



NEW YORK CITY DEPARTMENT OF
DESIGN + CONSTRUCTION

PROJECT ID:

S216-421

THE CITY OF NEW YORK
DEPARTMENT OF DESIGN AND CONSTRUCTION
DIVISION OF PUBLIC BUILDINGS

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

AUDIT ENGINEER

VOLUME 1 OF 3

BID BOOKLET

FOR FURNISHING ALL LABOR AND MATERIALS
NECESSARY AND REQUIRED FOR:

South Bronx Marine Transfer Station Demolition

LOCATION:
BOROUGH:
CITY OF NEW YORK

Terminus of Farragut Street
Bronx, NY 10474

CONTRACT NO. 1

GENERAL CONSTRUCTION WORK

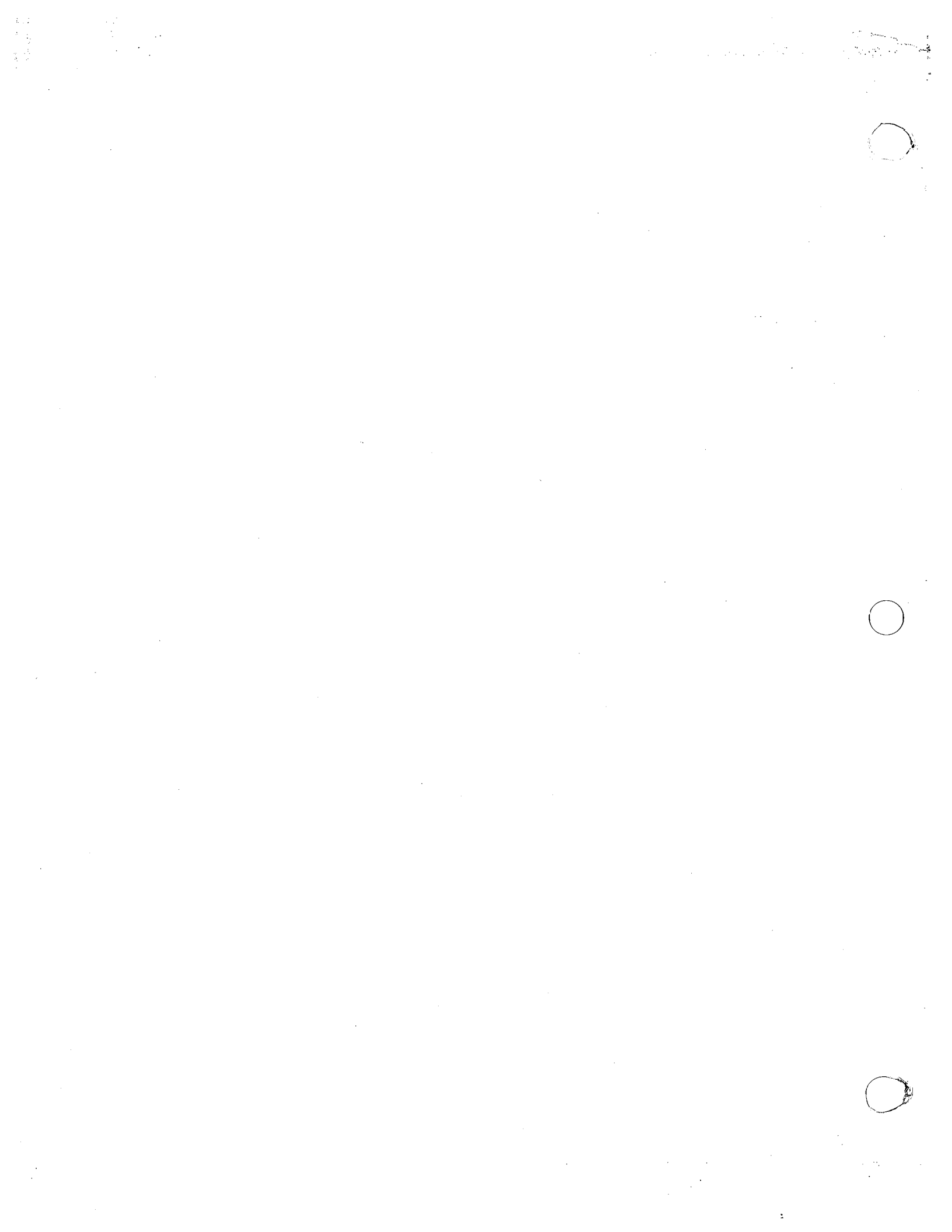
Department of Sanitation

Gereeley and Hansen



Date: February 21, 2013

13-027





NEW YORK CITY DEPARTMENT OF
DESIGN + CONSTRUCTION

DAVID J. BURNEY, FAIA
Commissioner

DAVID RESNICK, AIA
Deputy Commissioner
Structures

NOTICE TO PROCEED

September 25, 2013

MPCC CORP.
81 ROCKDALE AVENUE
NEW ROCHELLE, NY 10801

CONTRACT #: 20141403046
LEAD FMS ID: S216-421
PROJECT NAME: Demolition of South Bronx Marine Transfer Station

Dear Contractor:

You are hereby directed to commence work on the above-referenced project on September 25, 2013. The date to complete all of the work is March 23, 2014, a total of 180 consecutive calendar days in accordance with the terms of the contract.

This contract was awarded to you on August 5, 2013 and was registered by the Comptroller of The City of New York on September 11, 2013 in the amount of \$4,373,773.00.

At least ten (10) business days prior to the work commencement date indicated above, you must submit the original certificates of insurance and/or policies for all types and amounts of coverage required by the Insurance Provision of the contract. If you have not already done so, please submit the original certificates to:

Insurance and Risk Management Unit
Office of the Agency Chief Contracting Officer
30-30 Thomson Avenue, 4th Floor
Long Island City, NY 11101

ORDER TO COMMENCE WORK
PIN: 8502013TR0004C, CONTRACT NUMBER: 20141403046
MPCC CORP.

Please be advised that all permits must be in place prior to the commencement of work.

Also, if subcontractor participation goals have been established for this contract, you must, within 30 days of the date of this letter, submit all subcontractors/subconsultants on the enclosed form ("Initial List of Subcontractors/Subconsultants"). You should also include the following:

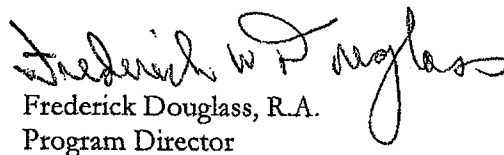
- a) MWBE Contractor Participation Letter (attached)
- b) Copy of the MWBE Certification Letter (attached)
- c) Copy of the Subcontractor Agreement and/or Purchase Order
- d) Request for Approval of Subcontractors (copy only)

Please return completed forms to:

NYC Department of Design + Construction
Office of Contract Opportunity
30-30 Thomson Avenue- 4th Floor
Long Island City, NY 11101
Attn: Norma Negron

You are strongly advised to submit these documents as early as possible so as not to delay the subcontractor approval review process. A list of certified M/WBE firms may be obtained from the Department of Small Business Services (SBS) website at www.nyc.gov/buycertified or by emailing SBS at MWBE@sbs.nyc.gov, or by calling the SBS certification hotline at (212) 513-6311 or by visiting or writing SBS at 110 William Street, New York, New York 10038, 7th Floor. Eligible firms that have not yet been certified may contact SBS in order to seek certification. **FAILURE to submit the LOS within 30 days of the date of this letter will be reflected in the contractor's overall performance evaluation.**

Sincerely,


Frederick Douglass, R.A.
Program Director

cc: Kashona Forrester
Glenn Brue
Judith Bernard, RLA
Ramon Rodriguez
Danielle Deshore
Yolanda Perez
Donna Pope
Lorraine Holley
John Devito
Alla Ayzenshtat
Julian Opran
Jim Cerasoli
Norma Negron



NEW YORK CITY DEPARTMENT OF
DESIGN + CONSTRUCTION

DAVID J. BURNEY, FAIA
Commissioner

CAROL DIAGOSTINO
Agency Chief
Contracting Officer

August 05, 2013

CERTIFIED MAIL - RETURN RECEIPT REQUEST

MPCC CORP.
81 Rockdale Avenue
New Rochelle, NY 10801

RE: FMS ID: S216-421
E-PIN: 85013B007801
DDC PIN: 8502013TR0004C
South Bronx Marine Transfer Station
Demolition
NOTICE OF AWARD

Dear Contractor:

You are hereby awarded the above referenced contract based upon your bid in the amount of \$4,373,773.00 submitted at the bid opening on May 14, 2013. Within ten (10) days of your receipt of this notice of award, you are required to take the actions set forth in Paragraphs (1) through (3) below. For your convenience, attached please find a copy of Schedule A of the General Conditions to the Contract, which sets forth the types and amounts of insurance coverage required for this contract.

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





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

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

Sincerely,

Carol DiAgostino



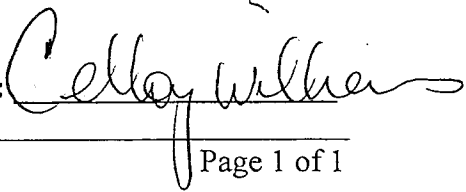
Bid Tab

Revised

Description	South Bronx Marine Transfer Station Demolition		
Bid Date	5/14/2013	FMS ID	S216-421
Estimated Cost	*\$5,363,824.00	PLA	Yes
Bid Security	2% of Total Bid Price	Client Agency	Dept. of Sanitation
Time Allowed	180 CCD	Contract Manager	Eugene Werner
Addendum	1	Project Manager	Bernard, Judith
PIN	8502013TR0004C	E-PIN	85013B0078
Selective Bidding	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Consultant	Gerecley & Hansen

Bid Rank	Vendor	Bid Amount	Security Type
1	MPCC CORP.	\$4,373,773.00	Bond
2	DSA SERVICES INC.	\$5,718,400.00	Bond
3	JAY CASHMAN, INC.	\$6,580,125.00	Bond
4	BEAVER CONCRETE CONSTRUCTION CO., INC.	\$7,138,350.00	Bond
5	LOMMA CONSTRUCTION CORP.	\$7,687,125.00	Bond
6	ROCKMORE CONTRACTING CORP.	\$11,828,000.00	Bond
7	NEELAM CONSTRUCTION CORP.	\$12,292,875.00	Bond

Recorder: Phyllis Lopez – ext. 1283

Approver: 

Bid Tab
Pin: 8502013TR0004C

Page 1 of 1



Project Labor Agreement -- Letter of Assent

Dear:

The undersigned party confirms that it agrees to be a party to and be bound by the New York Agency, Project Labor Agreement as such Agreement may, from time to time, be amended by the parties or interpreted pursuant to its terms. The terms of the Project Labor Agreement, its Schedules, Addenda and Exhibits are hereby incorporated by reference herein.

The undersigned, as a Contractor or Subcontractor (hereinafter Contractor) on the Project known as South Bronx Marine Transfer Station Demo and located at Bronx, NY (hereinafter PROJECT), for and in consideration of the award to it of a contract to perform work on said PROJECT, and in further consideration of the mutual promises made in the Project Labor Agreement, a copy of which was received and is acknowledged, hereby:

- (1) Accepts and agrees to be bound by the terms and conditions of the Agreement, together with any and all schedules; amendments and supplements now existing or which are later made thereto;
- (2) Agrees to be bound by the legally established collective bargaining agreements and local trust agreements as set forth in the Project Labor Agreement and this Agreement but only to the extent of Program Work and as required by the PLA.
- (3) Authorizes the parties to such local trust agreements to appoint trustees and successor trustees to administer the trust funds and hereby ratifies and accepts the trustees so appointed as if made by the Contractor but only to the extent of Program Work as required by the PLA.
- (4) Certifies that it has no commitments or agreements that would preclude its full and complete compliance with the terms and conditions of said Agreement. The Contractor agrees to employ labor that can work in harmony with all other labor on the Project and shall require labor harmony from every lower tier subcontractor it has engaged or may engage to work on the Project. Labor harmony disputes/issues shall be subject to the Labor Management Committee provisions.
- (5) Agrees to secure from any Contractor(s) (as defined in said Agreement) which is or becomes a Subcontractor (of any tier), to it, a duly executed Agreement to be Bound in from identical to this document.

Dated: May 17, 2013

MPCC Corp.

(Name of Contractor or subcontractor)

MPCC Corp.

(Name of CM; GC; Contractor or Higher Level Subcontractor)

(Authorized Officer & Title)

Joseph Urbanati, Jr., President

81 Rockdale Avenue, New Rochelle, NY 10801

(Address)

Phone: (914) 636-0000 Fax: (914) 636-0019

(Phone) (Fax)

Contractor's State License

Sworn to before me this

17 day of MAY, ~~2009~~ 2013

Debra Cornett
Notary Public

DEBRA CORNETT
NOTARY PUBLIC STATE OF NEW YORK
01CO6131266
QUALIFIED IN WESTCHESTER COUNTY
MY COMMISSION EXPIRES AUGUST 1, 2013



Qualification Form

Project ID: S216-421

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: MPCC Corp.

Name of Project: Building Demolition and Site Work at 670 & 676 Grand Concourse

Location of Project: Bronx, NY

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

Name: Mohammed Arain

Title: Deputy Director, NYCDOT Phone Number: 212-839-4610

Brief description of work completed: Demolition & removal of 2 buildings, construction of pre-modular wall and reinforced concrete retaining wall with protective iron fence and backfilling vacated building area.

Was the work performed as a prime or a subcontractor: Prime Contractor

Amount of Contract: \$1,437,773.00

Date of Completion: June 2012

Name of Contractor: MPCC Corp.

Name of Project: Demolition of Mother Clara Hale Bus Depot

Location of Project: 721 Lenox Avenue, NY, NY

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

Name: Demetrios Milonas

Title: Project Manager Phone Number: 646-252-4127

Brief description of work completed: Demolition of existing 162,500 sf bus depot.

Was the work performed as a prime or a subcontractor: Prime Contractor

Amount of Contract: \$1,813,386.00

Date of Completion: September 2009



Qualification Form

Project ID: S216-421

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: MPCC Corp.

Name of Project: Rehabilitation of Premium Point Bridge Over Mill Pond Road

Location of Project: New Rochelle, New York

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

Name: Jerry Roberts

Title: President of Premium Point Phone Number: (914) 632-8601

Brief description of work completed: Bridge Demolition and Replacement

Was the work performed as a prime or a subcontractor: Prime

Amount of Contract: \$466,709.00

Date of Completion: March 2012

Name of Contractor: MPCC Corp.

Name of Project: Demolition of Union Baptist Church

Location of Project: New Rochelle, New York

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

Name: Fitzgerald Ventura

Title: InterCity Agency Rep. Phone Number: (718) 275-7705

Brief description of work completed: Demolition of the Union Baptist Church

Was the work performed as a prime or a subcontractor: Prime

Amount of Contract: \$687,320.00

Date of Completion: August 2011



Qualification Form

Project ID: S216-421

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: MPCC Corp.

Name of Project: Post Road School Reconstruction/Demolition

Location of Project: White Plains, NY

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

Name: Tim Connors/Fred Seiler

Title: Superintendent WPCSD Phone Number: (914) 422-2064

Brief description of work completed: Demolition of existing 4 story school

Was the work performed as a prime or a subcontractor: Prime

Amount of Contract: \$550,000.00

Date of Completion: March 2010

Name of Contractor: MPCC Corp.

Name of Project: Sleepy Hollow Middle/High School Additions/Alterations

Location of Project: Tarrytown, NY

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

Name: Nick Furtado

Title: Savin Engineers Phone Number: (914) 490-9161

Brief description of work completed: Demolition of existing auditorium and two large wings

Was the work performed as a prime or a subcontractor: Prime

Amount of Contract: \$600,000.00

Date of Completion: August 2008



Qualification Form

Project ID: S216-421

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: Morris Park Contracting Corp.

Name of Project: PS/IS 237 Demolition of a four story abandoned school

Location of Project: Brooklyn, NY

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

Name: Rich Dauria

Title: Chief Proj. Officer Phone Number: (718)752-5434

Brief description of work completed: Demolition of a four story abandoned school.

Was the work performed as a prime or a subcontractor: Prime

Amount of Contract: \$2,237,773.00

Date of Completion: March 2006

Name of Contractor: Morris Park Contracting Corp.

Name of Project: IS/HS Demolition of a 110,000 sq. ft. factory

Location of Project: Bronx, NY

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

Name: Antonio Morrone

Title: Project Officer Phone Number: (646) 235-6690

Brief description of work completed: Demolition of a 110,000 sq. ft. factory

Was the work performed as a prime or a subcontractor: Prime

Amount of Contract: \$2,173,773.00

Date of Completion: December 2005



Qualification Form

Project ID: S216-421

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: Morris Park Contracting Corp.

Name of Project: PS156 Demolition of five story school

Location of Project: Brooklyn, NY

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

Name: Arthur Umebuani

Title: Project Officer Phone Number: (718) 472-8181

Brief description of work completed: Demolition of a five story school

Was the work performed as a prime or a subcontractor: Prime

Amount of Contract: \$3,177,773.00

Date of Completion: May 2000

Name of Contractor: Morris Park Contracting Corp.

Name of Project: Demolition of Coliseum Bus Depot

Location of Project: Bronx, NY

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

Name: Demetrios Milonas

Title: Construction Manager Phone Number: (646) 252-4127

Brief description of work completed: Demolition of Coliseum Bus Depot

Was the work performed as a prime or a subcontractor: Prime

Amount of Contract: \$1,573,773.00

Date of Completion: August 1997



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

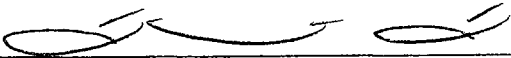
Pursuant to General Municipal Law §103-g, which generally prohibits the City from entering into contracts with persons engaged in investment activities in the energy sector of Iran, the bidder/proposer submits the following certification:

[Please Check One]

BIDDER'S CERTIFICATION

- By submission of this bid or proposal, each bidder/proposer and each person signing on behalf of any bidder/proposer certifies, and in the case of a joint bid each party thereto certifies as to its own organization, under penalty of perjury, that to the best of its knowledge and belief, that each bidder/proposer is not on the list created pursuant to paragraph (b) of subdivision 3 of Section 165-a of the State Finance Law.
- I am unable to certify that my name and the name of the bidder/proposer does not appear on the list created pursuant to paragraph (b) of subdivision 3 of Section 165-a of the State Finance Law. I have attached a signed statement setting forth in detail why I cannot so certify.

Dated: _____, New York
May 14, 2013



SIGNATURE


Joseph Urbinati, Jr.

PRINTED NAME

President

TITLE

Sworn to before me this
14 day of May 2013



Notary Public

Dated: 5/14/13

JOAN M. ANDERSON
NOTARY PUBLIC-STATE OF NEW YORK
No. 01AN6092854
Qualified in Westchester County
My Commission Expires May 27, 2015



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

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

PROJECT ID: S216-421

**South Bronx Marine Transfer Station Demolition
Terminus of Farragut Street
Bronx, NY 10474**

Name of Bidder: MPCC Corp.

Date of Bid Opening: 5/14/13

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

Place of Business of Bidder: 81 Rockdale Avenue, New Rochelle, NY 10801

Bidder's Telephone Number: (914) 636-0000 Bidder's Fax Number: (914) 636-0019

Bidder's Email Address: office@mpcccorp.com

Residence of Bidder (If Individual): N/A

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

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 Urbinati, Jr, 79 Rye Ridge Road, Harrison, NY 10528

Name and Home Address of Secretary: Debra Cornett, 118 Crisfield Street, Yonkers, NY 10710

Name and Home Address of Treasurer:

Joseph Urbinati, Jr. 79 Rye Ridge Road, Harrison, NY 10528



BID FORM

The above-named Bidder affirms and declares:

1. The said bidder is of lawful age and the only one interested in this bid; and no person, firm or corporation other than hereinbefore named has any interest in this bid, or in the Contract proposed to be taken.
2. By submission of this bid, each bidder and each person signing on behalf of any bidder certifies, and in the case of a joint bid each party thereto certifies as to its own organization, under penalty of perjury, that to the best of its knowledge and belief: (1) the prices in this bid have been arrived at independently without collusion, consultation, communication or agreement, for the purpose of restricting competition, as to any matter relating to such prices with any other bidder or with any competitor; (2) unless otherwise required by law, the prices quoted in this bid have not been knowingly disclosed by the bidder and will not knowingly be disclosed by the bidder prior to opening, directly or indirectly, to any other bidder or to any competitor; and (3) no attempt has been made or will be made by the bidder to induce any other person, partnership or corporation to submit or not to submit a bid for the purpose of restricting competition.
3. No councilman or other officer or employee or person whose salary is payable in whole or in part from the City Treasury is directly or indirectly interested in this bid, or in the supplies, materials, equipment, work or labor to which it relates, or in any of the profits thereof.
4. The bidder is not in arrears to the City of New York upon debt or contract or taxes, and is not a defaulter, as surety or otherwise, upon any obligation of the City of New York, and has not been declared not responsible, or disqualified, by any agency of the City of New York or State of New York, nor is there any proceeding pending relating to the responsibility or qualification of the bidder to receive public contracts except as set forth on the Affirmation included as page 17 of this Bid Booklet.

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

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



6. Compliance Report

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

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

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

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

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



Unit Price Schedule

FMS ID: S216-421

Unit Price items: The items of work set forth in the Schedule below shall be performed by the contractor on a unit price basis for additional work. Such items of work shall be performed by the contractor only as directed in writing by the Commissioner.

The unit price for the items of work in the Schedule below are for EXTRA WORK ONLY i.e., work which is above and beyond that described in the Drawings and Specifications.

The bidder shall submit prices for all the items of work in the Schedule below. The bidder shall insert the total sum for all unit price items on the Bid Form, Item D - Allowance for Unit Prices. The unit price bid for each item shall include all costs and expense for the item, i.e., labor, material, overhead and profit. Quantities shown are approximate and for bid comparison purposes only. Actual amounts to be determined when the work is performed.

CSI #	Item #	Item Description	Quant.	Units	Unit Price	Total
02316	1	Earth Excavation	50	CY	\$20.00	\$1,000.00
02317	2	Select Fill	25	CY	\$50.00	\$1,250.00
02317	3	Common Fill	25	CY	\$35.00	\$875.00

Total Amount of Unit Price Work

\$3125.00*

* Insert Total amount of Unit Price Work on line D of Bid Form

Note: All quantities are approximate



BID FORM

PROJECT ID: S216-421

TOTAL BID PRICE: In the space provided below, the Bidder shall indicate the total bid price in figures.

A. LUMP SUM PRICE - Total price for all labor and material for all required work, excluding items (B), (C) and (D) set forth below. Total Price shall include all costs and expenses, i.e. labor, material overhead and profit for all the Work, described and shown in the drawings and specifications.

Total Price For Labor

Total Price for Material Sold and Delivered

\$3,590,648.00 + \$500,000.00 Total Price for Item A \$4,090,648.00

B. ALLOWANCE for Incidental Asbestos Abatement (Section 02081 of the Specifications)

\$30,000.00

C. ALLOWANCE for Hazardous Materials Control (Section 01355 of the Specifications)

\$250,000.00

D. AMOUNT for Unit Prices (from page 13-0) for extra work items

\$3,125.00

TOTAL BID PRICE (Add A + B + C + D) (a/k/a BID PROPOSAL)

\$4,373,773.00

5/14/13 P.8

BIDDER'S SIGNATURE AND AFFIDAVIT

WARNING!! Failure to comply with the item below will result in the rejection of your bid.

* MWBE GOALS: You MUST complete and submit the Affirmations contained in the Subcontractor Utilization Plan (See Page 7), or a pre-approved waiver (See Page 9), at the time you submit your bid. You must submit the Affirmations (or a pre-approved waiver) in BID ENVELOPE #1.

Bidder: MPCC Corp.

By:

(Signature of Partner or corporate officer) Joseph Urbinati, Jr., President

Attest: Debra Cornett (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 BIDDERS IS AN INDIVIDUAL N/A

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 BIDDERS IS A PARTNERSHIP N/A

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 _____,

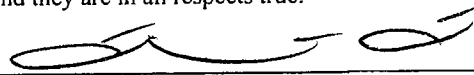
Notary Public

AFFIDAVIT WHERE BIDDERS IS A CORPORATION

STATE OF NEW YORK, COUNTY OF Westchester ss:
Joseph Urbanati, Jr. being duly sworn says:

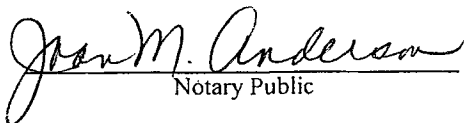
I am the President of the above named corporation whose name is subscribed to and which executed
the foregoing bid. I reside at 79 Rye Ridge Road, Harrison, New York 10528.

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
14th day of May, 2013



Notary Public

JOAN M. ANDERSON
NOTARY PUBLIC-STATE OF NEW YORK
No. 01AN6092854
Qualified in Westchester County
My Commission Expires May 27, 2015



AFFIRMATION

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

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

Full Name of Bidder: MPCC Corp.
Address: 81 Rockdale Avenue
City: New Rochelle State: New York Zip Code: 10801


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

20-3655082

By: 
Signature:

Title: Joseph Urbinati, Jr., 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.



BID BREAKDOWN

Submission: Bidders are advised that the requirement to submit a Bid Breakdown applies to each contract for which an "X" is indicated before the word "Yes". If required, the bidder must submit, with its bid, a completed Bid Breakdown. Failure to provide a completed Bid Breakdown may result in rejection of the bid as non-responsive.

X YES NO

Limitations on Use of Bid Breakdown:

Bidders are advised that the Bid Breakdown shall be used for bid analysis purposes only and shall not be binding for any other purposes under the Contract, including, without limitation, for payment purposes or in connection with a contractor claim for extra work. If the form for the Bid Breakdown does not include an item of work required by the Contract Documents, such omission shall have no effect whatsoever, nor shall it be used by the contractor in connection with a claim for extra work (i.e., work for which the contractor is entitled to a change order).

Instructions for Preparing Bid Breakdown:

- (A) The Bid Breakdown is set forth on the following pages of this Bid Booklet and is in accordance with the Construction Specification Institute (CSI) format. For all items of work listed in the Bid Breakdown, the bidder must indicate the price for labor and the price for material, as well as the estimated quantities required.
- (B) In preparing its Bid Breakdown, the bidder shall submit prices that include all costs for overhead and profit. Overhead shall include, without limitation, all costs in connection with the following: administration, management, superintendence, small tools, insurance, bonds, and provision of services or items required by the General Conditions [except for Security/Fire Guard Services and Temporary Heat]. If the Project requires Security/Fire Guard Services and/or Temporary Heat, such service(s) will be included as separate line items in the Bid Breakdown.
- (C) If an item is set forth in the Bid Breakdown, but is not included in the Contract Documents (Drawings, Specifications, General Conditions, and/or Addenda), the bidder is advised to leave the item blank and exclude the cost of the item from its grand total. In an attachment to its Bid Breakdown, the bidder shall provide a list of all items left blank.
- (D) If an item is not set forth in the Bid Breakdown, but is included in the Contract Documents (Drawings, Specifications, General Conditions, and/or Addenda), the bidder is advised to add the item to its Bid Breakdown and include the cost of the item in its grand total. In an attachment to its Bid Breakdown, the bidder shall provide a list of all items added.





