solder is not permitted. Remove excess solder while still in plastic state. Prior to silver soldering, remove the internal parts of all valves or other devices to be installed directly in line.

- (C) All control valves shall be a Class 125, all bronze gate valve, with non-rising stem and solid disc, with screwed bonnet and threaded ends, such as Stockham Figure B-103, or approved equivalent.
- (D) Winterizing devices, blow-off valves, drip valves are to be installed as shown on the plans where applicable.

- (E) Water Meter: Water Meter shall be Neptune Model T-10, as manufactured by Schlumberger Industries Water Division, or ABB's Model C-700 as manufactured by ABB Water Meter, Inc., Oak, Florida, or approved equivalent. All water meters furnished shall conform to the "Standard Specifications for Cold Water Meters", AWWA Standard C700 latest revision and NYCDEP requirements.

Water meters shall consist of a bronze maincase with the serial number stamped on the maincase. Only displacement meters of the flat nutating disc type will be accepted for improved operation. The size, capacity and meter lengths shall be as specified in AWWA Standard C700, latest revision. The maximum number of disc nutations is not to exceed those specified in AWWA C700 latest revision to minimize premature wear.

- (F) Strainer: All meters shall contain removable polypropylene plastic strainer screens. The strainer shall be located near the inlet maincase port, before the measuring chamber and control block assembly.
- (G) Register: The register shall be of the straight reading sealed magnetic drive type and shall contain six (6) numeral wheels. Registers must be sealed and dry. All direct reading register lenses shall be flat, of high strength, and impact resistant glass to prevent breakage. The dial shall be of the center sweep pointer type and shall contain 100 equally divided graduations at its periphery. The register must contain a low flow indicator with a 1:1 disc nutating ratio to provide leak detection. Register boxes shall be bronze.

All meters must be adaptable to digital encoder register without interruption of the customer's service for the purpose of meter enclosure, remote, or central meter reading. The registers shall be secured to the maincase by means of a plastic tamperproof seal pin to allow for in-line service replacement. Seal screws are not acceptable.

Register retainer rings shall have an impact resistant design which absorbs register glass lens impact. All registers shall have the size, model, and date of manufacture stamped on the dial plate.

- 1) Measuring Chamber: The measuring chamber shall be a nutating disc type, the flat nutating disc shall be molded of a non-hydrolyzing hard rubber or synthetic polymer and shall contain a type 316 stainless steel spindle. The nutating disc shall be equipped with a synthetic polymer thrust roller with a stainless steel shaft located within the disc slot. The roller head shall roll on the buttressed track provided by the diaphragm in the measuring chamber. The measuring chamber shall be of a 2-piece snap-joint type. The measuring chamber shall be made of non-hydrolyzing synthetic polymer, shall be smoothly and accurately machined and shall

contain a removable molded diaphragm of the same material as that of the chamber. No screws shall be used to secure the chamber together. The control block shall be the same material as the measuring chamber and be mounted on the chamber top to provide sand ring protection. The control block assembly shall be removable to facilitate repairing. Control block assemblies shall be designed to allow no magnetic slippage which would result in a loss of revenue. The measuring chamber outlet port shall be sealed to the maincase outlet port by means of an "O" Ring gasket to eliminate chamber leak paths.

- 2) Remote Reader: The Remote Reader shall be Neptune Proread ARB System[®] as manufactured by Schlumberger Industries Water Division or Remote Meter Read (RMR) System[®] as manufactured by ABB, or approved equal. The Remote Reader shall be a self-contained encoder register metering system designed to obtain remote simultaneous water meter registration directly from the register odometer. The metering information shall be obtained through a remotely located receptacle using a compatible data capture system. The system shall consist of the Encoder Meter Register and Remotely Mounted Receptacle.
- 3) Encoder Meter Register: Shall be direct mounted with encoded odometer wheels and digital data stream. Batteries or pulses are not allowed.
- 4) Registration: The register shall provide a six digit visual registration at the meter. The unit shall, in a digital format, simultaneously encode the four or six most significant digits of the meter reading for transmission through the remotely located receptacle. (The most significant meter registration digits are defined as those digits on the register number wheels that denote the highest recorded values of water consumption.) A quick indexing mechanism shall be employed which shall prevent ambiguous reading. The register shall have a full test sweepband or dial divided into gradients of down to 1/100th of the units of registration. Register test rings shall be available for shop testing. The units of registration shall be in U.S. gallons. These units shall be clearly designated on the face of the register. The month and year of manufacture and other identification information shall appear on the face of the register. The register shall employ a leak detection indicator on the dial face. Registers using pulse generation or conversion of pulses to digital output is not permitted. Batteries shall not be required.
- 5) Mechanical Construction: Materials used in the construction of the register shall be compatible with the normal water meter environment and with each other. The unit shall possess a copper bottom and incorporate a rubber O-ring seal. Where indicated, enclosure set registers must be

provided with moisture protection for all internal components. The register and mounting base shall be integral components and should not allow for disassembly. The register shall be attached to the meter case by a bayonet attachment. Fastening screws or nuts shall not be required. A tamperproof plastic seal pin shall be used to secure the register to the main case. No special tools shall be required to remove the register. The register head must swivel 360 degrees without removing the seal pin to facilitate visual reading and ease of wiring. The register shall be removable from the meter without disassembling the meter body and shall permit field installation and/or removal without taking the meter out of service. Provision shall be made in the register for the use of seal wires to further secure the register. Terminal screws must be accessible on the register for transmission wire connection to the remote receptacle or future connections to a telephone system.

- 6) Electrical Construction: The materials employed for contacts and connectors shall inhibit corrosion and shall suffer minimal effect from environmental conditions to which they are exposed. The number wheels used in the register assembly shall be provided with spring-type bifurcated metal contacts to insure a high probability of information transmission.

Connection shall be made to the register by three screw-type terminals, sonically inserted into the register top. Access to the terminals shall be available to all models of register. A port cover shall be provided to cover the terminals after they have been wired. Digitally formatted data transmitted from the register shall incorporate a check sum character to verify correct information transmission and integrity. Data errors shall be indicated by the reading equipment.

- (H) Meter reading information: The encoder register shall provide up to six digits of information to the reading equipment. A ten digit identification number shall also be provided with each reading. The utility shall have the option to reprogram the internal register identification number an unlimited number of times. The encoder register must have the capability to provide additional custom information to the reader. This information shall be programmed (and reprogrammed at any time) by the utility. Information on programming the register, equipment needed, and encoder meter reading output shall be provided with each proposal.
- (I) Remote mounted receptacle : Remote receptacle shall provide a communication link for the transmission of information from the register.

- 1) Mechanical Construction: Where indicated, a remote receptacle must be provided for attachment to a meter lid

with another unit also designed for attachment by wall mounting. The materials employed shall be corrosion resistant, resist ultraviolet degradation, unaffected by rain or condensation, and compatible with rugged service and long life. The mounted receptacle shall be mounted to the water meter access door of the meter enclosure using two screws to be provided by the utility. The hole size to be drilled in the access door shall not exceed 3/8" each. The receptacle shall be provided with a minimum length of ten feet of wire connected and sealed at the receptacle without terminal exposure.

- 2) Electrical Construction: The receptacle construction shall incorporate the function of a cable clamp or strain relief. Design of the unit shall be such that it provides for mechanical and electrical connection between the receptacle and interrogation equipment.
- 3) Cable: The connecting cable shall be of the two-wire conductor type in a sheath which shall be abrasion and moisture resistant. Each conductor shall be color coded.

(J) Double check valve assembly: Two (2") inch Double Check Valve (DCV) shall be manufactured by one of the following manufacturers, or an approved equivalent:

1. Model 950XL as manufactured by Wilkins, 1747 Commerce Way, Paso Robles, CA 93446
2. Model 765 by Febco, 4381 N. Brawley Ave, Suite 102, Fresno, CA, 93722-3919
3. Watts, 815 Chestnut Street, North Andover, MA 01845-6098

The DCV shall meet the requirements of American Society of Sanitary Engineers (ASSE) Standard 1013.

(K) Double check valve above ground enclosure: DCV above ground enclosure shall be of a size shown on the drawings and shall accommodate Water Meter and Double Check Valve assemblies. The enclosure shall be as manufactured by one of the following manufacturers, or an approved equivalent:

1. HotBox
924 Lane Avenue
Jacksonville, FL 32254
2. Hydrocowl Inc.
2710 Landers Avenue
Nashville, TN 37211
3. Dekorra Products LLC.
PO Box, 338, 218 Hwy 16
Rio, WI, 53960

(L) Precast concrete structures: Enclosure structures for the water meter shall be as manufactured by one of the following

manufacturers, or other approved manufacturer:

1. A.C. Miller Concrete Products Inc., 31 E. Bridge Street, Spring City, PA 19475
 2. Kistner Concrete Products Inc., 8713 Read Road, P.O. Box 218, East Pembroke, NY 14056
 3. Oldcastle Precast, 114 Rocky Point Road, Middle Island, NY 11953
- (M) Concrete: All concrete shall comply with **Section 3.05** of the Standard Highway Specifications, except that compressive strength shall be 5,000 psi at 28 days. All precast concrete shall have a honed finish. The precast concrete shall be well cured, shall be dense and shall have good edges. The cement and aggregate shall be thoroughly mixed in a proportion of one (1) part Portland Cement to not over six (6) or less than four (4) parts of aggregate. The aggregate fine and course shall conform to ASTM C 33. Aggregate shall be free of all deleterious substances which cause reactivity with oxidized hydrogen sulfides. Aggregate shall be graded to produce a homogeneous concrete mix.
- (N) Reinforcement: Steel reinforcement shall comply with **Section 4.14** of the Standard Highway Specifications. Reinforcement shall be placed as shown on the Contract Drawings.
- (O) Ladder rungs: Ladder rungs for each water meter structure shall be constructed of copolymer polypropylene plastic, as manufactured by one of the following manufacturers, or approved equivalent:
1. M.A. Industries, 303 Dividend Drive, Peachtree City, GA 30269
 2. American Step Company, P.O. Box 137, 830 East Broadway, Griffin, GA 30224
 3. Parson Environmental Products, Inc., P.O. Box 4474, Reading, PA 19606
- (P) Water meter structure access door: Access door shall be 36" x 30" size, heavy duty (H20 loading) high security color (brown) anodized aluminum such as JustSet Doors, as manufactured by one of the following manufacturers, or other approved manufacturer:
1. Pennsylvania Insert Corp., 31 E. Bridge Street, P.O. Box 199, Spring City, PA 19475
 2. Babcock-Davis, 9300 73RD Avenue, N. Brooklyn Park, MN 55428
 3. The Bilco Company, P.O. Box 1203, New Haven, CT 06505

Frame shall have integral drain channel, anchor flanges, and neoprene gasket. A one-and-one half inch drain (1-1/2") coupling shall be located on the corner of the frame. Operation shall be spring assisted for easy operation. A hold open arm shall automatically lock the door in the 90 deg. position. Hinge shall be heavy forged brass with a stainless steel pin. Door shall be provided with two locks. Lock shall be "Ford" lifter worm lock with waterworks bronze pentagonal bolt type "LL". All hardware shall be zinc or cadmium plated.

- (Q) Construction accessories: Frames shall be 3/16" x 2" x 2" angle welded with joints ground smooth, after fabrication. Hinges shall be heavy duty and welded to door and frame.
- (R) Security bolts for water meter structure horizontal door: Security bolts for Water Meter Structure Horizontal Door shall be two (2) pentahead security bolts.

Special Design Criteria for Security Bolts:

1. Bolt must be made from alloy steel, heat treated to 150,000 psi tensile strength.
2. Head of bolt must be selectively hardened to Rc 60 min. to prevent the use of files, hacksaws, and chisels.
3. Bolt is to be made with either a flat or 120 degree cone seat as required.
4. Bolt will be torqued by means of a recessed curvilinear ("Daisy") groove in the top face of bolt head. A special mating key is required to operate in groove for installation and removal of bolt.
5. Bolts are to be zinc nickel plated in order to meet an ASTM B-368 copper-accelerated acetic acid-salt spray (CASS) test for 22 hours.
6. Bolt lengths are to be held to +/- .01".
7. Bolt threads are to be class UNC-2A.

PK-162B.4 METHOD.

- (A) General: All plumbing work is to be done by a Licensed Plumber. All on-site plumbing work is to be done by a New York City Master Licensed Plumber. The Contractor shall comply with all rules, regulations, and requirements of all regulatory agencies having jurisdiction.
- (B) Permits and fees: The Contractor shall be required to obtain all permits and pay required fees to any governmental agency having jurisdiction over the work. Inspections required by local ordinances during the course of construction shall be arranged as required. On completion of the work, satisfactory evidence shall be furnished to show that all work has been installed in accordance with rules, regulations, ordinances and code requirements.
- (C) Approval: The scope of work shall include, but not be limited to providing a layout drawing of valve boxes, main line piping, water meter pit, double check valve, double check valve enclosure, wiring, etc., in addition to the labor to install the above and maintain the system including winterizing valves and fixtures. The Contractor shall further provide all catalog cuts of materials, equipment, and fixtures for approval of all system components.

- (D) Conference: Prior to any work being performed, a pre-construction meeting will be held by NYCDDC. At that meeting, the Contractor shall provide a construction schedule to the Engineer and discuss any concerns and procedures required for obtaining approval of the materials and work under this Section. Arrangements for this meeting will be made by NYCDDC.
- (E) Inspection of site: It is mandatory that the contractor shall acquaint himself with all site conditions. Should utilities not shown on the plans be found during excavations, Contractor shall promptly notify the Engineer for instructions as to further action. Failure to do so will make Contractor liable for any and all damage thereto arising from his operations subsequent to discovery of such utilities not shown in plans. The Contractor shall also be required to determine the available water pressure and gpm delivery available from the site's water source.

Contractor shall make necessary adjustments in the layout as may be required to connect to the City water mains. All coordination with NYCDEP and other agencies is the responsibility of the Contractor.

- (F) Substitution: The City reserves the right to substitute, add or delete any material or work as the work progresses. Adjustment to the contract price shall be negotiated if deemed necessary by the City.
- (G) Rejection: The City reserves the right to reject material or work which does not conform to the Contract Documents. Rejected work shall be removed or corrected at the earliest possible time.
- (H) Excavation: The Contractor shall excavate to the lines as shown in the Contract Drawings. All Temporary sheeting as required shall comply with **Section 4.05, SHEETING AND BRACING** of the NYCDEP Standard Water Main Specifications.
- (I) Setting of precast concrete water meter structure: The precast concrete water meter structure shall be set on a six (6) inch thick bed of broken stone with additional stone added inside the twelve inch (12") x twelve inch (12") drain sleeve to the top of the bottom slab. The RPZ Structure shall be set on the Water Meter Structure as shown on the Contract Drawings.

The Contractor shall install supports for the water meter at the height shown on the Contract Drawings. The meter shall be set so that the dial faces upward and is horizontal. The dial shall not be more than three (3) feet above the floor. The encoder register shall be installed on meter as per manufacturer's instructions. The remote reader receptacle shall be installed in the pit cover or on DCVA enclosure as per the manufacturer's directions and recommendations and as directed by the Engineer, allowing reading of the meter from above ground level. The Contractor to allow sufficient Water Meter Remote Reader cable slack for manhole cover

removal. The DCVA shall be installed as shown on the Contract Drawings and per manufacturer's instructions.

- (J) Connections: The Contractor shall connect the water piping as shown on the Contract Drawings for complete and satisfactory operating unit to the satisfaction of the Engineer. Connections shall be made to the Water Meter by coupling union or flange union on both inlet and outlet ends of the meter and bored for sealing with holes not less than one-eighth (1/8) of an inch in diameter - solder connections are not permitted. Connections to the double check valve shall be as shown on the Contract Drawings and per manufacturer's instructions.

- (K) "As-built" drawings: The Contractor shall prepare an "As-Built" drawing as per **Section 1.06.14** of the NYCDOT Standard Specifications. Drawing shall show all items installed during construction, including the double check valve, water Meter, main line or connection pipe, enclosure, all valves, remote equipment. The drawing shall also indicate and show all material of sizes, model numbers, manufacturer's name and catalog name and catalog number. These drawings shall be delivered to the Engineer before final acceptance of work. The Contractor shall also provide operating manuals, maintenance instruction documents and a schedule of maintenance activities for all equipment as well as a guide to trouble-shooting system problems. The Contractor shall provide all manufacturers' warranties for installed products and systems in addition to telephone numbers of manufacturers that can supply compatible replacement parts.

- (L) System function and testing: The Contractor shall conduct a pressure test of all plumbing connections in the presence of the Resident Engineer.

Upon completion of the work, the Contractor shall clean up the site, remove all unused materials and debris.

- (M) Final acceptance: Final acceptance of the work may be obtained from the NYCDDC upon the satisfactory completion of all the work. At the time of final acceptance, the Contractor shall deliver five (5) copies of keys to all locked equipment.

PK-162B.5. GUARANTEE AND WARRANTY. All work, materials and equipment shall be guaranteed for eighteen (18) months, from date of substantial completion of the project, against all defects in material, equipment and workmanship. Guarantee shall also cover repair of damage to any part of the premises resulting from leaks or other defects in material, equipment and workmanship to the satisfaction of the City. Repairs, if required, shall be done promptly at no cost to the City.

PK-162B.6. MEASUREMENT. The quantity of DCVA and Water Meter With Remote Reader and enclosure - 2" DIA. to be measured for payment shall be the number actually installed to the satisfaction of the Engineer.

PK-162B.7. PRICE TO COVER. The price bid shall be a unit price for each DCVA and Water Meter With Remote Reader and Enclosure - 2" DIA. and shall include the cost of all labor, materials, equipment, insurance, and incidentals necessary including, but not limited to, obtaining certifications, installation of all plumbing work within the enclosure, connections to the water service at the enclosure; furnishing and installing enclosure and access doors; all in accordance with the Contract Drawings, the specifications, and the directions of the Engineer.

"Excavation", "Temporary Sheeting", and "Broken Stone" required for the proper installation shall be deemed included in the price bid for Item No. PK-162B. Copper tubing and all water service beyond the exterior face of the enclosure shall be paid for separately.

Payment will be made under:

Item No.	Item	Pay Unit
PK-162B	DOUBLE CHECK VALVE ASSEMBLY & WATER METER WITH REMOTE READER & ENCLOSURE - 2" DIA.	EACH

**SECTION PK-17
CAST IRON VALVE BOX, 5-1/4" DIAMETER**

PK-17.1. DESCRIPTION. Under this Section the Contractor shall furnish and install CAST IRON VALVE BOX, 5-1/4" DIAMETER in accordance with the Contract Drawings, the specifications, and directions of the Engineer.

PK-17.2. MATERIALS.

Box: 5 1/4" diameter valve boxes shall be Bingham & Taylor Fig. No. 4908 with a Fig No. 4904-L locking cover, or approved type manufactured by Star Pipe Products, Houston, TX; Tyler Utilities Division, Tyler, TX; or approved equivalent. The cover shall have the designation "WATER" cast thereon. The boxes shall extend within the limits called for on the plans.