NEW YORK CITY DEPARTMENT OF
DESIGN + CONSTRUCTION

CONTRACTOR'S BID BREAKDOWN FORM

CONTRACT 1 - GENERAL CONSTRUCTION WORK

Project: South Bronx Marine Transfer Station Demolition

Location: Terminus of Farragut Street, Bronx, NY 10474

Bidder: *NBCC* *WTP*

DDC ID: S216-421

Sponsor: Agency: Department of Sanitation

CSI Number	Description	Quantity	Unit	Unit Cost of Material	Total Cost of Material	Unit Cost of Labor	Total Cost of Labor	Total Cost: Materials and Labor
	CONTRACT 1 - GENERAL CONSTRUCTION WORK							
01 000	GENERAL REQUIREMENTS							
	General Conditions		LS					400,000.00
	Mobilization		LS					60,000.00
	Security/ Fire Guards		LS					50,000.00
	Subtotal							
	HAZARDOUS MATERIALS CONTROL							
	Environmental Remediation		LS					250,000.00
	Subtotal							250,000.00
02 000	SITE CONSTRUCTION							
	ASBESTOS ABATEMENT							
	Asbestos Abatement		LS					350,000.00
	Subtotal							350,000.00
	DEMOLITION AND REMOVALS							
	Site Demolition Work:							
	Rent backhoe-loader wheel type 112 HP, 1-1/2 CY capacity, for concrete removal		DAY					
	Load dumpster with concrete, tractor loader wheel 4x4 2.5 - 3.5 CY 130 HP, with operator		DAY					
	Load dumpster with building steel framing, crane truck mounted, hydraulic, 25 ton capacity, with operator		DAY					
	Remove mooring bollards		EA					
	Remove marine cleat, 24" and 42"		EA					
	Remove marine capstan		EA					
	Bldg. footings and foundations demolition, remove concrete walls, beams and columns, excludes disposal costs and dump fees		SF					



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NEW YORK CITY DEPARTMENT OF
DESIGN + CONSTRUCTION

Project: South Bronx Marine Transfer Station Demolition
 Location: Terminus of Farragut Street, Bronx, NY 10474
 Bidder: *MPC CORP.*

CONTRACTOR'S BID BREAKDOWN FORM

CONTRACT 1 - GENERAL CONSTRUCTION WORK

DDC ID: S216-421

Sponsor Agency: Department of Sanitation

CSI Number	Description	Quantity	Unit	Unit Cost of Material	Total Cost of Material	Unit Cost of Labor	Total Cost of Labor	Total Cost: Materials and Labor
	Selective concrete demolition, maximum reinforcing, decking, beams and dolphins, break into small pieces, excludes shoring, bracing, saw/torch cutting, loading, hauling, dumping		CY					
	Rubbish handling, dumpster, 30 CY, 10 ton capacity, weekly rental, for concrete		WK					
	Rubbish handling, dumpster, 30 CY, 10 ton capacity, weekly rental, for steel		WK					
	Hauling carbon steel, recycling facility, miscellaneous framing		LOAD					
	Hauling concrete to disposal		LOAD					
	Miscellaneous equipment to support demolition, tug boat, barge, captain and mates		DAY					
	Masonry:							
	Selective demolition, masonry, concrete block walls, reinforced alternate courses, 8" thick		SF					
	Selective demolition, masonry, concrete block walls, reinforced alternate courses, 12" thick		SF					
	Metals:							
	Remove grating and frame		SF					
	Remove steel ribbon ladder w/cage		EA					
	Remove steel platform		SF					
	Remove steel steps, landing and stairs		EA					
	Remove checker plate		SF					
	Remove structural steel beams and columns, building frame		TON					
	Cut columns and beams into smaller pieces		LS					
	Wood and Plastics:							
	Remove wood catwalk, steps and deck		SF					
	Doors and Windows:							
	Window demolition, translucent panels, maximum		SF					
	Door demolition, door frames, metal, remove		EA					
	Door demolition, interior door, single, remove		EA					
	Door demolition, double door frames, metal, remove		EA					
	Mechanical:							



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NEW YORK CITY DEPARTMENT OF
DESIGN + CONSTRUCTION

Project: South Bronx Marine Transfer Station Demolition
Location: Terminus of Farragut Street, Bronx, NY 10474
Bidder: *MPC Corp*

CONTRACTOR'S BID BREAKDOWN FORM

CONTRACT 1 - GENERAL CONSTRUCTION WORK

DDC ID: S216-421

Sponsor Agency: Department of Sanitation

CSI Number	Description	Quantity	Unit	Unit Cost of Material	Total Cost of Material	Unit Cost of Labor	Total Cost of Labor	Total Cost: Materials and Labor
	Disconnect Supply Fan, 40,000 CFM		EA					
	Remove Supply Fan, 40,000 CFM		EA					
	Ductwork, metal; steel and sst, fabricated, selective demolition		LBS					
	Remove Plumbing piping, equipments and fixtures		LS					
	Remove Fire Protection piping and equipment		LS					
	Rubbish handling, dumpster, 30 CY, 10 ton capacity, weekly rental for mechanical		WK					
	Hauling Rubbish to disposal		LOAD					2,705,648.00
	Subtotal							
02 316	EXCAVATION							
	Earth Excavation		LS					1,000.00
	Subtotal							1,000.00
02 317	BACKFILLING							
	Select Fill		LS					1,250.00
	Common Fill		LS					875.00
	Subtotal							2,125.00
02 371	DUST, SOIL EROSION AND SEDIMENTATION CONTROL							
	Aggregate for earthwork, crushed stone 3"-4", spread with 200 hp dozer, includes load pit and haul, 2 miles rnd trip, excludes compaction		CY					15,000.00
	Subtotal							15,000.00
02 821	METAL FENCE							
	Chain link fence gates and posts		EA					
	Chain link fences & gates, gate, chain link, galvanized steel, single, 4' x 8' x 3', excludes excavation		EA					
	Subtotal							30,000.00



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NEW YORK CITY DEPARTMENT OF DESIGN + CONSTRUCTION

CONTRACTOR'S BID BREAKDOWN FORM

CONTRACT 1 - GENERAL CONSTRUCTION WORK

Project: South Bronx Marine Transfer Station Demolition

Location: Terminus of Farragut Street, Bronx, NY 10474

Bidder: MPC COMP.

DDC ID: S216-421

Sponsor Agency: Department of Sanitation

CSI Number	Description	Quantity	Unit	Unit Cost of Material	Total Cost of Material	Unit Cost of Labor	Total Cost of Labor	Total Cost: Materials and Labor
05 000	METALS							
	Galvanizing (included w/ 02821)						IN 02821	
13 000	SPECIAL CONSTRUCTION		LS					
	Subtotal						IN ASBESTOS	
16 000	ELECTRICAL							
	Temporary Electrical System		LS					19,000.00
	Subtotal							19,000.00
TOTAL CONTRACT 1 - GENERAL CONSTRUCTION WORK								4373,773.00

MORE DETAILS WILL BE FURNISHED UPON REQUEST



Tax ID #: 20-3655082

PIN#: 8502013TR0004C



Contract # 1 - General Construction Work

The City of New York

SCHEDULE B: Subcontractor Utilization Plan -Part I: Agency's Target

This page to be completed by contracting agency

Contract Overview

Pin # 8502013TR0004C FMS Project ID#: S216-421

Project Title South Bronx Marine Transfer Station Demolition

Contracting Agency Department of Design and Construction

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

Contact Person James Cerasoli Title Deputy Director

Telephone # (718) 391-1549 Email CERASOLI@ddc.nyc.gov

Project Description

The South Bronx Marine Transfer Station will be demolished leaving a pile field in the East River. The Marine Transfer Station ramps will be removed to grade and ramp supports to their pile caps. The South Bronx Marine Transfer Station is to be demolished as a requirement of the USACOE permit issued for construction of the East 91st Street Marine Transfer Station. The South Bronx MTS must be demolished by March 2014 to comply with the permit requirements.

(1) Target Subcontracting Percentage

Percentage of total contract dollar value that agency estimates will be awarded to subcontractors in amounts under \$1 million for construction and professional services.

10 %

Subcontractor Participation Goals

Group	Construction	Professional Services
Black American	UNSPECIFIED %	%
Hispanic American	UNSPECIFIED %	%
Asian American	UNSPECIFIED %	No Goal
Caucasian Female	No Goal	%
Total Participation Goals (2)	100 %	(3) %

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



Tax ID #: 20-3655082

PIN#: 8502013TR0004C

SCHEDULE B - Subcontractor Utilization Plan – Part II: Bidder/Proposer Subcontracting Plan

This page and the next (Part II herein) are to be completed by the bidder/proposer. **AFFIRMATIONS; Bidder/proposer must check the applicable boxes below, affirming compliance with M/WBE requirements.**

Bidder/proposer AFFIRMS or DOES NOT AFFIRM [statement below]

It is a material term of the contract to be awarded that, with respect to the total amount of the contract to be awarded, bidder/proposer will award one or more subcontracts for amounts under one million dollars, sufficient to meet or exceed the Target Subcontracting Percentage (as set forth in Part I) unless it obtains a full or partial waiver thereof, and it will award subcontracts sufficient to meet or exceed the Total Participation Goals (as set forth in Part I) unless such goals are modified by the Agency.

- Bidder/proposer AFFIRMS that it intends to meet or exceed the Target Subcontracting Percentage (as set forth in Part 1); or
- AFFIRMS that it has obtained a full/partial pre-award waiver of the Target Subcontracting Percentage (as set forth in Part I) and intends to award the modified Target Subcontracting Percentage, if any; or
- DOES NOT AFFIRM

Section I: Prime Contractor Contact Information

Tax ID # 20-3655082 FMS Vendor ID # _____

Business Name MPCC Corp. Contact Person Joseph Urbinati, Jr.

Address 81 Rockdale Avenue, New Rochelle, NY 10801

Telephone # (914) 636-0000 Email office@mpcccorp.com

Section II: General Contract Information

1. Define the industry in which work is to be performed.

- Construction includes all contracts for the construction, rehabilitation, and/or renovation of physical structures. This category does include CM Build as well as other construction related services such as: demolition, asbestos and lead abatement, and painting services, carpentry services, carpet installation and removal, where related to new construction and not maintenance.
- Professional Services are a class of services that typically require the provider to have some specialized field or advanced degree. Services of this type include: legal, management consulting, information technology, accounting, auditing, actuarial, advertising, health services, pure construction management, environmental analysis, scientific testing, architecture and engineering, and traffic studies, and similar services.

a. Type of work on Prime Contract (Check one):

b. Type of work on Subcontract (Check all that apply):

Construction Professional Services Construction Professional Services Other

2. What is the expected percentage of the total contract dollar value that you expect to award to all subcontracts?

10 %

3. Will you award subcontract(s) in amounts below \$ 1 million for construction and/or professional services contracts within the first 12 months of the notice to proceed on the contract?

Yes No

Section III: Subcontractor Utilization Summary

IMPORTANT: If you do not anticipate that you will subcontract at the target level the agency has specified, because you will perform more of the work yourself, you must seek a waiver of the Target Subcontracting Percentage by completing p. 9).

Step 1:	Subcontracts under \$1M (4) (construction/professional services)	Total Bid/Proposal Value	Calculated Target Subcontracting Percentage
Calculate the percentage (of your total bid) that will go towards subcontracts under \$1M for construction and/or professional services	\$ 4,373,317.30	\$ 4,373,713.00	10 %

- Subcontracts under \$1M (construction/professional services): Enter the value you expect to award to subcontractors in dollars for amounts under \$1 million for construction and/or professional services. This value defines the amount that participation goals apply to, and will be entered into the first line of Step 2.
- Total Bid/Proposal Value: Provide the dollar amount of the bid/proposal.
- Calculated Target Subcontracting Percentage: The percentage of the total contract dollar value that will be awarded to one or more subcontractors for amounts under \$1 million for construction and/or professional services. This percentage must equal or exceed the percentage listed by the agency on page 1, at line (1).

NOTE: The "Calculated Target Subcontracting Percentage" MUST equal or exceed the Target Subcontracting Percentage listed by the agency on Page 6, Line (1).



SCHEDULE B - cont.

Step 2:

Calculate value of subcontractor participation goals

Subcontracts under \$1M
(construction/professional services)

a. Copy value from Step 1, line (4) – the total value of all expected subcontracts under \$1M for construction and/or professional services

\$ 437,377.30

b. * From line a. above, allocate the dollar value of "Subcontracts under \$1M" by Construction and Professional Services,

Construction

Professional Services

* If all subcontracts under \$1M are in one industry, enter '0' for the industry with no subcontracts.

* Amounts listed on these lines should add up to the value from line a.

Subcontracts under \$1M by Industry \$ 437,377.30 \$ 0

* For Construction enter percentage from line (2) from Page 6.

* For Professional Services enter percentage from line (3) from Page 6.

c. * **Total Participation Goals Percentages must be copied from Part I, lines (2) and (3).**

Total Participation Goals x 100 % x 0 %

d. **Value of Total Participation Goals** \$ 437,377.30

Step 3:

Subcontracts in Amounts Under \$1 M Scope of Work – Construction

Enter brief description of type(s) of subcontracts in amounts under \$1M anticipated by type of work, not by name of subcontractor.
ASSESSORS ABATEMENT, FENCE SECURITY, ELECTRICAL

Subcontracts in Amounts Under \$1 M Scope of Work – Professional Services

Enter brief description of type(s) of subcontracts in amounts under \$1M anticipated by type of work, not by name of subcontractor.
NONE

Section IV: Vendor Certification and Required Affirmations

I hereby 1) acknowledge my understanding of the M/WBE requirements as set forth herein and the pertinent provisions of Local Law 129 of 2005, and the rules promulgated thereunder; 2) affirm that the information supplied in support of this subcontractor utilization plan is true and correct; 3) agree, if awarded this Contract, to comply with the M/WBE requirements of this Contract and the pertinent provisions of Local Law 129 of 2005, 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 subcontract(s) sufficient to meet the Target Subcontracting Percentage, unless a waiver is obtained, and the Vendor will award subcontract(s) sufficient to meet the Total Participation Goals unless such goals are modified by the Agency; and 5) agree and affirm, if awarded this contract the Vendor intends to make all reasonable, good faith efforts to meet the Target Subcontracting Percentage, or If the Vendor has obtained a waiver, the Vendor intends to meet the modified Target Subcontracting Percentage, if any, and the Vendor intends to solicit and obtain the participation of M/WBEs so as to meet the Total Participation Goals unless modified by the Agency.

Signature [Signature]
Print Name Joseph Urbinati, Jr.

Date 5/14/13
Title President



Tax ID #: _____

PIN#: _____

SCHEDULE B

PART III - REQUEST FOR WAIVER OF TARGET SUBCONTRACTING PERCENTAGE

Contract Overview

Tax ID # _____ FMS Vendor ID # _____

Business Name _____

Contact Name _____ Telephone # _____ Email _____

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

PIN # (for this procurement) _____ Type of work on Prime Contract _____ Type of work on Subcontract (Check all that apply):
(Check one):

- Construction Construction Other
- Professional Services Professional Services

SUBCONTRACTING as described in bid/solicitation documents (Copy this % figure from Subcontractor Utilization Plan, Part I) in

_____ % of the total contract value anticipated by the agency to be subcontracted for construction/professional services subcontracts valued below \$1 million (each)

ACTUAL SUBCONTRACTING as anticipated by vendor seeking waiver

_____ % of the total contract value anticipated in good faith by the bidder/proposer to be subcontracted for construction/professional services subcontracts valued below \$1 million (each)

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

- Vendor does not subcontract construction/professional services, and has the capacity and good faith intention to perform all such work itself.
- Vendor subcontracts some of this type of work but at lower % than bid/solicitation describes, and has the capacity and good faith intention to do so on this contract.
- Other _____

References

List 3 most recent contracts/subcontracts performed for NYC agencies (if any)

CONTRACT NO. _____	AGENCY _____	DATE COMPLETED _____
CONTRACT NO. _____	AGENCY _____	DATE COMPLETED _____
CONTRACT NO. _____	AGENCY _____	DATE COMPLETED _____

List 3 most recent contracts/subcontracts performed for other agencies/entities (complete ONLY if vendor has performed fewer than 3 NYC contracts)

TYPE OF WORK _____	AGENCY/ENTITY _____	DATE COMPLETED _____
Manager at agency/entity that hired vendor (Name/Phone No.) _____		
TYPE OF WORK _____	AGENCY/ENTITY _____	DATE COMPLETED _____
Manager at agency/entity that hired vendor (Name/Phone No.) _____		
TYPE OF WORK _____	AGENCY/ENTITY _____	DATE COMPLETED _____
Manager at agency/entity that hired vendor (Name/Phone No.) _____		

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 CONTACTING OFFICER APPROVAL

Signature: _____ Date: _____

CITY CHIEF PROCUREMENT OFFICER APPROVAL

Signature: _____ Date: _____



BID BOND 1
FORM OF BID BOND

KNOW ALL MEN BY THESE PRESENTS. That we, MPCC CORP.
81 Rockdale Avenue
New Rochelle, NY 10801

hereinafter referred to as the "Principal", and LIBERTY MUTUAL INSURANCE COMPANY
1200 MacArthur Blvd.
Mahwah, NJ 0743

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 (10%) Percent of Total Amount 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 FMS #S216-421

South Bronx Marine Transfer Station Demolition

Terminus of Farragut Street, Bronx, NY 10471

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.

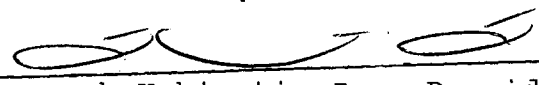
There shall be no liability under this bond if, in the event of the acceptance of the Principal's Proposal by the City, either a performance bond or payment bond, or both, shall not be required by the City on or before the 30th day after the date on which the City signs the Contract.

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 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 14th day of May, 2013.

(Seal)

MPCC CORP. (L.S.)
Principal

By: 
Joseph Urbinati, Jr., President

(Seal)

LIBERTY MUTUAL INSURANCE COMPANY

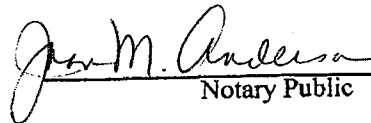
By: 
Carl W. Bull, Attorney-In-Fact



BID BOND 3

ACKNOWLEDGEMENT OF PRINCIPAL, IF A CORPORATION

State of New York County of Westchester ss:
On this 14th day of May, 2013, before me personally came Joseph Urbinati, Jr. to me known, who, being by me duly sworn, did depose and say that he resides at 79 Rye Ridge Road, Harrison, NY 10528 that he is the President of MPCC 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

JOAN M. ANDERSON
NOTARY PUBLIC-STATE OF NEW YORK
No. 01AN6092854
Qualified in Westchester County
My Commission Expires May 27, 2015

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

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

AFFIX ACKNOWLEDGEMENTS AND JUSTIFICATION OF SURETIES



Acknowledgment of Surety

State of New Jersey)
County of Hudson)

ss.:

On this 14th day of May, 2013 before me personally came Carl W. Bull 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 the 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 Resolution therefore.

Notary: Barbara Zitt

BARBARA ZITT
NOTARY PUBLIC
NEW JERSEY
MY COMMISSION EXPIRES 10-27-13





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.

T. Mikolajewski

Assistant Secretary



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

Liberty Mutual Insurance Company
Peerless Insurance Company

POWER OF ATTORNEY

KNOWN ALL PERSONS BY THESE PRESENTS: That American Fire & Casualty Company and The Ohio Casualty Insurance Company are corporations duly organized under the laws of the State of Ohio, that Liberty Mutual Insurance Company is a corporation duly organized under the laws of the State of Massachusetts, that Peerless Insurance Company is a corporation duly organized under the laws of the State of New Hampshire, and West American Insurance Company is a corporation duly organized under the laws of the State of Indiana (herein collectively called the "Companies"), pursuant to and by authority herein set forth, does hereby name, constitute and appoint, CARL W. BULL, BARBARA ZITT,

all of the city of WEST NEW YORK, state of NEW JERSEY 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 14th day of May, 2012.



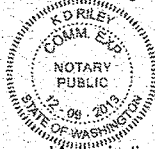
American Fire and Casualty Company
The Ohio Casualty Insurance Company
Liberty Mutual Insurance Company
Peerless Insurance Company
West American Insurance Company

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

STATE OF WASHINGTON ss
COUNTY OF KING

On this 14th day of May, 2012, before me personally appeared Gregory W. Davenport, who acknowledged himself to be the Assistant Secretary of American Fire and Casualty Company, Liberty Mutual Insurance Company, The Ohio Casualty Company, Peerless Insurance Company and West American Insurance Company, and that he, as such, being authorized so to do, execute the foregoing instrument for the purposes therein contained by signing on behalf of the corporations by himself as a duly authorized officer.

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



By: KD Riley
KD Riley, Notary Public

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

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

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

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

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

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

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the seals of said Companies this 14th day of May, 2013.



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

Not valid for mortgage, note, loan, letter of credit, bank deposit, currency rate, interest rate or fiducial 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.



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: MPCC Corp.

DDC Project Number: S216-421

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

 NO Company has previously worked for DDC

2. Type(s) of Construction Work

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

3. Experience Modification Rate:

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



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

YEAR	<u>INTRASTATE RATE</u>	<u>INTERSTATE RATE</u>
<u>2010</u>	_____	1.06
<u>2011</u>	_____	1.09
<u>2012</u>	_____	.98

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. To be furnished if low bidder

4. OSHA Information:

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

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

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

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

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

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

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



YEAR	TOTAL NUMBERS OF HOURS WORKED BY EMPLOYEES	INCIDENT RATE
2012	86,983	2.30
2011	95,922.50	6.26
2010	90,898	4.40

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)


N/A Contractor previously audited by the DDC Office of Site Safety.

DDC Project Number(s): _____

N/A Accident on previous DDC Project(s).

N/A 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: 5/14/13

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

Title: Joseph Urbinati, Jr. President



Summary of Work-Related Injuries and Illnesses



Year 20 10

U.S. Department of Labor
Occupational Safety and Health Administration
Form approved OSHA 100-1218-0706

All establishments covered by Part 1904 must complete this Summary page, even if no work-related injuries or illnesses occurred during the year. Remember to review the Log to verify that the entries are complete and accurate before completing this summary.

Using the Log, count the individual entries you made for each category. Then write the totals below, making sure you've added the entries from every page of the Log. If you had no cases, write "0".

Employees, former employees, and their representatives have the right to review the OSHA Form 300 in its entirety. They also have limited access to the OSHA Form 301 or its equivalent. See 29 CFR Part 1904.35, in OSHA's recordkeeping rule, for further details on the access provisions for these forms.

Number of Cases

Total number of deaths	Total number of cases with days away from work	Total number of cases with job transfer or restriction	Total number of other recordable cases
0 (G)	1 (H)	0 (I)	0 (J)

Number of Days

Total number of days away from work	Total number of days of job transfer or restriction
35 (K)	0 (L)

Injury and Illness Types

Total number of . . .	(4) Poisonings	(5) Hearing loss	(6) All other illnesses
(1) Injuries	2	0	0
(2) Skin disorders	0	0	0
(3) Respiratory conditions	0	0	0

Post this Summary page from February 1 to April 30 of the year following the year covered by the form.

Public reporting burden for this collection of information is estimated to average 58 minutes per response, including time to review the instructions, search and gather the data needed, and complete and review the collection of information. Persons are not required to respond to the collection of information unless it displays a currently valid OMB control number. If you have any comments about these estimates or any other aspect of this data collection, contact: US Department of Labor, OSHA Office of Statistical Analysis, Room N-3314, 200 Constitution Avenue, NW, Washington, DC 20210. Do not send the completed forms to this office.

Establishment information	
Your establishment name	MPCC COIP.
Street	81 Rockdale Avenue
City	New Rochelle State NY ZIP 10801
Industry description (e.g., <i>Manufacture of motor truck trailers</i>)	General Contractor
Standard Industrial Classification (SIC), if known (e.g., 3715)	
OR	
North American Industrial Classification (NAICS), if known (e.g., 336212)	
Employment information (If you don't have these figures, see the Worksheet on the back of this page to estimate.)	
Annual average number of employees	4
Total hours worked by all employees last year	90,898
Sign here	
Knowingly falsifying this document may result in a fine.	
I certify that I have examined this document and that to the best of my knowledge the entries are true, accurate, and complete.	
Company executive	<u>[Signature]</u> President
Title	
Phone	914.636-0000 0404/11



Summary of Work-Related Injuries and Illnesses

All establishments covered by Part 1904 must complete this Summary page, even if no work-related injuries or illnesses occurred during the year. Remember to review the Log to verify that the entries are complete and accurate before completing this summary.

Using the Log, count the individual entries you made for each category. Then write the totals below, making sure you've added the entries from every page of the Log. If you had no cases, write '0'.

Employees, former employees, and their representatives have the right to review the OSHA Form 300 in its entirety. They also have limited access to the OSHA Form 301 or its equivalent. See 29 CFR Part 1904.35, in OSHA's recordkeeping rule, for further details on the access provisions for these forms.

Number of Cases

Total number of deaths	Total number of cases with job transfer or restriction	Total number of other recordable cases
0 (G)	0 (H)	0 (J)

Number of Days

Total number of days away from work	Total number of days of job transfer or restriction
1 (K)	0 (L)

Injury and Illness Types

Total number of ... (M)	(4) Poisonings	0
(1) Injuries	(5) Hearing loss	0
(2) Skin disorders	(6) All other illnesses	0
(3) Respiratory conditions		

Post this Summary page from February 1 to April 30 of the year following the year covered by the form.

Public reporting burden for this collection of information is estimated to average 58 minutes per response, including time to review the instructions, search existing data sources, gather the data needed, and complete and review the collection of information. Persons are not required to respond to the collection of information unless it displays a currently valid OMB control number. If you have any comments on this burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden, contact: US Department of Labor, OSHA Office of Statistical Analysis, Room N-31614, 2100 Constitution Avenue, NW, Washington, DC 20220. Do not send the completed forms to this office.

Establishment information

Your establishment name MPC Corp.

Street 81 Rockdale Avenue

City New Rochelle State NY ZIP 10801

Industry description (e.g., *Manufacture of motor truck trailers*)

General Contractor

Standard Industrial Classification (SIC), if known (e.g., 3715)

OR _____

North American Industrial Classification (NAICS), if known (e.g., 336212)

Employment information (If you don't have these figures, see the Worksheet on the back of this page to estimate.)

Annual average number of employees 5

Total hours worked by all employees last year 95,922.50

Sign here

Knowingly falsifying this document may result in a fine.

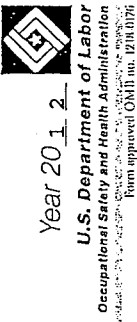
I certify that I have examined this document and that to the best of my knowledge the entries are true, accurate, and complete.

[Signature] President
Company executive

19141636-0000 01/08/12
Print Date



Summary of Work-Related Injuries and Illnesses



All establishments covered by Part 1904 must complete this Summary page, even if no work-related injuries or illnesses occurred during the year. Remember to review the Log to verify that the entries are complete and accurate before completing this summary.

Using the Log, count the individual entries you made for each category. Then write the totals below, making sure you've added the entries from every page of the Log. If you had no cases, write 0.

Employees, former employees, and their representatives have the right to review the OSHA Form 300 in its entirety. They also have limited access to the OSHA Form 301 or its equivalent. See 29 CFR Part 1904.35, in OSHA's recordkeeping rule, for further details on the access provisions for these forms.