Setting: The valve boxes shall be set plumb, as shown on the plans, on a footing of brick laid in cement mortar, supported on a foundation of broken stone.

Brick: The brick shall be made from clay or shale, well burned, of a quality approved by the Engineer. The mortar shall be composed of one part Portland Cement and two parts sand.

Broken Stone: The broken stone shall be clean broken traprock, or other approved stone, all of which shall pass a one-inch square opening screen and retained on a 5/8 inch square opening screen.

PK-17.3. SHOP DRAWINGS. The Contractor shall submit Shop Drawings when required, in accordance with the requirements of the NYC DOT Standard Highway Specifications under Division 1 Contract Requirements **Section 1.06.13.** The Contractor shall submit Shop Drawings when required, for Engineer's approval.

PK-17.4. MEASUREMENT. The quantity to be measured for payment shall be the number of CAST IRON VALVE BOXES, 5-1/4" DIAMETER actually installed on site to the satisfaction of the Engineer.

PK-17.5. PRICE TO COVER. The price bid shall be a unit price per EACH Cast Iron Valve Box and shall include the cost of all labor, materials, equipment, insurance, and incidentals necessary to complete the work including, but not limited to, excavation and restoration, and furnishing and placing brick and broken stone setting bed; 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
PK-17	CAST IRON VALVE BOX, 5-1/4" DIAMETER	EACH

SECTION PK-184-GH1
GROUND HYDRANT - 1" DIA.

PK-184-GH1.1. INTENT: The Contractor shall furnish and install a ground hydrant, all piping, fittings, and other sundries necessary to connect the water lines, as shown on the plans, to the satisfaction of the Engineer.

PK-184-GH1.2. DESCRIPTION: Under this Section the Contractor shall furnish and install a GROUND HYDRANT - 1" DIA., including, but not limited to, all plumbing work and connection to water service; all in accordance with the plans, the specifications, and directions of Engineer.

PK-184-GH1.3. MATERIALS: Unless otherwise specified herein, all materials and methods of construction shall conform to NYCDOT Standard Highway Specifications.

- (A) Equipment: One inch (1") Ground Hydrant shall be Type Z-1360-HD-RK-NB-10 manufactured by Zurn Industries Inc., Hydromechanics Division, Erie, PA or approved equivalent model manufactured by:
- 1) MIFAB, Inc. Chicago, IL
 - 2) Jay R. Smith Manufacturing Co., Montgomery, AL
 - 3) or approved equivalent.
- Hose connection shall be one inch (1") diameter.
- (B) Hydrant shall be an encased, ground hydrant for flush-with-grade installation, complete with bronze casing, polished nickel bronze box, all bronze interior parts, bronze seat and replaceable seat washer, non-turning operating rod with free-floating compression closure valve with 1" connection. Polished nickel-bronze box shall have a scoriated heavy-duty cover with operating key lock and the word "Water" cast on cover. Depth of bury is two (2) feet minimum. Four (4) keys are to be supplied to the Engineer.
- (C) Brass Garden Hose Adaptor (for one inch Ground Hydrant only): Shall be (1" => 3/4") Model # FM1076 as manufactured by George Taylor Brass and Bronze Works, Huntington, N.Y., or approved equivalent model as manufactured by Jay R. Smith Manufacturing Co., Montgomery AL or Zurn Industries Inc., Hydromechanics Division, Erie, PA; or other approved manufacturer.
- (D) Concrete Collar: Class A-40 concrete in accordance with **Section 4.06** of the NYCDOT Standard Highway Specifications.
- (E) Broken Stone: Broken Stone shall consist solely of crushed ledge rock. Stone shall be as designated on the detail and shall be of the approved size and quality specified in NYCDOT Standard Highway Specifications, Division II Basic Materials of Construction, Section 2.02- Aggregate-Coarse (Broken Stone and Gravel).
- (F) Geotextile Filter Fabric: Geotextiles used in drainage applications shall be Class 2 and shall conform to the following AASHTO-M288 properties for drainage geotextiles:

	ASTM Test	TYPE	TYPE
Structure		Woven (Class 2)	Non- Woven (Class 2)
Percent Elongation	ASTM D4595	<50%	≥50%
Grab Strength (Min.)	ASTM D4632	247 lbf	157 lbf
Tear Strength (Min.)	ASTM D4533	90 lbf	56 lbf
Puncture Strength (Min.)	ASTM D4833	90 lbf	56 lbf
Permittivity (Min.)	ASTM D4491	0.21 / sec.	
Apparent Opening Size/ Sieve Designation (Max.)	ASTM D4751	0.0098 inch/ Std. No. 60 sieve	

a. Manufacturers:

- 1) Advanced Drainage Systems, Inc., Hillard, OH.
- 2) Carthage Mills, Cincinnati, OH.
- 3) Mirafi, Inc., Charlotte, NC.
- 4) Approved equivalent.

PK-184-GH1.4. SUBMITTALS: Follow the procedures in the General Conditions of **Section 1.06.31** of the NYCDOT Standard Highway Specifications.

- (A) Catalog Cuts: The Contractor shall submit Catalog Cuts of the ground hydrant for approval prior to installation.
- (B) Shop Drawings: The Contractor shall submit shop drawings when required, in accordance with the requirements of **Section 1.06.13** of the NYCDOT Standard Highway Specifications.
- (C) Operating Keys: The Contractor shall furnish four (4) operating keys for each hydrant type/size installed under this item.
- (D) Parts Repair Kit: Contractor shall supply one (1) Parts Repair Kit for each Ground Hydrant type/size installed under this item.

PK-184-GH1.5. MEASUREMENT: The quantity to be measured for payment shall be the actual number of EACH Ground Hydrant, of the size specified, actually installed, complete with all plumbing work, to the satisfaction of the Engineer.

PK-184-GH1.6. PRICE TO COVER: The price bid shall be a unit price for each Ground Hydrant of the size specified and shall include the cost of all labor, materials, equipment, insurance, and incidentals necessary to complete the work including, but not limited to, all plumbing work and connections to water service within five (5') feet of the ground

hydrant, furnishing and installing broken stone, geotextile, pvc pipe, concrete collar, hose adapter, and all submittals; 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
PK-184- GH1	Ground Hydrant - 1" Diameter	EACH

SECTION T-60000B
Cable spec. for 120 volt power supply

Cable Name

This cable shall be called 2c-10 B (breakdown 2c-10 B= 2 number 10awg conductors with a third wire for grounding.)

Intended use

This cable is to be used for 120 volt power systems in NYC. The cable shall be rated for 600 Volts and have a polyethylene - insulated, jacketed cable for use in underground conduit or for aerial use (must have strain relief's built in for aerial use without a messenger cable). The outer jacket shall be a black in color and be UV resistant and made to endure extreme outdoor usage unprotected without deterioration of insulation or outer jacket fading. This cable shall be rated for direct burial without conduit covering or other protection.

Construction

The conductors shall be round annealed copper conforming to ASTM designation b-3. This cable shall be a 3 conductor type with two number ten AWG wire size conductors one white solid wire and one black solid wire with the third conductor number 8 AWG bare stranded wire.

Insulation

The insulation shall be a heat-stabilized polyethylene conforming to the requirements of ASTM designation D 1248 for type 1 category 5 grade E4 materials. This insulation shall be concentrically applied about the conductor. This installation shall meet the following requirements when tested in accordance with the procedures of ASTM designation D 2633 and D 1351.

This cable shall meet all other requirements as listed in the NYC DOT traffic specifications 3/95.

Payment will be made under:

Item No.	Item	Pay Unit
T-60000B	FURNISH 2 c #10B (BREAKDOWN=2#10 WITH 3RD WIRE FOR GROUNDING)	L.F.

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 Highway Specifications, except that survey controls established for this project may no longer exist and the Contractor shall be required to re-establish the survey control information using official Borough Survey Control Monuments and Bench Marks, where they exist. The Contractor shall check with Topographic Section of the Borough President's Office as to the reliability and accuracy of the data to be used for lines and grades.

B. SPECIFIC TRAFFIC STIPULATIONS. Under this contract, the Contractor shall perform the work in strict accordance with the requirements of 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 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 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

* 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>

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.

D. 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.

E. CONTRACT ITEMS THAT INCLUDE BACKFILL AS A PART OF THEIR WORK. The following shall pertain to all contract items that have backfill as a part of their work: Backfilling shall comply with Subsection 4.11.3 of the Standard Highway Specifications and no additional payment will be made for any Highway or Street Lighting work item requiring Contractor to furnish additional fill material to meet these requirements when backfilling.

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 Permitter naming:

New York City Transit Authority (NYCTA), the Manhattan and Bronx Surface Transit Operating Authority (MaBSTOA), the Staten Island Rapid Transit Operating Authority (SlRTOA), 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 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 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. 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 plans 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.

H. 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.

I. 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.

J. 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.

K. 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.

L. 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.



Department of Transportation

JANETTE SADIK-KHAN, Commissioner

OCMC TRAFFIC STIPULATIONS

July 17, 2013

OCMC FILE NO: MEC-13-286
CONTRACT NO: HWPLZ008M
PROJECT: RECONSTRUCTION OF FORSYTH STREET PLAZA

LOCATION(S): FORSYTH STREET BETWEEN CANAL STREET AND DIVISION STREET (BEND)
 CANAL STREET BETWEEN FORSYTH STREET AND CHRYSTIE STREET (MANHATTAN BRIDGE)

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

A. SPECIAL STIPULATIONS

1. **EMBARGOES** – A CONSTRUCTION EMBARGO WILL APPLY TO THOSE LOCATIONS BELOW WHICH FALL WITHIN THE **HOLIDAY EMBARGO** OR ANY OTHER SPECIAL EVENT EMBARGOES SUCH AS THE **SUMMER STREETS EVENT EMBARGO** AND THE **BROOKLYN BRIDGE FULL WEEKEND CLOSURE EMBARGO** AS PUBLISHED BY THE BUREAU OF PERMIT MANAGEMENT AND CONSTRUCTION CONTROL.
2. **BIKE LANES** – IF WORK IS IN OR AFFECTING A BIKE LANE, THE CONTRACTOR MUST POST ADVANCE WARNING SIGNS 350 FEET AND 200 FEET PRIOR TO THE WORK ZONE STATING "CONSTRUCTION IN BIKE LANE AHEAD PROCEED WITH CAUTION", AND ALSO POST A SIGN AT THE WORK ZONE STATING "CONSTRUCTION IN BIKE LANE PROCEED WITH CAUTION". SUCH SIGNS SHALL BE ORANGE, 3' X 3', DIAMOND-SHAPED WITH 4" BLACK LETTERING. SIGNS SHALL BE POSTED IN ACCORDANCE WITH THE FEDERAL MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
3. **BUS STOPS** – THE CONTRACTOR SHALL PROVIDE WRITTEN NOTICE TO NYC DOT OCMC AND NEW YORK CITY TRANSIT (NYCT) A MINIMUM OF FIVE (5) WEEKS IN ADVANCE FOR LANE/STREET CLOSURES THAT AFFECT BUS ROUTES/BUS STOPS.
4. **METERS** – THE CONTRACTOR MAY NOT REMOVE OR RELOCATE PARKING METERS WITHOUT FIRST OBTAINING APPROVAL FROM NYCDOT PARKING METER DIVISION AT 718-894-8651.
5. **ACCESS TO ABUTTING PROPERTIES** – THE CONTRACTOR SHALL COORDINATE ALL ACTIVITIES WITH ABUTTING PROPERTY OWNERS TO ENSURE ACCESS IS PROVIDED TO/FROM ENTRANCES/DRIVEWAYS AT ALL TIMES.
6. **AUTHORIZED PARKING** – PRIOR TO PERFORMING WORK WHICH IMPACTS AUTHORIZED PARKING, THE CONTRACTOR SHALL SUBMIT IN WRITING, AND COPY OCMC-STREETS, A REQUEST TO OCCUPY SPACE CURRENTLY USED BY AUTHORIZED VEHICLES. APPROVAL MUST BE RECEIVED FROM AUTHORIZED PARKING PRIOR TO OCCUPYING THESE AREAS.
7. **NOTIFICATION** – THE CONTRACTOR MUST AT LEAST TWO (2) WORKING DAYS BEFORE THE START OF CONSTRUCTION NOTIFY THE NYC FIRE DEPARTMENT, NYC POLICE DEPARTMENT, NYC EMS, LOCAL COMMUNITY BOARD, BOROUGH PRESIDENT'S OFFICE-CHIEF ENGINEER, NYCDOT OCMC OFFICE, AND ALL ABUTTING PROPERTY OWNERS.
8. **CONSTRUCTION INFORMATIONAL SIGNS** – THIS PROJECT REQUIRES A CONSTRUCTION PROJECT INFORMATIONAL SIGN (CPIS) IN ACCORDANCE WITH NYCDOT HIGHWAY RULE SECTION 2-02 (4) AND (5). CRITERIA AND A PROTOTYPE FOR THIS SIGN MAY BE FOUND ON THE NYCDOT WEBSITE AT:
[HTTP://WWW.NYC.GOV/HTML/DOT/DOWNLOADS/PDF/DOT_CPIS_DIRECTIONS.PDF](http://www.nyc.gov/html/dot/downloads/pdf/dot_cpis_directions.pdf)
9. **ENHANCED MITIGATIONS**
 - o **ENHANCED MITIGATIONS FOR PEDESTRIAN FLOW**, INCLUDING METAL FENCING, SHALL BE PROVIDED TO ENSURE PEDESTRIANS STAY WITHIN THEIR DESIGNATED PATH/ROUTE. FLAGGERS SHALL BE PROVIDED TO ASSIST WITH PEDESTRIANS AT THE DESIGNATED CROSSWALK AREAS. THESE FLAGGERS SHALL BE ASSIGNED TO THIS FUNCTION ONLY.
 - o "NO STANDING ANYTIME-TEMPORARY CONSTRUCTION REGULATION" SIGNS AND TEMPORARY PAVEMENT MARKINGS SHALL BE INSTALLED AND MAINTAINED AS WARRANTED BY THE MAINTENANCE AND PROTECTION OF TRAFFIC (MPT) REQUIRED TO FACILITATE TRAFFIC MOVEMENTS THROUGH THE WORK ZONE. ALL TEMPORARY SIGNS AND PAVEMENT MARKINGS SHALL BE REMOVED UPON COMPLETION OF THE PROJECT.

NYC Department of Transportation
 Bureau of Permit Management and Construction Control
 30-30 Thomson Street – 2nd Floor South
 Long Island City, NY 11101
 T: 212.839.9621 F: 718.391.3631
www.nyc.gov/dot

OCMC FILE NO: MEC-13-286
 CONTRACT NO: HWPLZ008M
 PROJECT: RECONSTRUCTION OF FORSYTH STREET PLAZA

July 17, 2013
 Page 2 of 5

SPECIAL NOTE: A minimum of two (2) weeks prior to commencing work, the Permittee/NYCDDC shall present the project to the NYC DOT Lower Manhattan Borough Commissioner's Office (LMBCO) and the NYC DOT Office of Bicycle and Pedestrian Programs for their review, and to address any concerns they may have.

B. MAINTENANCE AND PROTECTION OF TRAFFIC

STAGE 1: INSTALLATION OF TEMPORARY BICYCLE PATH, WATER MAIN AND BICYCLE APRON

CANAL STREET BETWEEN FORSYTH STREET AND CHRYSTIE STREET (MANHATTAN BRIDGE)

- **NO WORK MAY OCCUR DURING BROOKLYN BRIDGE FULL WEEKEND CLOSURE EMBARGO PERIODS.**
- Work hours shall be as follows: 10:00PM to 5:00AM, Sunday night to Friday morning
 11:00PM Friday to 6:00AM Saturday
 11:00PM Saturday to 9:00AM Sunday
- The Permittee shall maintain a minimum of one (1) 13-foot lane for eastbound traffic at all times. There shall be no impact on the existing two-way bicycle path on the north side of the roadway.
- The Permittee shall fully close the north-south pedestrian crosswalk on the west side of the intersection of Canal Street and Forsyth Street, provided all other pedestrian crosswalks remain open.
- During this stage, the Permittee shall provide and maintain a minimum 8-foot wide two-way temporary bicycle path through the existing plaza.

STAGE 2: INSTALLATION OF PAVEMENT SEWER AND REMOVAL OF TREES

FORSYTH STREET BETWEEN CANAL STREET AND DIVISION STREET (BEND)

- Work hours shall be as follows: 7:00AM to 6:00PM, Monday to Friday
 8:00AM to 6:00PM Saturday and Sunday
- The Permittee shall maintain a minimum five (5) foot clear path on the sidewalk for pedestrian access at all times.
- The Permittee shall maintain a minimum of one (1) 13-foot lane for southbound traffic at all times.

STAGE 3: DEMOLITION OF EXISTING GRANITE WALL AND INSTALLATION OF SEWER AND WATER MAIN

FORSYTH STREET BETWEEN CANAL STREET AND DIVISION STREET (BEND)

- Work hours shall be as follows: 7:00AM to 6:00PM, Monday to Friday
 8:00AM to 6:00PM Saturday and Sunday
- The Permittee shall maintain a minimum of one (1) 13-foot lane for southbound traffic at all times.
- The Permittee shall post "No Standing Anytime-Temporary Construction Regulation" signs along the east curb opposite the work zone to facilitate maintenance of the 13-foot lane for traffic.
- The Permittee shall maintain a minimum five (5) foot clear path on the east sidewalk for pedestrian access at all times while fully closing the west sidewalk. The Permittee shall post signs meeting NYCDOT specifications for directing pedestrians to the opposite sidewalk. Signs must be posted at work zones as well as at both intersections of the affected sidewalk.

OCMC FILE NO: MEC-13-286
 CONTRACT NO: HWPLZ008M
 PROJECT: RECONSTRUCTION OF FORSYTH STREET PLAZA

July 17, 2013
 Page 3 of 5

B. MAINTENANCE AND PROTECTION OF TRAFFIC (CONTINUED)

STAGE 4: PLAZA RECONSTRUCTION, CONSTRUCTION OF RETAINING WALLS, INSTALLATION OF NEW CATCH BASINS, MANHOLES, SEWER AND WATER MAIN

FORSYTH STREET BETWEEN CANAL STREET AND DIVISION STREET (BEND)

- Work hours shall be as follows: 7:00AM to 6:00PM, Monday to Friday
8:00AM to 6:00PM Saturday and Sunday
- The Permittee shall maintain a minimum of one (1) 13-foot lane for southbound traffic at all times.
- The Permittee shall post "No Standing Anytime-Temporary Construction Regulation" signs along the east curb opposite the work zone to facilitate maintenance of the 13-foot lane for traffic.
- The Permittee shall maintain a minimum five (5) foot clear path on the east sidewalk for pedestrian access at all times while fully closing the west sidewalk and providing/maintaining a minimum five (5) foot clear protected temporary walkway in the roadway adjacent to the work zone. The temporary pedestrian walkway must be ramped at entry/exit points to/from the sidewalk for handicapped accessibility.

STAGE 5: INSTALLATION OF NEW SIDEWALK, STAIR AND ADA RAMP

FORSYTH STREET BETWEEN CANAL STREET AND DIVISION STREET (BEND)

- Work hours shall be as follows: 7:00AM to 6:00PM, Monday to Friday
8:00AM to 6:00PM Saturday and Sunday
- The Permittee shall maintain a minimum of one (1) 13-foot lane for southbound traffic at all times.
- The Permittee shall post "No Standing Anytime-Temporary Construction Regulation" signs along the east curb opposite the work zone to facilitate maintenance of the 13-foot lane for traffic.
- The Permittee shall maintain a minimum five (5) foot clear path on the east sidewalk for pedestrian access at all times while fully closing the west sidewalk and providing/maintaining a minimum five (5) foot clear protected temporary walkway in the roadway adjacent to the work zone. The temporary pedestrian walkway must be ramped at entry/exit points to/from the sidewalk for handicapped accessibility.

INSTALLATION OF TELECOMMUNICATIONS CONDUIT

FORSYTH STREET BETWEEN CANAL STREET AND DIVISION STREET (BEND)

- Work hours shall be as follows: 10:00PM to 5:00AM, Sunday night to Friday morning
11:00PM Friday to 6:00AM Saturday
11:00PM Saturday to 9:00AM Sunday
- During working hours, the Permittee shall maintain a minimum of one (1) 13-foot lane for southbound traffic, while maintaining a minimum five (5) foot clear path on the sidewalk for pedestrian access. After working hours, the Permittee shall restore the roadway and sidewalks to their full widths.

INTERSECTION OF FORSYTH STREET AND CANAL STREET

- **NO WORK MAY OCCUR DURING BROOKLYN BRIDGE FULL WEEKEND CLOSURE EMBARGO PERIODS.**
- Work hours shall be as follows: 10:00PM to 5:00AM, Sunday night to Friday morning
11:00PM Friday to 6:00AM Saturday
11:00PM Saturday to 9:00AM Sunday
- During working hours, the Permittee shall maintain a minimum of one (1) 13-foot lane for southbound traffic on Forsyth Street and one (1) 11-foot lane for eastbound traffic on Canal Street. There shall be no impact on the existing two-way bicycle path on the north side of Canal Street.

C. GENERAL NOTES

1. **THIS IS NOT A PERMIT.** THIS STIPULATION SHEET MUST BE SUBMITTED WITH ALL REQUESTS FOR PERMITS PERTAINING TO THE ABOVE CONTRACT AND PRESENT AT THE WORK SITE ALONG WITH ALL ACTIVE CONSTRUCTION PERMITS WHEN THE APPROVED WORK IS BEING PERFORMED.
2. THE CONTRACTOR MUST COMPLY WITH ALL CONSTRUCTION EMBARGOS ISSUED BY THE NYCDOT INCLUDING THE HOLIDAY EMBARGO.

OCMC FILE NO: MEC-13-286
 CONTRACT NO: HWPLZ008M
 PROJECT: RECONSTRUCTION OF FORSYTH STREET PLAZA

July 17, 2013
 Page 4 of 5

C. GENERAL NOTES (CONTINUED)

3. THE CONTRACTOR SHALL COMPLY WITH ALL REQUIREMENTS OF THE NYCDOT SPECIAL EVENTS UNIT AS IDENTIFIED BELOW:
- A. STREET FAIRS / FESTIVALS**
- ALL EXCAVATIONS MUST BE BACKFILLED WITH SKID RESISTANT PLATES.
 - PLATES MUST BE RECESSED AND FLUSH WITH PAVEMENT.
 - ALL PAVEMENT DEFECTS MUST BE CORRECTED WITHIN OR ADJACENT TO THE WORK ZONE.
 - THE CONTRACTOR IS RESPONSIBLE FOR ANY DEFECTS WITHIN THE IMMEDIATE VICINITY IF NYCDOT STREET & ARTERIAL MAINTENANCE CANNOT MAKE REPAIRS DUE TO PROJECT INTERFERENCE (AS DETERMINED BY NYCDOT).
 - ALL EQUIPMENT, TRAILERS AND MATERIAL STORAGE MUST BE REMOVED.
- B. RUNNING / WALKING / BIKING EVENTS**
- ALL EXCAVATIONS MUST BE BACKFILLED AND PAVED OR PLATES MUST BE RECESSED AND PAVED OVER FLUSH WITH PAVEMENT.
 - ALL PAVEMENT DEFECTS MUST BE CORRECTED WITHIN OR ADJACENT TO THE WORK ZONE.
 - THE CONTRACTOR IS RESPONSIBLE FOR ANY DEFECTS WITHIN THE IMMEDIATE VICINITY IF NYCDOT STREET & ARTERIAL MAINTENANCE CANNOT MAKE REPAIRS DUE TO PROJECT INTERFERENCE (AS DETERMINED BY NYCDOT).
 - ALL EQUIPMENT, TRAILERS AND MATERIAL STORAGE MUST BE REMOVED.
- C. PARADES**
- ALL EXCAVATIONS MUST BE BACKFILLED AND PAVED OR PLATES MUST BE RECESSED AND PAVED OVER FLUSH WITH PAVEMENT.
 - FORMATION AND DISPERSAL AREA PLATES MUST BE RECESSED AND FLUSH WITH PAVEMENT (PLATES MUST BE SKID RESISTANT).
 - ALL PAVEMENT DEFECTS MUST BE CORRECTED WITHIN OR ADJACENT TO THE WORK ZONE.
 - THE CONTRACTOR IS RESPONSIBLE FOR ANY DEFECTS WITHIN THE IMMEDIATE VICINITY IF NYCDOT STREET & ARTERIAL MAINTENANCE CANNOT MAKE REPAIRS DUE TO PROJECT INTERFERENCE (AS DETERMINED BY NYCDOT).
 - ALL EQUIPMENT, TRAILERS AND MATERIAL STORAGE MUST BE REMOVED.
- D. MAYORAL EVENTS**
- ALL EXCAVATIONS MUST BE BACKFILLED AND PAVED OR PLATES MUST BE RECESSED AND PAVED OVER FLUSH WITH PAVEMENT.
 - ALL PAVEMENT DEFECTS MUST BE CORRECTED WITHIN OR ADJACENT TO THE WORK ZONE.
 - THE CONTRACTOR IS RESPONSIBLE FOR ANY DEFECTS WITHIN THE IMMEDIATE VICINITY IF NYCDOT STREET & ARTERIAL MAINTENANCE CANNOT MAKE REPAIRS DUE TO PROJECT INTERFERENCE (AS DETERMINED BY NYCDOT).
 - ALL EQUIPMENT, TRAILERS AND MATERIAL STORAGE MUST BE REMOVED.
4. ALL RELOCATION WORK BY THE UTILITIES SUCH AS: CON EDISON, TELEPHONE, GAS AND CABLE COMPANIES SHALL PRECEDE THE CONTRACTORS' START OF WORK ON ALL AFFECTED ROADWAYS IN THE IMPACTED CONTRACT AREA.
5. THE CONTRACTOR IS ADVISED THAT OTHER CONTRACTORS MAY BE WORKING IN THE GENERAL AREA DURING THE TERM OF THIS STIPULATION. IN WHICH EVENT, THE CONTRACTOR MAY REQUIRE MODIFICATIONS BY THE OCMC-STREETS.
6. THE PERMITEE IS NOT AUTHORIZED TO ENTER, OCCUPY OR USE ANY PUBLICLY-OWNED OR PRIVATELY OWNED, NON-PAVED, LANDSCAPE OR NON-LANDSCAPED LOCATION WITHOUT SPECIFIC WRITTEN PERMISSION. WHEN THE LOCATION IS WITHIN THE RIGHT-OF-WAY OF A LIMITED-ACCESS ARTERIAL HIGHWAY, WRITTEN APPROVAL FROM THE NYCDOT OCMC-HIGHWAYS IS REQUIRED. WHEN THE LOCATION IS WITHIN THE RIGHT-OF-WAY OF A PUBLIC STREET OR PUBLIC PARK, WRITTEN APPROVAL FROM THE NEW YORK CITY DEPARTMENT OF TRANSPORTATION OR NEW YORK CITY DEPARTMENT OF PARKS AND RECREATION IS REQUIRED. WHEN THE LOCATION IS WITHIN THE RIGHT-OF-WAY OF ANY OTHER JURISDICTION SUCH AS PRIVATE PROPERTY, STATE, FEDERAL ETC., IT IS THE PERMITEE'S RESPONSIBILITY TO DETERMINE THE PROPERTY OWNER AND OBTAIN THE WRITTEN APPROVAL.
7. THE PERMITEE SHALL ADHERE TO THE NYCDOT BUREAU OF BRIDGES' SPECIAL PROVISIONS FOR LANDSCAPE PROTECTION, MAINTENANCE AND RESTORATION, ITEMS 1.18.15 THROUGH 1.18.19, WHENEVER AND WHEREVER ANY OF THE PERMITEE'S ACTIVITIES OCCUR WITHIN A LIMITED ACCESS ARTERIAL HIGHWAY RIGHT-OF-WAY.
8. NO DEVIATION OR DEPARTURE FROM THESE STIPULATIONS WILL BE PERMITTED WITHOUT THE PRIOR WRITTEN APPROVAL FROM THE OCMC-STREETS. REQUEST FOR SUCH MODIFICATIONS SHALL BE SUBMITTED TO THE OFFICE OF THE OCMC-STREETS, NEW YORK CITY DEPARTMENT OF TRANSPORTATION, A MINIMUM OF TWENTY (20) DAYS IN ADVANCE FOR CONSIDERATION.
9. FOR THIS PROJECT THE CONTRACTOR SHALL FURNISH, INSTALL AND MAINTAIN ALL NECESSARY ADVANCE WARNING AND DETOUR SIGNS, TEMPORARY CONTROL DEVICES, BARRICADES, LIGHTS AND FLASHING ARROW BOARDS IN ACCORDANCE WITH THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES," THE TYPICAL SCHEMES INCLUDED IN THIS SPECIFICATION; AND AS ORDERED BY THE ENGINEER-IN-CHARGE AND THE OCMC-STREETS.
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR IDENTIFYING HIS CONSTRUCTION SIGNAGE. THE IDENTIFICATION SHALL INCLUDE THE CONTRACTOR'S NAME, SPONSORING AGENCY NAME AND THE CONTRACT NUMBER. THE IDENTIFICATION SHALL BE PLACED ON THE BACK OF THE SIGN. THE LETTERING SHALL BE THREE (3) INCHES HIGH.

OCMC FILE NO: MEC-13-286
CONTRACT NO: HWPLZ008M
PROJECT: RECONSTRUCTION OF FORSYTH STREET PLAZA


July 17, 2013
Page 5 of 5

C. GENERAL NOTES (CONTINUED)

11. FOR ANY CONSTRUCTION ACTIVITY RESULTING IN THE FULL CLOSURE OF A ROADWAY FOR MORE THAN 180 CONSECUTIVE CALENDAR DAYS, THE CONTRACTOR MUST PRODUCE AND SUBMIT A COMMUNITY REASSESSMENT, IMPACT AND AMELIORATION (CRIA) STATEMENT TO NYCDOT PLANNING AND OBTAIN THEIR APPROVAL BEFORE APPLYING FOR PERMITS, IN COMPLIANCE WITH THE PROVISIONS OF **LOCAL LAW 24 STREET CLOSURE LAW.**
12. THE OCMC-STREETS RESERVES THE RIGHT TO VOID OR MODIFY THESE STIPULATIONS SHOULD CONSTRUCTION FAIL TO COMMENCE WITHIN TWO (2) YEARS OF THE SIGNED DATE OF THESE STIPULATIONS.



JOSEPH P. NOTO
EXECUTIVE DIRECTOR
OCMC-STREETS



DUANE C. BARRA
PROJECT MANAGER
OCMC-STREETS



THE CITY OF NEW YORK Department of Sanitation

S. ELIZABETH SEARLE
Assistant Commissioner
for Legal Affairs

Bureau of Legal Affairs
44 Beaver Street
New York, NY 10004
Telephone (212) 837-8110
FAX (212) 837-8243

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.

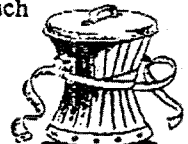
1. When No Transfer Station Permit is Required

Where a City contractor has:

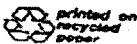
- (a) set aside an area of a contract site for stockpiling construction materials excavated from and/or intended for that site; or
- (b) received written approval from the contracting agency for an off-site stockpiling location,

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: HWPLZ008M

**RECONSTRUCTION OF FORSYTH STREET PLAZA
INCLUDING SEWER, WATER MAIN, STREET LIGHTING, AND TRAFFIC WORK**

Together With All Work Incidental Thereto

BOROUGH OF MANHATTAN

ADDENDUM NO. 2

DATED: July 10, 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 is advised that where the existing roadway pavement is designated to be replaced from curb to curb, then no full depth saw cutting of pavement for sewer and water main trenches will be required, except at the limits of full width pavement restoration.
- (10) 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.
- (11) 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 Permittee 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 Permittee/MTA, and also that the contractor's policies, primary and excess, must be exhausted before implicating any Permittee/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 Permittee/MTA policy available, contractor's and subcontractor's policies shall nevertheless be primary and must be exhausted before implicating any Permittee/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 Permittee/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 Permittee, the Permittee shall deliver to the Authority, within forty-five (45) days of 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 Permittee 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 Permittee, the Permittee 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 6th Avenue Line - F Train** is running along Chrystie Street
 - (b) The **BMT Broadway Line - N and Q Trains** are running towards Manhattan Bridge
- (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-640 - Duct Assignment - Vicinity of Grand Street Station - 6th Avenue Line - IND - Manhattan
- Drawing No. P-641 - Duct Assignment - Vicinity of Manhattan Bridge - Brighton Line - BMT - Manhattan

- (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. HWPLZ008M.

- (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 preconstruction meeting or from the Engineer. The minimum requirement for approval is that the laboratory must have the current AMRL/AASHTO R-18 accreditation in the category of service proposed 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 highway rehabilitation the restoration shall be accomplished and paid for in accordance with Highway Construction Plans, Details and Specifications for Highway Project ID. HWPLZ008M.

(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/trafalrt.shtml>**

(2) Refer to Subsection 1.06.27 - Salvageable Materials, Page I-14:

Delete the paragraph starting with the words, "No salvageable material...", and ending with the words, "...from the site.", in its entirety:

Substitute the following:

Except as specified below, no salvageable material shall be returned to the New York City Department of Environmental Protection regardless of condition. It shall become the property of the Contractor for removal and disposal, by the Contractor, away from the site.

The Contractor shall salvage and deliver to a designated NYCDEP yard all Metropolitan Valves (6" thru 20") removed during construction of the contract.

- (3) **Refer** to 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 **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.

(18) **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)**.

(19) **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.

(20) 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 twenty-three (23) pages.

NO TEXT ON THIS PAGE

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

February 14, 2013

ADDENDUM NO. 3

PROJECT ID: HWPLZ008M

RECONSTRUCTION OF FORSYTH STREET PLAZA

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

Table of Contents

ITEM 8.01 C1	<u>HANDLING, TRANSPORTING AND DISPOSAL OF NON-HAZARDOUS CONTAMINATED SOILS</u>	A3-1
ITEM 8.01 C2	<u>SAMPLING AND TESTING OF CONTAMINATED/POTENTIALLY HAZARDOUS SOILS FOR DISPOSAL PARAMETERS</u>	A3-7
ITEM 8.01 H	<u>HANDLING, TRANSPORTING AND DISPOSAL OF HAZARDOUS SOILS</u>	A3-9
ITEM 8.01 S	<u>HEALTH AND SAFETY</u>	A3-15
ITEM 8.01 W1	<u>REMOVAL, TREATMENT AND DISCHARGE/DISPOSAL OF CONTAMINATED WATER</u>	A3-20
ITEM 8.01 W2	<u>SAMPLING AND TESTING OF CONTAMINATED WATER</u>	A3-27

- Attachments**
1. New York City Department of Environmental Protection Limitations for Effluent to Storm-Sanitary or Combined Sewers Parameters
 2. Applicable Regulations
 3. Definitions

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

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:

ITEM NUMBER	ITEM	PAYMENT UNIT
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 H.1.3 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. 3
This Addendum Consists Of Thirty Eight (38) Pages

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

PROJECT ID: HWMPLZ008M

RECONSTRUCTION OF FORSYTH STREET PLAZA

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

TOGETHER WITH ALL WORK INCIDENTAL THERETO

BOROUGH OF MANHATTAN
CITY OF NEW YORK

ADDENDUM NO.4

DATED: August 12, 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 A4-3 through A4-13)
 - B. Schedule U-1 (Page A4-14)
 - C. Schedules U-2 (one for each Utility Company) (Pages A4-15 through A4-18)
 - D. Section U-3 (Pages (A4-19 through A4-21) in this Addendum) as per the Private Utilities reference document for SECTION U called "CET SPECIFICATIONS AND SKETCHES", dated November 2010, and;
 - E. Utility drawing consisting of:
 - * Conduit Plate, Con Edison (1 sheet)
 - * Special Care Excavation Plan, Con Edison (1 sheet)attached to the Plans.
2. Each facility operator shall provide inspectors at the work site to inspect methods of interference work, verify quantities and items of Utility Work, and coordinate all phases of the facility operator operations.
3. In addition, the following statements are made to provide clarification of various paragraphs under Section U:

- A. Section U, ¶4, requires the Contractor to immediately commence negotiations with each Company for an Interference Agreement under which the Company will compensate the Contractor for any Interference Work which the Company does not elect to perform with its own forces or by specialty contractors retained by the Company. Thus the Contractor is on notice that its work under the Contract may be affected by Interference Work performed by (a) the Contractor pursuant to a separate Interference Agreement with the Company, (b) the Company, or (c) partly by each.
- B. Section U, ¶2, informs the Contractor that the duration of the Contract as shown in Schedule A includes the time which may be necessary for the Contractor to perform the necessary Interference Work.
- C. The Contractor is hereby informed that the duration of the Contract as shown in Schedule A includes the time which may be necessary for the Company to perform whatever portion of the Interference Work which the Company elects to perform with its own forces or by specialty contractors retained by the Company.
- D. Section U informs the Contractor that the City has entered into a Utility Agreement with the Companies regarding interferences to the City work in this Contract created by the facilities owned and/or operated by such Companies. Pursuant to this Addendum, a sample of the Utility Agreement letter as executed by the Companies is annexed on page A4-13, as an Exhibit to the Contract. Signed copies of those Utility Agreement letters are on file with NYCDDC.
- E. The City has no contract with any of the Companies for work on or adjacent to the site of work under this Contract, and the Companies are not "Other Contractors" as defined for the purposes of this Contract. The Contractor is reminded, however, that pursuant to Section U, ¶4, the City will not compensate the Contractor for any direct and/or indirect costs related to Interference Work, regardless of whether such Interference Work is covered by an Interference Agreement between the Contractor and the Company or is performed by the Company using its own forces or by specialty contractors retained by the Company.
- F. Section U, ¶14, provides that the provisions of Section U are material provisions of the Contract and that the Contractor's failure to comply with the procedures set forth in Section U are sufficient for the Commissioner to declare the Contractor in default pursuant to Article 48 of the Contract. Pursuant to this Addendum, the Contractor is informed that the Performance Bond required of the Contractor pursuant to the Contract is not deemed to guarantee performance of any of the Interference Work.