Number of Cases

Total number of deaths	Total number of cases with days away from work	Total number of cases with job transfer or restriction	Total number of other recordable cases
0 (G)	1 (H)	0 (I)	0 (J)

Number of Days

Total number of days away from work	Total number of days of job transfer or restriction
5 (K)	0 (L)

Injury and Illness Types

Total number of . . .	(4) Poisonings	(5) Hearing loss	(6) All other illnesses
(1) Injuries (M)	1	0	0
(2) Skin disorders	0	0	0
(3) Respiratory conditions	0	0	0

Post this Summary page from February 1 to April 30 of the year following the year covered by the form.

Public reporting burden for this collection of information is estimated to average 58 minutes per response, including time to review the instructions, search existing data sources, gathering the data needed, and completing and reviewing the collection of information. Persons are not required to respond to this collection of information unless it displays a currently valid OMB control number. If you have any comments about this estimate or any other aspect of this data collection, contact US Department of Labor, OSHA Office of Statistical Analysis, Room N-3604, 310 Constitution Avenue, NW, Washington, DC 20210. Do not send the completed forms to this office.

Establishment information

Your establishment name MPCC Corp.

Street 81 Rockdale Avenue

City New Rochelle State NY Zip 10801

Industry description (e.g., *Manufacture of motor truck trailers*)

General Contractor

Standard Industrial Classification (SIC), if known (e.g., 3715)

OR

North American Industrial Classification (NAICS), if known (e.g., 336212)

Employment information (If you don't have these figures, see the Worksheet on the back of this page to estimate.)

Annual average number of employees 3

Total hours worked by all employees last year 86,983

Sign here

Knowingly falsifying this document may result in a fine.

I certify that I have examined this document and that to the best of my knowledge the entries are true, accurate, and complete.

Company executive [Signature] Title President
 Date 01/03/13



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
*See attached list of projects completed					





COMPLETED PROJECTS

Project Name Building Demolition and Sitework at 670 & 676 Grand Concourse NYCDOT#HBX119B
Bronx, NY

Contract Owner: NYC Department of Transportation Mohammad Arain, NYCDOT Deputy Director
55 Water Street 212-839-4610
New York, New York 10041

Architect: Daniel Frankfurt, 500 Seventh Avenue, NY, NY 10018

Engineer: CTE Engineers- 605 Third Avenue, NY, NY 10058

Contract Amount: \$1,437,773.00 Percentage Complete: 100%

Scheduled Completion Date: June 2012

Scope of Work: Demolition and removal of two (2) buildings, construction of a pre-cast modular wall and reinforced concrete retaining wall with protective iron fence and backfilling vacated building area

Project Name Renovations to State Office Building (DOL Bldg.) OGS Project#42954C
250 Schermerhorn St., Brooklyn, NY

Contract Owner: State of New York Office Of General Services
Corning Tower 35th Floor, Gov.N.A.Rockefeller Empire State Plaza
Albany, NY Robert Kotarski, Reg.2 Area Supervisor
718-804-0730

Architect: Crandell Associates, P.C.
5 Grove Avenue
Glenn Falls, NY 12801

Contract Amount: \$ 18,950,480.00 Percentage Complete: 100%

Scheduled Completion Date: July 2011

Scope of Work: Demolition of the interior of the existing 5 story building, performance of electrical, mechanical and plumbing work, reconstruct the entire interior of the building and addition of a 6th floor.

Project Name New Academic Building/Satellite Heat-Chill Plant SUCF Proj#31215/31225
Campus Center , State University College at Old Westbury

Contract Owner: State University Construction Fund
State University Plaza, 353 Broadway Roger Barnaby, SUCF Representative
Albany, NY 12246 516-876-3327

Architect: Kliment Halsband Architects, LLP
255 West 26th Steet
New York, New York 10001

Contract Amount: \$ 55,820,882.00 Percentage Complete: 100%

Scheduled Completion Date: May 15, 2012

Scope of Work: General construction of new 180,000 s.f. academic building

Project Name Rehabilitation of Premium Point Bridge Over Mill Pond
New Rochelle, NY 10801

Contract Owner: Premium Point Company Jerry Roberts
Premium Point 914-632-8601
New Rochelle, NY 10801

Architect: McLaren Engineering Group
100 Snake Hill Road
West Nyack, NY 10994 Percentage Complete: 100%

Contract Amount: \$ 445,500.00

Scheduled Completion Date: August 2011

Scope of Work: Work includes demolition/removals, abutment reinforcement, precast fabrication and installation and restoration work.





COMPLETED PROJECTS

Project Name:	Woodlands Legacy Ballfields Yorktown Heights, New York	Contract # 06558-GC
Contract Owner:	Westchester County DPW Michaelian Office Bldg. 148 Martine Avenue White Plains, NY 10601	Bob Powers 914-774-4614
Architect:	Eberlin & Eberlin 247 Route 100, Suite 1003 Somers, New York 10589	
Contract Amount:	\$ 3,423,773.00	Percentage Complete: 100%
Scheduled Completion Date:	October 2010	
Scope of Work:	Construction of natural and artificial turf sport fields including drainage, fencing, retaining wall and a small maintenance facility building.	

Project Name	Post Road School Reconstruction White Plains, New York 10605	Contract SED #66-22-01-0-0013-02 School PO#257472
Contract Owner:	White Plains City School District 5 Homeside Lane White Plains, New York 10605	Tim Connors/Fred Seiler 914-422-2064
Architect:	Kaeyer, Garment & Davidson Architects 285 Main Street Mount Kisco, New York 10549	Calvin Black 914-666-5900
Contract Amount:	\$21,402,760.94	Percentage Complete 100%
Scheduled Completion Date:	March 2010	
Scope of Work:	Construction of a new Middle School Building and related site work. Work included the demolition of the existing four story school.	

Project Name:	Tarrytown Riverwalk Tarrytown, New York	Contract # 06556 GC
Contract Owner:	Westchester County DPW Michaelian Office Bldg. 148 Martine Avenue White Plains, NY 10601	John Hsu, Westchester County Comm. Of DPW 914-995-2552
Architect:	Rob Lopane Westchester County DPW Michaelian Office Bldg. 148 Martine Avenue White Plains, NY 10601	
Contract Amount:	\$2,637,773	Percentage Complete: 100%
Scheduled Completion Date:	January 2010	
Scope of Work:	Construction of a bike path and modification of the Bowling Alley restrooms.	

Project Name	Demolition of Mother Clara Hale Bus Depot 721 Lenox Avenue, New York, New York	Contract#C-40452
Contract Owner:	NYC Transit Authority 2 Broadway 19th Floor New York, New York 10004	Demetrios Milonas, Construction Manager 646-252-4127
Architect:	NYC Transit Authority	
Contract Amount:	\$1,813,386.00	Percentage Complete 100%
Completion Date:	Sept. 2009	
Scope of Work:	Demolition of existing 162,500 square foot bus depot	





COMPLETED PROJECTS

Project Name:	Masonry Repair & Window Replacement in Various Buildings State University College at Purchase, NY	SUCF Proj#29345/ Contract#D005423
Project Name:	Masonry Restoration & Window Replacement	
Contract Owner:	State University Construction Fund State University Plaza, 353 Broadway Albany, New York 12246	John Davies 212-777-2090
Architect:	Hall Partnership Architects LLP 42 East 21st Street, New York, NY 10010	
Contract Amount:	\$1,137,773.00	Percentage Complete: 100%
Completion Date:	12/17/2009	
Scope of Work:	Library Bldg.-Removal of existing windows, abate and install new windows, removal of masonry at sills of large windows- reflash and brick reinstalled. Skylight reflashng & patching. New coating over entire gypsum board ceiling Music Bldg.-sklyights-remove flashing and install new flashing, patch & paint interior.	
Project Name:	Foundation Waterproofing/Drainage, Visual Arts, Neuberger Natural Sciences Building at Purchase College, Purchase, NY	SUCF Project#29391 Contract#S005358
Contract Owner:	State University Construction Fund State University Plaza, 353 Broadway Albany, NY 12246	Rich Brown 518-320-3204
Architect:	San Fanandre Justin, Architect, PC 259 W 30th St. 9th Floor New York, NY 10001	Craig Justin 212-463-9550
Contract Amount:	\$2,033,939.00	M/WBE Goals: MBE 8% & WBE 4%
Completion Date:	Dec-08	Percentage Complete: 100%
Scope of Work:	Removal and reconstruction of exterior perimeter paving systems, masonry walls, flashing systems, roofing, waterproofing and sealants at three separate buildings.	
Project Name:	Additions and Alterations to Sleepy Hollow Middle/High School Tarrytown, New York	Contract#6060.1
Contract Owner:	Tarrytown Union Free School District 200 North Broadway Tarrytown, New York 10591	Charles Custodio 914-332-6256
Architect:	Thomas Associates 215 The Commons Ithaca, New York 14850	Nick Lopez 607-277-7100
Engineer:	SAVIN Engineering 3 Campus Drive Pleasantville, New York 10570	Nick Furtado 914-490-9161
Contract Amount:	\$27,206,025.00	Percentage Complete: 100%
Completion Date:	8/1/08	
Scope of Work:	General construction work for five new additions and interior alterations to existing facilities. Work included the demolition of the existing auditorium and two other large wings.	
Project Name	Longview Avenue Lot Garage Construction 11 Longview Avenue, White Plains, NY	Contract#902586
Contract Owner:	The City of White Plains DPW Municipal Bldg. -255 Main Street White Plains, New York 10601	Nick DiFiore, Engineer 914-422-1465
Architect:	Warshauer Mellusi Warshauer Architects, P.C. 7 Skyline Drive Elmsford, New York 10532	Ed Vogel 914-592-4466
Contract Amount:	\$15,435,772.83	Percentage Complete: 100%
Completion Date:	11/1/08	
Scope of Work:	Construction of new nine story parking garage. Work included the demolition of the existing parking lot.	





COMPLETED PROJECTS

Project Name:	Rockland Children's Psychiatric Center- New 56 Bed Bldg. Orangeburg, New York	Foundation, Steel & Site Work
Owner	Dormitory Authority of the State of NY Contract#2547209999/CR26 515 Broadway Albany, New York 12207	Carl Waldenmaier 845-398-1057
Architect:	Urbahn Architects 49 West 37th Street New York, New York 10018	
Structural Engineer:	Ysreal Seinuk, P.C. 228 East 45th Street New York, New York	M/WBE Goals: MBE 10% & WBE 5%
Contract Amount:	\$ 5,195,925.00	
Completion Date:	3/1/2008	Percentage Complete: 100%
Scope of Work:	Concrete foundations, concrete encased electrical conduits, structural steel, site clearing and site preparation for new 54 Bed Inpatient Building.	
Project Name:	Rehabilitation of Site A Parking Garage Hartsdale , New York	
Owner:	Hartsdale Public Parking District 2234 E. Hartsdale Ave Hartsdale, NY 10530	Stephanie Kavourias, Director 914-723-1026
Architect:	Busing Associates Architects 222 Mamaroneck Avenue White Plains, NY 10605	David Busing 914-428-2291
Structural Engineer:	Desman Associates 49 West 37th Street New York, New York 10016	Jack Caliendo 212-686-5360
Mechanical/Electrical Engineer:	Damiano Barile Engineers 77 Tarrytown Road White Plains, NY 10607	Tom Damiano-Mechanical Vincent Restivo- Electrical 914-328-6060
Contract Amount:	\$3,773,639.31	Self Performed Work: 75%
Completion Date:	3/31/2007	Percentage Complete: 100%
Scope of Work:	Complete rehabilitation of 5 level parking garage, including deck replacement, (concrete and asphalt), concrete foundations, masonry, sheetrock, ceramic tile, fencing, structural steel repairs, miscellaneous metal; stairs, railings, aluminum fascia, waterproof coating system, roofing.	
Project Name:	Bronx River Parkway Pathway & Footbridges Crane Road & Harney Road, Bronx River Reservation, Town of Eastchester & Village of Scarsdale	Contract#05-516
Contract Owner and Engineer	County of Westchester DPW Michaelian Office Bldg. Rm#432 148 Martine Avenue White Plains, New York 10601	Paul Rienzi 914-804-9510
Contract Amount:	\$1,176,537.00	Self Performed Work: 80%
Completion Date:	April 2007	Percent Complete: 100%
Scope of Work:	Creating a new bike path along the Bronx River Parkway. Site clearing, asphalt paving, concrete foundations, new structural steel footbridge, new wooden bridges, creating dam to divert river for new foundations, architectural stonework, miscellaneous metal railings, timber rail fence, precast concrete benches, and signage.	



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
*See attached list of projects in progress.							



CURRENT PROJECTS IN PROGRESS		
Project Name	Central Fire Station Demolition Havemeyer Place, Greenwich, CT	Contract#5767 - RFB#6929
Contract Owner:	Town of Greenwich Town Hall, 101 Field Point Road Greewich, CT 06830	Alan Monelli 203-979-9796
Architect:	JCJ Architects, PC	Percentage Complete: 61.4%
Contract Amount:	\$1,173,773.00	
Scheduled Completion Date:	180 days	
Scope of Work:	Demolition of existing Fire Station. Work includes demoliton and removal of building and site improvements. Disconnect, cap or seal & abandon in place or remove site utilities. Salvage items for reuse by owner	
Project Name	Demolition of Existing District 1 Garage 297 West Street, NY, NY 10013	Contract#82708RR00063R
Contract Owner:	The City of New York Dept. of Sanitation 44 Beaver Street New York, NY 10004	Glenn Brue 718-391-2648
Contract Amount:	\$393,773.00	Percentage Complete: 5%
Scheduled Completion Date:	270 days	
Scope of Work:	Abestos abatement of roof. Demolition of existing building, slabs, foundation walls and footings. Backfill, compact and fill excavated areas.	
Project Name	New Computer Science Building SUNY Stony Brook, Stony Brook, NY	SUCF#13D12
Contract Owner:	State University Construction Fund State University Plaza, 353 Broadway Albany, NY 12246	Don Chester, SUCF 518-320-3234
Architect:	Mitchell/Giurgola, LLP, 630 Ninth Avenue, NY, NY 10036	Percentage Complete: 20.8%
Contract Amount:	\$33,537,773.00	
Scheduled Completion Date:	Sept. 2014	
Scope of Work:	Construction of new three (3) story plus basement and penthouse building to house science & teaching laboratories and offices including associated surrounding sitework.	
Project Name	Rehabilitation of Plaza Exterior Pathways - Phase 1 SUNY Purchase, Purchase, NY	SUCF#29435
Contract Owner:	State University Construction Fund State University Plaza, 353 Broadway Albany, NY 12246	Rich Brown, SUCF 518-320-3204
Architect:	Abel Bainnson Butz, LLP, 80th Ave, NY, NY 10011	Percentage Complete: 56.7%
Contract Amount:	\$5,707,773.00	
Scheduled Completion Date:	1/15/2014	
Scope of Work:	Rehabilitate exterior pathways ; removal , reinstallation and configuring of site pavers & pavements, removal of trees, shrubs and turf and transplant trees where indicated, reconstruct granite stairs & rails, installation of site furnishings, site lighting & electrical work, reconstruct site drainage system	



CURRENT PROJECTS IN PROGRESS

Project Name	Critical Maintenance of Exterior Envelope of Visual Arts Building State University College at Purchase, Purchase, NY	SUCF Project#29393
Contract Owner:	State University Construction Fund State University Plaza, 353 Broadway Albany, NY 12246	Lee Newton, SUCF 518-429-6458
Architect:	Robert Siegel Architects 37 West 37th Street- 12th Floor New York, NY 10018	
Contract Amount:	\$ 9,637,773.00	Percentage Complete: 79%
Scheduled Completion Date:	August 2012	
Scope of Work:	Roofing, window and curtainwall removal and replacement, brick masonry repair, re-pointing and replacement.	
Project Name	Lido Complex- Additions and Alteration Long Beach, NY 11561	SED#28-03-00-01-0-001-034
Contract Owner:	Long Beach City School District 235 Lido Blvd. Lido Beach, NY 11561	Nancy Theriault, Savin Engineers 516-442-5656
Architect:	CS Architects 19 Front Street Newburgh, NY 12550	Percentage Complete: 90.4%
Contract Amount:	\$ 24,528,307.00	
Scheduled Completion Date:	August 2013	
Scope of Work:	Work includes multiple additions; 11 classrooms, cafeteria and Middle school library and extensive alterations	
Project Name	Plaza Deck Rehabilitation and Drainage SUNY College at Purchase, Purchase, NY	SUCF Project# 29369/D005518
Contract Owner:	State University Construction Fund State University Plaza, 353 Broadway Albany, NY 12246	Richard Brown, SUCF 518-320-3204
Architect:	San Fanandre Justin Architects, PC 259 West 30th Street New York, New York 10001	
Contract Amount:	\$ 17,913,733.00	Percentage Complete: 99.3%
Scheduled Completion Date:	August 2012	
Scope of Work:	Removal & reinstallation of 200,000sf of pavers in Plaza area including waterproofing, installation of concrete planters, landscaping, new electrical lighting, new area drains and irrigation	



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
N/A					



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, Joseph Urbinati, Jr., 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: MPCC Corp.

Vendor's Address: 81 Rockdale Avenue, New Rochelle, NY 10801

Vendor's EIN or TIN: 20-3655082 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: 5/14/13

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 Urbinati, Jr., President	5/14/13	
2	Debra Cornett, Corp. Secretary	5/14/13	
3			
4			
5			
6			

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

Certification *This section is required.*

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

Certified By:

Joseph Urbianati, Jr.


Name (Print)

President

Title

MPCC Corp.


Name of Submitting Entity


Signature

8/8/13

Date

Notarized By:


Notary Public

Westchester
County License Issued

01AN6092854
License Number

Sworn to before me on: 8/8/13
Date

JOAN M. ANDERSON
NOTARY PUBLIC-STATE OF NEW YORK
No. 01AN6092854
Qualified in Westchester County
My Commission Expires May 27, 2015



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

May 13, 2013

ADDENDUM No. # 1

FOR FURNISHING ALL LABOR AND MATERIAL NECESSARY AND REQUIRED FOR:

S216-421

South Bronx Marine Transfer Station Demolition

This addendum is issued for the purpose of amending the requirements of the Bid and Contract Documents and is hereby made a part of said Bid and Contract Documents to the same extent as though it were originally included therein.

The bidder is advised that the items listed below apply to the project:

1. Questions from Bidders and Responses to Questions:

See Attachment A

3. Revisions to the Bid Booklet:

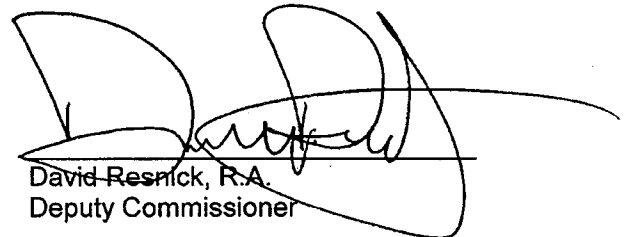
Delete page 2 of the Bid Booklet and replace with page 2R, included with this Addendum.

2. Revisions to the Addendum to the General Conditions:

See Attachment B

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

If additional information is required, please contact the Department of Design and Construction, Contract Section at (718) 391-2200, (718) 391-1727, or by fax at (718) 391-2615.



David Resnick, R.A.
Deputy Commissioner

MPC COMP.
Name of Bidder

By: [Signature]



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

CONSTRUCTION EMPLOYMENT REPORT

GENERAL INFORMATION

1. Your contractual relationship in this contract is: Prime contractor Subcontractor
- 1a. Are MWBE 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: N/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? N/A
Are you DBE certified? Yes No
3. Please indicate if you would like assistance from SBS in identifying certified MWBEs for contracting opportunities: Yes No
4. Is this project subject to a project labor agreement? Yes No

PART I: CONTRACTOR/SUBCONTRACTOR INFORMATION

5. 20-3655082 _____ Email Address
Employer Identification Number or Federal Tax I.D./
6. MPCC Corp. _____
Company Name
7. 81 Rockdale Avenue, New Rochelle, NY 10801 _____
Company Address and Zip Code
8. Joseph Urbinati, Jr, President (914) 636-0000 _____
Chief Operating Officer Telephone Number
9. same _____
Designated Equal Opportunity Compliance Officer Telephone Number
(If same as Item #7, write "same")
10. same _____
Name of Prime Contractor and Contact Person
(If same as Item #5, write "same")
11. Number of employees in your company: 25 _____



12. Contract information:

(a) NYCDDC
Contracting Agency (City Agency)

(b) ~~\$\$\$~~ 4,373,773.00
Contract Amount

(d) 8502013TR0004C
Procurement Identification Number (PIN)

(e) _____
Contract Registration Number (CT#)

(f) _____
Projected Commencement Date

(g) _____
Projected Completion Date

(h) Description and location of proposed contract:
South Bronx Marine Transfer Station Demolition

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 x

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 x

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 x 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 xP

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 X

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) To be supplied upon request
- ___ (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 <u>X</u> |
| (b) After a conditional job offer | Yes___ | No <u>X</u> |
| (c) After a job offer | Yes___ | No <u>X</u> |
| (d) Within the first three days on the job | Yes <u>X</u> | No___ |
| (e) To some applicants | Yes___ | No <u>X</u> |
| (f) To all applicants | Yes___ | No <u>X</u> |
| (g) To some employees | Yes___ | No <u>X</u> |
| (h) To all employees | Yes <u>X</u> | No___ |



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

When an employee is hired, he is required to complete an I-9 along with the W4 providing driver's license, social security card, passport, etc.

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

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 x No ___

If yes, list the document(s) and page number(s) where these written policies are located.
to be supplied upon request

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

- x Minorities and Women
- x 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 x No ___

to be supplied upon request

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 x

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 x No ___

If yes, attach a log. See instructions.

Information to be supplied upon request



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

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 X

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) Joseph Urbinati, Jr. 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.

MPCC Corp.
Contractor's Name

Joseph Urbinati, Jr. President
Name of person who prepared this Employment Report Title

Joseph Urbinati, Jr.
Name of official authorized to sign on behalf of the contractor Title

(914) 636-0000
Telephone Number


Signature of authorized official 5/14/13
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 14th day of May 20 2013

Joan M. Anderson 5/14/13
Notary Public Authorized Signature Date

JOAN M. ANDERSON
NOTARY PUBLIC-STATE OF NEW YORK
No. 01AN6092854
Qualified in Westchester County
My Commission Expires May 27, 2015



NOTICE TO BIDDERS:

- **PROJECT LABOR AGREEMENT:** This contract is subject to a Project Labor Agreement (“PLA”) entered into between the City and the Building and Construction Trades Council of Greater New York (“BCTC”) affiliated Local Unions. By submitting a bid, the Contractor agrees that the PLA is binding on the Contractor and all subcontractors of all tiers. The bidder to be awarded the contract will be required to execute a “Letter of Assent” prior to award.

The Bidder is advised to review the following: (1) Notice regarding the PLA, (2) the PLA, and (3) the Letter of Assent, all of which are set forth at the beginning of Volume 2 of the Contract Documents.

- **SINGLE CONTRACT:** As stated above, this contract is subject to a PLA. The requirements of the Wicks Law for separate prime contractors DO NOT APPLY to any project that is covered by a PLA. Accordingly, the requirements of the Wicks Law for separate prime contractors do not apply to this Project. The Project consists of a single contract, the Contract for General Construction Work.

The Bidder is advised to review the Notice set forth at the beginning of Volume 2 of the Contract Documents. The Notice specifies revisions to the Contract Documents to provide that the Project consists of a single contract and to delete any and all references to separate prime contractors.

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.

**BID BOOKLET
PART A**

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

BID BOOKLET

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

SPECIAL NOTICE TO BIDDERS

BID SUBMISSION REQUIREMENTS

THE BID SHALL CONSIST OF ONE SEALED ENVELOPE. THE DOCUMENTS THAT MUST BE COMPLETED AND INCLUDED IN THE ENVELOPE ARE LISTED BELOW.

BID ENVELOPE #1: Bid Envelope #1 shall contain the following items:

- Bid Form, including Affirmation
- Bid Security (if required, see page 22)
- MWBE Subcontractor Utilization Plan (if participation goals have been established)

FAILURE TO SUBMIT THE THREE ITEMS LISTED ABOVE WILL RESULT IN THE DISQUALIFICATION OF THE BID

BID ENVELOPE #1: In addition to the items listed above, Bid Envelope #1 shall also contain the following items: DO NOT Include the items listed below in Bid Envelope #2.

- Bid Breakdown (if required, see page 21)
- Safety Questionnaire
- Construction Employment Report (if bid is \$1,000,000 or more)
- Contract Certificate (if bid is less than \$1,000,000)
- Confirmation of Vendex Compliance
- Bidder's Certification of Compliance with Iran Divestment Act
- Special Experience Requirements Qualification Form (if required, see pages 3, 4)

FAILURE TO SUBMIT THE SEVEN ITEMS LISTED ABOVE 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 additional information is required, please contact DDC at 718-391-2601.
 - (3) **VENDEX QUESTIONNAIRES:** 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.
 - (5) **SPECIAL EXPERIENCE REQUIREMENTS FOR ASBESTOS:** The Bidder is advised that this contract contains strict requirements regarding the prior experience and licensing of the subcontractor who will perform any required asbestos abatement work. These special experience requirements are set forth in the section of the specifications which describes any required asbestos abatement work.

SPECIAL EXPERIENCE REQUIREMENTS

Special Experience Requirements apply as indicated below.

Bidder:	General Construction	<u> X </u>	YES	<u> </u>	NO
Specific Areas of Work:	General Construction	<u> X </u>	YES	<u> </u>	NO
	Plumbing Work	<u> </u>	YES	<u> X </u>	NO
	HVAC Work	<u> </u>	YES	<u> X </u>	NO
	Electrical Work	<u> </u>	YES	<u> X </u>	NO

- (A) **EXPERIENCE REQUIREMENTS FOR THE BIDDER:** The special experience requirements set forth below apply to the bidder indicated above. Compliance with such special experience requirements will be determined solely by the City prior to an award of contract. Failure to comply with the special experience requirements will result in the rejection of the bid as non-responsive.
- The bidder must, within the last seven (7) consecutive years prior to the bid opening, have successfully completed in a timely fashion at least three (3) projects similar in scope and type to the required work.
- (B) **QUALIFICATION FORM:** For each project submitted to demonstrate compliance with the special experience requirements, the bidder must complete the Qualification Form included in the Bid Booklet. The City will only evaluate a project if the following criteria are met: (1) the project is described on the Qualification Form, and (2) all information on the Qualification Form is provided. The City will not evaluate any project which does not comply with the criteria set forth herein, including any project which is referred to only on the resume of an individual.
- (C) **CONDITIONS:** The City may, in determining compliance with the special experience requirements set forth above, consider prior projects completed by principal(s) or other employees of the bidder while affiliated with another entity, subject to the conditions set forth below.
- Any principal or other employee on whose prior experience the bidder is relying to demonstrate compliance with this special experience requirement must have held the following: (a) a significant management role in the prior entity with which he/she was affiliated, and (b) a significant management role in the entity submitting the bid for a period of six months or from the inception of the bidding entity. If the bidder is relying on the prior experience of a principal or employee, it must submit documentation confirming the position held by such principal or employee in the prior entity, as well as in the bidding entity.
 - The bidder may not rely on the experience of its principals or other employees to demonstrate compliance with any other requirements, including without limitation, financial requirements or requirements for a specified minimum amount of annual gross revenues.
- (D) **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.
- (E) **EXPERIENCE REQUIREMENTS FOR SPECIFIC AREAS OF WORK:** The special experience requirements set forth below apply to the contractor or subcontractor that will perform specific areas of work. Compliance with such experience requirements will be evaluated after an award of contract. Within two (2) weeks of such award, the contractor will be required to submit the qualifications of the contractor or subcontractor that will perform these specific areas of work. If the bidder intends to perform these specific areas of work with its own forces, it must demonstrate compliance with the special experience requirements. If the bidder intends to subcontract these specific areas of work, its proposed subcontractor(s) 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. The bidder is advised to carefully review these special experience requirements prior to submitting its bid, as such experience requirements will be strictly enforced.