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

The Contractor is hereby notified that pursuant to the law and franchise agreements issued by the City, certain private utility and public service companies named in Schedule U-1 ("the Companies") own and/or operate surface and/or subsurface facilities within the limits of this contract. The existence of these facilities impacts the productivity of the City work called for in the contract. In order to improve coordination of the City construction with the private utility facilities owned and/or operated by the Companies named in Schedule U-1, Article 1.06.30 of the Standard Highway Specifications of the New York City Department of Transportation, Dated November 1, 2010; Articles 1.06.14 through 1.06.17 of the General Provisions of the Standard Water Main Specifications of the New York City Department of Environmental Protection, dated August 1, 2009; and/or Articles 1.06.14 through 1.06.17 of the Standard Sewer Specifications of the New York City Department of Environmental Protection, Dated August 1, 2009; as applicable, are amended and will be implemented as follows:

1. Pre-engineering:

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

2. Means and methods for City work:

- a) The Contractor is hereby notified that the utility interferences identified on the plans and/or listed in the Specifications to be known conditions which may impact the performance of, and/or interferes with, City work. The contractor will be required to perform such utility work as directed by the Resident Engineer in order to clear all utility interferences from the project site as required for satisfactory completion of City work within specified contract schedule.
- b) In areas serviced by overhead electric system, the contractor understands and by bidding for this contract agrees that he/she has reviewed the section 'U' package and

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

3. *Field inspection prior to construction:*

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

4. *Compensation for interference work:*

Compensation for Interference Work is a matter of adjustment between the Contractor and each private utility company located within the limits of the project area and whose utility facilities are affected by City contract work. In particular, the City will not compensate the Contractor for any direct and/or indirect costs related to Interference Work, including, but not limited to, lost profit, increased overhead, or any other impact costs. Upon receipt of a Notice of Award from the City, the Contractor shall immediately commence negotiations with each of the Companies concerning the manner in which and the price for which the Contractor,

through its own forces or by others hired by it, will perform and be paid by the Company for all necessary Interference Work as defined above that the Company(ies) choose(s) not to perform with its(their) own forces or by specialty Contractors hired by it (them) (as per "Interference Agreement"). (Specialty contractors' work is limited to (i) insulation installation and removal, (ii) live gas and steam work, (iii) cleanup and disposal of hazardous materials, (iv) splicing live electrical and telecommunications facilities, and (v) work not traditionally performed by general construction contractors.)

5. *Interference Agreement:*

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

6. *City contract work to continue without Interference Agreement :*

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

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

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

and, thereby jeopardizing the City project schedule. The Resident Engineer will submit the facts to the DDC Director of construction who will recommend to the Deputy Commissioner regarding the issuance of a "48 hours notice" to the concerned utility company as authorized by the New York City administrative Code Section 19-143 and/or Section 24-521 as applicable.

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

7. *Extra utility work with Utility Agreement:*

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

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

grant a contract time extension for delays caused by the performance of such utility work by the company.

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

8. *Means and Methods for utility work:*

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

9. *Disputed utility work covered by a utility agreement:*

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

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

10. Arbitration of utility work:

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

- (a) Once an arbitrator(s) has been appointed by the AAA, the arbitration shall be scheduled as promptly as possible given the arbitrator(s) and the parties' schedules.
- (b) No later than seven days prior to the first arbitration hearing, Company and Contractor shall submit to the arbitrator(s), and to each other, a summary of each party's respective position and such other information as is deemed appropriate, along with a copy of each party's Final Offer as specified in paragraph 9.
- (c) The arbitration shall be conducted and concluded in two days.
- (d) On the morning of the first day of the arbitration, Contractor and/or representatives shall have 3 ½ hrs to make a presentation of its claim to the arbitrator. During its presentation, Contractor shall not be permitted to produce any documents or cost records which have not already been provided to the Company. Contractor shall be permitted to produce any analysis or description of its claim which has been prepared for the purpose of its presentation.
- (e) After lunch, Company and/or its representatives shall have two hours to ask Contractor questions about its claim and its presentation. Thereafter the arbitrator(s) shall have two hours to ask Contractor questions about its claim and its presentation.

- (f) On the morning of the second day of the arbitration, Company and/or its representatives shall have 3 ½ hours to make a presentation of its claim to the arbitrator. During its presentation, the Company shall not be permitted to produce any documents or cost records which have not already been provided to the Contractor. The Company shall be permitted to produce any analysis or description of its claim which has been prepared for the purpose of its presentation.
- (g) After lunch, Contractor and/or its representatives shall have two hours to ask Company questions about its claim and its presentation. Thereafter the arbitrator(s) shall have two hours to ask Company questions about its claim and its presentation.
- (h) Subject to the above time limitations, the arbitrator(s) may conduct the arbitration in such manner as the arbitrator(s) deems reasonable.
- (i) The arbitrator(s) shall then have one week to select in writing, as the arbitrator ('s) award, that party's Final Offer which appears to be more reasonable, based on the presentations at the arbitration hearings.
- (j) The arbitrator shall have no discretion to grant an award other than one of the two Final Offers submitted by the parties.
- (k) Any award for work that has already been performed shall be paid on the 7th day after receipt of the arbitrator's decision, or on the 30th day after completion of the work, whichever is later. Payment for work not yet completed at the time of the arbitrator's decision shall be paid within 30 days of completion of work. Interest shall accrue from the date payment is due at the rate of 9% per annum. Either party may cause judgment to be entered in accordance with the arbitrator(s) decision in a court in the State of New York, County of New York.
- (l) The arbitrator's fees and any other costs of the arbitration shall be initially shared equally by Company and Contractor. The non-prevailing party shall then pay all arbitrator's fees and costs of the arbitration and shall reimburse the prevailing party for its share of such fees and costs theretofore paid.
- (m) The parties may, at any time, settle any matter submitted to arbitration.

11. Order-out waiver:

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

12. Cost of insurance:

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

13. Cost of utility interference work:

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

14. Default declaration:

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

15. NYS Labor Law:

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

16. Facility operators:

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

[End]

“STANDARD UTILITY LETTER OF AGREEMENT”

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

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

Dear (Name):

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

Sincerely,

By: Authorized Company Representative

Title

NOTARY PUBLIC

CERTIFIED AS TO FORM
AND LEGAL AUTHORITY:

By: _____

SCHEDULE U-1

HWMPZ008M

LISTING OF COMPANIES NAMED FOR THIS CONTRACT

HWPLZ008M

RECONSTRUCTION OF FORSYTH STREET PLAZA

<u>COMPANY NAME</u>	<u>CONTACT NAME</u>	<u>CONTACT TELEPHONE</u>
CON EDISON	THERESA KONG	212-460-4834
EMPIRE CITY SUBWAY	AUBREY MAKHANLALL	718-977-8165

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

HWPLZ008M

Bounded by Canal St., Manhattan Bridge and Forsyth St.

CET ITEM	DESCRIPTION	UNITS	ESTIMATED QUANTITY
CET 401	TRENCH EXCAVATION FOR ADJUSTMENT OF UTILITIES	C.Y.	17
CET 402.V2	EXISTING VACANT NON-CONCRETE ENCASED CONDUITS PLACED IN FINAL POSITION W/O CONCRETE ENCASEMENT	L.F.	60
CET 500	REMOVAL OF ABANDONED UTILITY CONDUITS (NON-CONCRETE ENCASED)	L.F.	480
CET 802B	SPECIAL MODIFICATION OF WORK FOR INSTALLATION OF NEW CURBS	L.F.	10

**CON EDISON SCOPE OF WORK
SUPPORT AND PROTECTION
HWPLZ008M
Bounded by Canal St., Manhattan Bridge and Forsyth St.**

CET 401	TRENCH EXCAVATION FOR ADJUSTMENT OF UTILITIES <i>At the following locations:</i> 40' W/W/C Forsyth St and S/C Canal Street AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE Total quantity for CET 401 = 17	C.Y.
CET 402.V2	EXISTING VACANT NON-CONCRETE ENCASED CONDUITS PLACED IN FINAL POSITION W/O CONCRETE ENCASEMENT <i>At the following locations:</i> 40' W/W/C Forsyth St and S/C Canal Street AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE Total quantity for CET 402.V2 = 60	L.F.
CET 500	REMOVAL OF ABANDONED UTILITY CONDUITS (NON-CONCRETE ENCASED) <i>At the following locations:</i> 40' W/W/C FORSYTH ST AND S/C CANAL STREET AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE Total quantity for CET 500 = 480	L.F.
CET 802B	SPECIAL MODIFICATION OF WORK FOR INSTALLATION OF NEW CURBS <i>At the following locations:</i> 40' W/W/C Forsyth St and S/C Canal Street AS ENCOUNTERED AND DIRECTED BY A CON EDISON REPRESENTATIVE Total quantity for CET 802B = 10	L.F.

SECTION U WORKSHEET
HWPLZ008M - RECONSTRUCTION OF FORSYTH STREET PLAZA
FOR INFORMATION ONLY
ENGINEER'S ESTIMATE OF QUANTITY AND TYPES OF INTERFERENCE
FOR EMPIRE CITY SUBWAY
FORSYTH STREET & CANAL STREET
BOROUGH OF MANHATTAN

CET ITEM NUMBER	DESCRIPTION	Unit of Measure	Estimated Quantity
CET 108.2	UTILITIES CROSSING TRENCH FOR WATERMAIN UP TO AND INCL. 12" DIAMETER (TYPE .2)	EA.	1.00
CET 300	SPECIAL CARE EXCAVATION & BACKFILLING	C.Y.	5.00

EMPIRE CITY SUBWAY CET SCOPE OF WORK
SUPPORT & PROTECTION
HWPLZ008M - RECONSTRUCTION OF FORSYTH STREET PLAZA
FORSYTH STREET & CANAL STREET
BOROUGH OF MANHATTAN

CET 108.2	UTILITIES CROSSING TRENCH FOR WATERMAIN UP TO AND INCL. 12" DIAMETER (TYPE 2)	EA.
	At the following locations:	
	S/S CANAL STREET W/O FORSYTH STREET	1.00
	Total quantity for CET 108.2 =	1.00
CET 300	SPECIAL CARE EXCAVATION & BACKFILLING	C.Y.
	At the following locations:	
	S/S CANAL STREET W/O FORSYTH STREET	5.00
	Total quantity for CET 300 =	5.00

SECTION U-3

(NO TEXT IN THIS SECTION)

SKETCHES



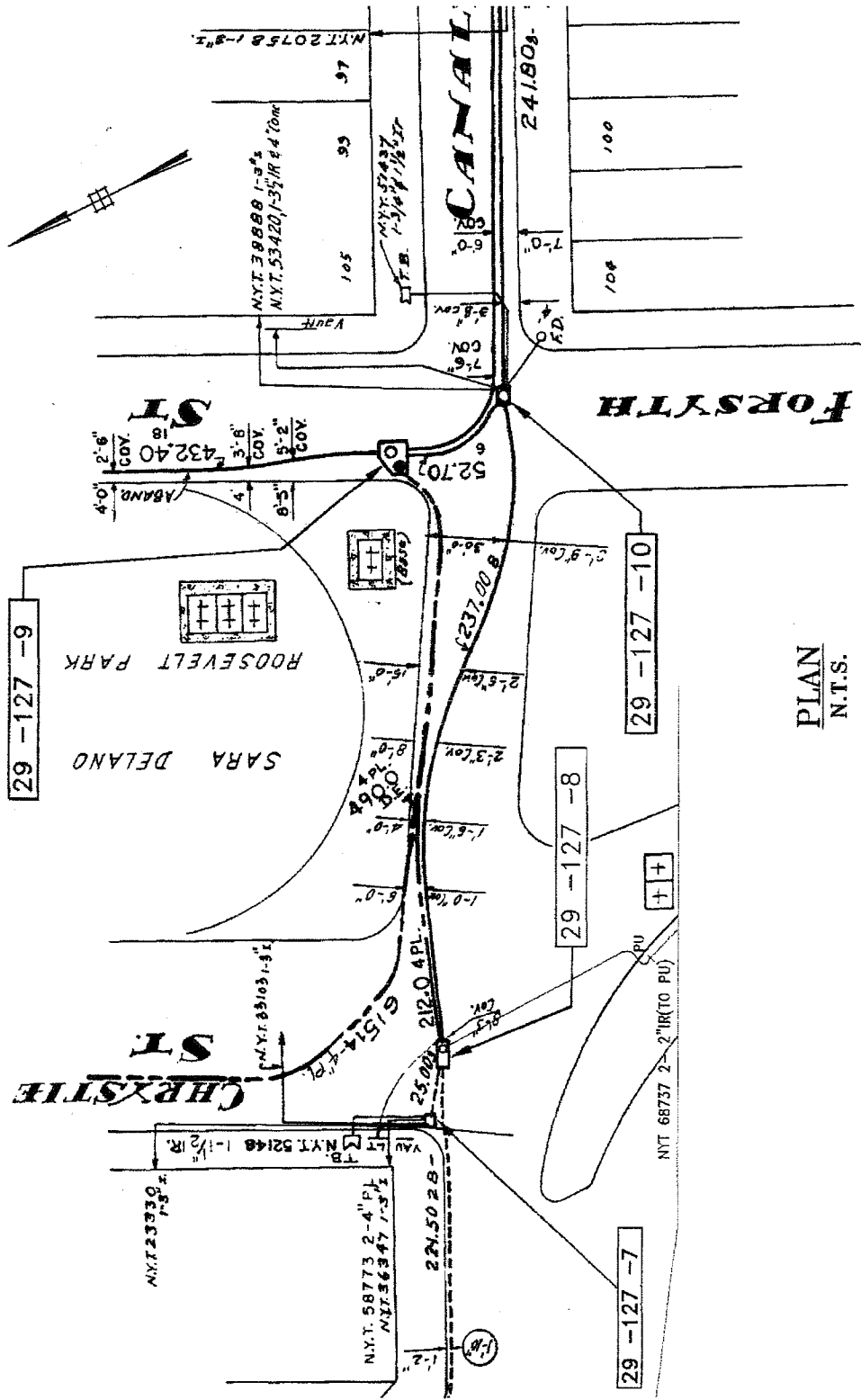
JOB NO.: HWPLZ008M

JOB: RECONSTRUCTION OF FORSYTH STREET PLAZA

TITLE: EMPIRE CITY SUBWAY EXISTING FACILITIES PLAN

SHEET NO: 1 OF 1

DATE: 08/08/2013



PLAN
N.T.S.

PROJECT ID: HWPLZ008M

END OF ADDENDUM No.4
This Addendum consists of Twenty-Two (22) pages
And Two (2) sheets of Contract Drawings

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

PROJECT ID: HWPLZ008M

RECONSTRUCTION OF FORSYTH STREET PLAZA

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

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

ADDENDUM NO. 5

DATED: October 01, 2013

THIS ADDENDUM IS HEREBY MADE A PART OF THE CONTRACT DOCUMENTS

1. Refer to the Bid and Contract Documents, Volume 1 of 3,
ATTACHMENT 1 - BID INFORMATION on Page A-1;
Change the dates shown for Submission of Bids To and for Bid
Opening from "OCTOBER 3, 2013" to read "OCTOBER 16, 2013".
2. Refer to the Bid and Contract Documents, Volume 1 of 3,
SCHEDULE B - M/WBE Utilization Plan on Page 13;
Change the date shown for **Bid/Proposal Response Date** from
"OCTOBER 3" to read "OCTOBER 16, 2013".
3. Refer to the Bid and Contract Documents, Volume 1 of 3, BID
SCHEDULE;
Delete Pages B-3 to B-41, in their entirety
Substitute attached Pages B-3 [REVISION # 1] through B-42 [REVISION 1]
4. Refer to the Bid and Contract Documents, Volume 3 of 3, ADDENDUM
No. 1, page A1-62;
Add attached pages A1-62A to A1-62B.
5. Refer to the Bid and Contract Documents, Volume 3 of 3, ADDENDUM
No. 1 page A1-156;
Add attached pages A1-156A to A1-156C.
6. Refer to the Bid and Contract Documents, Volume 3 of 3, ADDENDUM
No. 1 page A1-160;
Add attached pages A1-160A to A1-160L.
7. Refer to the Bid and Contract Documents, Volume 3 of 3, ADDENDUM
No. 1, pages A1-162 to A1-172;
Delete Section PK-162B contained on pages A1-162 to A1-172, in its
entirety;
Substitute the attached pages A1-162 R and A1-163 R.

8. Refer to the Bid and Contract Documents, Volume 3 of 3, ADDENDUM No. 1, SPECIAL PROVISIONS, page A1-184;
Insert the following new Article J1 between Articles J and K:

"J1. 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."

9. Refer to the Bid and Contract Documents, Volume 3 of 3, ADDENDUM No. 1, OCMC TRAFFIC STIPULATIONS, pages A1-185 to A1-189; Delete pages A1-185 to A1-189, in their entirety; Substitute the revised OCMC Traffic Stipulations as contained on the attached Pages A1-185 R to A1-189 R.
10. Refer to Contract Drawings, Sheet 2 of 78 (TC1/TC1), TABLE OF CONTENTS; Delete Sheet 2 of 78 (TC1/TC1), in its entirety; Substitute attached revised Sheet 2 of 78 containing REV. 1.
11. Refer to Contract Drawings, Sheet 6 of 78 (G3/G3), NEW YORK CITY TRANSIT GENERAL NOTES; Delete Sheet 6 of 78 (G3/G3), in its entirety; Substitute attached revised Sheet 6 of 78 containing REV.1.
12. Refer to Contract Drawings, Sheet 7 of 78 (SC1/SC1), SURVEY CONTROLS; Delete Sheet 7 of 78 (SC1/SC1), in its entirety; Substitute attached revised Sheet 7 of 78 containing REV.1.
13. Refer to Contract Drawings, Sheet 8 of 78 (D1/D1), DEMOLITION AND REMOVAL PLAN; Delete Sheet 8 of 78 (D1/D1), in its entirety; Substitute attached revised Sheet 8 of 78 containing REV. 1.
14. Refer to Contract Drawings, Sheet 11 of 78 (TRS1/TRS1), TYPICAL CROSS SECTION; Delete Sheet 11 of 78 (TRS1/TRS1), in its entirety; Substitute attached revised Sheet 11 of 78 containing REV. 1.
15. Refer to Contract Drawings, Sheet 12 of 78 (H1/H3), PLAZA CONSTRUCTION PLAN; Delete Sheet 12 of 78 (H1/H3), in its entirety; Substitute attached revised Sheet 12 of 78 containing REV. 1.
16. Refer to Contract Drawings, Sheet 13 of 78 (P1/P1), PLAZA CONSTRUCTION PROFILE; Delete Sheet 13 of 78 (P1/P1), in its entirety; Substitute attached revised Sheet 13 of 78 containing REV. 1.
17. Refer to Contract Drawings, Sheet 14 of 78 (GP1/GP1), SITE GRADING PLAN; Delete Sheet 14 of 78 (GP1/GP1), in its entirety; Substitute attached revised Sheet 14 of 78 containing REV. 1.
18. Refer to Contract Drawings, Sheet 15 of 78 (H2/H3), A.D.A. RAMP PLAN AND PROFILE; Delete Sheet 15 of 78 (H2/H3), in its entirety; Substitute attached revised Sheet 15 of 78 containing REV. 1.

19. Refer to Contract Drawings, Sheet 16 of 78 (H3/H3), BICYCLE PATH LAYOUT PLAN AND PROFILE;
Delete Sheet 16 of 78 (H3/H3), in its entirety;
Substitute attached revised Sheet 16 of 78 containing REV. 1.
20. Refer to Contract Drawings, Sheet 17 of 78 (TR1/TR1), TREE REMOVAL PLAN;
Delete Sheet 17 of 78 (TR1/TR1), in its entirety;
Substitute attached revised Sheet 17 of 78 containing REV. 1.
21. Refer to Contract Drawings, Sheet 25 of 78 (UD08/UD28), LANDSCAPE AND URBAN DESIGN, STEP & INTERIOR RAMP SECTIONS;
Delete Sheet 25 of 78 (UD08/UD28), in its entirety;
Substitute attached revised Sheet 25 OF 78 containing REV. 1.
22. Refer to Contract Drawings, Sheet 33 of 78 (UD16/UD28), LANDSCAPE AND URBAN DESIGN, THRESHOLD DETAILS AT FORSYTH STREET WALL 1;
Delete Sheet 33 of 78 (UD16/UD28), in its entirety;
Substitute attached revised Sheet 33 OF 78 containing REV. 1.
23. Refer to Contract Drawings, Sheet 46 of 78 (U1/U6), COMBINED UTILITY PLANS - WATER MAIN AND SEWER WORK;
Delete Sheet 46 of 78 (U1/U6), in its entirety;
Substitute attached revised Sheet 46 of 78 containing REV. 1.
24. Refer to Contract Drawings, Sheet 47 of 78 (U2/U6), WATER MAIN WORK DETAILS I;
Delete Sheet 47 of 78 (U2/U6), in its entirety;
Substitute attached revised Sheet 47 of 78 containing REV.1.
25. Refer to Contract Drawings, Sheet 48 of 78 (U3/U6), WATER MAIN WORK DETAILS II;
Delete Sheet 48 of 78 (U3/U6), in its entirety;
Substitute attached revised Sheet 48 of 78 containing REV. 1.
26. Refer to Contract Drawings, Sheet 49 of 78 (U4/U6), SEWER MAIN DETAILS;
Delete Sheet 49 of 78 (U4/U6), in its entirety;
Substitute attached revised Sheet 49 of 78 containing REV. 1.
27. Refer to Contract Drawings, Sheet 51 of 78 (U6/U6), UTILITY PLAN-ELECTRICAL AND TELECOMMUNICATION WORK;
Delete Sheet 51 of 78 (U6/U6), in its entirety;
Substitute attached revised Sheet 51 of 78 containing REV. 1.
28. Refer to Contract Drawings, Sheet 53 of 78 (PM1/PM1), PAVEMENT MARKING AND SIGNING PLAN;
Delete Sheet 53 of 78 (PM1/PM1), in its entirety;
Substitute attached revised Sheet 53 OF 78 containing REV. 1.
29. Refer to Contract Drawings, Sheet 55 of 78 (SL1/SL2), STREET LIGHTING PLAN;
Delete Sheet 55 of 78 (SL1/SL2), in its entirety;
Substitute attached revised Sheet 55 OF 78 containing REV. 1.

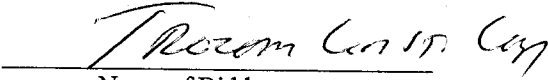
30. Refer to Contract Drawings, Sheet 58 of 78 (MPT1/MPT7),
MAINTENANCE & PROTECTION OF TRAFFIC, GENERAL NOTES - 1;
Delete Sheet 58 of 78 (MPT1/MPT7), in its entirety;
Substitute attached revised Sheet 58 of 78 (MPT1/MPT10) containing
REV. 1;
Insert attached new Sheet 58A of 78 (MPT2/MPT10) MAINTENANCE &
PROTECTION OF TRAFFIC, SEQUENCE NOTES immediately after
revised Sheet 58 of 78 (MPT1/MPT10).
31. Refer to Contract Drawings, Sheet 59 of 78 (MPT2/MPT7),
MAINTENANCE & PROTECTION OF TRAFFIC, LEGEND AND DETAILS;
Delete Sheet 59 of 78 (MPT2/MPT7), in its entirety;
Substitute attached revised Sheet 59 of 78 (MPT3/MPT10) containing
REV. 1.
32. Refer to Contract Drawings, Sheet 60 of 78 (MPT3/MPT7),
MAINTENANCE & PROTECTION OF TRAFFIC, DETOUR - STAGE I;
Delete Sheet 60 of 78 (MPT3/MPT10), in its entirety;
Substitute attached revised Sheet 60 of 78 (MPT4/MPT10) containing
REV. 1.
33. Refer to Contract Drawings, Sheet 61 of 78 (MPT4/MPT7),
MAINTENANCE & PROTECTION OF TRAFFIC, DETOUR - STAGE II;
Delete Sheet 61 of 78 (MPT4/MPT7), in its entirety;
Substitute attached revised Sheet 61 of 78 (MPT5/MPT10) containing
REV. 1.
34. Refer to Contract Drawings, Sheet 62 of 78 (MPT5/MPT7),
MAINTENANCE & PROTECTION OF TRAFFIC, DETOUR - STAGE III;
Delete Sheet 62 of 78 (MPT5/MPT7), in its entirety;
Substitute attached revised Sheet 62 of 78 (MPT6/MPT10) containing
REV. 1;
Insert attached new Sheet 62A of 78 (MPT7/MPT10) MAINTENANCE &
PROTECTION OF TRAFFIC, PHASE IE immediately after revised
Sheet 62 of 78 (MPT6/MPT10).
35. Refer to Contract Drawings, Sheet 63 of 78 (MPT6/MPT7),
MAINTENANCE & PROTECTION OF TRAFFIC, DETOUR - STAGE IV;
Delete Sheet 63 of 78 (MPT1/MPT10), in its entirety;
Substitute attached revised Sheet 63 of 78 (MPT8/MPT10) containing
REV. 1.
36. Refer to Contract Drawings, Sheet 64 of 78 (MPT7/MPT7),
MAINTENANCE & PROTECTION OF TRAFFIC, DETOUR - STAGE V;
Delete Sheet 64 of 78 (MPT7/MPT7), in its entirety;
Substitute attached revised Sheet 64 of 78 (MPT9/MPT10) containing
REV. 1;
Insert attached new Sheet 64A of 78 (MPT10/MPT10) MAINTENANCE &
PROTECTION OF TRAFFIC, TYPICAL DETAILS immediately after
revised Sheet 64 of 78 (MPT9/MPT10).

- 37. Refer to Contract Drawings, Sheet 66 of 78 (S4/S11), RETAINING WALL DETAILS, INTERIOR RAMP SECTIONS (WEST AND EAST);
Delete Sheet 66 of 78 (S4/S11), in its entirety;
Substitute attached revised Sheet 66 of 78 containing REV. 1.
- 38. Refer to Contract Drawings, Sheet 70 of 78 (S8/S11), FOUNDATION PLAN, SECTION AND DETAILS;
Delete Sheet 70 of 78 (S8/S11), in its entirety;
Substitute attached revised Sheet 70 of 78 containing REV. 1.

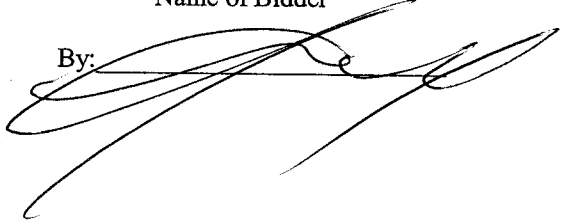
By signing in the space provided below, the bidder acknowledges receipt of this Addendum consisting of six (6) pages and sixty-four (64) pages of attachment and thirty two (32) sheets of drawings.

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


 MOHSEN ZARGARELAHI, P.E.
 Assistant Commissioner



 Name of Bidder

By: 

SECTION 7.54 AFD**Cast Iron Drain Frames and Grates**

7.54AFD.1. DESCRIPTION. Under this section, the Contractor shall furnish and install cast iron drain frames and grates of the specified shape and size, in accordance with the Contract Drawings, the specifications and directions of the Engineer. The work of forming concrete and connecting and joining it to drainage piping and drainage structures, including connecting pieces, shall be included for each of the drain frames and grates specified.

7.54AFD.2. MATERIALS.

(A) **PRODUCT.** The Drain Grates and Frames shall be Grey Cast Iron meeting the requirements of ASTM A 48 Class 35B with no finish. Cast Iron Floor Drain Frame and Grate shall be Campbell Model 9604-0012, Drip Pan Straight Inlet, or an approved equivalent model in shape and size as manufactured by:

1. Campbell Foundry
800 Bergen Street, Harrison, New Jersey 07029
Tel. 973 483 5480; FAX 973 483 1843
2. Neenah Foundry
2121 Brooks Avenue, Neenah, WI 54956.
Tel. 920 725 7000; FAX 920 729 3661
3. General Foundries Inc.
1 Progress Road. North Brunswick, NJ 08902.
Tel. 732 951 9001; FAX 732 951 9002
4. Or approved equivalent manufacturer whose drain frame and grate castings comply with the material criteria outlined in this **Subsection 7.54A.2.**

(C) **GRATES AND FRAMES.** The drain frames and grates shall be fabricated with grates that are connected to frames with "lockable" screws or bolts.

(D) **SUBMITTALS.** Follow the procedures in the General Conditions of **Section 1.06.31** of the NYCDOT Standard Highway Specifications. Submit shop drawings for each drain frame and grate item in accordance with the requirements of the **General Conditions, Section 1.06.13** of the Standard Highway Specifications. Shop Drawings shall contain manufacturer's installation guidelines, and include details of the connections to adjoin drainage piping and drainage structures.

7.54AFD.3. METHODS. Install drain frames and grates at the locations indicated on the Contract Drawings and in accordance with approved shop drawings. Finished drain frames and grates shall be constructed with a maximum allowable tolerance of $\pm 1/16$ " for dimensional accuracy and rail co-planarity.

7.54AFD.4. MEASUREMENT. The quantity to be measured for payment for Cast Iron Floor Drain Frame and Grate shall be the number of the floor drain frame and grate units actually installed to the satisfaction of the Engineer.

7.54AFD.5. PRICE TO COVER. The unit price bid for each Cast Iron Floor Drain Frame And Grate unit shall cover the cost of all labor, materials (including forms, rails, anchorages, support bars and grates), tools, equipment, insurance, and incidentals required to furnishing and installing the drain frame and grate, complete in place, including, but not limited to, excavation, furnishing and placing concrete for the drain installation and connections to drainage piping, backfill, collars, reinforcement anchors, and other connecting devices; all in accordance with the Contract Drawings, the specifications and directions of the Engineer.

Payment will be made under:

Item No.	Item	Pay Unit
7.54 AFD	CAST IRON FLOOR DRAIN FRAME AND GRATE	EACH

SECTION PK-124 W
SPECIAL CATCH BASINS

PK-124W.1. WORK. Under this item, the Contractor shall furnish and install precast SPECIAL CATCH BASINS of the size and type indicated on the Contract Drawings. This shall be done where indicated on the plans and to the satisfaction of the Engineer.

PK-124W.2. MATERIALS. All materials and methods shall conform to New York City Department of Environmental Protection, Standard Sewer Specification, **Section 5.09** Catch Basins with the following modifications and additions:

Frames & Covers: shall be ADA compliant catch basin cover castings as per NYCDEP Sewer Design Standards Drawing No. SE39.

Standard cast iron hood and hooks shall be installed on catch basin connected to combined sewer.

PK-124W.3. EXCAVATING, BACKFILLING, AND DEWATERING. All excavating, backfilling, and dewatering required for storm drainage work shall be done by the Contractor.

Upon completion of the work, excavations shall be backfilled promptly with the earth tamped thoroughly.

Sub-surface structure excavation shall include work of excavation for catch basins. The excavation, unless otherwise specified shall be made by open cut and shall be wide and deep enough to permit the installation of the sub-surface structure in a workmanlike manner.

The Contractor shall remove all water from the excavation promptly, and continuously throughout the progress of the work and shall keep the excavated areas dry at all times until the structure is completed.

Where required for a safe and proper installation of sub-surface structure and pipe, the Contractor will keep the sides of the excavation vertical by sheeting and bracing of adequate size and strength. Sheeting shall be driven to true alignment, in a proper manner to avoid splitting and to ensure contact of adjacent pieces. If required for the proper execution of the work, when running sand, quick-sand, or other semi-fluid material equally difficult to handle is encountered, the sheeting shall be tight sheeting. All voids which may occur behind the sheeting, when withdrawn drawn, must be carefully refilled with suitable material, said material shall be thoroughly tamped.

Backfill shall follow immediately after sub-surface structure is in place and approved. Backfill of pipes shall be of selected materials, free of stones, and shall be hand placed and thoroughly compacted in such manner as will completely fill the space below and around the pipe, taking care not to displace the pipe or injure the joints. The

backfill shall be hand placed to a point two (2') feet above the top of the pipe. The remaining backfill may be made with approved mechanical backfillers in layers twelve (12") inches thick and thoroughly compacted with approved mechanical or vibratory compactors, or the excavation may be backfilled with sand and gravel and compacted as above provided for.

PK-124W.4. SETTING FRAME. Frames shall be adjusted to the final grades by the use of cement mortar or by brick masonry set in cement mortar as directed by the Engineer.

PK-124W.5. INCIDENTAL WORK. The Contractor shall furnish materials for, and do, all incidental work to complete the structures, including, but not limited to, the work of setting and adjusting frames, and plastering.

PK-124W.6. CONNECTING TO EXISTING MANHOLE shall be performed in accordance with the requirements of New York City Department of Environmental Protection, Bureau of Sewers.

PK-124W.7. CONTRACT DRAWINGS. The Contract drawings are diagrammatic, but shall be followed as closely as conditions at the site of work or the other trades will permit. As the work progresses, these drawings may be revised or supplemented by the Engineer, to illustrate the work further, and the Contractor shall perform the work required by such revisions or supplements without additional compensation unless the Engineer determines that any such changes warrant additional compensation.

PK-124W.8. TEST AND GUARANTEES. Testing shall be done as per requirement of NYCDEP Standard Sewer Specifications, **Section 5.09.4 (E)**. Should inspection and tests show that any material or workmanship are not first class or not in the opinion of the Engineer in accordance with the drawings and specifications, the Contractor, on written notice, shall remove same and replace with other material in conformity with the specifications at no additional cost to the City. Any defects found shall be immediately repaired or replaced by the Contractor as directed by the Engineer, at no additional cost to the City.

PK-124W.9. MEASUREMENT AND PAYMENT. The quantity of SPECIAL CATCH BASIN to be paid for under this item shall be the number of individual special catch basins installed at the site, complete, to the satisfaction of the Engineer.

The price bid shall be a unit price for EACH Special Catch Basin and shall include the cost of all labor, materials, equipment, insurances, and incidentals necessary to furnish and place a precast concrete catch basin structure including, but not limited to, excavation, backfilling, furnishing and installing foundation materials, steel bars, expansion joint material, sheeting, cast iron frame and grating, cast iron hood and hooks, when specified, brick, and other incidental work and

expenses necessary to complete the work in accordance with the Contract Drawings, the specifications and directions of the Engineer.

Payment will be made under:

Item No.	Description	Pay Unit
PK-124 W	SPECIAL CATCH BASIN WITH HOOD	EACH

Modified for HWPLZ008M

SECTION PK-143**RPZ & Water Meter with Remote & Structure - 2" Dia.**

PK-143.1 INTENT. Under this section the Contractor shall provide all labor, materials, equipment, insurance, and incidentals necessary or required to furnish and install a complete 2" diameter RPZ and Water Meter with Remote system and structure including, but not limited to:

- (a) Reduced Pressure Zone (RPZ) device is also known as a Backflow Preventer;
- (b) Water Meter with Remote Reader shall include Water Meter, Water Meter Strainer and Automatic Reading & Billing System (also known as Remote Reading Device);
- (c) All piping, fittings, valves, test tee, and test tee valve—as required and other incidentals necessary to complete plumbing work and connection to water service and water feed lines in accordance with the plans, specifications, and directions of the Engineer;
- (d) Union, Blowoff, and drain valve assembly for winterization;
- (e) Vandal resistant meter pit and valve boxes;
- (f) Above ground RPZ enclosure and concrete pad
- (g) Furnish and install flow switch and cellular auto dialer complete with electrical connection and mounted per manufacturers recommendations.
- (h) Labor for winterizing the system for the first winter after the system is operational and accepted by the owner.
- (i) Operation and maintenance manual including all equipment and appurtenances.

PK-143.2 SUBMITTALS

Shall be submitted in accordance with the requirements of the General Conditions, **Section 1.06.31** of the NYCDOT Standard Highway Specifications.

(A) SHOP DRAWINGS

The Contractor shall submit Shop Drawings when required, in accordance with the requirements of the **General Conditions, Section 1.06.13**, of the NYCDOT Standard Highway Specifications. A shop drawing is required showing installation of the complete RPZ assembly, water meter, piping, pipe supports, RPZ enclosure, and the precast concrete structures (meter pit).

(B) CATALOG CUTS

The Contractor shall submit Catalog Cuts of the RPZ, water meter, meter reading system, control valve, flow switch, cellular dialer and all connected piping for approval prior to installation.

(C) CERTIFICATIONS:

The Contractor shall be responsible for obtaining all certifications necessary to comply with the NYC Bureau of Water Supply & Wastewater Collection, Cross Connection Control Unit & the NYS Department of Health (NYSDOH) regulations for R.P.Z.'s (after installation), including Certification by Backflow Prevention Device Tester; Certification of Master Plumber responsible for the R.P.Z. installation, and a Professional Engineer's or Registered Architect's Certification that the installation is in accordance with the approved Plans. The Contractor shall prepare and submit copies of NYSDOH Form Gen. 215B to the NYSDOH & NYC Cross Connection Control Unit of the Bureau of Water Supply & Wastewater Collection. The Engineer shall receive copies in triplicate of all such submittals. In summation, the Contractor shall be held completely responsible to ensure that all Work is in compliance with NYSDOH, Form Gen. 215B.

PK-143.3 MATERIALS.

All materials shall be high quality, industry standard and capable of meeting the performance requirements stated herein. All "or approved equivalent" proposals will be reviewed by the Engineer for acceptability. Submittal of "or approved equivalent" specifications does not guarantee acceptance of the product. All product acceptance will be made in writing.

All materials throughout the system shall be new and in perfect condition, made from corrosion-resistant materials when subjected to weather conditions, and supplied from an "authorized" dealer servicing the Metropolitan New York area, in order to assure prompt warranty repair and/or replacement. After award of the Contract, and prior to beginning the work, the Contractor shall submit for approval two copies of the complete list of materials which he proposes to furnish and install. Quantities of materials and equipment need to be included. No deviations from the specifications shall be allowed.