- (1) Special experience requirements apply to the contractor or subcontractor that will perform specific areas of work specified in the section(s) set forth below.

General Construction

- Section 13282: Removal of Containerized Chemicals
- Section 13283: PCB Management
- Section 13285: Management of Universal and Other Miscellaneous Regulated Waste

- (2) Special experience requirements applicable to the contractor or subcontractor that will perform specific areas of work are summarized below. Such experience requirements are set forth in full in the Addendum to the General Conditions.

- The contractor or subcontractor performing the work of this section must, within the last seven (7) consecutive years prior to the bid opening, have successfully completed in a timely fashion at least three (3) projects similar in scope and type to the required work.

- (3) For each project submitted to demonstrate compliance with the special experience requirements for specific areas of work, the contractor or proposed subcontractor will be required to complete the Qualification Form included in the Bid Booklet. The City will only evaluate a project if the following criteria are met: (1) the project is described on the Qualification Form, and (2) all information on the Qualification Form is provided. The City will not evaluate any project which does not comply with the criteria set forth herein, including any project which is referred to only on the resume of an individual.

Qualification Form

Project ID: S216-421

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 work completed: _____

Was the work performed as a prime or a subcontractor: _____

Amount of Contract: _____

Date of Completion: _____

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 work completed: _____

Was the work performed as a prime or a subcontractor: _____

Amount of Contract: _____

Date of Completion: _____

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MWBE PROGRAM

SUBCONTRACTOR UTILIZATION PLAN

Schedule B: Subcontractor Utilization Plan: Schedule B: Subcontractor Utilization Plan for this Contract is set forth on the following pages of this Bid Booklet. Schedule B: Subcontractor Utilization Plan (Part I) indicates whether participation goals have been established for this Contract. If participation goals have been established for this Contract, the bidder must submit Schedule B: Subcontractor Utilization Plan (Part II) with its bid.

Contract Provisions: Contract provisions regarding the participation of the MWBE firms are set forth in Article 77 of the Contract. The bidder is advised to review these contract provisions.

Waiver: The bidder may seek a full or partial pre-award waiver of the Target Subcontracting Percentage in accordance with Article 77 of the Contract (See Part A, Section 10). The bidder's request for a waiver must be submitted at least seven (7) calendar days prior to the bid date. Waiver requests submitted after the deadline will not be considered. The form for requesting a waiver of the Target Subcontracting Percentage is set forth in Schedule B: Subcontractor Utilization Plan (Part III).

Rejection of the Bid: The bidder must complete Schedule B: Subcontractor Utilization Plan (Part II) set forth on the following pages. Subcontractor Utilization Plans which do not include the required affirmations (on Page 2) will be deemed to be non-responsive, unless a full waiver of the Target Subcontracting Percentage is granted (Schedule B: Subcontractor Utilization Plan, Part III). In the event that the City determines that the bidder has submitted a Schedule B: Subcontractor Utilization Plan where the required affirmations are completed but other aspects of the Plan are not complete, or contain a copy or computation error that is at odds with the affirmation, the bidder will be notified by the Agency and will be given four (4) calendar days from receipt of notification to cure the specified deficiencies and return a completed plan to the Agency. Failure to do so will result in a determination that the Bid is non-responsive.

Receipt of notification is defined as the date notice is emailed or faxed (if the bidder has provided an email address or fax number), or no later than five (5) days from the date of mailing or upon delivery, if delivered.

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

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The City of New York

SCHEDULE B: Subcontractor Utilization Plan -Part I: Agency's Target

This page to be completed by contracting agency

Contract Overview

Pin # 8502013TR0004C FMS Project ID#: S216-421

Project Title South Bronx Marine Transfer Station Demolition

Contracting Agency Department of Design and Construction

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

Contact Person James Cerasoli Title Deputy Director

Telephone # (718) 391-1549 Email CERASOLI@ddc.nyc.gov

Project Description (attach additional pages if necessary)

The South Bronx Marine Transfer Station will be demolished leaving a pile field in the East River. The Marine Transfer Station ramps will be removed to grade and ramp supports to their pile caps. The South Bronx Marine Transfer Station will be demolished as a requirement of the USACOE permit issued for construction of the East 91st Street Marine Transfer Station. The South Bronx MTS must be demolished by March 2014 to comply with the permit requirements.

(1) Target Subcontracting Percentage

Percentage of total contract dollar value that agency estimates will be awarded to subcontractors in amounts under \$1 million for construction and professional services.

10 %**Subcontractor Participation Goals**

Complete and enter total for each Construction or Professional Services, or both (if applicable)

Group	Construction	Professional Services
Black American	<u>UNSPECIFIED</u> %	%
Hispanic American	<u>UNSPECIFIED</u> %	%
Asian American	<u>UNSPECIFIED</u> %	No Goal
Caucasian Female	No Goal	%
Total Participation Goals	(2) <u>100</u> %	(3) %

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

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Tax ID #: _____

PIN#: _____

SCHEDULE B - Subcontractor Utilization Plan – Part II: Bidder/Proposer Subcontracting Plan

This page and the next (Part II herein) are to be completed by the bidder/proposer. **AFFIRMATIONS; Bidder/proposer must check the applicable boxes below, affirming compliance with M/WBE requirements.**

Bidder/proposer AFFIRMS or DOES NOT AFFIRM [statement below]

It is a material term of the contract to be awarded that, with respect to the total amount of the contract to be awarded, bidder/proposer will award one or more subcontracts for amounts under one million dollars, sufficient to meet or exceed the Target Subcontracting Percentage (as set forth in Part I) unless it obtains a full or partial waiver thereof, and it will award subcontracts sufficient to meet or exceed the Total Participation Goals (as set forth in Part I) unless such goals are modified by the Agency.

- Bidder/proposer AFFIRMS that it intends to meet or exceed the Target Subcontracting Percentage (as set forth in Part 1); or
- AFFIRMS that it has obtained a full/partial pre-award waiver of the Target Subcontracting Percentage (as set forth in Part I) and intends to award the modified Target Subcontracting Percentage, if any; or
- DOES NOT AFFIRM

Section I: Prime Contractor Contact Information

Tax ID # _____ FMS Vendor ID # _____

Business Name _____ Contact Person _____

Address _____

Telephone # _____ Email _____

Section II: General Contract Information

1. Define the industry in which work is to be performed.

- Construction** includes all contracts for the construction, rehabilitation, and/or renovation of physical structures. This category does include CM Build as well as other construction related services such as: demolition, asbestos and lead abatement, and painting services, carpentry services, carpet installation and removal, where related to new construction and not maintenance.
- Professional Services** are a class of services that typically require the provider to have some specialized field or advanced degree. Services of this type include: legal, management consulting, information technology, accounting, auditing, actuarial, advertising, health services, pure construction management, environmental analysis, scientific testing, architecture and engineering, and traffic studies, and similar services.

a. Type of work on Prime Contract (Check one):

b. Type of work on Subcontract (Check all that apply):

- Construction Professional Services Construction Professional Services Other

2. What is the expected percentage of the total contract dollar value that you expect to award to all subcontracts? _____ %

3. Will you award subcontract(s) in amounts below \$ 1 million for construction and/or professional services contracts within the first 12 months of the notice to proceed on the contract? Yes No

Section III: Subcontractor Utilization Summary

IMPORTANT: If you do not anticipate that you will subcontract at the target level the agency has specified, because you will perform more of the work yourself, you must seek a waiver of the Target Subcontracting Percentage by completing p. 9).

Step 1:	Subcontracts under \$1M (4) (construction/professional services)	Total Bid/Proposal Value	Calculated Target Subcontracting Percentage
Calculate the percentage (of your total bid) that will go towards subcontracts under \$1M for construction and/or professional services	\$ _____	÷ \$ _____	x 100 = _____ %

- Subcontracts under \$1M (construction/professional services):** Enter the value you expect to award to subcontractors in dollars for amounts under \$1 million for construction and/or professional services. This value defines the amount that participation goals apply to, and will be entered into the first line of Step 2.
- Total Bid/Proposal Value:** Provide the dollar amount of the bid/proposal.
- Calculated Target Subcontracting Percentage:** The percentage of the total contract dollar value that will be awarded to one or more subcontractors for amounts under \$1 million for construction and/or professional services. This percentage must equal or exceed the percentage listed by the agency on page 1, at line (1).

NOTE: The "Calculated Target Subcontracting Percentage" MUST equal or exceed the Target Subcontracting Percentage listed by the agency on Page 6, Line (1).

SCHEDULE B - cont.

Step 2:
Calculate value of subcontractor participation goals

Subcontracts under \$1M
(construction/professional services)

a. Copy value from Step 1, line (4) – the total value of all expected subcontracts under \$1M for construction and/or professional services

\$ _____

b. * From line a. above, allocate the dollar value of "Subcontracts under \$1M" by Construction and Professional Services,
* If all subcontracts under \$1M are in one industry, enter '0' for the industry with no subcontracts.
* Amounts listed on these lines should add up to the value from line a.

	Construction	Professional Services
Subcontracts under \$1M by Industry \$	\$ _____	\$ _____
* For Construction enter percentage from line (2) from Page 6.		
* For Professional Services enter percentage from line (3) from Page 6.		

c. * Total Participation Goals Percentages must be copied from Part I, lines (2) and (3).

	x _____ %	x _____ %
Total Participation Goals		

d. Value of Total Participation Goals

	\$ _____	\$ _____
--	----------	----------

Step 3:

Subcontracts in Amounts Under \$1 M Scope of Work – Construction

Enter brief description of type(s) of subcontracts in amounts under \$1M anticipated, by type of work, not by name of subcontractor

Subcontracts in Amounts Under \$1 M Scope of Work – Professional Services

Enter brief description of type(s) of subcontracts in amounts under \$1M anticipated, by type of work, not by name of subcontractor

Section IV: Vendor Certification and Required Affirmations

I hereby 1) acknowledge my understanding of the M/WBE requirements as set forth herein and the pertinent provisions of Local Law 129 of 2005, and the rules promulgated thereunder; 2) affirm that the information supplied in support of this subcontractor utilization plan is true and correct; 3) agree, if awarded this Contract, to comply with the M/WBE requirements of this Contract and the pertinent provisions of Local Law 129 of 2005, 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 subcontract(s) sufficient to meet the Target Subcontracting Percentage, unless a waiver is obtained, and the Vendor will award subcontract(s) sufficient to meet the Total Participation Goals unless such goals are modified by the Agency; and 5) agree and affirm, if awarded this contract the Vendor intends to make all reasonable, good faith efforts to meet the Target Subcontracting Percentage, or if the Vendor has obtained a waiver, the Vendor intends to meet the modified Target Subcontracting Percentage, if any, and the Vendor intends to solicit and obtain the participation of M/WBEs so as to meet the Total Participation Goals unless modified by the Agency.

Signature _____ Date _____
 Print Name _____ Title _____

Tax ID #: _____

PIN#: _____

SCHEDULE B

PART III – REQUEST FOR WAIVER OF TARGET SUBCONTRACTING PERCENTAGE

Contract Overview

Tax ID # _____ FMS Vendor ID # _____
 Business Name _____
 Contact Name _____ Telephone # _____ Email _____
 Type of Procurement Competitive Sealed Bids Other Bid/Response Due Date _____

PIN# (for this procurement) _____ Type of work on Prime Contract _____ Type of work on Subcontract (Check all that apply):
 (Check one):
 Construction Construction Other
 Professional Services Professional Services

SUBCONTRACTING as described in bid/solicitation documents (Copy this % figure from Subcontractor Utilization Plan, Part I, line _____)
 _____ % of the total contract value anticipated by the agency to be subcontracted for construction/professional services subcontracts valued below \$1 million (each)

ACTUAL SUBCONTRACTING as anticipated by vendor seeking waiver
 _____ % of the total contract value anticipated in good faith by the bidder/proposer to be subcontracted for construction/professional services subcontracts valued below \$1 million (each)

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

- Vendor does not subcontract construction/professional services, and has the capacity and good faith intention to perform all such work itself.
- Vendor subcontracts some of this type of work but at lower % than bid/solicitation describes, and has the capacity and good faith intention to do so on this contract.
- Other _____

References

List 3 most recent contracts/subcontracts performed for NYC agencies (if any)

CONTRACT NO.	AGENCY	DATE COMPLETED
_____	_____	_____
_____	_____	_____
_____	_____	_____

List 3 most recent contracts/subcontracts performed for other agencies/entities (complete ONLY if vendor has performed fewer than 3 NYC contracts)

TYPE OF WORK	AGENCY/ENTITY	DATE COMPLETED
Manager at agency/entity that hired vendor (Name/Phone No.)	_____	_____
TYPE OF WORK	AGENCY/ENTITY	DATE COMPLETED
Manager at agency/entity that hired vendor (Name/Phone No.)	_____	_____
TYPE OF WORK	AGENCY/ENTITY	DATE COMPLETED
Manager at agency/entity that hired vendor (Name/Phone No.)	_____	_____

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 CONTACTING OFFICER APPROVAL
 Signature: _____ Date: _____
CITY CHIEF PROCUREMENT OFFICER APPROVAL
 Signature: _____ Date: _____

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

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

PROJECT ID: S216-421

**South Bronx Marine Transfer Station Demolition
Terminus of Farragut Street
Bronx, NY 10474**

Name of Bidder: _____

Date of Bid Opening: _____

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

Place of Business of Bidder: _____

Bidder's Telephone Number: _____ Bidder's Fax Number: _____

Bidder's Email Address: _____

Residence of Bidder (If Individual): _____

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

Names of Partners

Residence of Partners

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

Organized under the laws of the State of _____

Name and Home Address of President: _____

Name and Home Address of Secretary: _____

Name and Home Address of Treasurer: _____

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BID FORM

The above-named Bidder affirms and declares:

1. The said bidder is of lawful age and the only one interested in this bid; and no person, firm or corporation other than hereinbefore named has any interest in this bid, or in the Contract proposed to be taken.
2. By submission of this bid, each bidder and each person signing on behalf of any bidder certifies, and in the case of a joint bid each party thereto certifies as to its own organization, under penalty of perjury, that to the best of its knowledge and belief: (1) the prices in this bid have been arrived at independently without collusion, consultation, communication or agreement, for the purpose of restricting competition, as to any matter relating to such prices with any other bidder or with any competitor; (2) unless otherwise required by law, the prices quoted in this bid have not been knowingly disclosed by the bidder and will not knowingly be disclosed by the bidder prior to opening, directly or indirectly, to any other bidder or to any competitor; and (3) no attempt has been made or will be made by the bidder to induce any other person, partnership or corporation to submit or not to submit a bid for the purpose of restricting competition.
3. No councilman or other officer or employee or person whose salary is payable in whole or in part from the City Treasury is directly or indirectly interested in this bid, or in the supplies, materials, equipment, work or labor to which it relates, or in any of the profits thereof.
4. The bidder is not in arrears to the City of New York upon debt or contract or taxes, and is not a defaulter, as surety or otherwise, upon any obligation of the City of New York, and has not been declared not responsible, or disqualified, by any agency of the City of New York or State of New York, nor is there any proceeding pending relating to the responsibility or qualification of the bidder to receive public contracts except as set forth on the Affirmation included as page 17 of this Bid Booklet.

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

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

6. Compliance Report

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

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

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

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

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

Unit Price Schedule

FMS ID: S216-421

Unit Price items: The items of work set forth in the Schedule below shall be performed by the contractor on a unit price basis for additional work. Such items of work shall be performed by the contractor only as directed in writing by the Commissioner.

The unit price for the items of work in the Schedule below are for EXTRA WORK ONLY i.e., work which is above and beyond that described in the Drawings and Specifications.

The bidder shall submit prices for all the items of work in the Schedule below. The bidder shall insert the total sum for all unit price items on the Bid Form, Item D - Allowance for Unit Prices. The unit price bid for each item shall include all costs and expense for the item, i.e., labor, material, overhead and profit. Quantities shown are approximate and for bid comparison purposes only. Actual amounts to be determined when the work is performed.

CSI #	Item #	Item Description	Quant.	Units	Unit Price	Total
02316	1	Earth Excavation	50	CY		
02317	2	Select Fill	25	CY		
02317	3	Common Fill	25	CY		

Total Amount of Unit Price Work

* Insert Total amount of Unit Price Work on line D of Bid Form

*

Note: All quantities are approximate

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BID FORM

PROJECT ID: S216-421

TOTAL BID PRICE: In the space provided below, the Bidder shall indicate the total bid price in figures.

A. **LUMP SUM PRICE** - Total price for all labor and material for all required work, excluding items (B), (C) and (D) set forth below. Total Price shall include all costs and expenses, i.e. labor, material overhead and profit for all the Work, described and shown in the drawings and specifications.

Total Price For Labor	Total Price for Material Sold and Delivered
-----------------------	---

\$ _____ + \$ _____ Total Price for Item A \$ _____

B. **ALLOWANCE** for Incidental Asbestos Abatement (Section 02081 of the Specifications) \$30,000.00

C. **ALLOWANCE** for Hazardous Materials Control (Section 01355 of the Specifications) \$250,000.00

D. **AMOUNT** for Unit Prices (from page 13-0) for extra work items \$ _____

TOTAL BID PRICE (Add A + B + C + D)
(a/k/a BID PROPOSAL) \$ _____

BIDDER'S SIGNATURE AND AFFIDAVIT

WARNING!! Failure to comply with the item below will result in the rejection of your bid.

*** MWBE GOALS: You MUST complete and submit the Affirmations contained in the Subcontractor Utilization Plan (See Page 7), or a pre-approved waiver (See Page 9), at the time you submit your bid. You must submit the Affirmations (or a pre-approved waiver) in BID ENVELOPE #1.**

Bidder: _____

By: _____
(Signature of Partner or corporate officer)

Attest: _____ Secretary of Corporate Bidder
(Corporate Seal)

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

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BID FORM (TO BE NOTARIZED)

AFFIDAVIT WHERE BIDDERS 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 BIDDERS 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.
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 BIDDERS IS A CORPORATION

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

(Signature of Corporate Officer who signed the Bid)

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

Notary Public

AFFIRMATION

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

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

Full Name of Bidder: _____

Address: _____

City: _____ State: _____ Zip Code: _____

CHECK ONE BOX AND INCLUDE APPROPRIATE NUMBER:

A - Individual or Sole Proprietorship *
SOCIAL SECURITY NUMBER

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

C - Corporation
EMPLOYER IDENTIFICATION NUMBER

By: _____

Signature:

Title: _____

If a corporation, place seal here

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

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

BIDDER'S IDENTIFICATION OF SUBCONTRACTORS

NOTICE TO BIDDERS

NOT USED

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BID BOND 1
FORM OF BID BOND

KNOW ALL MEN BY THESE PRESENTS. That we, _____

hereinafter referred to as the "Principal", and _____

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

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

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

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

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

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

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

BID BOND 2

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

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

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

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

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

(Seal)

Principal

(L.S.)

By: _____

(Seal)

Surety

By: _____

ACKNOWLEDGEMENT OF PRINCIPAL, IF A CORPORATION

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

Notary Public

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

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

AFFIX ACKNOWLEDGEMENTS AND JUSTIFICATION OF SURETIES

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BID BREAKDOWN

Submission: Bidders are advised that the requirement to submit a Bid Breakdown applies to each contract for which an "X" is indicated before the word "Yes". If required, the bidder must submit, with its bid, a completed Bid Breakdown. Failure to provide a completed Bid Breakdown may result in rejection of the bid as non-responsive.

 X YES

 NO

Limitations on Use of Bid Breakdown:

Bidders are advised that the Bid Breakdown shall be used for bid analysis purposes only and shall not be binding for any other purposes under the Contract, including, without limitation, for payment purposes or in connection with a contractor claim for extra work. If the form for the Bid Breakdown does not include an item of work required by the Contract Documents, such omission shall have no effect whatsoever, nor shall it be used by the contractor in connection with a claim for extra work (i.e., work for which the contractor is entitled to a change order).

Instructions for Preparing Bid Breakdown:

- (A) The Bid Breakdown is set forth on the following pages of this Bid Booklet and is in accordance with the Construction Specification Institute (CSI) format. For all items of work listed in the Bid Breakdown, the bidder must indicate the price for labor and the price for material, as well as the estimated quantities required.
- (B) In preparing its Bid Breakdown, the bidder shall submit prices that include all costs for overhead and profit. Overhead shall include, without limitation, all costs in connection with the following: administration, management, superintendence, small tools, insurance, bonds, and provision of services or items required by the General Conditions [except for Security/Fire Guard Services and Temporary Heat]. If the Project requires Security/Fire Guard Services and/or Temporary Heat, such service(s) will be included as separate line items in the Bid Breakdown.
- (C) If an item is set forth in the Bid Breakdown, but is not included in the Contract Documents (Drawings, Specifications, General Conditions, and/or Addenda), the bidder is advised to leave the item blank and exclude the cost of the item from its grand total. In an attachment to its Bid Breakdown, the bidder shall provide a list of all items left blank.
- (D) If an item is not set forth in the Bid Breakdown, but is included in the Contract Documents (Drawings, Specifications, General Conditions, and/or Addenda), the bidder is advised to add the item to its Bid Breakdown and include the cost of the item in its grand total. In an attachment to its Bid Breakdown, the bidder shall provide a list of all items added.

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NEW YORK CITY DEPARTMENT OF DESIGN + CONSTRUCTION

Project: South Bronx Marine Transfer Station Demolition

Location: Terminus of Farragut Street, Bronx, NY 10474

Bidder: _____

CONTRACTOR'S BID BREAKDOWN FORM

CONTRACT 1 - GENERAL CONSTRUCTION WORK

DDC ID: S216-421

Sponsor Agency: Department of Sanitation

CSI Number	Description	Quantity	Unit	Unit Cost of Material	Total Cost of Material	Unit Cost of Labor	Total Cost of Labor	Total Cost: Materials and Labor
CONTRACT 1 - GENERAL CONSTRUCTION WORK								
01 000	GENERAL REQUIREMENTS							
	General Conditions		LS					
	Mobilization		LS					
	Security/ Fire Guards		LS					
	Subtotal							
	HAZARDOUS MATERIALS CONTROL							
	Environmental Remediation		LS					
	Subtotal							
02 000	SITE CONSTRUCTION							
	ASBESTOS ABATEMENT							
	Asbestos Abatement		LS					
	Subtotal							
	DEMOLITION AND REMOVALS							
	Site Demolition Work:							
	Rent backhoe-loader wheel type 112 HP, 1-1/2 CY capacity, for concrete removal		DAY					
	Load dumpster with concrete, tractor loader wheel 4x4 2.5 - 3.5 CY 130 HP, with operator		DAY					
	Load dumpster with building steel framing, crane truck mounted, hydraulic, 25 ton capacity, with operator		DAY					
	Remove mooring bollards		EA					
	Remove marine cleat, 24" and 42"		EA					
	Remove marine capstan		EA					
	Bldg. footings and foundations demolition, remove concrete walls, beams and columns, excludes disposal costs and dump fees		SF					

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NEW YORK CITY DEPARTMENT OF
DESIGN + CONSTRUCTION

CONTRACTOR'S BID BREAKDOWN FORM

CONTRACT 1 - GENERAL CONSTRUCTION WORK

Project: South Bronx Marine Transfer Station Demolition

Location: Terminus of Farragut Street, Bronx, NY 10474

Bidder:

DDC ID: S216-421

Sponsor Agency: Department of Sanitation

CSI Number	Description	Quantity	Unit	Unit Cost of Material	Total Cost of Material	Unit Cost of Labor	Total Cost of Labor	Total Cost: Materials and Labor
	Selective concrete demolition, maximum reinforcing, decking, beams and dolphins, break into small pieces, excludes shoring, bracing, saw/torch cutting, loading, hauling, dumping		CY					
	Rubbish handling, dumpster, 30 CY, 10 ton capacity, weekly rental, for concrete		WK					
	Rubbish handling, dumpster, 30 CY, 10 ton capacity, weekly rental, for steel		WK					
	Hauling carbon steel, recycling facility, miscellaneous framing		LOAD					
	Hauling concrete to disposal		LOAD					
	Miscellaneous equipment to support demolition, tug boat, barge, captain and mates		DAY					
	Masonry:							
	Selective demolition, masonry, concrete block walls, reinforced alternate courses, 8" thick		SF					
	Selective demolition, masonry, concrete block walls, reinforced alternate courses, 12" thick		SF					
	Metals:							
	Remove grating and frame		SF					
	Remove steel ribbon ladder w/cage		EA					
	Remove steel platform		SF					
	Remove steel steps, landing and stairs		EA					
	Remove checker plate		SF					
	Remove structural steel beams and columns, building frame		TON					
	Cut columns and beams into smaller pieces		LS					
	Wood and Plastics:							
	Remove wood catwalk, steps and deck		SF					
	Doors and Windows:							
	Window demolition, translucent panels, maximum		SF					
	Door demolition, door frames, metal, remove		EA					
	Door demolition, interior door, single, remove		EA					
	Door demolition, double door frames, metal, remove		EA					
	Me							
	ical:							

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NEW YORK CITY DEPARTMENT OF
DESIGN + CONSTRUCTION

CONTRACTOR'S BID BREAKDOWN FORM
CONTRACT 1 - GENERAL CONSTRUCTION WORK

Project: South Bronx Marine Transfer Station Demolition

Location: Terminus of Fargut Street, Bronx, NY 10474

DDC ID: S216-421

Bidder: _____ Sponsor Agency: Department of Sanitation

CSI Number	Description	Quantity	Unit	Unit Cost of Material	Total Cost of Material	Unit Cost of Labor	Total Cost of Labor	Total Cost: Materials and Labor
	Disconnect Supply Fan, 40,000 CFM		EA					
	Remove Supply Fan, 40,000 CFM		EA					
	Ductwork, metal; steel and sst, fabricated, selective demolition		LBS					
	Remove Plumbing piping, equipments and fixtures		LS					
	Remove Fire Protection piping and equipment		LS					
	Rubbish handling, dumpster, 30 CY, 10 ton capacity, weekly rental for mechanical		WK					
	Hauling Rubbish to disposal		LOAD					
	Subtotal							
02 316	EXCAVATION							
	Earth Excavation		LS					
	Subtotal							
02 317	BACKFILLING							
	Select Fill		LS					
	Common Fill		LS					
	Subtotal							
02 371	DUST, SOIL EROSION AND SEDIMENTATION CONTROL							
	Aggregate for earthwork, crushed stone 3"-4", spread with 200 hp dozer, includes load pit and haul, 2 miles rnd trip, excludes compaction		CY					
	Subtotal							
02 821	METAL FENCE							
	Chain link fence gates and posts		EA					
	Chain link fences & gates, gate, chain link, galvanized steel, single, 4' x 8' x 3', excludes excavation		EA					
	Subtotal							

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DESIGN + CONSTRUCTION

CONTRACT 1 - GENERAL CONSTRUCTION WORK

Project: South Bronx Marine Transfer Station Demolition

Location: Terminus of Farragut Street, Bronx, NY 10474

Bidder: _____

DDC ID: S216-421

Sponsor Agency: Department of Sanitation

CSI Number	Description	Quantity	Unit	Unit Cost of Material	Total Cost of Material	Unit Cost of Labor	Total Cost of Labor	Total Cost: Materials and Labor
05 000	METALS							
	Galvanizing (included w/ 02821)							
13 000	SPECIAL CONSTRUCTION		LS					
	Subtotal							
16 000	ELECTRICAL		LS					
	Temporary Electrical System							
	Subtotal							
	TOTAL CONTRACT 1 - GENERAL CONSTRUCTION WORK							

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**ATTACHMENT 1 - BID INFORMATION
PROJECT ID: S216-421**

DESCRIPTION AND LOCATION OF WORK:

**South Bronx Marine transfer Station Demolition
Terminus of Farragut Street
Bronx, NY 10474
E-PIN: 85013B0078 / DDC PIN: 8502013TR0004C**

DOCUMENTS AVAILABLE AT:

Department of Design and Construction, Contract Section
30-30 Thomson Avenue - First Floor, Long Island City, NY 11101

SUBMISSION OF BIDS BEFORE BID OPENING:

TIME TO SUBMIT:

On or Before: **TUESDAY, MAY 14, 2013**

BIDS MUST BE CLOCKED IN PRIOR TO BID OPENING

PLACE TO SUBMIT:

Department of Design and Construction, Contract Section (located behind Security Desk)
30-30 Thomson Avenue - First Floor, Long Island City, NY 11101

BID OPENING:

PLACE OF BID OPENING:	Department of Design and Construction Contract Section 30-30 Thomson Avenue – First Floor Long Island City, NY 11101
DATE AND HOUR:	TUESDAY, MAY 14, 2013 @ 2:00 PM
	LATE BIDS WILL NOT BE ACCEPTED

PRE-BID CONFERENCE AND SITE VISIT:

PLACE	Department of Design and Construction 30-30 Thomson Avenue 4 th Floor Commissioner Conference Room Long Island City, NY 11101
SITE	South Bronx Marine Transfer Station Terminus of Farragut Street Bronx, NY 10474
DATE AND HOUR	THURSDAY, MAY 2, 2013 AT 10:00AM AND 2:00PM
MANDATORY OR OPTIONAL	OPTIONAL

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.