(A) PRECAST CONCRETE STRUCTURES

Enclosure structures for the water meter pit shall be as manufactured by one of the following manufacturers, or approved equivalent:

- A.C. Miller Concrete Products Inc., 31 E. Bridge Street, Spring City, PA 19475
- Kistner Concrete Products Inc., 8713 Read Road, P.O. Box 218, East Pembroke, NY 14056
- Oldcastle Precast, 114 Rocky Point Road, Middle Island, NY 11953
- Coastal Pipeline, 55 Twomey Ave., Calverton, NY 11933

All openings in cast-in-place or precast concrete will be sealed via link seal connections.

(B) CONCRETE

All concrete shall comply with **Section 3.05** of the Standard Highway Specifications, except that compressive strength shall be 5,000 psi at 28 days. All precast concrete shall have a honed finish. The precast concrete shall be well cured, shall be dense and shall have good edges. The cement and aggregate shall be thoroughly mixed in a proportion of one (1) part Portland Cement to not over six (6) or less than four (4) parts of aggregate. The aggregate fine and course shall conform to ASTM C-33. Aggregate shall be free of all deleterious substances which cause reactivity with oxidized hydrogen sulfides. Aggregate shall be graded to produce a homogeneous concrete mix.

(C) REINFORCEMENT

Steel reinforcement shall comply with **Section 4.14** of the Standard Highway Specifications. Reinforcement shall be placed as shown on the drawings.

(D) LADDER RUNGS

The ladder rungs shall be built in accordance with NYCDEP Sewer Design Standards, Drawing No. SE46. Ladder rungs for each water meter structure shall be constructed of copolymer polypropylene plastic, as manufactured by one of the following manufacturers, or approved equivalent:

- M.A. Industries, 303 Dividend Drive, Peachtree City, GA 30269
- American Step Company, P.O. Box 137, 830 East Broadway, Griffin, GA 30224
- Parson Environmental Products, Inc., P.O. Box 4474, Reading, PA 19606

(E) RPZ ABOVE GROUND ENCLOSURE

RPZ above ground enclosures shall be as manufactured by one of the following manufacturers, or approved equivalent:

1. HotBox, 924 Lane Avenue, Jacksonville, FL 32254
2. Hydrocowl Inc., 2710 Landers Avenue, Nashville, TN 37211
3. Dekorra Products LLC., PO Box, 338, 218 Hwy 16, Rio, WI, 53960

Stainless steel penta-head security bolts will be utilized to secure RPZ enclosure to concrete pad. Door panels for RPZ box shall be as required for equipment access and NYCDEP requirements.

(F) WATER METER STRUCTURE ACCESS DOOR

Access door shall be 36" x 30" size, heavy duty (H20 loading) high security color (brown) anodized aluminum access doors such as JustSet

Doors, as manufactured by one of the following manufacturers, or approved equivalent:

- Pennsylvania Insert Corp., 31 E. Bridge Street, P.O. Box 199 Spring City, PA 19475
- Babcock-Davis, 9300 73rd Avenue, N. Brooklyn Park, MN 55428
- The Bilco Company, P.O. Box 1203 New Haven, CT 06505

Frame shall have integral drain channel, anchor flanges, and neoprene gasket. A one-and-one half inch drain (1 1/2") coupling shall be located on the corner of the frame. Operation shall be spring assisted for easy operation. A hold open arm shall automatically lock the door in the 90 deg. position. Hinge shall be heavy forged brass with a stainless steel pin. Door shall be provided with two locks. Lock shall be "Ford" lifter worm lock with waterworks bronze pentagonal bolt type "LL". All hardware shall be zinc or cadmium plated.

(G) CONSTRUCTION ACCESSORIES

Frames shall be 3/16" x 2" x 2" angle welded with joints ground smooth, after fabrication. Hinges shall be heavy duty and welded to door and frame.

(H) WATER PIPING

The 2" buried piping shall be hard temper type 'K' copper tubing meeting the Department of General Services; Division of Municipal Supplies, Dept. of Purchase, Specification No. 32-T-1.64 and ASTM No. B88-1974. Fittings shall be approved wrought copper and bronze solder-joint pressure fittings (ANSI B 16.22). Type 'L' copper piping shall be used inside RPZ enclosure per NYCDEP specifications.

(I) RPZ

The RPZ (Reduced Pressure Principle Backflow Prevention device) shall be C; Febco Model #825YA, Wilkens 975XL, Watts, 909QT, or approved equal. Size shall be as indicated above and on the Contract Drawings. The RPZ shall meet the requirements of American Society of Sanitary Engineers (ASSE) Standard 1013 & the American Water Works Association (AWWA) Standard Code 506-78. Floor drain connection and funnel are included in assembly.

The RPZ shall consist of two independently operating center guided, spring loaded, "Y" pattern check valves and one hydraulically dependent differential relief valve. Mainline valve body and caps including relief valve body and cover shall be bronze. Check valve and relief valve components shall be constructed so they may be serviced without removing the valve body from the line. Shut-off valves and test cocks shall be full ported resilient seated ball valves.

Water flow switch shall be Watts Type Nema 4xFS20 distributed by the following: Edwards, Platt & Deely 368 Wyandanch Avenue, N. Babylon, NY

11703, WMS Sales INC., P.O. Box 466, 9580 County Rd., Clarence Center, NY 14032, Vernon Bitzer Assoc., INC., 980 Thomas Drive, Warminster, PA 18974. Water flow switch shall be installed on RPZ drain pipe to detect catastrophic discharge from RPZ. The 8-inch ductile iron pipe (DIP) drain pipe shall be paid for under **Section 50.41** of the NYCDEP Standard Sewer Specification.

(J) METER OUTLET AND INLET CONTROL VALVES

The MOCV shall be a Class 125, all bronze gate valve, with non-rising stem and solid disc, with screwed bonnet and threaded ends, such as Stockham Figure B-103, or approved equal. The MOCV shall be closed for testing of the 2" dia. water meter, an 1-1/2" test connection shall be used.

(K) ELECTRICAL GROUNDING

For continuity of Electrical Grounding (during RPZ Maintenance) the Contractor is to furnish and install one (1) #2 tinned copper ground conductor and copper alloy ground connectors as per O.Z. Gedney, Type ABG for 1" & 1-1/2" dia. and CG for 2" dia. pipe or approval equal. Ground work is to be done prior to any painting or insulation if needed.

(L) WATER METER

Water Meter shall be Neptune T-10, as manufactured by Schlumberger Industries Water Division, or ABB's C-700 as manufactured by ABB Water Meter, Inc., Oak, Florida, or approved equivalent. All water meters furnished shall conform to the "Standard Specifications for Cold Water Meters", AWWA Standard C700 latest revision.

Water meters shall consist of a bronze maincase with the serial number stamped on the maincase. Only displacement meters of the flat nutating disc type will be accepted for improved operation. The size, capacity and meter lengths shall be as specified in AWWA Standard C700, latest revision. The maximum number of disc nutations is not to exceed those specified in AWWA C700 latest revision to minimize premature wear.

(M) METER MAINCASE

All one (1") inch meter maincase shall be the removable bottom cap type with the bottom cap secured by six (6) bolts. Bottom caps shall be interchangeable, size for size, between frost-protected synthetic polymer or cast iron and non-frost protected (bronze) models. No meters utilizing frost plugs will be accepted. Non-frost protected meters shall have bronze or synthetic polymer bottom caps. The cross section of the bottom shall break clean when subjected to freezing pressure of 600-850 psi. All maincase bolts shall be of 300 series stainless steel to prevent corrosion. Bottom cap bolt lugs shall be enclosed in the maincase and shall not have externally exposed, threaded through holes. All one and one-half (1-1/2") inch and two (2")

inch meters shall have a split design secured by bronze or stainless steel bolts.

(N) STRAINER

All meters shall contain removable polypropylene plastic strainer screens. The strainer shall be located near the inlet maincase port, before the measuring chamber and control block assembly.

(O) REGISTER

The register shall be of the straight reading sealed magnetic drive type and shall contain six (6) numeral wheels. Registers must be sealed and dry. All direct reading register lenses shall be flat, of high strength, and impact resistant glass to prevent breakage. The dial shall be of the center sweep pointer type and shall contain 100 equally divided graduations at its periphery. The register must contain a low flow indicator with a 1:1 disc nutating ratio to provide leak detection. Register boxes shall be bronze.

All meters must be adaptable to digital encoder register without interruption of the customer's service for the purpose of pit, remote, or central meter reading. The registers shall be secured to the maincase by means of a plastic tamperproof seal pin to allow for in-line service replacement. Seal screws are not acceptable.

Register retainer rings shall have an impact resistant design which absorbs register glass lens impact. All registers shall have the size, model, and date of manufacture stamped on the dial plate.

1) Measuring Chamber: The measuring chamber shall be a nutating disc type, the flat nutating disc shall be molded of a non-hydrolyzing hard rubber or synthetic polymer and shall contain a type 316 stainless steel spindle. The nutating disc shall be equipped with a synthetic polymer thrust roller with a stainless steel shaft located within the disc slot. The roller head shall roll on the buttressed track provided by the diaphragm in the measuring chamber. The measuring chamber shall be of a 2-piece snap-joint type. The measuring chamber shall be made of non-hydrolyzing synthetic polymer, shall be smoothly and accurately machined and shall contain a removable molded diaphragm of the same material as that of the chamber. No screws shall be used to secure the chamber together. The control block shall be the same material as the measuring chamber and be mounted on the chamber top to provide sand ring protection. The control block assembly shall be removable to facilitate repairing. Control block assemblies shall be designed to allow no magnetic slippage which would result in a loss of revenue. The measuring chamber outlet port shall be sealed to the maincase outlet port by means of an "O" Ring gasket to eliminate chamber leak paths.

2) Remote Reader: The Remote Reader shall be Neptune Pro-read ARB System as manufactured by Schlumberger Industries Water Division or

Remote Meter Read (RMR) System as manufactured by ABB, or approved equal. The Remote Reader shall be a self-contained encoder register metering system designed to obtain remote simultaneous water meter registration directly from the register odometer. The metering information shall be obtained through a remotely located receptacle using a compatible data capture system. The system shall consist of the Encoder Meter Register and Remotely Mounted Receptacle.

- 3) Encoder Meter Register: Shall be direct mounted with encoded odometer wheels and digital data stream. Batteries or pulses are not allowed.
- 4) Registration: The register shall provide a six digit visual registration at the meter. The unit shall, in a digital format, simultaneously encode the four or six most significant digits of the meter reading for transmission through the remotely located receptacle. (The most significant meter registration digits are defined as those digits on the register number wheels that denote the highest recorded values of water consumption.) A quick indexing mechanism shall be employed which shall prevent ambiguous reading. The register shall have a full test sweep hand or dial divided into gradients of down to 1/100th of the units of registration. Register test rings shall be available for shop testing. The units of registration shall be in U.S. gallons. These units shall be clearly designated on the face of the register. The month and year of manufacture and other identification information shall appear on the face of the register. The register shall employ a leak detection indicator on the dial face. Registers using pulse generation or conversion of pulses to digital output is not permitted. Batteries shall not be required.
- 5) Mechanical Construction: Materials used in the construction of the register shall be compatible with the normal water meter environment and with each other. The unit shall possess a copper bottom and incorporate a rubber O-ring seal. Where indicated, pit set registers must be provided with moisture protection for all internal components when operating under flooded pit conditions. The register and mounting base shall be integral components and should not allow for disassembly. The register shall be attached to the meter case by a bayonet attachment. Fastening screws or nuts shall not be required. A tamperproof plastic seal pin shall be used to secure the register to the main case. No special tools shall be required to remove the register. The register head must swivel 360 degrees without removing the seal pin to facilitate visual reading and ease of wiring. The register shall be removable from the meter without disassembling the meter body and shall permit field installation and/or removal without taking the meter out of service. Provision shall be made in the register for the use of seal wires to further secure the register. Terminal screws must be accessible on the register for transmission wire connection to the remote receptacle or future connections to a telephone system.

- 6) Electrical Construction: The materials employed for contacts and connectors shall inhibit corrosion and shall suffer minimal effect from environmental conditions to which they are exposed. The number wheels used in the register assembly shall be provided with spring-type bifurcated metal contacts to insure a high probability of information transmission.

Connection shall be made to the register by three screw-type terminals, sonically inserted into the register top. Access to the terminals shall be available to all models of register. A port cover shall be provided to cover the terminals after they have been wired. Digitally formatted data transmitted from the register shall incorporate a check sum character to verify correct information transmission and integrity. Data errors shall be indicated by the reading equipment.

(P) METER READING INFORMATION

The encoder register shall provide up to six digits of information to the reading equipment. A ten digit identification number shall also be provided with each reading. The utility shall have the option to reprogram the internal register identification number an unlimited number of times. The encoder register must have the capability to provide additional custom information to the reader. This information shall be programmed (and reprogrammed at any time) by the utility. Information on programming the register, equipment needed, and encoder meter reading output shall be provided with each proposal.

(Q) CELLULAR AUTO DIALER

The cellular auto dialer alarm monitoring system shall be located in the RPZ enclosure box and supported as recommended by the manufacturer, and have a wired connection to the water flow switch. The unit shall have a NEMA 4X enclosure and phantom antenna, providing cellular access via a wireless cellular network connection with a secure server. The maintenance partner shall define alarm and system messages and their delivery method and destination.

1) Power Requirements

The Remote Terminal Unit (RTU) shall operate on 12 to 24 VDC power input. With 12 VDC input, current shall be 1 ampere; 200 ma. average. With 24 VDC input, current shall be 0.5 ampere peak, 100 ma average. Surge protection shall be 1,500 watts peak. The fuse shall reset automatically. A 120V power supply shall be provided under this section.

2) Backup Battery

The RTU shall incorporate a sealed lead-acid backup battery contained within the enclosure. The battery shall be automatically charged, providing 24 hours nominal backup time. All enclosure options shall accommodate the battery internally.

Upon power failure, the battery shall maintain RTU operation continuously until it reaches a fixed discharge level or until power is restored. The RTU shall not power down during power failure, allowing it to be contacted via the web site at any time, even during power failures.

3) Environmental

The operating temperature range shall be -22 to +158 degrees F
The storage temperature range shall be -40 to +185 degrees F
Allowable humidity shall be 0 to 95% non-condensing.

4) Wiring Connections

All wiring connections shall be via unpluggable screw-clamp terminal blocks which accommodate 16 to 26 AWG wire.

The RTU shall be Alarm Agent manufactured by RACO MANUFACTURING AND ENGINEERING CO., 1400-62nd Street, Emeryville, CA 94608 and distributed by one of the following distributors:

- Advanced Process - P.O. Vox 894, Missouri, TX 77459
- GrayBar 34 N. Meramec Avenue, St. Louis, Missouri, 63105
- or other approved distributor.

PK-143.4 METHOD.

(A) GENERAL

All on-site plumbing work is to be done by a New York City Master Licensed Plumber. The Contractor shall comply with all rules, regulations, and requirements of all regulatory agencies having jurisdiction.

(B) PERMITS AND FEES

The Contractor shall be required to obtain all permits and pay required fees to any governmental agency having jurisdiction over the work. Inspections required by local ordinances during the course of construction shall be arranged as required. On completion of the work, satisfactory evidence shall be furnished to show that all work has been installed in accordance with rules, regulations, ordinances and code requirements.

(C) APPROVAL

The scope of work shall include, but not be limited to providing a layout drawing of valve boxes, main line piping, water meter pit, RPZ or double check valve, RPZ enclosure, electrical wiring, etc., in addition to the labor to install the above and maintain the system including winterizing valves and fixtures. The Contractor shall further provide all catalogue cuts of materials, equipment, and fixtures for approval of all system components.

(D) CONFERENCE

Prior to any work being performed, a pre-construction meeting will be held by NYCDDC. At that meeting, the Contractor shall provide a construction schedule to the Resident Engineer and discuss any concerns and procedures required for obtaining approval of the materials and work under this Contract. Arrangements for this meeting will be made by NYCDDC.

(E) INSPECTION OF SITE

It is mandatory that the contractor shall acquaint himself with all site conditions. Should utilities not shown on the plans be found during excavations, Contractor shall promptly notify the Resident Engineer for instructions as to further action. Failure to do so will make Contractor liable for any and all damage thereto arising from his operations subsequent to discovery of such utilities not shown in plans. The Contractor shall also be required to determine the available water pressure and gpm delivery available from the site's water source.

Contractor shall make necessary adjustments in the layout as may be required to connect to the City water mains. All coordination with NYCDEP and other agencies is the responsibility of the Contractor.

(F) SUBSTITUTION

The City reserves the right to substitute, add or delete any material or work as the work progresses. Adjustment to the contract price shall be negotiated if deemed necessary by the City.

(G) REJECTION

The City reserves the right to reject material or work which does not conform to the Contract Documents. Rejected work shall be removed or corrected at the earliest possible time.

(H) EXCAVATION

The Contractor shall excavate to the lines as shown in the drawings. All Temporary sheeting as required shall comply with **Section 4.05, SHEETING AND BRACING** of the NYCDEP Standard Water Main Specifications.

(I) SETTING OF PRECAST CONCRETE WATER METER STRUCTURE:

The precast concrete water meter structure shall be set on a six (6) inch thickness of broken stone with additional stone added inside the twelve inch (12") x twelve inch (12") drain sleeve to the top of the bottom slab. The RPZ Structure shall be set on the Water Meter Structure, as shown on the Contract Drawings.

The Contractor shall install supports for the water meter at the height shown on the Contract Drawings. The meter shall be set so that the dial faces upward and is horizontal. The dial shall not be more than three (3) feet above the floor. The encoder register shall be installed on meter as per manufacturer's instructions. The remote reader receptacle shall be installed in the pit cover as per the manufacturer's directions and recommendations, allowing reading of the meter from above ground level. The Contractor to allow sufficient Water Meter Remote Reader cable slack for manhole cover removal. The RPZ shall be installed as shown on the Contract Drawings and per manufacturer's instructions.

(J) CONNECTIONS

The Contractor shall connect the water piping as shown on the Contract Drawings for complete and satisfactory operating unit to the satisfaction of the Engineer. Connections shall be made to The Water Meter by coupling union or flange union on both inlet and outlet ends of the meter and bored for sealing with holes not less than one-eighth (1/8) of an inch in diameter - solder connections are not permitted. Connections to the RPZ shall be as shown on the Contract Drawings and per manufacturer's instructions.

(K) "AS-BUILT" DRAWINGS

The Contractor shall prepare an "As-Built" drawing as per **Section 1.06.14** of General Requirements in the Standard Specifications. Drawing shall show all items installed during construction, including the RPZ, water Meter, main line or connection pipe, Precast Structures, all valves, remote equipment, and electrical conduit, wiring. The drawing shall also indicate and show all material of sizes, model numbers, manufacturer's name and catalog name and catalog number. These drawings shall be delivered to the Resident Engineer before final acceptance of work. The Contractor shall also provide operating manuals, maintenance instruction documents and a schedule of maintenance activities for all equipment as well as a guide to troubleshooting system problems. The Contractor shall provide all manufacturers' warranties for installed products and systems in addition to telephone numbers of manufacturers that can supply compatible replacement parts.

(L) SYSTEM FUNCTION AND TESTING

The Contractor shall conduct a pressure test of all plumbing and appurtenance connections in the presence of the Resident Engineer.

Upon completion of the work, the Contractor shall clean up the site, remove all unused materials and debris and coordinate with the landscape contractor to complete any outstanding items of work which may include completion of mulch installation.

(M) FINAL ACCEPTANCE

Final acceptance of the work may be obtained from the NYCDDC upon the satisfactory completion of all the work. At the time of final acceptance, the Contractor shall deliver five (5) copies of keys to all locked equipment.

PK-143.5 GUARANTEE AND WARRANTEE

All work, materials and equipment shall be guaranteed for eighteen (18) months, from date of substantial completion of the project, against all defects in material, equipment and workmanship. Guarantee shall also cover repair of damage to any part of the premises resulting from leaks or other defects in material, equipment and workmanship to the satisfaction of the City. Repairs, if required, shall be done promptly at no cost to the City.

PK-143.6 MEASUREMENT AND PAYMENT

The quantity of RPZ & WATER METER WITH REMOTE & STRUCTURE - 2" DIA. to be measured for payment shall be the number actually installed at the site to the satisfaction of the Engineer.

The price bid shall be a unit price for each RPZ & WATER METER WITH REMOTE & STRUCTURE - 2" DIA. and shall include the cost of all labor, materials, equipment, insurance, and incidentals necessary to furnish and install a 2" DIA. RPZ & Water Meter with Remote and Structure including, but not limited to, obtaining certifications, installation of all plumbing work within the structure, connections to the water service at the structure; furnishing and installing precast concrete structure for meter pit and RPZ enclosure, reinforcing steel, brick masonry, rungs, and access doors; all in accordance with the Contract Drawings, the specifications, and the directions of the Engineer.

"Excavation", "Temporary Sheeting", and "Broken Stone" required for the proper installation shall also be deemed included in the unit price bid for this Item No. PK-143. Copper tubing and all water service 10 feet before the exterior face of the concrete structure and 10 feet after the RPZ enclosure shall be paid for separately.

Payment will be made under:

Item No.	Description	Pay Unit
PK-143	RPZ & WATER METER WITH REMOTE & STRUCTURE - 2" DIA.	EACH

(NO TEXT ON THIS PAGE)

(NO TEXT ON PAGES A1-163 R THROUGH A1-172)

**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-13-286

CONTRACT NO: HWPLZ008M

PROJECT: RECONSTRUCTION OF FORSYTH PLAZA

LOCATIONS: FORSYTH STREET BETWEEN CANAL STREET AND DIVISION STREET

CANAL STREET BETWEEN FORSYTH STREET AND CHRYSTIE STREET (MANHATTAN BRIDGE)

COMMUNITY BOARD: THREE (3), MANHATTAN

Permission is hereby granted to the **NEW YORK CITY DEPARTMENT OF DESIGN AND CONSTRUCTION** and its duly authorized agent, to enter upon and restrict the flow of traffic at the above location and its local adjacent streets for the purpose of carrying out the above noted project, subject to the stipulations, as noted below:

SPECIAL STIPULATIONS:

- **ACCESS TO ABUTTING PROPERTIES:** The Contractor shall coordinate all activities with abutting property owners to ensure access is provided to/from entrances/driveways at all times.
- **ENHANCED MITIGATIONS FOR PEDESTRIAN FLOW:** Timber curb and fencing as per Lower Manhattan Standards shall be provided to ensure pedestrian safety. Pedestrian and traffic management agents shall be provided to assist pedestrian and vehicular traffic.
- **NYPD Traffic Enforcement Agents (TEA) are required for this project:** Traffic Enforcement Agents (TEA) shall be provided during working hours or as determined by New York Police Department (NYPD) or New York City DOT (NYCDOT). TEAs shall be provided at locations to be determined by New York Police Department and New York City DOT. All TEA costs shall include relief and supervision.
- **MPT and DETOUR PLANS:** The Contractor must submit MPT plans and Detour Plans to NYCDOT –LMBCO and OCMC for approval two weeks before commencing work or before making any 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 Maintenance and Protection of Traffic (MPT) plan. All temporary signs and pavement markings shall be removed upon completion of the project.
- **COMMUNITY OUTREACH AND NOTIFICATIONS:** The Contractor shall provide advanced notification and community outreach to the public and agencies throughout the duration of the project. The outreach must be coordinated. The Contractor shall communicate extensively with the Community Construction Liaison assigned to this project. The Contractor must notify the NYC Fire Department, NYC Police Department, NYCEMS, Local Community Boards, Borough President's Office Chief Engineer, NYCDOT OCMC Office, NYCDOT LMBCO, and all abutting properties at least five (5) working days in advance of the start of construction.
- **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.
- **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 closures that affect bus routes or bus stops.
- **BROOKLYN BRIDGE FULL WEEKEND CLOSURE EMBARGO:** 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.

OCMC FILE NO: MEC-13-286
CONTRACT NO: HWPLZ008M
PROJECT: RECONSTRUCTION OF FORSYTH PLAZA

- **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. The Contractor will not be allowed to occupy any traffic lanes on these streets during the Brooklyn Bridge full weekend closures.
- **BIKE LANES:** If work is in or affecting a bike lane, the Contractor must post advance warning signs 350 feet and 200 feet prior to the work stating "CONSTRUCTION IN BIKE LANE AHEAD PROCEED WITH CAUTION", and also post a sign at the work zone stating "CONSTRUCTION IN BIKE LANE PROCEED WITH CAUTION". Such signs shall be orange, 3' x 3', diamond shaped with 4" black lettering. Signs shall be posted in accordance with the Federal Manual on Uniform Traffic Control Devices (MUTCD).
- **METERS:** The Contractor may not remove or relocate parking meters without first obtaining approval from NYCDOT Parking Meter Division at 718-894-8651.
- **CONSTRUCTION INFORMATIONAL SIGNS:** This project requires a construction Project Information Sign (CPIS) in accordance with NYCDOT Highway Rule 2-02 (4) and (5). Criteria and a prototype for this sign may be found on the NYCDOT website at:
http://www.NYC.GOV/HTML/DOT/DOWNLOADS/PDF/DOT_CPIS_DIRECTIONS.PDF

SPECIAL NOTE: A minimum of two (2) weeks prior to commencing work, the Permittee/NYCDDC shall present the project to NYCDOT-OCMC, NYCDOT-LMBCO, and NYCDOT Office of Bicycle and Pedestrian Programs for their review, and to address any concerns they may have.

ALL CONSTRUCTION OPERATIONS

1. FORSYTH STREET FROM CANAL STREET TO DIVISION STREET

- Working hours shall be as follows:
 - 7 AM to 6 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) thirteen (13) foot lane for traffic at all times except for night time operations as specified below.
- The Contractor shall maintain a minimum of one (1) eight (8) foot clear path for pedestrians either on the west side sidewalk and one (1) five (5) foot wide sidewalk on the east side sidewalk or a protected walkway in the roadway at all times except for night time operations as specified below. The Contractor shall only work on one side of the street at a time. All temporary walkways installed by the Contractor must be free of obstructions and tripping hazards and must meet ADA requirements.
- For night time work that does not require noisy operations, 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 and one (1) five (5) foot clear path for pedestrians at all times. Upon completion of night time operations, the roadway and sidewalks shall be restored as per daytime stipulations mentioned above.
- No noisy operations shall occur prior to 8:00 AM on weekdays, prior to 10:00 AM on weekends or after 10:00 PM.

OCMC FILE NO: MEC-13-286
CONTRACT NO: HWPLZ008M
PROJECT: RECONSTRUCTION OF FORSYTH PLAZA

2. CANAL STREET FROM FORSYTH STREET TO CHRYSTIE STREET

- Working hours shall be as follows:
 - 7 AM to 6 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) thirteen (13) foot lane for eastbound traffic at all times except for night time operations as specified below. Contractor shall maintain existing full width westbound travel lanes at all times.
- The Contractor must maintain a minimum of one (1) ten (10) foot wide two-way bicycle path at all times except for night time operations as specified below.
- For night time work that does not require noisy operations, 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 at all times and one (1) eight (8) foot wide two-way bicycle path at all times. Upon completion of night time operations, the roadway and sidewalks shall be restored as per daytime stipulations mentioned above.
- No noisy operations shall occur prior to 8:00 AM on weekdays, prior to 10:00 AM on weekends or after 10:00 PM.

3. CANAL STREET FROM FORSYTH STREET TO ELDRIDGE STREET

- Working hours shall be as follows:
 - 7 AM to 6 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, one lane in each direction, at all times.
- The Contractor must maintain a minimum of two (2) shared bicycle paths at all times.
- For utility work in the roadway that does not require noisy operations, 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 two (2) eleven (11) foot lanes for traffic. Upon completion of night time operations, all vehicle travel lanes shall be returned to 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.

4. INTERSECTIONS OF CANAL STREET AND FORSYTH STREET

- Working hours shall be as follows:
 - 7 AM to 6 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 Canal Street and a minimum of one (1) eleven foot lane for traffic on Forsyth Street at all times.
- For utility work in the roadway that does not require noisy operations, 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 two (2) eleven (11) foot lanes for traffic on Canal Street and one (1) eleven (11) foot lane for traffic on Forsyth Street. Upon completion of night time operations, all vehicle travel lanes shall be returned to traffic.
- The Contractor shall maintain all pedestrian crosswalks at all times except for night time operations. During night time working hours, the Contractor may close one (1) pedestrian crosswalk at a time while maintaining all other pedestrian crosswalks.
- No noisy operations shall occur prior to 8 AM or after 10 PM on weekdays and prior to 10am or after 10pm on weekends.

OCMC FILE NO: MEC-13-286
CONTRACT NO: HWPLZ008M
PROJECT: RECONSTRUCTION OF FORSYTH PLAZA

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. **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.**

John DeLucia
John DeLucia, P.E.
Director of Street Reconstruction
Lower Manhattan Borough Commissioner's Office

9/20/13
Date

(NO TEXT ON THIS PAGE)



Contract PIN 8502013HW0069C
Project ID HWPLZ008M

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

09/27/2013
1:56PM
Ver 5.00.01

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 - 41 [REVISION # 1]



09/27/2013
1:56PM
BID PAGES

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

Contract PIN 8502013HW0069C
Project ID HWPLZ008M

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
207.26 (001)	249.0 S.Y.	PREFABRICATED COMPOSITE STRUCTURAL DRAIN	\$		\$	
4.02 AG (002)	560.0 S.Y.	ASPHALTIC CONCRETE WEARING COURSE, 3" THICK	\$		\$	
4.02 CB (003)	153.0 TONS	ASPHALTIC CONCRETE MIXTURE	\$		\$	
4.04 AP (004)	4.0 C.Y.	CONCRETE BASE FOR PAVERS, 4" TO 7" THICK, CLASS A-40	\$		\$	

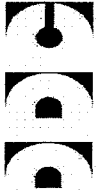


09/27/2013
1:56PM
BID PAGES

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

Contract PIN 8502013HW0069C
Project ID HWPLZ008M

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 H (005)	100.0 C.Y.	CONCRETE BASE FOR PAVEMENT, VARIABLE THICKNESS FOR TRENCH RESTORATION, (HIGH-EARLY STRENGTH)	\$ _____	_____ CTS	\$ _____	_____ CTS
4.06 (006)	13.0 C.Y.	CONCRETE IN STRUCTURES, CLASS A-40	\$ _____	_____ CTS	\$ _____	_____ CTS
4.09 ADB (007)	145.0 L.F.	STRAIGHT STEEL FACED CONCRETE CURB (20" DEEP)	\$ _____	_____ CTS	\$ _____	_____ CTS
4.09 BDB (008)	15.0 L.F.	DEPRESSED STEEL FACED CONCRETE CURB (20" DEEP)	\$ _____	_____ CTS	\$ _____	_____ CTS



09/27/2013
1:56PM
BID PAGES

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

Contract PIN 8502013HW0069C
Project ID HWPLZ008M

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 CDB (009)	32.0 L.F.	CORNER STEEL FACED CONCRETE CURB (20" DEEP)	\$		\$	
4.11 AS (010)	380.0 C.Y.	EARTH EXCAVATION FOR STRUCTURES	\$		\$	
4.11 CA (011)	75.0 C.Y.	FILL, PLACE MEASUREMENT	\$		\$	
4.13 AAS (012)	3,400.0 S.F.	4" CONCRETE SIDEWALK (UNPIGMENTED)	\$		\$	

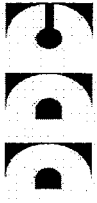


09/27/2013
1:56PM
BID PAGES

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

Contract PIN 8502013HW0069C
Project ID HWPLZ008M

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 BAS (013)	473.0 S.F.	7" CONCRETE SIDEWALK (UNPIGMENTED)	\$ _____	_____	\$ _____	_____
4.13 BRP (014)	5.0 S.F.	REINFORCED 7" CONCRETE SIDEWALK (PIGMENTED)	\$ _____	_____	\$ _____	_____
4.13 DE (015)	16.0 S.F.	EMBEDDED PREFORMED DETECTABLE WARNING UNITS	\$ _____	_____	\$ _____	_____
4.14 (016)	19,593.0 LBS.	STEEL REINFORCEMENT BARS	\$ _____	_____	\$ _____	_____



09/27/2013
1:56PM
BID PAGES

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

Contract PIN 8502013HW0069C
Project ID HWPLZ008M

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
4.15 SSM (017)	110.0 C.Y.	STRUCTURAL TOPSOIL	\$ _____	_____	\$ _____	_____
4.15 UPMB (018)	158.0 C.Y.	URBAN PLANTING MIX	\$ _____	_____	\$ _____	_____
4.16 ADE (019)	2.0 EACH	TREES REMOVED (24" TO UNDER 48" CALIPER)	\$ _____	_____	\$ _____	_____
4.16 FA (020)	3.0 EACH	TREES PLANTED, 4-1/2" TO 5" CALIPER, ALL TYPES	\$ _____	_____	\$ _____	_____



09/27/2013
1:56PM
BID PAGES

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

Contract PIN 8502013HW0069C
Project ID HWPLZ008M

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
4.16 GA (021)	3.0 EACH	TREES PLANTED, 5" TO 5-1/2" CALLIPER, ALL TYPES	\$ _____	_____	\$ _____	_____
4.17 HA (022)	597.0 EACH	ORNAMENTAL GRASS PLANTED. 2 GALLON. HAKONECHLOA AUREOLA	\$ _____	_____	\$ _____	_____
4.17 OG10G (023)	20.0 EACH	ORNAMENTAL GRASS PLANTED, 10 GALLON	\$ _____	_____	\$ _____	_____
4.17 OG3G (024)	522.0 EACH	ORNAMENTAL GRASS PLANTED, 3 GALLON	\$ _____	_____	\$ _____	_____



09/27/2013
1:56PM
BID PAGES

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

Contract PIN 8502013HW0069C
Project ID HWPLZ008M

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
4.17 OG5G (025)	92.0 EACH	ORNAMENTAL GRASS PLANTED, 5 GALLON	\$		\$	
4.18 RDM (026)	202.0 S.Y.	RODENT DETERRENT MESH	\$		\$	
4.21 (027)	20.0 P/HR	TREE CONSULTANT	\$		\$	
50.41C6E16 (028)	84.0 L.F.	16" D.I.P. CLASS 56 COMBINED SEWER, ENCASED IN CONCRETE	\$		\$	



09/27/2013
1:56PM
BID PAGES

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

Contract PIN 8502013HW0069C
Project ID HWPLZ008M

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
50.41S6C08 (029)	50.0 L.F.	8" D.I.P. CLASS 56 SANITARY SEWER, ON CONCRETE CRADLE	\$		\$	
51.11R007 (030)	1.0 EACH	STANDARD 7'-0" DIAMETER PRECAST DROP-PIPE MANHOLE TYPE II	\$		\$	
51.41P000 (031)	1.0 EACH	SPECIAL CATCH BASIN	\$		\$	
51.41S002 (032)	1.0 EACH	STANDARD CATCH BASIN, TYPE 2	\$		\$	



Contract PIN 8502013HW0069C
 Project ID HWPLZ008M

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

09/27/2013
 1:56PM
 BID PAGES

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	
52.11D12 (033)	220.0 L.F.	12" DUCTILE IRON PIPE BASIN CONNECTION	\$		\$
52.31D06C16 (034)	1.0 EACH	6" DUCTILE IRON PIPE SPUR FOR HOUSE CONNECTION ON 16" D.I.P. COMBINED SEWER	\$		\$
52.41C06N (035)	33.0 L.F.	NEW 6" C.I.S.P. HOUSE CONNECTION DRAIN ON STONE BEDDING Unit price bid shall not be greater than: \$ 75.00	\$		\$
551.40200017 (036)	1.0 L.S.	FURNISHING EQUIPMENT FOR INSTALLING MICROPILES	\$		\$



09/27/2013
1:56PM
BID PAGES

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

Contract PIN 8502013HW0069C
Project ID HWPLZ008M

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
551.50220017 (037)	1.0 EACH	STATIC PILE LOAD TEST	\$		\$	
551.99400017 (038)	8.0 EACH	MICROPILES (CONTRACTOR DESIGNED) - DESIGN LOAD LESS THAN 100 TONS	\$		\$	
551.99450017 (039)	120.0 L.F.	PERMANENT CASING FOR MICROPILES	\$		\$	
555.0105 (040)	168.0 C.Y.	CONCRETE FOR STRUCTURES, CLASS A	\$		\$	



09/27/2013
1:56PM
BID PAGES

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

Contract PIN 8502013HW0069C
Project ID HWPLZ008M

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
564.510001 (041)	24,015.0 LBS.	STRUCTURAL STEEL	\$		\$	
572.010001 (042)	1,703.0 S.F.	STRUCTURAL STEEL PAINTING: SHOP APPLIED	\$		\$	
6.02 AAN (043)	464.0 C.Y.	UNCLASSIFIED EXCAVATION	\$		\$	
6.02 XHEC (044)	30.0 C.Y.	INCREMENTAL COST FOR MODIFYING WORK METHODS NEAR (WITHIN 3 FEET OF) TRANSIT FACILITIES AND BUILDING VAULTS	\$		\$	



09/27/2013
1:56PM
BID PAGES

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

Contract PIN 8502013HW0069C
Project ID HWPLZ008M

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
6.02 XSCW (045)	431.0 C.Y.	INCREMENTAL COST FOR USING SPECIAL CARE WORK METHODS NEAR (FROM 3 FEET TO 50 FEET) TRANSIT FACILITIES	\$		\$	
6.06 AB (046)	29.0 S.Y.	GRANITE BLOCK SIDEWALK (GROUTED JOINTS) (FURNISH BLOCK)	\$		\$	
6.06 AC (047)	5.0 S.Y.	GRANITE BLOCK SIDEWALK (SAND AND GROUTED JOINTS) (FURNISH BLOCK)	\$		\$	
6.18 AAM (048)	15.0 L.F.	MANHATTAN STYLE PEDESTRIAN BARRIER	\$		\$	