- (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 excess of \$1,000,000.00. Performance and Payment Security shall each be in an amount equal to 100% of the Contract Price

AGENCY CONTACT PERSON:

Lorraine Holley, 30-30 Thomson Avenue - First Floor, Long Island City, Queens, NY 11101
Telephone (718) 391-2200 or (718) 391-2601 Fax: (718) 391-2615



**BID BOOKLET
PART B**

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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.

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

YEAR	INTRASTATE RATE	INTERSTATE RATE
_____	_____	_____
_____	_____	_____
_____	_____	_____

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.

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

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

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

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

5. Safety Performance on Previous DDC Project(s)

_____ 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: _____

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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, the bidder must submit such information 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 which must be submitted.

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 28 through 30 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

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**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.

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VENDEX COMPLIANCE

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

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

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

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

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

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

Date of Submission: _____

By: _____
(Signature of Partner or corporate officer)

Print Name: _____

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

By: _____
(Signature of Partner or corporate officer)

Print Name: _____

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Principal Questionnaire

This section refers to the most recent principal questionnaire submissions.



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

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

Certification *This section is required.*

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

Certified By:

Name (Print)

Title

Name of Submitting Entity

Signature

Date

Notarized By:

Notary Public

County License Issued

License Number

Sworn to before me on: _____
Date

Certificate of No Change Form

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

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

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

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

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

Vendor Questionnaire *This section is required.*

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

Name of Submitting Entity: _____

Vendor's Address: _____

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

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

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

Signature date on change submission for the submitting vendor: _____

Principal Questionnaire

This section refers to the most recent principal questionnaire submissions.



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

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

Certification *This section is required.*

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

Certified By:

Name (Print)

Title

Name of Submitting Entity

Signature

Date

Notarized By:

Notary Public

County License Issued

License Number

Sworn to before me on: _____
Date

Certificate of No Change Form



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

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

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

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

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

Vendor Questionnaire *This section is required.*

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

Name of Submitting Entity: _____

Vendor's Address: _____

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

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

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

Signature date on change submission for the submitting vendor: _____

IRAN DIVESTMENT ACT COMPLIANCE RIDER
FOR NEW YORK CITY CONTRACTORS

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

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

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

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

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

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

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

[Please Check One]

BIDDER'S CERTIFICATION

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

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

Dated: _____, New York
_____, 20__

SIGNATURE

PRINTED NAME

TITLE

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

Notary Public

Dated:

CITY OF NEW YORK

DIVISION OF LABOR SERVICES

CONSTRUCTION EMPLOYMENT REPORT

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

CONSTRUCTION EMPLOYMENT REPORT

GENERAL INFORMATION

1. Your contractual relationship in this contract is: Prime contractor ___ Subcontractor ___
- 1a. Are M/WBE goals attached to this project? Yes ___ No ___
2. Please check one of the following if your firm would like information on how to certify with the City of New York as a:
___ Minority Owned Business Enterprise ___ Locally based Business Enterprise
___ Women Owned Business Enterprise ___ Emerging Business Enterprise
- 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) _____
Contracting Agency (City Agency)
- (b) _____
Contract Amount
- (d) _____
Procurement Identification Number (PIN)
- (e) _____
Contract Registration Number (CT#)
- (f) _____
Projected Commencement Date
- (g) _____
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).

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FMS ID: S216-421



**THE CITY OF NEW YORK
DEPARTMENT OF DESIGN AND CONSTRUCTION
DIVISION OF PUBLIC BUILDINGS**

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

Contract for Furnishing all Labor and Material Necessary and Required for:

CONTRACT NO. 1 GENERAL CONSTRUCTION WORK

South Bronx Marine Transfer Station Demolition

LOCATION: Terminus of Farragut Street
BOROUGH: Bronx, NY 10474
CITY OF NEW YORK

Contractor _____

Dated _____, 20____

Entered in the Comptroller's Office _____

First Assistant Bookkeeper _____

Dated _____, 20____





PROJECT ID: S216-421

THE CITY OF NEW YORK
DEPARTMENT OF DESIGN AND CONSTRUCTION
DIVISION OF PUBLIC BUILDINGS

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

AUDIT ENGINEER

VOLUME 2 OF 3

**PROJECT LABOR AGREEMENT
INFORMATION FOR BIDDERS
CONTRACT
PERFORMANCE AND PAYMENT BONDS
SCHEDULE OF PREVAILING WAGES
GENERAL CONDITIONS**

FOR FURNISHING ALL LABOR AND MATERIALS
NECESSARY AND REQUIRED FOR THE PROJECT

**South Bronx Marine Transfer Station
Demolition**

LOCATION:
BOROUGH:
CITY OF NEW YORK

Terminus of Farragut Street
Bronx, NY 10474

CONTRACT NO. 1

GENERAL CONSTRUCTION WORK

Department of Sanitation

Gereeley and Hansen

Date: February 21, 2013



3-027

10





**THE CITY OF NEW YORK
DEPARTMENT OF DESIGN AND CONSTRUCTION
DIVISION OF PUBLIC BUILDINGS**

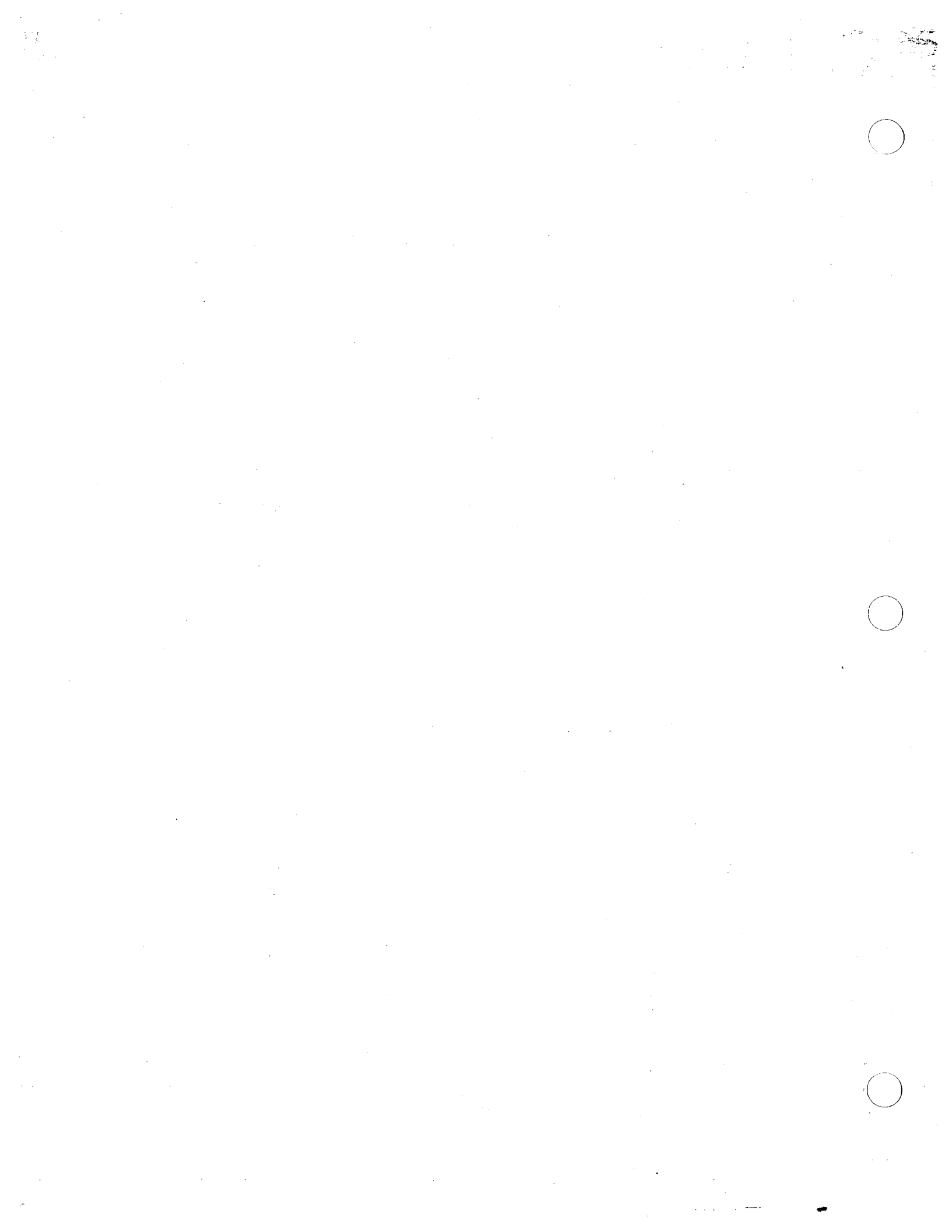
30-30 THOMSON AVENUE
LONG ISLAND CITY, NEW YORK 11101-3045
TELEPHONE (718) 391-1000
WEBSITE www.nyc.gov/buildnyc

VOLUME 2 OF 3

**PROJECT LABOR AGREEMENT
INFORMATION FOR BIDDERS
CONTRACT
PERFORMANCE AND PAYMENT BONDS
SCHEDULE OF PREVAILING WAGES
GENERAL CONDITIONS**

FOR FURNISHING ALL LABOR AND MATERIALS
NECESSARY AND REQUIRED FOR THE PROJECT





NOTICE:

THIS CONTRACT IS NOT SUBJECT TO THE REQUIREMENTS OF THE WICKS LAW FOR SEPARATE PRIME CONTRACTORS

This contract is subject to a Project Labor Agreement ("PLA"). In accordance with the Labor Law, the requirements of the Wicks Law for separate prime contractors do not apply to any project that is covered by a PLA. Accordingly, the requirements of the Wicks Law for separate prime contractors do not apply to this Project. However, the Contract Documents for this Project (General Conditions, Drawings and Specifications) were prepared as if the requirements of the Wicks Law for separate prime contractors did apply. To correct this situation, the bidder is advised that the Contract Documents are revised as set forth below.

- (A) Delete any and all references to separate responsibilities, separate specifications, separate drawings and/or separate contracts for the four subdivisions of the work listed below:
- General Construction Work (Contract No. 1)
 - Plumbing Work (Contract No. 2)
 - HVAC & Fire Protection Work (Contract No. 3)
 - Electrical Work (Contract No. 4)
- (B) Revise all such references to indicate that:
- The Project consists of a single contract, the Contract for General Construction Work.
 - All responsibilities and obligations in the Contract Documents assigned to the separate Contractors for the four subdivisions of the work listed above are the responsibility of the Contractor for General Construction Work.
 - The Contractor for General Construction Work is responsible for the performance of all required work for the Project as set forth in the Contract Documents, including all responsibilities and obligations assigned to the separate Contractors for the four subdivisions of the work listed above.
- (C) Revise any and all references to Contracts Nos. 2, 3 and 4 to refer to Contract No. 1.
- (D) Revise the specifications for plumbing work to require Contractor for General Construction Work to engage a Licensed Plumber to perform the required plumbing work.
- (E) Revise the specifications for electrical work to require Contractor for General Construction Work to engage a Licensed Electrician to perform the required electrical work.

NOTICE:

THIS CONTRACT IS SUBJECT TO A PROJECT LABOR AGREEMENT

This contract is subject to the attached Project Labor Agreement ("PLA") entered into between the City and the Building and Construction Trades Council of Greater New York ("BCTC") affiliated Local Unions. By submitting a bid, the Contractor agrees that if awarded the Contract the PLA is binding on the Contractor and all subcontractors of all tiers. The bidder to be awarded the contract will be required to execute the attached Letter of Assent prior to award. Contractor shall include in any subcontract a requirement that the subcontractor, and sub-subcontractors of all tiers, become signatory to and bound to the ~~PLA~~ with respect to the subcontracted work. Contractor will also be required to have all subcontractors of all tiers execute the attached Letter of Assent prior to such subcontractors performing any work on the Project. Bidders are advised that the City of New York and City agencies have entered into multiple PLAs. The terms of each PLA, while similar, are not identical. All bidders should carefully read the entire PLA that governs this Contract.

To the extent that the terms of the PLA conflict with any other terms of the invitation for bids, including the Standard Construction Contract, the terms of the PLA shall govern. For example, the PLA section that authorizes the scheduling of a four-day work, ten hours per day on straight time at the commencement of the job, PLA Article 12, section 1, overrides the Standard Construction Contract's provision concerning a five-day work week with a maximum of eight hours in a day, Standard Construction Contract Article 37.2.1. Where, however, the invitation for bids, including the Standard Construction Contract, requires the approval of the City/Department, the PLA does not supersede or eliminate that requirement.

In addition to the various provisions regarding work rules, Contractors should take special note of the requirement that Contractors and Subcontractors make payments to designated employee benefit funds. See PLA Article 11, Section 2. The PLA also contains provisions for what occurs when a contractor or a subcontractor fails to make required payments into the benefit funds, including potentially the direct payment by the City to the benefit fund of monies owed and corresponding withholding of payments to the Contractor. See PLA Article 11, Section 2. The City strongly advises Contractors to read these provisions carefully and to include appropriate provisions in subcontracts addressing these possibilities.

This Contract is subject to the apprenticeship requirements of Labor Law §222 and to apprenticeship requirements established by the Department pursuant to Labor Law §816-b. Please be advised that the involved trades have apprenticeship programs that meet the statutory requirements of Labor Law 222(e) and the requirements set by the Department pursuant to Labor Law §816-b, contractors and subcontractors who agree to perform the Work pursuant to the PLA are participating in such apprenticeship programs within the meaning of Labor Law §222(e) and the Department's directive.

If this Contract is subject to the Minority-Owned and Women-Owned Business Enterprise ("M/WBE") program created by Local Law 129, the specific requirements of M/WBE participation for this Contract are set forth in Schedule B entitled the "Subcontractor Utilization Plan", and are detailed in a separate Notice to Prospective Contractors included with this bid package. If such requirements are included with this Contract, the City strongly advises Contractors to read those provisions, as well as PLA Article 4, Section 2(C), carefully. A list of M/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.

The local collective bargaining agreements (CBAs) that are incorporated into the PLA as PLA Schedule A Agreements are available on computer disk from the Department's Contract Officer upon the request of any prospective bidder. Please note that the "PLA Schedule A" is distinct from the Department's Schedule A that is a part of this invitation for bids.

A contact list for the participating unions is set forth after the FAQs.

Below are answers to frequently asked questions (FAQs) about this PLA:

Q1. Does a contractor need to be signatory with the unions in the NYC Building and Construction Trades Council in order to bid on projects under the PLA?

A. No, any contractor may bid by signing and agreeing to the terms of the PLA. The contractor need not be signatory with these unions by any other labor agreement or for any other project.

Q2. Does a contractor agreeing to the PLA and signing the Letter of Assent create a labor agreement with these unions outside of the project covered by the PLA?

A. No, the PLA applies only to those projects that the Contractor agrees to perform under the PLA and makes no labor agreement beyond those projects.

Q3. Does the PLA affect the subcontractors that a bidder may utilize on the project?

A. Subject to the Department's approval of subcontractors pursuant to Article 17 of the Standard Construction Contract, a contractor may use any subcontractor, union or non-union, as long as the subcontractor signs and agrees to the terms of the PLA.

Q4. Are bidders required to submit Letters of Assent signed by proposed subcontractors with their bid in order to be found responsive?

A. No, bidders do not have to submit signed Letters of Assent from their subcontractors with their bid. Subcontractors, however, will be required to sign the letter of Assent prior to being approved by the Department.

Q5. May a contractor or subcontractor use any of its existing employees to perform this work?

A. Generally labor will be referred to the contractor from the respective signatory local unions. See PLA Article 4. However, contractors and subcontractors may continue to use up to 12% of their existing, qualifying labor force for this work, in accordance with the terms of PLA Article 4, Section 2B. Certified MWBEs for which participation goals are set pursuant to NYC Administrative Code §6-129 that are not signatory to any Schedule A CBAs may use their existing employees for the 2nd, 4th, 6th and 8th employee needed on the job if their contracts are valued at or under \$500,000. For contracts valued at above \$500,000 but under \$1,000,000, such certified MWBEs may use their own employees for the 2nd, 5th and 8th employees needed on the job in accordance with the provisions of PLA Article 4, Section 2C. If additional workers are needed by these MWBEs, the additional workers will be referred to the contractor from the signatory local unions subject to the contractor's right to meet 12% of the additional needs with its existing, qualifying employees.

Q6. Must the City set MWBE participation goals for the particular project or contract in order for a certified MWBE to utilize the provisions of PLA Article 4, Section 2C?

A. No. PLA Article 4, Section 2(C) specifies what categories of MWBEs are eligible to take advantage of this provision (i.e., those MWBEs for which the City is authorized to set participation goals under §6-129). For purposes of section 2(C), it is not necessary for the project to be subject to §6-129 or for the City to have actually set participation goals for the particular contract or project. The result is the same where a project receives State funding and therefore is subject to the requirements of Article 15-A of the Executive Law.

Q7. May a contractor bring in union members from locals that are not signatory unions?

A. Referrals will be from the respective signatory locals and/or locals listed in schedule A of the PLA. Contractors may utilize 'traveler provisions' contained in the local collective bargaining agreements (local CBAs) where such provisions exist and/or in accordance with the provisions of PLA Article 4, Section 2.

Q8. Does a non-union employee working under the PLA automatically become a union member?

A. No, the non-union employee does not automatically become a union member by working on a project covered by the PLA. Non-union employees working under the PLA are subject to the union security provisions (i.e., union dues/agency shop fees) of the local CBAs while on the project. These employees will be enrolled in the appropriate benefit plans and earn credit toward various union benefit programs. See PLA Article 4, Section 6 and Article 11.

Q9. Are all contractors and subcontractors working under the PLA, including non-union contractors and contractors signatory to collective bargaining agreements with locals other than those that are signatories to the PLA, required to make contributions to designated employee benefit funds?

A. Contractors and subcontractors working under the PLA will be required to contribute on behalf of all employees covered by the PLA to established jointly trustee employee benefit funds designated in the Schedule A CBAs and required to be paid on public works under any applicable prevailing wage law. See PLA Article 11, Section 2. The Agency may withhold from amounts due the contractor any amounts required to be paid, but not actually paid into any such fund by the contractor or a subcontractor. See PLA Article 11, Section 2 C.

Q10. What happens if a contractor or subcontractor fails to make a required payment to a designated employee benefit fund?

A. The PLA sets forth a process for unions to address a contractor or a subcontractor's failure to make required payments. The process includes potentially the direct payment by the City to the benefit fund of monies owed and the corresponding withholding of payments to the Contractor. See PLA Article 11, Section 2. The City strongly advises Contractors to read these provisions carefully and to include appropriate provisions in subcontracts addressing these possibilities.

Q11. Does signing on to the PLA satisfy the Apprenticeship Requirements established for this bid?

A. Yes. By agreeing to perform the Work subject to the PLA, the bidder demonstrates compliance with the apprenticeship requirements imposed by this invitation for Bids.

Q12. Does the PLA provide a standard work day across all the signatory trades?

A. Yes, all signatory trades will work an eight (8) hour day, Monday through Friday with a day shift at straight time as the standard work week. The PLA also permits a contractor to schedule a four day [within Monday through Friday] work week, ten (10) hours per day at straight time if announced at the commencement of the project. See PLA Article 12, Section 1. This is an example where the terms of the PLA override provisions of the Standard Construction Contract (compare with section 37.2 of the Standard Construction Contract).

Q13. Does the PLA create a common holiday schedule for all the signatory trades?

A. Yes, the PLA recognizes eight (8) common holidays. See PLA Article 12, Section 4.

Q14. Does the PLA provide for a standard policy for 'shift work' across all signatory trades?

A. Yes, second and third shifts may be worked with a standard 5% premium pay. In addition, a day shift does not have to be scheduled in order to work the second and third shifts at the 1.05 hourly pay rate. See PLA Article 12, Section 3.

Q15. May the Contractor schedule overtime work, including work on a weekend?

A. Yes, the PLA permits the Contractor to schedule overtime work, including work on the weekends. See PLA Article 12, Sections 2, 3, and 5. To the extent that the Agency's approval is required before a Contractor may schedule or be paid for overtime, that approval is still required notwithstanding the PLA language.

Q16. Are overtime payments affected by the PLA?

A. Yes, all overtime pay incurred Monday through Saturday will be at time and one half (1 ½). There will be no stacking or pyramiding of overtime pay under any circumstances. See PLA Article 12, Section 2. Sunday and holiday overtime will be paid according to each trades CBA.

Q17. Are there special provisions for Saturday work when a day is 'lost' during the week due to weather, power failure or other emergency?

A. Yes, when this occurs the Contractor may schedule Saturday work at weekday rates. See PLA Article 12, Section 5.

Q18. Does the PLA contain special provisions for the manning of Temporary Services?

A. Yes. Where temporary services are required by specific request of the agency or construction manager, they shall be provided by the contractor's existing employees during working hours in which a shift is scheduled for employees of the contractor. The need for temporary services during non-working hours will be determined by the agency or construction manager. There will be no stacking of trades on temporary services. See PLA Article 15.

Q19. What do the workers get paid when work is terminated early in a day due to inclement weather or otherwise cut short of 8 hours?

A. The PLA provides that employees who report to work pursuant to regular schedule and not given work will be paid two hours of straight time. Work terminated early for severe weather or emergency conditions will be paid only for time actually worked. In other instances where work is terminated early, the worker will be paid for a full day. See PLA Article 12, Sections 6 and 8.

Q20. Should a local collective bargaining agreement [local CBA] expire during the project will a work stoppage occur on a project subject to the PLA?

A. No. All the signatory unions are bound by the 'no strike' agreement as to the PLA work. Work will continue under the PLA and the otherwise expired local CBA(s) until the new local CBA(s) are negotiated and in effect. See PLA Articles 7 and 19.

Q21. May a contractor working under the PLA be subject to a strike or other boycott activity by a signatory union at another site while the contractor is a signatory to the PLA?

A. Yes. The PLA applies ONLY to work under the PLA and does not regulate labor relations at other sites even if those sites are in close proximity to PLA work.

Q22. If a contractor has worked under other PLAs in the New York City area, are the provisions in this PLA generally the same as the others?

A. While Project Labor Agreements often look similar to each other, and particular clauses are often used in multiple agreements, each PLA is a unique document and should be examined accordingly.

Q23. What happens if a dispute occurs between the contractor and an employee during the project?

A. The PLA contains a grievance and arbitration process to resolve disputes between the contractor and the employees. See PLA Article 9.

Q24. What happens if there is a dispute between locals as to which local gets to provide employees for a particular project or a particular aspect of a project?

A. The PLA provides for jurisdictional disputes to be resolved in accordance with the NY Plan. See PLA Article 10. A copy of the NY Plan is available upon request from the Department. The PLA provides that work is not to be disrupted or interrupted pending the resolution of any jurisdictional dispute. The work proceeds as assigned by the contractor until the dispute is resolved. See PLA Article 10, Section 3.

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CONTACT INFORMATION FOR LOCAL UNIONS

BOILER MAKERS LOCAL NO. 5

24 Van Siclen Avenue
Floral Park, NY 11001
Phone: (516) 326-2500
Fax: (516) 326-3435
Thomas Klein, Bus. Mgr.
boilermakers5@optonline.net

BLASTERS & DRILLERS LOCAL NO. 29

43-12 Ditmars Blvd.
Astoria, NY, 11105
Phone: (718) 278-5800
Thomas Russo, bus mgr.

BRICKLAYERS LOCAL NO. 1

Santo Lanzafame (718) 392-0525

BUILDING TRADES

71 West 23rd Street, Suite 501
New York, NY 10010
Phone: (212) 647-0700
Fax: (212) 647-0705
John Barnett, Chairman

CARPENTERS DISTRICT COUNCIL

395 Hudson Street
New York, New York 10014
Phone: (212) 366-7500
Fax: (212) 675-3140
Michael J. Forde, Executive Secy Treas.
Peter Thomassen, President
Denis Sheil, V.P.
Ronald Rawald, D.C. Rep.
carpmik@aol.com

CEMENT MASONS NO. 780

150-42 12th Avenue
Whitestone, NY 11357
Phone: (718) 357-3750
Fax: (718) 357-2057
Angelo Scagnelli, Bus. Mgr.
Paul M. Mantia, President
Angelolocal780@yahoo.com

CONCRETE WORKERS DISTRICT COUNCIL NO. 16

29-18 35th Avenue
Long Island City, NY 11106
Phone: (718) 392-5077
Fax: (718) 392-5087
Alex Castaldi, Pres. Bus. Mgr.
Ccwdc16@yahoo.com

DERRICKMEN AND RIGGERS CONCRETE WORKERS

25-19 43rd Avenue
Long Island City, NY 11101
Phone: (718) 361-6534

Fax: (718) 361-6584
Joseph McDonald, Bus. Agent
joemac197@aol.com

DRYWALL TAPERS 1974

265 West 14th Street
New York, NY 10011
Phone: (212) 242-8500
Fax: (212) 242-2356
Joseph Giordano, Bus. Mgr.
Salvatore Marsala, Org.
Maurice Maynard, Org.
Ellior Santiago, Org.
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NYC AGENCY RENOVATION & REHAB OF CITY OWNED BUILDINGS/STRUCTURES

PROJECT LABOR AGREEMENT

COVERING SPECIFIED

**RENOVATION & REHABILITATION
OF CITY OWNED BUILDINGS AND STRUCTURES**



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**PROJECT LABOR AGREEMENT COVERING SPECIFIED
RENOVATION & REHABILITATION OF NEW YORK CITY OWNED
FACILITIES & STRUCTURES**

ARTICLE 1 - PREAMBLE

WHEREAS, the City of New York desires to provide for the cost efficient, safe, quality, and timely completion of certain rehabilitation and renovation work ("Program Work," as defined in Article 3) for Fiscal Years 2010 - 2014 in a manner designed to afford the lowest costs to the Agencies covered by this Agreement, and the Public it represents, and the advancement of permissible statutory objectives;

WHEREAS, this Project Labor Agreement will foster the achievement of these goals, inter alia, by:

(1) providing a mechanism for responding to the unique construction needs associated with this Program Work and achieving the most cost effective means of construction, including direct labor cost savings, by the Building and Construction Trades Council of Greater New York and Vicinity and the signatory Local Unions and their members waiving various shift and other hourly premiums and other work and pay practices which would otherwise apply to Program Work;

(2) expediting the construction process and otherwise minimizing the disruption to the covered Agencies' ongoing operations at the facilities that are the subject of the Agreement;

(3) avoiding the costly delays of potential strikes, slowdowns, walkouts, picketing and other disruptions arising from work disputes, reducing jobsite friction on common situs worksites, and promoting labor harmony and peace for the duration of the Program Work;

(4) standardizing the terms and conditions governing the employment of labor on the Program Work;

(5) permitting wide flexibility in work scheduling and shift hours and times to allow maximum work to be done during off hours yet at affordable pay rates;

(6) permitting adjustments to work rules and staffing requirements from those which otherwise might obtain;

(7) providing comprehensive and standardized mechanisms for the settlement of work disputes, including those relating to jurisdiction;

NYC AGENCY RENOVATION & REHAB CITY OWNED BUILDINGS/STRUCTURES

- (8) ensuring a reliable source of skilled and experienced labor; and
- (9) securing applicable New York State Labor Law exemptions.

WHEREAS, the Building and Construction Trades Council of Greater New York and Vicinity, its participating affiliated Local Unions and their members, desire to assist the City in meeting these operational needs and objectives as well as to provide for stability, security and work opportunities which are afforded by this Project Labor Agreement; and

WHEREAS, the Parties desire to maximize Program Work safety conditions for both workers and the community in the project area.

NOW, THEREFORE, the Parties enter into this Agreement:

SECTION 1. PARTIES TO THE AGREEMENT

This is a Project Labor Agreement ("Agreement") entered into by the City of New York, on behalf of itself and the Agencies covered herein, including in their capacity as construction manager of covered projects and/or on behalf of any third party construction manager which may be utilized, and the Building and Construction Trades Council of Greater New York and Vicinity ("Council") (on behalf of itself) and the signatory affiliated Local Union's ("Unions" or "Local Unions"). The Council and each signatory Local Union hereby warrants and represents that it has been duly authorized to enter into this Agreement.

ARTICLE 2 - GENERAL CONDITIONS

SECTION 1. DEFINITIONS

Throughout this Agreement, the various Union parties including the Building and Construction Trades Council of Greater New York and Vicinity and its participating affiliated Local Unions, are referred to singularly and collectively as "Union(s)" or "Local Unions"; the term "Contractor(s)" shall include any Construction Manager, General Contractor and all other

contractors, and subcontractors of all tiers engaged in Program Work within the scope of this Agreement as defined in Article 3; "Agency" means the following New York City agencies: the Department for the Aging (DFTA), Administration for Children's Services (ACS), Department of Citywide Administrative Services (DCAS), Department of Corrections (DOC), Department of Design and Construction (DDC), Fire Department (FDNY), Department of Homeless Services (DHS), Human Resources Administration (HRA), Department of Health and Mental Hygiene (DOHMH), Department of Parks and Recreation (DPR), Police Department (NYPD); Department of Sanitation (DSNY); the New York City Agency that awards a particular contract subject to this Agreement may be referred to hereafter as the "Agency"; when an Agency acts as Construction Manager, unless otherwise provided, it has the rights and obligations of a "Construction Manager" in addition to the rights and obligations of an Agency; the Building and Construction Trades Council of Greater New York and Vicinity is referred to as the "Council"; and the work covered by this Agreement (as defined in Article 3) is referred to as "Program Work."

SECTION 2. CONDITIONS FOR AGREEMENT TO BECOME EFFECTIVE

This Agreement shall not become effective unless each of the following conditions are met: the Agreement is executed by (1) the Council, on behalf of itself, (2) the participating affiliated Local Unions; and (3) the mayor of the City of New York or his designee.

SECTION 3. ENTITIES BOUND & ADMINISTRATION OF AGREEMENT

This Agreement shall be binding on all participating Unions and their affiliates, the Construction Manager (in its capacity as such) and all Contractors of all tiers performing Program Work, as defined in Article 3. The Contractors shall include in any subcontract that they let for performance during the term of this Agreement a requirement that their subcontractors, of all tiers, become signatory and bound by this Agreement with respect to that subcontracted work

NYC AGENCY RENOVATION & REHAB CITY OWNED BUILDINGS/STRUCTURES

falling within the scope of Article 3 and all Contractors (including subcontractors) performing Program Work shall be required to sign a "Letter of Assent" in the form annexed hereto as Exhibit "A". This Agreement shall be administered by the applicable Agency or a Construction Manager or such other designee as may be named by the Agency or Construction Manager, on behalf of all Contractors.

SECTION 4. SUPREMACY CLAUSE

This Agreement, together with the local Collective Bargaining Agreements appended hereto as Schedule A, represents the complete understanding of all signatories and supersedes any national agreement, local agreement or other collective bargaining agreement of any type which would otherwise apply to this Program Work, in whole or in part, except that Program Work which falls within the jurisdiction of the Operating Engineers Locals 14 and 15 and/or the Teamsters Local 282 will be performed under the terms and conditions set out in the Schedule A agreements of Operating Engineers Locals 14 and 15 and Teamsters Local 282. Subject to the foregoing, where a subject covered by the provisions of this Agreement is also covered by a Schedule A, the provisions of this Agreement shall prevail. It is further understood that no Contractor shall be required to sign any other agreement as a condition of performing Program Work. No practice, understanding or agreement between a Contractor and a Local Union which is not set forth in this Agreement shall be binding on this Program Work unless endorsed in writing by the Construction Manager or such other designee as may be designated by the Agency.

SECTION 5. LIABILITY

The liability of any Contractor and the liability of any Union under this Agreement shall be several and not joint. The Construction Manager and any Contractor shall not be liable for any violations of this Agreement by any other Contractor; and the Council and

Local Unions shall not be liable for any violations of this Agreement by any other Union.

SECTION 6. THE AGENCY

The Agency (or Construction Manager where applicable) shall require in its bid specifications for all Program Work within the scope of Article 3 that all successful bidders, and their subcontractors of all tiers, become bound by, and signatory to, this Agreement. The Agency (or Construction Manager) shall not be liable for any violation of this Agreement by any Contractor. It is understood that nothing in this Agreement shall be construed as limiting the sole discretion of the Agency or Construction Manager in determining which Contractors shall be awarded contracts for Program Work. It is further understood that the Agency or Construction Manager has sole discretion at any time to terminate, delay or suspend the Program Work, in whole or part, on any Program.

SECTION 7. AVAILABILITY AND APPLICABILITY TO ALL SUCCESSFUL BIDDERS

The Unions agree that this Agreement will be made available to, and will fully apply to, any successful bidder for (or subcontractor of) Program Work who becomes signatory thereto, without regard to whether that successful bidder (or subcontractor) performs work at other sites on either a union or non-union basis and without regard to whether employees of such successful bidder (or subcontractor) are, or are not, members of any unions. This Agreement shall not apply to the work of any Contractor which is performed at any location other than the site of Program Work.

SECTION 8. SUBCONTRACTING

Contractors will subcontract Program Work only to a person, firm or corporation who is or agrees to become party to this Agreement.

ARTICLE 3-SCOPE OF THE AGREEMENT

SECTION 1. WORK COVERED

NYC AGENCY RENOVATION & REHAB CITY OWNED BUILDINGS/STRUCTURES

Program Work shall be limited to designated rehabilitation and renovation construction contracts bid and let by an Agency (or its Construction Manager where applicable) after the effective date of this Agreement with respect to rehabilitation and renovation work performed for an Agency on City-owned property under contracts let prior to June 30, 2014. Subject to the foregoing, and the exclusions below, such Program Work shall mean any and all contracts that predominantly involve the renovation, repair, alteration, rehabilitation or expansion of an existing City-owned building or structure within the five boroughs of New York City. Examples of Program Work include, but are not limited to, the renovation, repair, alteration and rehabilitation of an existing temporary or permanent structure, or an expansion of above ground structures located in the City on a City-owned building. This Program Work shall also include JOCS contracts, demolition work, site work, asbestos and lead abatement, painting services, carpentry services, and carpet removal and installation, to the extent incidental to such building rehabilitation of City-owned buildings or structures.

It is understood that Program Work does not include, and this Project Labor Agreement shall not apply to, any other work, including:

1. Contracts let and work performed in connection with projects carried over, recycled from, or performed under bids or rebids relating to work that were bid prior to the effective date of this Agreement or after June 30, 2014;
2. Contracts procured on an emergency basis;
3. Small purchases (purchases not more than \$100,000) awarded pursuant to New York City Charter §314, New York City Charter § 316 and New York City Procurement Policy Board Rules §3-08;
4. Contracts for work on streets and bridges and for the closing or environmental remediation of landfills;

5. Contracts with not-for-profit corporations where the City is not awarding or performing the work performed for that entity;

6. Contracts with governmental entities where the City is not awarding or performing the work performed for that entity;

7. Contracts with electric utilities, gas utilities, telephone companies, and railroads, except that it is understood and agreed that these entities may only install their work to a demarcation point, e.g. a telephone closet or utility vault, the location of which is determined prior to construction and employees of such entities shall not be used to replace employees performing Program Work pursuant to this agreement; and

8. Contracts for installation of information technology that are not otherwise Program Work.

SECTION 2. TIME LIMITATIONS

In addition to falling within the scope of Article 3, Section 1, to be covered by this Agreement Program Work must be (1) advertised and let for bid after the effective date of this Agreement, and (2) let for bid prior to June 30, 2014, the expiration date of this Agreement. It is understood that this Agreement, together with all of its provisions, shall remain in effect for all such Program Work until completion, even if not completed by the expiration date of the Agreement. If Program Work otherwise falling within the scope of Article 3, Section 1 is not let for bid by the expiration date of this Agreement, this Agreement may be extended to that work by mutual agreement of the parties.

SECTION 3. EXCLUDED EMPLOYEES

The following persons are not subject to the provisions of this Agreement, even though performing Program Work:

A. Superintendents, supervisors (excluding general and forepersons

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specifically covered by a craft's Schedule A), engineers, professional engineers and/or licensed architects engaged in inspection and testing, quality control/assurance personnel, timekeepers, mail carriers, clerks, office workers, messengers, guards, technicians, non-manual employees, and all professional, engineering, administrative and management persons;

B. Employees of the Agency, New York City, or any other municipal or State agency, authority or entity, or employees of any other public employer, even though working on the Program site while covered Program Work is underway;

C. Employees and entities engaged in off-site manufacture, modifications, repair, maintenance, assembly, painting, handling or fabrication of project components, materials, equipment or machinery or involved in deliveries to and from the Program site, except to the extent they are lawfully included in the bargaining unit of a Schedule A agreement;

D. Employees of the Construction Manager (except that in the event the Agency engages a Contractor to serve as Construction Manager, then those employees of the Construction Manager performing manual, on site construction labor will be covered by this Agreement);

E. Employees engaged in on-site equipment warranty work unless employees are already working on the site and are certified to perform warranty work;

F. Employees engaged in geophysical testing other than boring for core samples;

G. Employees engaged in laboratory, specialty testing, or inspections, pursuant to a professional services agreement between the Agency, or any of the Agency's other professional consultants, and such laboratory, testing, inspection or surveying firm; and

H. Employees engaged in on-site maintenance of installed equipment or systems which maintenance is awarded as part of a contract that includes Program Work but

which maintenance occurs after installation of such equipment or system and is not directly related to construction services.

SECTION 4. NON-APPLICATION TO CERTAIN ENTITIES

This Agreement shall not apply to those parents, affiliates, subsidiaries, or other joint or sole ventures of any Contractor which do not perform Program Work. It is agreed that this Agreement does not have the effect of creating any joint employment, single employer or alter ego status among the Agency (including in its capacity as Construction Manager) or any Contractor. The Agreement shall further not apply to any New York City or other municipal or State agency, authority, or entity other than a listed Agency and nothing contained herein shall be construed to prohibit or restrict the Agency or its employees, or any State, New York City or other municipal or State authority, agency or entity and its employees, from performing on or off-site work related to Program Work.

As the contracts involving Program Work are completed and accepted, the Agreement shall not have further force or effect on such items or areas except where inspections, additions, repairs, modifications, check-out and/or warranty work are assigned in writing (copy to Local Union involved) by the Agency (or Construction Manager) for performance under the terms of this Agreement.

ARTICLE 4- UNION RECOGNITION AND EMPLOYMENT

SECTION 1. PRE-HIRE RECOGNITION

The Contractors recognize the signatory Unions as the sole and exclusive bargaining representatives of all employees who are performing on-site Program Work, with respect to that work.

SECTION 2. UNION REFERRAL

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A. The Contractors agree to employ and hire craft employees for Program Work covered by this Agreement through the job referral systems and hiring halls established in the Local Unions area collective bargaining agreements. Notwithstanding this, Contractors shall have sole right to determine the competency of all referrals; to determine the number of employees required; to select employees for layoff (subject to Article 5, Section 3); and the sole right to reject any applicant referred by a Local Union, subject to the show-up payments. In the event that a Local Union is unable to fill any request for qualified employees within a 48 hour period after such requisition is made by a Contractor (Saturdays, Sundays and holidays excepted), a Contractor may employ qualified applicants from any other available source. In the event that the Local Union does not have a job referral system, the Contractor shall give the Local Union first preference to refer applicants, subject to the other provisions of this Article. The Contractor shall notify the Local Union of craft employees hired for Program Work within its jurisdiction from any source other than referral by the Union.

B. A Contractor may request by name, and the Local will honor, referral of persons who have applied to the Local for Program Work and who meet the following qualifications:

- (1) possess any license required by New York State law for the Program Work to be performed;
- (2) have worked a total of at least 1000 hours in the Construction field during the prior 3 years; and
- (3) were on the Contractor's active payroll for at least 60 out of the 180 calendar days prior to the contract award.

No more than twelve per centum (12%) of the employees covered by this Agreement, per Contractor by craft, shall be hired through the special provisions above. Under this provision, name referrals begin with the eighth employee needed and continue on that same

basis.

C. Notwithstanding Section 2(B), above, certified MWBE contractors for which participation goals are set pursuant to New York City Administrative Code §6-129, that are not signatory to any Schedule A CBAs, with contracts valued at or under five hundred thousand (\$500,000), may request by name, and the Local will honor, referral of the second (2nd), fourth (4th), sixth (6th), and eighth (8th) employee, who have applied to the Local for Program Work and who meet the following qualifications:

- (1) possess any license required by New York State law for the Program Work to be performed;
- (2) have worked a total of at least 1000 hours in the Construction field during the prior 3 years; and
- (3) were on the Contractor's active payroll for at least 60 out of the 180 work days prior to the contract award.

For such contracts valued at above \$500,000 but less than \$1 million, the Local will honor referrals by name of the second (2nd), fifth (5th), and eighth (8th) employee subject to the foregoing requirements. In both cases, name referrals will thereafter be in accordance with Section 2(B), above.

D. Where a certified MWBE Contractor voluntarily enters into a Collective Bargaining Agreement ("CBA") with a BCTC Union, the employees of such Contractor at the time the CBA is executed shall be allowed to join the Union for the applicable trade subject to satisfying the Union's basic standards of proficiency for admission.

SECTION 3. NON-DISCRIMINATION IN REFERRALS

The Council represents that each Local Union hiring hall and referral system will be operated in a non-discriminatory manner and in full compliance with all applicable federal, state and local laws and regulations which require equal employment opportunities. Referrals

shall not be affected in any way by the rules, regulations, bylaws, constitutional provisions or any other aspects or obligations of union membership, policies or requirements and shall be subject to such other conditions as are established in this Article. No employment applicant shall be discriminated against by any referral system or hiring hall because of the applicant's union membership, or lack thereof.

SECTION 4: MINORITY AND FEMALE REFERRALS

In the event a Local Union either fails, or is unable to refer qualified minority or female applicants in percentages equaling the workforce participation goals adopted by the City and set forth in the Agency's (or, if applicable, Construction Manager's) bid specifications, within 48 hours of the request for same, the Contractor may employ qualified minority or female applicants from any other available source.

SECTION 5. CROSS AND QUALIFIED REFERRALS

The Local Unions shall not knowingly refer to a Contractor an employee then employed by another Contractor working under this Agreement. The Local Unions will exert their utmost efforts to recruit sufficient numbers of skilled and qualified crafts employees to fulfill the requirements of the Contractor.

SECTION 6. UNION DUES

All employees covered by this Agreement shall be subject to the union security provisions contained in the applicable Schedule A local agreements, as amended from time to time, but only for the period of time during which they are performing on-site Program Work and only to the extent of tendering payment of the applicable union dues and assessments uniformly required for union membership in the Local Unions which represent the craft in which the employee is performing Program Work. No employee shall be discriminated against at any Program Work site because of the employee's union membership or lack thereof. In the case of

unaffiliated employees, the dues payment will be received by the Local Unions as an agency shop fee.

SECTION 7. CRAFT FOREPERSONS AND GENERAL FOREPERSONS

The selection of craft forepersons and/or general forepersons and the number of forepersons required shall be solely the responsibility of the Contractor except where otherwise provided by specific provisions of an applicable Schedule A, and provided that all craft forepersons shall be experienced and qualified journeypersons in their trade as determined by the appropriate Local Union. All forepersons shall take orders exclusively from the designated Contractor representatives. Craft forepersons shall be designated as working forepersons at the request of the Contractor, except when an existing local Collective Bargaining Agreement prohibits a foreperson from working when the craft persons he is leading exceed a specified number.

ARTICLE 5- UNION REPRESENTATION

SECTION 1. LOCAL UNION REPRESENTATIVE

Each Local Union representing on-site employees shall be entitled to designate in writing (copy to Contractor involved and Construction Manager) one representative, and/or the Business Manager, who shall be afforded access to the Program Work site.

SECTION 2. STEWARDS

A. Each Local Union shall have the right to designate a working journey person as a Steward and an alternate, and shall notify the Contractor and Construction Manager of the identity of the designated Steward (and alternate) prior to the assumption of such duties. Stewards shall not exercise supervisory functions and will receive the regular rate of pay for their craft classifications. All Stewards shall be working Stewards.

B. In addition to their work as an employee, the Steward shall have the right

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to receive complaints or grievances and to discuss and assist in their adjustment with the Contractor's appropriate supervisor. Each Steward shall be concerned with the employees of the Steward's trade and, if applicable, subcontractors of their Contractor, but not with the employees of any other trade Contractor. No Contractor shall discriminate against the Steward in the proper performance of Union duties.

C. The Stewards shall not have the right to determine when overtime shall be worked, or who shall work overtime except pursuant to a Schedule A provision providing procedures for the equitable distribution of overtime.

SECTION 3. LAYOFF OF A STEWARD

Contractors agree to notify the appropriate Union 24 hours prior to the layoff of a Steward, except in cases of discipline or discharge for just cause. If a Steward is protected against layoff by a Schedule A provision, such provision shall be recognized to the extent the Steward possesses the necessary qualifications to perform the work required. In any case in which a Steward is discharged or disciplined for just cause, the Local Union involved shall be notified immediately by the Contractor.

ARTICLE 6- MANAGEMENT'S RIGHTS

SECTION 1. RESERVATION OF RIGHTS

Except as expressly limited by a specific provision of this Agreement, Contractors retain full and exclusive authority for the management of their operations including, but not limited to, the right to: direct the work force, including determination as to the number of employees to be hired and the qualifications therefore; the promotion, transfer, layoff of its employees; require compliance with the directives of the Agency including standard restrictions related to security and access to the site that are equally applicable to Agency employees, guests,

or vendors; or the discipline or discharge for just cause of its employees; assign and schedule work; promulgate reasonable Program Work rules that are not inconsistent with this Agreement or rules common in the industry and are reasonably related to the nature of work; and, the requirement, timing and number of employees to be utilized for overtime work. No rules, customs, or practices which limit or restrict productivity or efficiency of the individual, as determined by the Contractor, Agency and/or Construction Manager and/or joint working efforts with other employees shall be permitted or observed.

SECTION 2. MATERIALS, METHODS & EQUIPMENT

There shall be no limitation or restriction upon the Contractors' choice of materials, techniques, methods, technology or design, or, regardless of source or location, upon the use and installation of equipment, machinery, package units, pre-cast, pre-fabricated, pre-finished, or pre-assembled materials or products, tools, or other labor-saving devices. Contractors may, without restriction, install or use materials, supplies or equipment regardless of their source; provided, however, that where there is a Schedule "A" that includes a lawful union standards and practices clauses, then such clause as set forth in Schedule A Agreements will be complied with, unless there is a lawful Agency specification (or specification issued by a Construction Manager which would be lawful if issued by the Agency directly) that would specifically limit or restrict the Contractor's choice of materials, techniques, methods, technology or design, or, regardless of source or location, upon the use and installation of equipment, machinery, package units, pre-cast, pre-fabricated, pre-finished, or pre-assembled materials or products, tools, or other labor-saving devices, and which would prevent compliance with such Schedule A clause. The on-site installation or application of such items shall be performed by the craft having jurisdiction over such work; provided, however, it is recognized that other personnel having special qualifications may participate, in a supervisory capacity, in

the installation, check-off or testing of specialized or unusual equipment or facilities as designated by the Contractor. There shall be no restrictions as to work which is performed off-site for Program Work.

ARTICLE 7- WORK STOPPAGES AND LOCKOUTS

SECTION 1. NO STRIKES-NO LOCK OUT

There shall be no strikes, sympathy strikes, picketing, work stoppages, slowdowns, hand billing, demonstrations or other disruptive activity at the Program Work site for any reason by any Union or employee against any Contractor or employer. There shall be no other Union, or concerted or employee activity which disrupts or interferes with the operation of the Program Work or the objectives of the Agency at any Program Work site. In addition, failure of any Union or employee to cross any picket line established by any Union, signatory or non-signatory to this Agreement, or the picket or demonstration line of any other organization, at or in proximity to a Program Work site where the failure to cross disrupts or interferes with the operation of Program Work is a violation of this Article. Should any employees breach this provision, the Unions will use their best efforts to try to immediately end that breach and return all employees to work. There shall be no lockout at a Program Work site by any signatory Contractor, Agency or Construction Manager.

SECTION 2. DISCHARGE FOR VIOLATION

A Contractor may discharge any employee violating Section 1, above, and any such employee will not be eligible thereafter for referral under this Agreement for a period of 100 days.

SECTION 3. NOTIFICATION

If a Contractor contends that any Union has violated this Article, it will notify the

Local Union involved advising of such fact, with copies of the notification to the Council. The Local Union shall instruct and order, the Council shall request, and each shall otherwise use their best efforts to cause, the employees (and where necessary the Council shall use its best efforts to cause the Local Union), to immediately cease and desist from any violation of this Article. If the Council complies with these obligations it shall not be liable for the unauthorized acts of a Local Union or its members. Similarly, a Local Union and its members will not be liable for any unauthorized acts of the Council. Failure of a Contractor or the Construction Manager to give any notification set forth in this Article shall not excuse any violation of Section 1 of this Article.

SECTION 4. EXPEDITED ARBITRATION

Any Contractor or Union alleging a violation of Section 1 of this Article may utilize the expedited procedure set forth below (in lieu of, or in addition to, any actions at law or equity) that may be brought.

A. A party invoking this procedure shall notify J.J. Pierson or Richard Adelman; who shall alternate (beginning with Arbitrator J.J. Pierson) as Arbitrator under this expedited arbitration procedure. If the Arbitrator next on the list is not available to hear the matter within 24 hours of notice, the next Arbitrator on the list shall be called. Copies of such notification will be simultaneously sent to the alleged violator and Council.

B. The Arbitrator shall thereupon, after notice as to time and place to the Contractor, the Local Union involved, the Council and the Construction Manager, hold a hearing within 48 hours of receipt of the notice invoking the procedure if it is contended that the violation still exists. The hearing will not, however, be scheduled for less than 24 hours after the notice required by Section 3, above.

C. All notices pursuant to this Article may be provided by telephone, telegraph, hand delivery, or fax, confirmed by overnight delivery, to the Arbitrator, Contractor,

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Construction Manager and Local Union involved. The hearing may be held on any day including Saturdays or Sundays. The hearing shall be completed in one session, which shall not exceed 8 hours duration (no more than 4 hours being allowed to either side to present their case, and conduct their cross examination) unless otherwise agreed. A failure of any Union or Contractor to attend the hearing shall not delay the hearing of evidence by those present or the issuance of an award by the Arbitrator.

D. The sole issue at the hearing shall be whether a violation of Section 1, above, occurred. If a violation is found to have occurred, the Arbitrator shall issue a Cease and Desist Award restraining such violation and serve copies on the Contractor and Union involved. The Arbitrator shall have no authority to consider any matter in justification, explanation or mitigation of such violation or to award damages (any damages issue is reserved solely for court proceedings, if any.) The Award shall be issued in writing within 3 hours after the close of the hearing, and may be issued without an Opinion. If any involved party desires an Opinion, one shall be issued within 15 calendar days, but its issuance shall not delay compliance with, or enforcement of, the Award.

E. The Agency and Construction Manager (or such other designee of the Agency) may participate in full in all proceedings under this Article.

F. An Award issued under this procedure may be enforced by any court of competent jurisdiction upon the filing of this Agreement together with the Award. Notice of the filing of such enforcement proceedings shall be given to the Union or Contractor involved, and the Construction Manager.

G. Any rights created by statute or law governing arbitration proceedings which are inconsistent with the procedure set forth in this Article, or which interfere with compliance thereto, are hereby waived by the Contractors and Unions to whom they accrue.

H. The fees and expenses of the Arbitrator shall be equally divided between the involved Contractor and Union.

SECTION 5. ARBITRATION OF DISCHARGES FOR VIOLATION

Procedures contained in Article 9 shall not be applicable to any alleged violation of this Article, with the single exception that an employee discharged for violation of Section 1, above, may have recourse to the procedures of Article 9 to determine only if the employee did, in fact, violate the provisions of Section 1 of this Article; but not for the purpose of modifying the discipline imposed where a violation is found to have occurred.

ARTICLE 8 - LABOR MANAGEMENT COMMITTEE

SECTION 1. SUBJECTS

The Program Labor Management Committee will meet on a regular basis to: 1) promote harmonious relations among the Contractors and Unions; 2) enhance safety awareness, cost effectiveness and productivity of construction operations; 3) protect the public interests; 4) discuss matters relating to staffing and scheduling with safety and productivity as considerations; and 5) review efforts to meet applicable participation goals for MWBEs and workforce participation goals for minority and female employees.