09/27/2013
1:56PM
BID PAGES

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

Contract PIN 8502013HW0069C
Project ID HWPLZ008M

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
6.18 PS (049)	64.0 L.F.	CLEAN AND PAINT STEEL FENCE	\$		\$	
6.21 AD (050)	1.0 EACH	RELOCATE LOW PRESSURE HYDRANT AND RESET VALVE BOX HEAD	\$		\$	
6.21 FE (051)	2.0 EACH	FURNISHING, DELIVERING AND INSTALLING HYDRANT FENDERS	\$		\$	
6.25 RS (052)	530.0 S.F.	TEMPORARY SIGNS	\$		\$	

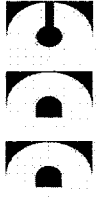


09/27/2013
1:56PM
BID PAGES

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

Contract PIN 8502013HW0069C
Project ID HWPLZ008M

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
6.28 BA (053)	110.0 L.F.	LIGHTED TYPE III BREAKAWAY BARRICADES	\$		\$	
6.30 AR (054)	20.0 L.F.	REMOVE EXISTING GUIDE RAIL	\$		\$	
6.34 AET (055)	200.0 L.F.	TEMPORARY CHAIN LINK FENCE, 10' - 0" HIGH	\$		\$	
6.34 BET (056)	10.0 L.F.	TEMPORARY CHAIN LINK FENCE GATE FOR 10' - 0" HIGH FENCE	\$		\$	



09/27/2013
1:56PM
BID PAGES

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

Contract PIN 8502013HW0069C
Project ID HWPLZ008M

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
6.34 X (057)	132.0 L.F.	REMOVE AND DISPOSE OF EXISTING CHAIN LINK FENCE	\$		\$	
6.40 B (058)	18.0 MONTH	ENGINEER'S FIELD OFFICE (TYPE B)	\$		\$	
6.43 (059)	600.0 SETS	PHOTOGRAPHS	\$		\$	
6.44 (060)	2,345.0 L.F.	THERMOPLASTIC REFLECTORIZED PAVEMENT MARKINGS (4" WIDE)	\$		\$	



09/27/2013
1:56PM
BID PAGES

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

Contract PIN 8502013HW00069C
Project ID HWPLZ008M

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
6.47 PCB (061)	3,950.0 S.F.	FURNISH AND INSTALL CONCRETE PAVERS	\$		\$
6.49 (062)	250.0 L.F.	TEMPORARY PAVEMENT MARKINGS (4" WIDE)	\$		\$
6.52 (063)	1,500.0 P/HR	UNIFORMED FULL-TIME FLAGPERSON	\$		\$
6.53 (064)	500.0 L.F.	REMOVE EXISTING LANE MARKINGS (4" WIDE)	\$		\$



09/27/2013
1:56PM
BID PAGES

Contract PIN 8502013HW0069C
Project ID HWPLZ008M

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

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
6.55 (065)	200.0 L.F.	SAWCUTTING EXISTING PAVEMENT	\$		\$	
6.59 PF (066)	825.0 L.F.	TEMPORARY CONCRETE BARRIER WITH FENCE	\$		\$	
6.67 (067)	201.0 C.Y.	SUBBASE COURSE, SELECT GRANULAR MATERIAL	\$		\$	
6.74 G (068)	193.0 L.F.	GALVANIZED STEEL EDGING	\$		\$	

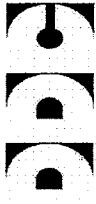


09/27/2013
1:56PM
BID PAGES

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

Contract PIN 8502013HW0069C
Project ID HWPLZ008M

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
6.77 R (069)	2.0 EACH	METAL TRASH RECEPTACLE	\$		\$	
6.82 A (070)	4.0 S.F.	REMOVING EXISTING TRAFFIC AND STREET NAME SIGNS	\$		\$	
6.82 B (071)	28.0 L.F.	REMOVING EXISTING TRAFFIC AND STREET NAME SIGN POSTS	\$		\$	
6.83 AB (072)	21.0 L.F.	FURNISHING NEW TRAFFIC SIGN POSTS	\$		\$	



09/27/2013
1:56PM
BID PAGES

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

Contract PIN 8502013HW0069C
Project ID HWPLZ008M

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	
6.83 AR (073)	7.0 S.F.	FURNISHING NEW REFLECTORIZED TRAFFIC SIGNS	\$		\$
6.83 BA (074)	7.0 S.F.	INSTALLING TRAFFIC SIGNS	\$		\$
6.83 BB (075)	21.0 L.F.	INSTALLING TRAFFIC SIGN POSTS	\$		\$
6.85 A (076)	1.0 F.S.	TRAFFIC ENFORCEMENT AGENTS PRICE BID SHALL BE FOR THE FIXED SUM OF \$ 448,177.72	\$	448,177.72	\$ 448,177.72

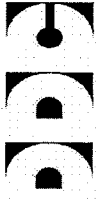


09/27/2013
1:56PM
BID PAGES

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

Contract PIN 8502013HW0069C
Project ID HWPLZ008M

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
6.87 (077)	230.0 EACH	PLASTIC BARRELS	\$		\$	
60.11R606 (078)	155.0 L.F.	FURNISHING AND DELIVERING 6-INCH DUCTILE IRON RESTRAINED JOINT PIPE (CLASS 56)	\$		\$	
60.12D06 (079)	155.0 L.F.	LAYING 6-INCH DUCTILE IRON PIPE AND FITTINGS	\$		\$	
623.12 (080)	53.0 C.Y.	CRUSHED STONE (IN- PLACE MEASURE)	\$		\$	



09/27/2013
1:56PM
BID PAGES

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

Contract PIN 8502013HW0069C
Project ID HWPLZ008M

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
7.01 SSG (081)	256.0 S.F.	STAINLESS STEEL GRATING	\$		\$	
7.07 TPM (082)	2.0 EACH	TEMPORARY OUTDOOR PARABOLIC MIRROR	\$		\$	
7.13 B (083)	12.0 MONTH	MAINTENANCE OF SITE Unit price bid shall not be less than: \$ 10.00	\$		\$	
7.36 (084)	830.0 L.F.	PEDESTRIAN STEEL BARRICADES	\$		\$	

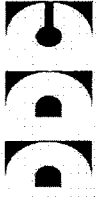


09/27/2013
1:56PM
BID PAGES

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

Contract PIN 8502013HW0069C
Project ID HWPLZ008M

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
7.39 SSD (085)	438.0 S.F.	SLIP-RESISTANT STAINLESS STEEL DECKING	\$		\$	
7.53 KBC (086)	27.0 EACH	CHAIR	\$		\$	
7.53 KBT (087)	9.0 EACH	TABLE	\$		\$	
7.54 AFD (088)	1.0 EACH	CAST IRON FLOOR DRAIN FRAME AND GRATE	\$		\$	



09/27/2013
1:56PM
BID PAGES

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

Contract PIN 8502013HW0069C
Project ID HWPLZ008M

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
7.55 SS1 (089)	89.0 L.F.	STAINLESS STEEL GUARD RAILING AT BIKEWAY	\$ _____	_____	\$ _____
7.55 SS2 (090)	98.0 L.F.	STAINLESS STEEL GUARD RAILING AT EXTERIOR RAMP	\$ _____	_____	\$ _____
7.55 SS3 (091)	65.0 L.F.	STAINLESS STEEL STAIR HANDRAIL	\$ _____	_____	\$ _____
7.55 SS4 (092)	64.0 L.F.	STAINLESS STEEL RAMP HANDRAIL, SINGLE RAIL	\$ _____	_____	\$ _____



09/27/2013
1:56PM
BID PAGES

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

Contract PIN 8502013HW0069C
Project ID HWPLZ008M

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
7.55 SS5 (093)	95.0 L.F.	STAINLESS STEEL RAMP HANDRAIL, DOUBLE RAIL	\$ _____	_____	\$ _____	_____
7.55 SS6 (094)	42.0 L.F.	STAINLESS STEEL SIDEWALK GUIDE RAILING	\$ _____	_____	\$ _____	_____
7.55 SS7 (095)	1.0 EACH	STAINLESS STEEL SWING GATE	\$ _____	_____	\$ _____	_____
7.88 AA (096)	1.0 L.S.	RODENT INFESTATION SURVEY AND MONITORING	\$ _____	_____	\$ _____	_____
		Unit price bid shall not be less than: \$ 10.00	\$ _____	_____	\$ _____	_____



09/27/2013
1:56PM
BID PAGES

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

Contract PIN 8502013HW0069C
Project ID HWPLZ008M

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
7.88 AB (097)	10.0 EACH	RODENT BAIT STATIONS Unit price bid shall not be less than: \$ 60.00	\$ _____	_____	\$ _____	_____
7.88 AC (098)	10.0 EACH	BAITING OF RODENT BAIT STATIONS Unit price bid shall not be less than: \$ 8.50	\$ _____	_____	\$ _____	_____
7.88 AD (099)	1.0 BLOCK	WATERBUG BAIT APPLICATIONS Unit price bid shall not be less than: \$ 65.00	\$ _____	_____	\$ _____	_____
73.31AE0 (100)	100.0 C.Y.	ADDITIONAL EARTH EXCAVATION INCLUDING TEST PITS (ALL DEPTHS) Unit price bid shall not be less than: \$ 20.00	\$ _____	_____	\$ _____	_____

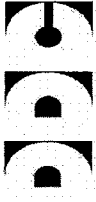
09/27/2013
 1:56PM
 BID PAGES



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

Contract PIN 8502013HW0069C
 Project ID HWPLZ008M

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
8.01 C1 (101)	700.0 TONS	HANDLING, TRANSPORTING AND DISPOSAL OF NON-HAZARDOUS CONTAMINATED SOIL	\$ _____	_____	\$ _____	_____
8.01 C2 (102)	2.0 SETS	SAMPLING AND TESTING OF CONTAMINATED/POTENTIALLY HAZARDOUS SOIL FOR DISPOSAL PURPOSES	\$ _____	_____	\$ _____	_____
8.01 H (103)	1.0 TONS	HANDLING, TRANSPORTING AND DISPOSAL OF HAZARDOUS SOIL	\$ _____	_____	\$ _____	_____
8.01 S (104)	1.0 L.S.	HEALTH AND SAFETY	\$ _____	_____	\$ _____	_____



09/27/2013
1:56PM
BID PAGES

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

Contract PIN 8502013HW0069C
Project ID HWPLZ008M

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
8.01 W1 (105)	7.0 DAY	REMOVAL, TREATMENT, AND DISCHARGE/DISPOSAL OF CONTAMINATED WATER	\$		\$	
8.01 W2 (106)	2.0 SETS	SAMPLING AND TESTING OF WATER	\$		\$	
8.15 WXY (107)	1.0 EACH	DRINKING FOUNTAIN, TYPE WXY	\$		\$	
8.23 SSP (108)	1.0 EACH	PERFORATED STAINLESS STEEL ENCLOSURE	\$		\$	

09/27/2013
1:56PM
BID PAGES



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

Contract PIN 8502013HW0069C
Project ID HWPLZ008M

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
8.23 SST (109)	1.0 EACH	STAINLESS STEEL THRESHOLD	\$		\$	
8.26 R (110)	16.5 C.Y.	STONE MASONRY WALL RESTORATION	\$		\$	
9.04 HW (111)	1.0 F.S.	ALLOWANCE FOR ANTI-FREEZE ADDITIVE IN CONCRETE PRICE BID SHALL BE FOR THE FIXED SUM OF \$ 62,500.00	\$	62,500.00	\$	62,500.00
9.95 GSI (112)	90.0 L.F.	GRANITE SEATING INSTALLATION	\$		\$	



09/27/2013
1:56PM
BID PAGES

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

Contract PIN 8502013HW0069C
Project ID HWPLZ008M

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
9.95 GSP (113)	257.0 S.F.	GRANITE SLAB PAVING	\$		\$	
9.95 GST (114)	456.0 L.F.	GRANITE STAIR TREADS	\$		\$	
9.95 GTS (115)	43.0 L.F.	GRANITE TERRACED SEATING UNITS	\$		\$	
9.95 GV (116)	54.0 S.F.	GRANITE VENEER	\$		\$	



09/27/2013
1:56PM
BID PAGES

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

Contract PIN 8502013HW0069C
Project ID HWPLZ008M

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
BL-1 (117)	1.0 EACH	INSTALL PREFORMED BICYCLE DETECTOR LOOPS IN ASPHALT	\$		\$	
BL-2 (118)	1.0 EACH	INSTALL CONNECTING WIRE FROM LOOP TO COUNTER IN ASPHALT AND CONCRETE	\$		\$	
BL-3 (119)	1.0 EACH	INSTALL COUNTER IN RECESSED CABINET BUILT INTO PLAZA	\$		\$	
E 260519 B (120)	400.0 L.F.	LOW-VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES (NO. 2 AWG WIRE)	\$		\$	



Contract PIN 8502013HW0069C
 Project ID HWPLZ008M

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

09/27/2013
 1:56PM
 BID PAGES

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
E 260519 D (121)	150.0 L.F.	LOW-VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES (NO. 6 AWG WIRE)	\$		\$	
E 260519 E (122)	2,000.0 L.F.	LOW-VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES (NO. 8 AWG WIRE)	\$		\$	
E 260519 F (123)	5,000.0 L.F.	LOW-VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES (NO. 12 AWG WIRE)	\$		\$	
E 260526 (124)	525.0 L.F.	GROUNDING AND BONDING FOR ELECTRICAL SYSTEMS	\$		\$	

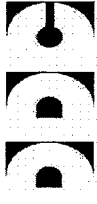


09/27/2013
1:56PM
BID PAGES

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

Contract PIN 8502013HW0069C
Project ID HWPLZ008M

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
E 260533 AD (125)	150.0 L.F.	METAL CONDUIT AND TUBING (4" GALVANIZED RIGID STEEL CONDUIT)	\$		\$	
E 260533 D (126)	1.0 EACH	HANDHOLES AND BOXES FOR EXTERIOR UNDERGROUND WIRING	\$		\$	
E 262713 B (127)	1.0 EACH	ELECTRICITY METERING, 200 A UTILITY METER	\$		\$	
NYC-564.510002 (128)	1,127.0 LBS.	STAINLESS STEEL FLATS AND CHANNELS	\$		\$	



09/27/2013
1:56PM
BID PAGES

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

Contract PIN 8502013HW0069C
Project ID HWPLZ008M

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
NYCT-7A.1 (129)	1,140.0 S.F.	MEMBRANE WATERPROOFING	\$		\$	
NYCT-7A.2 (130)	380.0 S.F.	WATERPROOFING PROTECTION BOARD	\$		\$	
PK-124 KBDI (131)	3.0 EACH	SPECIAL DROP INLET	\$		\$	
PK-124 W (132)	1.0 EACH	SPECIAL CATCH BASIN WITH HOOD	\$		\$	

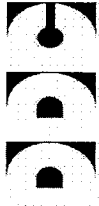


09/27/2013
1:56PM
BID PAGES

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

Contract PIN 8502013HW0069C
Project ID HWPLZ008M

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
PK-12D (133)	1.0 EACH	WATER TAP, 2" DIAMETER	\$		\$	
PK-13D (134)	40.0 L.F.	TYPE K COPPER TUBING, 1" DIAMETER	\$		\$	
PK-13F (135)	230.0 L.F.	TYPE K COPPER TUBING, 2" DIAMETER	\$		\$	
PK-143 (136)	1.0 EACH	RPZ & WATER METER WITH REMOTE & STRUCTURE - 2" DIA.	\$		\$	



09/27/2013

1:56PM

BID PAGES

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

Contract PIN

8502013HW0069C

Project ID

HWPLZ008M

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
PK-14D (137)	5.0 EACH	CURB GATE VALVE, 2" DIAMETER	\$		\$	
PK-17 (138)	4.0 EACH	CAST IRON VALVE BOX, 5-1/4" DIAMETER	\$		\$	
PK-184-GH1 (139)	1.0 EACH	GROUND HYDRANT - 1" DIAMETER	\$		\$	
SL-20.09.03 (140)	4.0 EACH	FURNISH AND INSTALL FOUNDATION FOR LAMPEPOST WITHOUT TRANSFORMER BASE AS PER DWG E-3691 ON HIGHWAYS.	\$		\$	



09/27/2013
1:56PM
BID PAGES

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

Contract PIN 8502013HW0069C
Project ID HWPLZ008M

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
SL-21.04.55 (141)	4.0 EACH	FURNISH AND INSTALL TYPE "FLUSHING MEADOWS PARK" LAMPPOST AS PER STD. DWG. H-5305.	\$		\$	
SL-21.09.01 (142)	4.0 EACH	REMOVE PARK TYPE LAMPPOST ON FOUNDATION, WITH ALL ATTACHMENTS, IF ANY.	\$		\$	
SL-29.01.01 (143)	5.0 EACH	FURNISH, INSTALL, MAINTAIN AND REMOVE EQUIPMENT FOR TEMPORARY LIGHTING (PYLON), AS PER DRAWINGS F-5005 AND F-5005A	\$		\$	
SL-35.01.03 (144)	600.0 L.F.	FURNISH AND INSTALL 1-1/2" HOT DIPPED GALVANIZED STEEL CONDUIT IN PAVED AREA.	\$		\$	



09/27/2013
1:56PM
BID PAGES

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

Contract PIN 8502013HW0069C
Project ID HWPLZ008M

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
SL-35.06.01 (145)	250.0 L.F.	FURNISH AND INSTALL 2" PVC SCHEDULE 40 CONCRETE ENCASED CONDUIT IN OPEN TRENCH AREA.	\$		\$	
SL-35.11.01 (146)	250.0 L.F.	REMOVE CONDUIT(S) WITH OR WITHOUT CONDUCTORS AND ASSOCIATED EQUIPMENT ON STRUCTURE OR BUILDING.	\$		\$	
SL-37.05.04 (147)	1.0 EACH	FURNISH AND INSTALL TYPE 2418 SIDEWALK CONCRETE BOX WITH CAST IRON FRAME AND COVER WITH TAMPER PROOF BOLTS AS PER DWG J-3179A.	\$		\$	
T-60000B (148)	500.0 L.F.	FURNISH 2 c # 10B (BREAKDOWN = 2#10 WITH 3RD WIRE FOR GROUNDING).	\$		\$	

09/27/2013
1:56PM
BID PAGES



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

Contract PIN 8502013HW0069C
Project ID HWPLZ008M

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	
6.39 A (149)	1.0 LUMP SUM	MOBILIZATION PRICE BID SHALL NOT EXCEED 4% OF THE ABOVE SUB-TOTAL PRICE.			\$ _____
SUB-TOTAL:					\$ _____
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)

(NO TEXT ON THIS PAGE)





NEW YORK CITY DEPARTMENT OF
DESIGN + CONSTRUCTION

**INFRASTRUCTURE DIVISION
BUREAU OF DESIGN**

VOLUME 3 OF 3

PROJECT ID: HWPLZ008M

RECONSTRUCTION OF FORSYTH STREET PLAZA

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

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

Contractor.

Dated _____, 20____