SECTION 2. COMPOSITION

The Committee shall be jointly chaired by a designee of the Agency and the President of the Council. It may include representatives of the Local Unions and Contractors involved in the issues being discussed. The parties may mutually designate an MWBE representative to participate in appropriate Committee discussions. The Committee may conduct business through mutually agreed upon sub-committees.

ARTICLE 9- GRIEVANCE & ARBITRATION PROCEDURE

SECTION 1. PROCEDURE FOR RESOLUTION OF GRIEVANCES

Any question, dispute or claim arising out of, or involving the interpretation or application of this Agreement (other than jurisdictional disputes or alleged violations of Article 7, Section 1) shall be considered a grievance and shall be resolved pursuant to the exclusive procedure of the steps described below, provided, in all cases, that the question, dispute or claim arose during the term of this Agreement.

Step 1:

(a) When any employee covered by this Agreement feels aggrieved by a claimed violation of this Agreement, the employee shall, through the Local Union business representative or job steward give notice of the claimed violation to the work site representative of the involved Contractor and the Construction Manager. To be timely, such notice of the grievance must be given within 7 calendar days after the act, occurrence or event giving rise to the grievance. The business representative of the Local Union or the job steward and the work site representative of the involved Contractor shall meet and endeavor to adjust the matter within 7 calendar days after timely notice has been given. If they fail to resolve the matter within the prescribed period, the grieving party, may, within 7 calendar days thereafter, pursue Step 2 of the grievance procedure by serving the involved Contractor with written copies of the grievance setting forth a description of the claimed violation, the date on which the grievance occurred, and the provisions of the Agreement alleged to have been violated. Grievances and disputes settled at Step 1 are non-precedential except as to the specific Local Union, employee and Contractor directly involved unless the settlement is accepted in writing by the Construction Manager (or designee) as creating a precedent.

(b) Should any signatory to this Agreement have a dispute (excepting jurisdictional disputes or alleged violations of Article 7, Section 1) with any other signatory to

this Agreement and, if after conferring, a settlement is not reached within 7 calendar days, the dispute shall be reduced to writing and proceed to Step 2 in the same manner as outlined in subparagraph (a) for the adjustment of employee grievances.

Step 2:

The Business Manager or designee of the involved Local Union, together with representatives of the involved Contractor, Council and the Construction Manager (or designee), shall meet in Step 2 within 7 calendar days of service of the written grievance to arrive at a satisfactory settlement.

Step 3:

(a) If the grievance shall have been submitted but not resolved in Step 2, any of the participating Step 2 entities may, within 21 calendar days after the initial Step 2 meeting, submit the grievance in writing (copies to other participants, including the Construction Manager or designee) to J.J. Pierson or Richard Adelman, who shall act, alternately (beginning with Arbitrator J.J. Pierson), as the Arbitrator under this procedure. The Labor Arbitration Rules of the American Arbitration Association shall govern the conduct of the arbitration hearing, at which all Step 2 participants shall be parties. The decision of the Arbitrator shall be final and binding on the involved Contractor, Local Union and employees and the fees and expenses of such arbitrations shall be borne equally by the involved Contractor and Local Union.

(b) Failure of the grieving party to adhere to the time limits set forth in this Article shall render the grievance null and void. These time limits may be extended only by written consent of the Construction Manager (or designee), involved Contractor and involved Local Union at the particular step where the extension is agreed upon. The Arbitrator shall have authority to make decisions only on the issues presented to him and shall not have the authority to change, add to, delete or modify any provision of this Agreement.

SECTION 2. LIMITATION AS TO RETROACTIVITY

No arbitration decision or award may provide retroactivity of any kind exceeding 60 calendar days prior to the date of service of the written grievance on the Construction Manager and the involved Contractor or Local Union.

SECTION 3. PARTICIPATION BY AGENCY AND/OR CONSTRUCTION MANAGER

The Agency and Construction Manager (or such other designee of the Agency) shall be notified by the involved Contractor of all actions at Steps 2 and 3 and, at its election, may participate in full in all proceedings at these Steps, including Step 3 arbitration.

ARTICLE 10 - JURISDICTIONAL DISPUTES

SECTION 1. NO DISRUPTIONS

There will be no strikes, sympathy strikes, work stoppages, slowdowns, picketing or other disruptive activity of any kind arising out of any jurisdictional dispute. Pending the resolution of the dispute, the work shall continue uninterrupted and as assigned by the Contractor. No jurisdictional dispute shall excuse a violation of Article 7.

SECTION 2. ASSIGNMENT

All Program Work assignments shall be made by the Contractor to unions affiliated with the BCTC consistent with the New York Plan for the Settlement of Jurisdictional Disputes ("New York Plan") and its Greenbook decisions, if any. Where there are no applicable Greenbook decisions, assignments shall be made in accordance with the provisions of the New York Plan and local industry practice.

SECTION 3. NO INTERFERENCE WITH WORK

There shall be no interference or interruption of any kind with the Program Work while any jurisdictional dispute is being resolved. The work shall proceed as assigned by the

Contractor until finally resolved under the applicable procedure of this Article. The award shall be confirmed in writing to the involved parties. There shall be no strike, work stoppage or interruption in protest of any such award.

ARTICLE 11 - WAGES AND BENEFITS

SECTION 1. CLASSIFICATION AND BASE HOURLY RATE

All employees covered by this Agreement shall be classified in accordance with the work performed and paid the hourly wage rates applicable for those classifications as required by the applicable prevailing wage laws.

SECTION 2. EMPLOYEE BENEFITS

A. The Contractors agree to pay on a timely basis contributions on behalf of all employees covered by this Agreement to those established jointly trustee employee benefit funds designated in Schedule A (in the appropriate Schedule A amounts), provided that such benefits are required to be paid on public works under any applicable prevailing wage law. Bona fide jointly trustee fringe benefit plans established or negotiated through collective bargaining during the life of this Agreement may be added if similarly required under applicable prevailing wage law. Contractors, not otherwise contractually bound to do so, shall not be required to contribute to benefits, trusts or plans of any kind which are not required by the prevailing wage law provided, however, that this provision does not relieve Contractors signatory to local collective bargaining agreement with any affiliated union from complying with the fringe benefit requirements for all funds contained in the CBA.

B. The Contractors agree to be bound by the written terms of the legally established jointly trustee Trust Agreements specifying the detailed basis on which payments are to be paid into, and benefits paid out of, such Trust Funds but only with regard to Program Work done under this Agreement and only for those employees to whom this Agreement

requires such benefit payments.

C. To the extent consistent with New York City's Procurement Policy Board Rules with respect to prompt payment, as published at www.nyc.gov/ppb, §4-06(e), and in consideration of the unions' waiver of their rights to withhold labor from a contractor or subcontractor delinquent in the payment of fringe benefits contributions ("Delinquent Contractor"); the Agency agrees that where any such union and/or fringe benefit fund shall notify the Agency, the General Contractor, and the Delinquent Contractor in writing with back-up documentation that the Delinquent Contractor has failed to make fringe benefit contributions to it as provided herein and the Delinquent Contractor shall fail, within ten (10) calendar days after receipt of such notice, to furnish either proof of such payment or notice that the amount claimed by the union and/or fringe benefit fund is in dispute, the Agency shall withhold from amounts then or thereafter becoming due and payable to the General Contractor an amount equal to that portion of such payment due to the General Contractor that relates solely to the work performed by the Delinquent Contractor which the union or fringe benefit fund claims to be due it, and shall remit the amount when and so withheld to the fringe benefit fund and deduct such payment from the amounts then otherwise due and payable to the General Contractor, which payment shall, as between the General Contractor and the Agency, be deemed a payment by the Agency to the General Contractor; provided however, that in any month, such withholding shall not exceed the amount contained in the General Contractor's monthly invoice for work performed by the Delinquent Contractor. The union or its employee benefit funds shall include in its notification of delinquent payment of fringe benefits only such amount it asserts the Delinquent Contractor failed to pay on the specific project against which the claim is made and the union or its employee benefit funds may not include in such notification any amount such Delinquent Contractor may have failed to pay on any other City or non-City project.

D. In the event the General Contractor or Delinquent Contractor shall notify the Agency as above provided that the claim of the union or fringe benefit fund is in dispute, the Agency shall withhold from amounts then or thereafter becoming due and payable to the General Contractor an amount equal to that portion of such payment due to the General Contractor that relates solely to the work performed by the Delinquent Contractor which the union and/or fringe benefit fund claims to be due it, and deposit such amount when and so withheld in a separate interest-bearing account pending resolution of the dispute pursuant to the union's Schedule A agreement, and the amount so deposited together with the interest thereon shall be paid to the party or parties ultimately determined to be entitled thereto, or held until the Delinquent Contractor and union or fringe benefit fund shall otherwise agree as to the disposition thereof; provided however, that such withholding shall not exceed the amount contained in the General Contractor's monthly invoice for work performed by the Delinquent Contractor. In the event the Agency shall be required to withhold amounts from a General Contractor for the benefit of more than one fringe benefit fund, the amounts so withheld in the manner and amount prescribed above shall be applied to or for such fund in the order in which the written notices of nonpayment have been received by the Agency, and if more than one such notice was received on the same day, proportionately based upon the amount of the union and/or fringe benefit fund claims received on such day. Nothing herein contained shall prevent the Agency from commencing an interpleader action to determine entitlement to a disputed payment in accordance with section one thousand six of the civil practice law and rules or any successor provision thereto.

E. Payment to a fringe benefit fund under this provision shall not relieve the General Contractor or Delinquent Contractor from responsibility for the work covered by the payment. Except as otherwise provided, nothing contained herein shall create any obligation on

the part of the Agency to pay any union or fringe benefit fund, nor shall anything provided herein serve to create any relationship in contract or otherwise, implied or expressed, between the union/fund and/or fringe benefit and the Agency.

**ARTICLE 12- HOURS OF WORK, PREMIUM PAYMENTS,
SHIFTS AND HOLIDAYS**

SECTION 1. WORK WEEK AND WORK DAY

A. The standard work week shall consist of 40 hours of work at straight time rates, Monday through Friday, 8 hours per day, plus ½ hour unpaid lunch period.

B. In accordance with Program needs, there shall be flexible start times with advance notice from Contractor to the Union. The Day Shift shall commence between the hours of 6:00 a.m. and 9:00 a.m. and shall end between the hours of 2:30 p.m. and 5:30 p.m., for an 8 hour day, and up to 7:30 p.m. for a 10 hour day. The Evening Shift shall commence between the hours of 3:00 p.m. and 6:00 p.m., unless different times are necessitated by the Agency's phasing plans on specific projects. The Night Shift shall commence between the hours of 11:00 p.m. and 2:00 a.m., unless different times are necessitated by the Agency's phasing plans on specific projects. Subject to the foregoing, starting and quitting times shall occur at the Program Work site designated by the Contractor.

C. Scheduling - Monday through Friday is the standard work week; 8 hours of work plus ½ hour unpaid lunch. Notwithstanding any other provision of this Agreement, a contractor may schedule a four day work week, 10 hours per day at straight time rates, plus a ½ hour unpaid lunch, at the commencement of the job.

D. Notice - Contractors shall provide not less than 5 days prior notice to the Local Union involved as to the work week and work hour schedules to be worked or such lesser notice as may be mutually agreed upon.

SECTION 2. OVERTIME

Overtime shall be paid for any work over eight (8) hours in a day where 5/8s is scheduled or for work over ten (10) hours in a day where 4/10s is scheduled and over forty (40) hours in a week, at time and one half (1½) Monday through Saturday. All overtime work performed on Sunday and Holidays will be paid pursuant to the applicable Schedule A. There shall be no stacking or pyramiding of overtime pay under any circumstances. There will be no restriction upon the Contractor's scheduling of overtime or the nondiscriminatory designation of employees who shall be worked, including the use of employees, other than those who have worked the regular or scheduled work week, at straight time rates. The Contractor shall have the right to schedule work so as to minimize overtime or schedule overtime as to some, but not all, of the crafts and whether or not of a continuous nature.

SECTION 3. SHIFTS

A. Flexible Schedules - Scheduling of shift work, including Saturday and Sunday work, shall be within the discretion of the Contractor in order to meet Program Work schedules and existing Program Work conditions including the minimization of interference with the mission of the Agency. It is not necessary to work a day shift in order to schedule a second or third shift, or a second shift in order to schedule a third shift, or to schedule all of the crafts when only certain crafts or employees are needed. Shifts must have prior approval of the Agency or Construction Manager, and must be scheduled with not less than five work days notice to the Local Union or such lesser notice as may be mutually agreed upon.

B. Second and/or Third Shifts/Saturday and/or Sunday Work - - The second shift shall start between 3 p.m. and 6 p.m. and the third shift shall start between 11 p.m. and 2 a.m., subject to different times necessitated by the Agency phasing plans on specific projects. There shall be no reduction in shift hour work. With respect to second and third shift work there

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shall be a 5% shift premium. No other premium or other payments for such work shall be required unless such work is in excess of 40 hours in the week. All employees within a classification performing Program Work will be paid at the same wage rate regardless of the shift or work scheduled work, subject only to the foregoing provisions.

C. Flexible Starting Times - Shift starting times will be adjusted by the Contractor as necessary to fulfill Program Work requirements subject to the notice requirements of paragraph A.

SECTION 4. HOLIDAYS

A. Schedule - There shall be 8 recognized holidays on the Project:

New Years Day	Labor Day
Martin Luther King Day	President's Day
Memorial Day	Thanksgiving Day
Independence Day	Christmas Day

All said holidays shall be observed on the calendar date except those holidays which occur on Saturday shall be observed on the previous Friday and those that occur on Sunday shall be observed on the following Monday.

B. Payment - Regular holiday pay, if any, for work performed on such a recognized holiday shall be in accordance with the applicable Schedule A.

C. Exclusivity - No holidays other than those listed in Section 4(A) above shall be recognized or observed.

SECTION 5. SATURDAY MAKE-UP DAYS

When severe weather, power failure, fire or natural disaster or other similar circumstances beyond the control of the Contractor prevent work from being performed on a regularly scheduled weekday, the Contractor may schedule a Saturday make-up day and such

time shall be scheduled and paid as if performed on a weekday. Any other Saturday work shall be paid at time and one-half (1½) . The Contractor shall notify the Local Union on the missed day or as soon thereafter as practicable if such a make-up day is to be worked.

SECTION 6. REPORTING PAY

A. Employees who report to the work location pursuant to their regular schedule and who are not provided with work shall be paid two hours reporting pay at straight time rates. An employee whose work is terminated early by a Contractor due to severe weather, power failure, fire or natural disaster or for similar circumstances beyond the Contractor's control, shall receive pay only for such time as is actually worked. In other instances in which an employee's work is terminated early (unless provided otherwise elsewhere in this Agreement), the employee shall be paid for his full shift.

B. When an employee, who has completed their scheduled shift and left the Program Work site, is "called out" to perform special work of a casual, incidental or irregular nature, the employee shall receive overtime pay at the rate of time and one-half of the employee's straight time rate for hours actually worked.

C. When an employee leaves the job or work location of their own volition or is discharged for cause or is not working as a result of the Contractor's invocation of Section 7 below, they shall be paid only for the actual time worked.

D. Except as specifically set forth in this Article there shall be no premiums, bonuses, hazardous duty, high time or other special premium payments or reduction in shift hours of any kind.

E. There shall be no pay for time not actually worked except as specifically set forth in this Article and except where an applicable Schedule A requires a full weeks' pay for forepersons.

SECTION 7. PAYMENT OF WAGES

A. Termination- Employees who are laid off or discharged for cause shall be paid in full for that which is due them at the time of termination. The Contractor shall also provide the employee with a written statement setting forth the date of lay off or discharge.

SECTION 8. EMERGENCY WORK SUSPENSION

A Contractor may, if considered necessary for the protection of life and/or safety of employees or others, suspend all or a portion of Program Work. In such instances, employees will be paid for actual time worked, except that when a Contractor requests that employees remain at the job site available for work, employees will be paid for that time at their hourly rate of pay.

SECTION 9. INJURY/DISABILITY

An employee who, after commencing work, suffers a work-related injury or disability while performing work duties, shall receive no less than 8 hours wages for that day. Further, the employee shall be rehired at such time as able to return to duties provided there is still Program Work available for which the employee is qualified and able to perform.

SECTION 10. TIME KEEPING

A Contractor may utilize brassing or other systems to check employees in and out. Each employee must check in and out. The Contractor will provide adequate facilities for checking in and out in an expeditious manner.

SECTION 11. MEAL PERIOD

A Contractor shall schedule an unpaid period of not more than 1/2 hour duration at the work location between the 3rd and 5th hour of the scheduled shift. A Contractor may, for efficiency of operation, establish a schedule which coordinates the meal periods of two or more crafts or which provides for staggered lunch periods within a craft or trade. If an employee is

required to work through the meal period, the employee shall be compensated in a manner established in the applicable Schedule A.

SECTION 12. BREAK PERIODS

There will be no rest periods, organized coffee breaks or other non-working time established during working hours. Individual coffee containers will be permitted at the employee's work location. Where 4/10s are being worked there shall be a morning and an afternoon coffee break.

ARTICLE 13 - APPRENTICES

SECTION 1. RATIOS

Recognizing the need to maintain continuing supportive programs designed to develop adequate numbers of competent workers in the construction industry and to provide craft entry opportunities for minorities, women and economically disadvantaged non-minority males, Contractors will employ apprentices in their respective crafts to perform such work as is within their capabilities and which is customarily performed by the craft in which they are indentured. Contractors may utilize apprentices and such other appropriate classifications in the maximum ratio permitted by the New York State Department of Labor or the maximum allowed per trade. Apprentices and such other classifications as are appropriate shall be employed in a manner consistent with the provisions of the appropriate Schedule A. The parties encourage, as an appropriate source of apprentice recruitment consistent with the rules and operations of the affiliated unions' apprentice-programs, the use of the Edward J. Malloy Initiative for Construction Skills, Non-Traditional Employment for Women and Helmets to Hardhats.

ARTICLE 14-SAFETY PROTECTION OF PERSON AND PROPERTY

SECTION 1. SAFETY REQUIREMENTS

NYC AGENCY RENOVATION & REHAB CITY OWNED BUILDINGS/STRUCTURES

Each Contractor will ensure that applicable OSHA and safety requirements are at all times maintained on the Program Work site and the employees and Unions agree to cooperate fully with these efforts to the extent consistent with their rights and obligations under the law. Employees will cooperate with employer safety policies and will perform their work at all times in a safe manner and protect themselves and the property of the Contractor and Agency from injury or harm, to the extent consistent with their rights and obligations under the law. Failure to do so will be grounds for discipline, including discharge.

SECTION 2. CONTRACTOR RULES

Employees covered by this Agreement shall at all times be bound by the reasonable safety, security, and visitor rules as established by the Contractors and the Construction Manager for this Program Work. Such rules will be published and posted in conspicuous places throughout the Program Work sites. Any site security and access policies established by the Construction Manager or General Contractor intended for specific application to the construction workforce for Program Work and that are not established pursuant to an Agency directive shall be implemented only after notice to the BCTC and its affiliates and an opportunity for negotiation and resolution by the Labor Management Committee.

SECTION 3. INSPECTIONS

The Contractors and Construction Manager retain the right to inspect incoming shipments of equipment, apparatus, machinery and construction materials of every kind.

ARTICLE 15 - TEMPORARY SERVICES

Temporary services, i.e. all temporary heat, water, power and light, shall only be required upon the specific request of the Agency or Construction Manager, and when so requested shall be assigned to the appropriate trade claiming jurisdiction. Temporary system coverage shall be provided by the appropriate Contractors' existing employees during working hours in which a

shift is scheduled for employees of this Contractor. The Agency or Construction Manager may determine the need for temporary system coverage requirements during non-working hours. There shall be no stacking of trades on temporary services. In the event a temporary system is claimed by multiple trades, the matter shall be resolved through the New York Plan for Jurisdictional Disputes.

ARTICLE 16 - NO DISCRIMINATION

SECTION 1. COOPERATIVE EFFORTS

The Contractors and Unions agree that they will not discriminate against any employee or applicant for employment because of creed, race, color, religion, sex, sexual orientation, national origin, marital status, citizenship status, disability, age or any other status provided by law, in any manner prohibited by law or regulation.

SECTION 2. LANGUAGE OF AGREEMENT

The use of the masculine or feminine gender in this Agreement shall be construed as including both genders.

ARTICLE 17- GENERAL TERMS

SECTION 1. PROJECT RULES

A. The Construction Manager and the Contractors shall establish such reasonable Program Work rules that are not inconsistent with this Agreement or rules common in the industry and are reasonably related to the nature of work. These rules will be explained at the pre-job conference and posted at the Program Work sites and may be amended thereafter as necessary. Notice of amendments will be provided to the appropriate Local Union. Failure of an employee to observe these rules and regulations shall be grounds for discipline, including discharge. The fact that no order was posted prohibiting a certain type of misconduct shall not be a defense to an employee disciplined or discharged for such misconduct when the action taken is

for cause.

B. The parties adopt and incorporate the BCTC's Standards of Excellence as annexed hereto as Exhibit "B".

SECTION 2. TOOLS OF THE TRADE

The welding/cutting torch and chain fall are tools of the trade having jurisdiction over the work performed. Employees using these tools shall perform any of the work of the trade. There shall be no restrictions on the emergency use of any tools or equipment by any qualified employee or on the use of any tools or equipment for the performance of work within the employee's jurisdiction.

SECTION 3. SUPERVISION

Employees shall work under the supervision of the craft foreperson or general foreperson.

SECTION 4. TRAVEL ALLOWANCES

There shall be no payments for travel expenses, travel time, subsistence allowance or other such reimbursements or special pay except as expressly set forth in this Agreement.

SECTION 5. FULL WORK DAY

Employees shall be at their work area at the starting time established by the Contractor, provided they are provided access to the work area. The signatories reaffirm their policy of a fair day's work for a fair day's wage.

SECTION 6. COOPERATION AND WAIVER

The Construction Manager, Contractors and the Unions will cooperate in seeking any NYS Department of Labor, or any other government, approvals that may be needed for implementation of any terms of this Agreement. In addition, the Council, on their own behalf and

on behalf of its participating affiliated Local Unions and their individual members, intend the provisions of this Agreement to control to the greatest extent permitted by law, notwithstanding contrary provisions of any applicable prevailing wage, or other, law and intend this Agreement to constitute a waiver of any such prevailing wage, or other, law to the greatest extent permissible only for work within the scope of this Agreement, including specifically, but not limited to those provisions relating to shift, night, and similar differentials and premiums. This Agreement does not, however, constitute a waiver or modification of the prevailing wage schedules applicable to work not covered by this Agreement.

ARTICLE 18. SAVINGS AND SEPARABILITY

SECTION 1. THIS AGREEMENT

In the event that the application of any provision of this Agreement is enjoined, on either an interlocutory or permanent basis, or is otherwise determined to be in violation of law, or if such application may cause the loss of Program funding or any New York State Labor Law exemption for all or any part of the Program Work, the provision or provisions involved (and/or its application to particular Program Work, as necessary) shall be rendered, temporarily or permanently, null and void, but where practicable the remainder of the Agreement shall remain in full force and effect to the extent allowed by law (and to the extent no funding or exemption is lost), unless the part or parts so found to be in violation of law or to cause such loss are wholly inseparable from the remaining portions of the Agreement and/or are material to the purposes of the Agreement. In the event a court of competent jurisdiction finds any portion of the Agreement to trigger the foregoing, the parties will immediately enter into negotiations concerning the substance affected by such decision for the purpose of achieving conformity with the court determination and the intent of the parties hereto for contracts to be let in the future.

SECTION 2. THE BID SPECIFICATIONS

In the event that the Agency's (or Construction Manager's) bid specifications, or other action, requiring that a successful bidder (and subcontractor) become signatory to this Agreement is enjoined, on either an interlocutory or permanent basis, or is otherwise determined to be in violation of law, or may cause the loss of Program funding or any New York State Labor Law exemption for all or any part of the Program Work, such requirement (and/or its application to particular Program Work, as necessary) shall be rendered, temporarily or permanently, null and void, but where practicable the Agreement shall remain in full force and effect to the extent allowed by law and to the extent no funding or exemption is lost). In such event, the Agreement shall remain in effect for contracts already bid and awarded or in construction only where the Agency and Contractor voluntarily accepts the Agreement. The parties will enter into negotiations as to modifications to the Agreement to reflect the court or other action taken and the intent of the parties for contracts to be let in the future.

SECTION 3. NON-LIABILITY

In the event of an occurrence referenced in Section 1 or Section 2 of this Article, neither the Agency, the Construction Manager, any Contractor, nor any Union shall be liable, directly or indirectly, for any action taken, or not taken, to comply with any court order or injunction, other determination, or in order to maintain funding or a New York State Labor Law exemption for Program Work. Bid specifications will be issued in conformance with court orders then in effect and no retroactive payments or other action will be required if the original court determination is ultimately reversed.

SECTION 4. NON-WAIVER

Nothing in this Article shall be construed as waiving the prohibitions of Article 7 as to signatory Contractors and signatory Unions.

ARTICLE 19 - FUTURE CHANGES IN SCHEDULE A AREA CONTRACTS

SECTION 1. CHANGES TO AREA CONTRACTS

A. Schedule A to this Agreement shall continue in full force and effect until the Contractor and/or Union parties to the Area Collective Bargaining Agreements which are the basis for Schedule A notify the Agency and Construction Manager in writing of the hourly rate changes agreed to in that Area Collective Bargaining which are applicable to work covered by this Agreement and their effective dates.

B. It is agreed that any provisions negotiated into Schedule A collective bargaining agreements will not apply to work under this Agreement if such provisions are less favorable to those uniformly required of contractors for construction work normally covered by those agreements; nor shall any provision be recognized or applied on Program Work if it may be construed to apply exclusively, or predominantly, to work covered by this Agreement.

C. Any disagreement between signatories to this Agreement over the incorporation into Schedule A of provisions agreed upon in the renegotiation of Area Collective Bargaining Agreements shall be resolved in accordance with the procedure set forth in Article 9 of this Agreement.

SECTION 2. LABOR DISPUTES DURING AREA CONTRACT NEGOTIATIONS

The Unions agree that there will be no strikes, work stoppages, sympathy actions, picketing, slowdowns or other disruptive activity or other violations of Article 7 affecting the Program Work by any Local Union involved in the renegotiation of Area Local Collective Bargaining Agreements nor shall there be any lock-out on such Program Work affecting a Local Union during the course of such renegotiations.

ARTICLE 20 - WORKERS' COMPENSATION ADR

SECTION 1.

NYC AGENCY RENOVATION & REHAB CITY OWNED BUILDINGS/STRUCTURES

An ADR program may be negotiated and participation in the ADR Program will be optional by trade.

ARTICLE 21 - HELMETS TO HARDHATS

Section 1.

The Contractors and the Unions recognize a desire to facilitate the entry into the building and construction trades of veterans who are interested in careers in the building and construction industry. The Contractors and Unions agree to utilize the services of the Center for Military Recruitment, Assessment and Veterans Employment (hereinafter "Center") and the Center's "Helmets to Hardhats" program to serve as a resource for preliminary orientation, assessment of construction aptitude, referral to apprenticeship programs or hiring halls, counseling and mentoring, support network, employment opportunities and other needs as identified by the parties.

Section 2.

The Unions and Contractors agree to coordinate with the Center to create and maintain an integrated database of veterans interested in working on this Project and of apprenticeship and employment opportunities for this Project. To the extent permitted by law, the Unions will give credit to such veterans for bona fide, provable past experience.

NYC AGENCY RENOVATION & REHAB CITY OWNED BUILDINGS/STRUCTURES

IN WITNESS WHEREOF the parties have caused this Agreement to be executed and effective
as of the ___ day of _____, _____

FOR BUILDING AND CONSTRUCTION TRADES COUNCIL
OF GREATER NEW YORK AND VICINITY

BY: *Gary LaBarbera*
Gary LaBarbera
President

FOR NEW YORK CITY

BY: _____
Michael R. Bloomberg
Mayor

APPROVED AS TO FORM:

ACTING CORPORATION COUNSEL
NEW YORK CITY

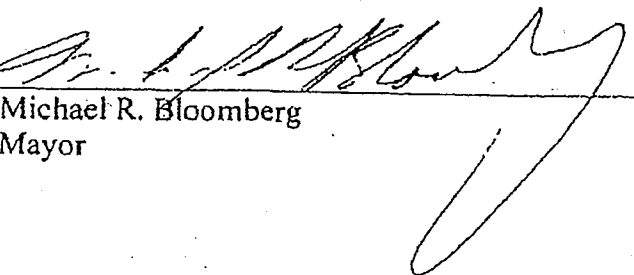
NYC AGENCY RENOVATION & REHAB CITY OWNED BUILDINGS/STRUCTURES

IN WITNESS WHEREOF the parties have caused this Agreement to be executed and effective
as of the ___ day of _____, _____


FOR BUILDING AND CONSTRUCTION TRADES COUNCIL
OF GREATER NEW YORK AND VICINITY

BY: _____
Gary LaBarbera
President

FOR NEW YORK CITY

BY: 
Michael R. Bloomberg
Mayor

APPROVED AS TO FORM:


ACTING CORPORATION COUNSEL
NEW YORK CITY

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List of Signatory Unions

Blasterers and Drillers Local #29

Bricklayers Local No. 1

Boiler Makers Local No. 5

Carpenters District Council

Cement Masons No. 780

Derrickmen and Riggers Union No. 197

Concrete Workers District Council No. 16, including Cement and Concrete Workers Nos. 6-A, 18-A, and 20

Electrical Local No. 3

Drywall Tapers 1974

Elevator Constructors No. 1

Heat & Frost Insulators Local Union No. 12A

Heat & Frost Insulators Local Union No. 12

Iron Workers No. 40

Iron Workers District Council

Laborers Local No. 78 Asbestos & Lead Abatement

Iron Workers No. 361

Laborers Construction and General Building No. 79

Laborers Local 731

Lathers Metallic Local No. 46

Local Union 8A Glaziers No. 1281

Mason Tenders District Council

Metal Polishers DC 9

Painters District Council No. 9

Painters Structural Steel No. 806

Ornamental Iron Workers No. 580

Plasters Local Union No. 262

Pavers & Road Builders District Council No. 1

Plumbers No. 1

Sheet Metal Workers Local No. 28

Roofers & Waterproofers No. 8

Sheet Metal Workers Local No. 137

Steamfitters Local Union No. 638, including Metal Trades Division

Teamsters Local Union 813

Teamsters Local Union 814

Tile, Marble & Terrazzo B.A.C. Local Union No. 7

PLA Schedule A

The following Collective Bargaining Agreements, as this Schedule may be amended from time to time in accordance with the Agreement, constitute Schedule A:

- (1) Agreement between the Boilermakers Association of Greater New York, Inc. and the International Brotherhood of Boilermakers, Iron Ship Builders, Blacksmiths, Forgers and Helpers AFL-CIO, Lodge No. 5, September 1, 2006 - December 31, 2009.
- (2) Agreement between Association of Cement and Concrete Contractors of New York, Inc. and Cement and Concrete Workers comprised of Local No. 6A, Local No. 18A, Local No. 20 and the Employer, July 1, 2008 - June 30, 2011.
- (3) Agreement between the Cement League and the District Council of Cement and Concrete Workers; Comprised of Local No. 6A, Local No. 18A, Local No. 20; July 1, 2008 - June 30, 2011.
- (4) Agreement between the Cement League and the United Cement Masons' Union Local No. 780, Clarified & Extended from October 23, 1940 to June 30, 2011.
- (5) Building Construction agreement between the Building Contractors Association, Inc. and the District Council of New York City and Vicinity of the United Brotherhood of Carpenters and Joiners of America, AFL-CIO, July 1, 2006 - June 30, 2011.
- (6) General Contractors Association - Carpenters 2006; Agreement Between Members of the General Contractors Association of New York, Inc. and the District Council of Carpenters of New York City and Vicinity, July 1, 2006 - June 30, 2011.
- (7) Trade Agreement between Drywall Tapers and Pointers of Greater New York Local Union 1974, affiliated with International Union of Painters and Allied Trades, AFL-CIO and Drywall Taping Contractors' Association of Greater New York and the Association of Wall-Ceiling & Carpentry Industry of New York, Inc., September 6, 2006 - June 28, 2011; Independent Agreement between Local Union 1974 and Employer.
- (8) Agreement between Allied Building Metal Industries, Inc. and Local Union Nos. 40 and 361 of the International Association of Bridge, Structural and Ornamental and Reinforcing Iron Workers AFL-CIO, July 1, 2008 - June 30, 2014.
- (9) Agreement between Independent Contractors and Local #46 Metallic Lathers Union and Reinforcing Ironworkers of New York and Vicinity of the International Association of Bridge, Structural, Ornamental and Reinforcing Iron Workers, July 1, 2008 - June 30, 2014.
- (10) Agreement of Working Conditions between the Independent Insulation Contractors Association of New York City Inc. and the International Association of Heat and Frost Insulators and Asbestos Workers Local No. 12 of New York City, 2008-2014.

(11) Mason Tenders District Council of Greater New York Master Independent Collective Bargaining Agreement, 2008-2011.

(12) Trade Agreement between District Council No. 9, International Union of Painters and Allied Trades, AFL-CIO and the Association of Master Painters and Decorators of New York, Inc. and the Association of Wall, Ceiling & Carpentry Industries of New York, Inc. and the Window and Plate Glass Dealers Association, May 1, 2005 - April 30, 2011.

(13) Trade Agreement between Enterprise Association Local Union 638 and Mechanical Contractors Association of New York, Inc., July 1, 2008 - June 30, 2011.

(14) Agreement between Allied Building Metal Industries Inc. and Architectural and Ornamental Iron Workers Local Union No. 580 AFL-CIO; July 1, 2008 - June 30, 2011.

(15) Official Working Agreement between Service Contractors Division of the Mechanical Contractors Association of New York and Enterprise Association Metal Trades Branch Local Union 638, July 1, 2007 - June 30, 2010.

(16) Agreement between Association of Contracting Plumbers of the City of New York, Inc. and Local Union No 1 of the United Association of Journeymen and Apprentices of the Plumbing and Pipe Fitting Industry of the United States and Canada, July 1, 2007 - June 30, 2010.

(17) Agreement and Working Rules between New York Electrical Contractors Association, Inc. and the Association of Electrical Contractors, Inc. and Local Union No. 3 International Brotherhood of Electrical Workers, AFL-CIO, May 10, 2007 - May 13, 2010.

(18) Official Working Agreement between Service Contractors Division of the Mechanical Contractors Association of New York, Inc. and Enterprise Association Metal Trades Branch Local Union 638, Refrigeration, Air Conditioning, Air Cooling, Oil Burner and Stoker Service and Maintenance Technicians, July 1, 2007 - June 30, 2010.

(19) Structural Steel and Bridge Painters of Greater New York, Local Union No. 806, District Council No. 9, International Union of Painters and Allied Trades, AFL-CIO, CLC and New York Structural Steel Painting Contractors Association, Inc.; Collective Bargaining Agreement, October 1, 2005 - September 30, 2011.

(20) Trade Agreement between United Derrickmen & Riggers Association, Local No. 197 of New York, All long Island, Westchester and Vicinity and Building Stone and Pre-Case Contractors Association, 2008.

(21) Agreement between the Greater New York and New Jersey Tile Contractors Association, Inc., and the Tile Setters and Tile Finishers Union of New York and New Jersey, Local Union No. 7 of the International Union of Bricklayers and Allied Craftworkers, June 8, 2009 - June 2, 2013.

- (22) Agreement between The Building Contractors Association, Inc. and International Union of Operating Engineers Local 15 and 15 A, July 1, 2006-June 30, 2011.
- (23) Agreement dated as of July 1, 2006 between Building Contractors Association and International Union of Operating Engineers Local 14-14B, July 1, 2006-June 30, 2011.
- (24) Agreement Between The Building Contractors Association, Inc. and International Union of Operating Engineers Local 15D affiliated with the AFL-CIO, July 1, 2006-June 30, 2011.
- (25) Local 282 International Brotherhood of Teamsters High Rise Contract, Building Contractors Association and Independents, 2008-2013.
- (26) Building, Concrete, Excavation & Common Laborers Union Local No. 731 Independent Agreement, July 1, 2006-June 30, 2012.
- (27) March 17, 2009 Agreement between ThyssenKrupp Elevator Corp. and International Union of Elevator Constructors, Local 1 of NY and NJ, 2009-2014.
- (28) Working Agreement Local Union No. 8 United Union of Roofers, Waterproofers and Allied Workers and Roofing and Waterproofing Contractor's Association of New York and Vicinity, July 1, 2009-June 30, 2011.
- (29) Standard Form Collective Bargaining Agreement between Sheet Metal Workers' International Association Local Union #137 and the Greater New York Sign Association, July 16, 2007 - July 15, 2010.
- (30) Trade Agreement between _____ and Local No. 1 New York of the International Union of Bricklayers and Allied Craftworkers, July 1, 2008 - July 30, 2011.

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Project Labor Agreement -- Letter of Assent

Dear:

The undersigned party confirms that it agrees to be a party to and be bound by the New York Agency, Project Labor Agreement as such Agreement may, from time to time, be amended by the parties or interpreted pursuant to its terms. The terms of the Project Labor Agreement, its Schedules, Addenda and Exhibits are hereby incorporated by reference herein.

The undersigned, as a Contractor or Subcontractor (hereinafter Contractor) on the Project known as _____ and located at _____ (hereinafter PROJECT), for and in consideration of the award to it of a contract to perform work on said PROJECT, and in further consideration of the mutual promises made in the Project Labor Agreement, a copy of which was received and is acknowledged, hereby:

- (1) Accepts and agrees to be bound by the terms and conditions of the Agreement, together with any and all schedules; amendments and supplements now existing or which are later made thereto;
- (2) Agrees to be bound by the legally established collective bargaining agreements and local trust agreements as set forth in the Project Labor Agreement and this Agreement but only to the extent of Program Work and as required by the PLA.
- (3) Authorizes the parties to such local trust agreements to appoint trustees and successor trustees to administer the trust funds and hereby ratifies and accepts the trustees so appointed as if made by the Contractor but only to the extent of Program Work as required by the PLA.
- (4) Certifies that it has no commitments or agreements that would preclude its full and complete compliance with the terms and conditions of said Agreement. The Contractor agrees to employ labor that can work in harmony with all other labor on the Project and shall require labor harmony from every lower tier subcontractor it has engaged or may engage to work on the Project. Labor harmony disputes/issues shall be subject to the Labor Management Committee provisions.
- (5) Agrees to secure from any Contractor(s) (as defined in said Agreement) which is or becomes a Subcontractor (of any tier), to it, a duly executed Agreement to be Bound in from identical to this document.

Dated: _____

(Name of Contractor or subcontractor)

(Name of CM; GC; Contractor or Higher Level Subcontractor)

(Authorized Officer & Title)

(Address)

(Phone) (Fax)

Contractor's State License #

Sworn to before me this _____ day of _____, 2009

Notary Public

STANDARDS OF EXCELLENCE

The purpose of this Standard of Excellence is to reinforce the pride of every construction worker and the commitment to be the most skilled, most productive and safest workforce available to construction employers and users in the City of New York. It is the commitment of every affiliated local union to use our training and skills to produce the highest quality work and to exercise safe and productive work practices.

The rank and file members represented by the affiliated local unions acknowledge and adopt the following standards:

- *Provide a full days work for a full days pay;*
- *Safely work towards the timely completion of the job;*
- *Arrive to work on time and work until the contractual quitting time;*
- *Adhere to contractual lunch and break times;*
- *Promote a drug and alcohol free work site;*
- *Work in accordance with all applicable safety rules and procedures;*
- *Allow union representatives to handle job site disputes and grievances without resort to slowdowns, or unlawful job disruptions;*
- *Respect management directives that are safe, reasonable and legitimate;*
- *Respect the rights of co-workers;*
- *Respect the property rights of the owner, management and contractors.*

The Unions affiliated with the New York City Building and Construction Trades Council will expect the signatory contractors to safely and efficiently manage their jobs and the unions see this as a corresponding obligation of the contractors under this Standard of Excellence. The affiliated unions will expect the following from its signatory contractors:

- *Management adherence to the collective bargaining agreements;*
- *Communication and cooperation with the trade foremen and stewards;*
- *Efficient, safe and sanitary management of the job site;*
- *Efficient job scheduling to mitigate and minimize unproductive time;*
- *Efficient and adequate staffing by properly trained employees by trade;*
- *Efficient delivery schedules and availability of equipment and tools to ensure efficient job progress;*
- *Ensure proper blueprints, specifications and layout instructions and material are available in a timely manner*
- *Promote job site dispute resolution and leadership skills to mitigate such disputes;*
- *Treatment of all employees in a respectful and dignified manner acknowledging their contributions to a successful project.*

The affiliated unions and their signatory contractors shall ensure that both the rank and file members and the management staff shall be properly trained in the obligations undertaken in the Standard of Excellence.

NOTICE TO BIDDERS

DAMAGES FOR DELAY PILOT PROGRAM

Please be advised that this contract is part of a pilot program in which the Standard Construction Contract provisions concerning delay damages have been revised to allow contractors to be reimbursed for specified additional costs that are attributable to a delay in the performance of the work resulting from certain acts or omissions of the City agency or its representatives. Certain changes are highlighted here to alert bidders to the pilot program. Please see Articles 11, 12.3, and 13.10 of the Standard Construction Contract for a full understanding and the actual text of the pilot program. The text of the revised Standard Construction Contract is the controlling document should there be any discrepancies between this notice and the Standard Construction Contract.

Changes to Articles 11, 12.3, and 13.10 of the Standard Construction Contract permit contractors to make claims for delay damages relating to the following circumstances:

The failure of the City to take reasonable measures to coordinate and progress the Work;

Extended delays attributable to the City in the review or issuance of change orders, in shop drawing reviews and approvals or as a result of the cumulative impact of multiple change orders, which constitute a material change to the Work and which have a verifiable impact on project costs.

The unavailability of the site for an extended period of time that significantly affects the scheduled completion of the contract.

The issuance by the City of a stop work order relative to a substantial portion of work for a period exceeding thirty days, that was not brought about through any action or omission of the Contractor.

Differing site conditions that were not known or reasonably ascertainable on a pre-bid inspection of the site or review of the bid documents or other publicly available sources and that are not ordinarily encountered in the Project's geographical area or neighborhood or in the type of work to be performed.

Delays caused by the City's bad faith or its willful, malicious, or grossly negligent conduct;

Delays not contemplated by the parties;

Delays so unreasonable that they constitute an intentional abandonment of the Contract by the City; and

Delays resulting from the City's breach of a fundamental obligation of the Contract.

Please see Article 11.4 for provisions regarding compensable delays.

Specific exclusions to claims for damages also apply, such as for third party (non-City) acts and omissions, court orders, strikes or *force majeure* events. For provisions related to non-compensable delays, please see Article 11.5.

For those delays where damages are available, Article 11 also sets forth what costs are recoverable. Please see Article 11.7 for which costs are recoverable and which costs are non-recoverable.

Article 11 also contains provisions concerning notice and documentation of claims. Please see Articles 11.1, 11.2, and 11.6. Contractors must comply with the notice requirements in order to preserve their claims. Consequently, please read these sections carefully. Delay damages are compensable only if they were actually, reasonably and necessarily incurred and are verified by appropriate documentation submitted at the appropriate times.

Claims for delay damages are not covered by the dispute resolution process in Article 27 of the Standard Construction Contract. See Article 11.8. When the amount of delay damages are agreed upon, such damages may be paid through a change order.

NOTICE TO BIDDERS, PROPOSERS, CONTRACTORS, AND RENEWAL CONTRACTORS

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

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

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

WHISTLEBLOWER PROTECTION EXPANSION ACT RIDER

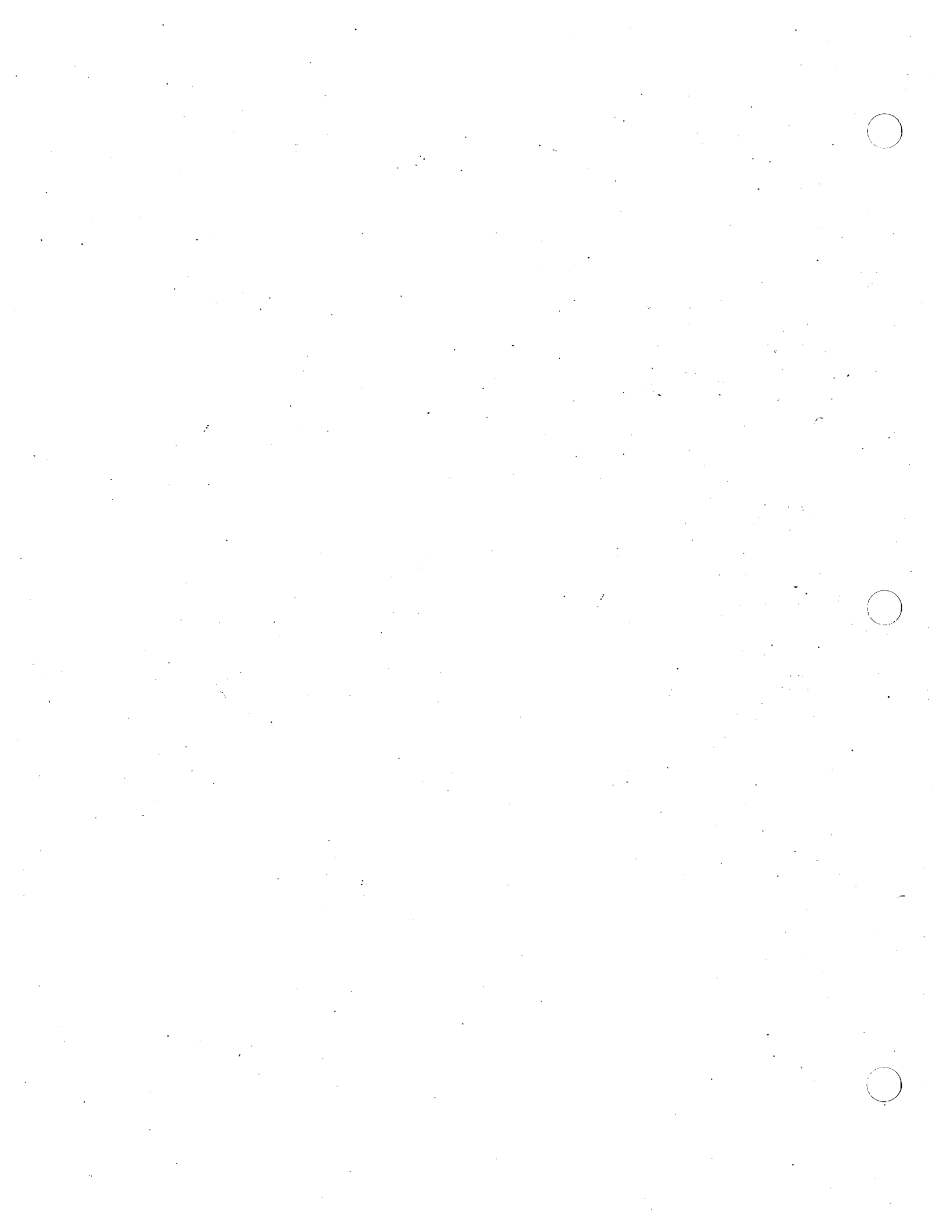
1. In accordance with Local Law Nos. 30-2012 and 33-2012, codified at sections 6-132 and 12-113 of the New York City Administrative Code, respectively,
 - (a) Contractor shall not take an adverse personnel action with respect to an officer or employee in retaliation for such officer or employee making a report of information concerning conduct which such officer or employee knows or reasonably believes to involve corruption, criminal activity, conflict of interest, gross mismanagement or abuse of authority by any officer or employee relating to this Contract to (i) the Commissioner of the Department of Investigation, (ii) a member of the New York City Council, the Public Advocate, or the Comptroller, or (iii) the City Chief Procurement Officer, ACCO, Agency head, or Commissioner.
 - (b) If any of Contractor's officers or employees believes that he or she has been the subject of an adverse personnel action in violation of subparagraph (a) of paragraph 1 of this rider, he or she shall be entitled to bring a cause of action against Contractor to recover all relief necessary to make him or her whole. Such relief may include but is not limited to: (i) an injunction to restrain continued retaliation, (ii) reinstatement to the position such employee would have had but for the retaliation or to an equivalent position, (iii) reinstatement of full fringe benefits and seniority rights, (iv) payment of two times back pay, plus interest, and (v) compensation for any special damages sustained as a result of the retaliation, including litigation costs and reasonable attorney's fees.
 - (c) Contractor shall post a notice provided by the City in a prominent and accessible place on any site where work pursuant to the Contract is performed that contains information about:
 - (i) how its employees can report to the New York City Department of Investigation allegations of fraud, false claims, criminality or corruption arising out of or in connection with the Contract; and
 - (ii) the rights and remedies afforded to its employees under New York City Administrative Code sections 7-805 (the New York City False Claims Act) and 12-113 (the Whistleblower Protection Expansion Act) for lawful acts taken in connection with the reporting of allegations of fraud, false claims, criminality or corruption in connection with the Contract.
 - (d) For the purposes of this rider, "adverse personnel action" includes dismissal, demotion, suspension, disciplinary action, negative performance evaluation, any action resulting in loss of staff, office space, equipment or other benefit, failure to appoint, failure to promote, or any transfer or assignment or failure to transfer or assign against the wishes of the affected officer or employee.
 - (e) This rider is applicable to all of Contractor's subcontractors having subcontracts with a value in excess of \$100,000; accordingly, Contractor shall include this rider in all subcontracts with a value a value in excess of \$100,000.
2. Paragraph 1 is not applicable to this Contract if it is valued at \$100,000 or less. Subparagraphs (a), (b), (d), and (e) of paragraph 1 are not applicable to this Contract if it was solicited pursuant to a finding of an emergency. Subparagraph (c) of paragraph 1 is neither applicable to this Contract if it was solicited prior to October 18, 2012 nor if it is a renewal of a contract executed prior to October 18, 2012.

NOTICE TO BIDDERS

Please be advised that the City of New York has revised the form of the performance bond that is required for City construction contracts that do not exceed \$5 million. The form of bond required for contracts that are greater than \$5 million has not changed. The City now has two approved forms. One form is to be used for contracts that do not exceed \$5 million and one form is to be used for contracts above \$5 million. The City's payment bond remains unchanged.

The new 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. 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.



CITY OF NEW YORK

**DEPARTMENT OF
DESIGN AND CONSTRUCTION
DIVISION OF STRUCTURES**

INFORMATION FOR BIDDERS

DELAY DAMAGES PILOT

September 2008

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INFORMATION FOR BIDDERS

1. Description and Location of Work

The description and location of the work for which bids are requested are specified in Attachment 1, "Bid Information". Attachment 1 is included in 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 reasonably have been 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 Officer or the contact 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. 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. 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 Form, multiplied by the corresponding unit prices, and including any lump sum bids on individual items.

(B) Variations from Engineer's Estimate: Bidders are warned that the Engineer's Estimate of Quantities on the various items of work and materials is approximate only, given solely to be used as a uniform basis for the comparison of bids, and is not to be considered part of this contract. The quantities actually required to complete the contract work may be less or more than so estimated, and if so, no action for damages or for loss of profits shall accrue to the contractor by reason thereof.

(C) Overruns: The terms and conditions applicable to overruns of unit price items are set forth in Article 26 of the Contract.

34. Excise Tax

Bidders are referred to the Specifications for information on Federal Excise Tax exemptions.

35. Licenses and Permits

The successful bidder will be required to obtain all necessary licenses and permits necessary to perform the work.

36. Multiple Prime Contractors

If more than one prime contractor will be involved on this project, all contractors are required to examine the Invitation for Bid packages for all other parts of the project.

37. Locally Based Enterprise Requirements (LBE)

This Contract is subject to the requirements of Administrative Code, Section 6-108.1, and the regulations promulgated thereunder. No construction contract will be awarded unless and until these requirements have been complied with in their entirety. The bidder is advised of the provisions set forth below, as well as the provisions with respect to the Locally Based Enterprise Program contained in Article 67 of the Contract. The contractor is advised that:

(A) If any portion of the Contract is subcontracted, not less than ten percent of the total dollar amount of the contract shall be awarded to locally based enterprises ("LBEs"); except, where less than ten percent of the total dollar amount of the Contract is subcontracted, such lesser percentage shall be so awarded.

(B) No contractor shall require performance and payment bonds from LBE subcontractors.

(C) No Contract shall be awarded unless the contractor first identifies in its bid:

- (1) the percentage, dollar amount and type of work to be subcontracted; and
- (2) the percentage, dollar amount and type of work to be subcontracted to LBEs.

(D) Within ten calendar days after notification of low bid, the apparent low bidder shall submit an "LBE Participation Schedule" to the contracting agency. If such schedule does not identify sufficient LBE subcontractors to meet the requirements of Administrative Code Section 6-108.1, the apparent low bidder shall submit documentation of its good faith efforts to meet such requirements.

(1) The "LBE Participation Schedule" shall include:

- (a) the name and address of each LBE that will be given a subcontract,
- (b) the percentage, dollar amount and type of work to be subcontracted to the LBE, and
- (c) the dates when the LBE subcontract work will commence and end.

- (2) The following documents shall be attached to the "LBE Participation Schedule":
- (a) verification letters from each subcontractor listed in the "LBE Participation Schedule" stating that the LBE will enter into a formal agreement for work,
 - (b) certification documents of any proposed LBE subcontractor which is not on the LBE certified list, and
 - (c) copies of the certification letter of any proposed subcontractor which is an LBE.
- (3) Documentation of good faith efforts to achieve the required LBE percentage shall include as appropriate but not limited to the following:
- (a) attendance at prebid meetings, when scheduled by the agency, to advise bidders of contract requirements;
 - (b) advertisement where appropriate in general circulation media, trade association publications and small business media of the specific subcontracts that would be at least equal to the percentage goal for LBE utilization specified by the contractor;
 - (c) written notification to association of small, minority and women contractors soliciting specific subcontractors;
 - (d) written notification by certified mail to LBE firms that their interest in the contract is solicited for specific work items and their estimated values;
 - (e) demonstration of efforts made to select portions of the work for performance by LBE firms in order to increase the likelihood of achieving the stated goal;
 - (f) documented efforts to negotiate with LBE firms for specific subcontracts, including at a minimum:
 - (i) The names, address and telephone numbers of LBE firms that are contacted;
 - (ii) A description of the information provided to LBE firms regarding the plans and specifications for portions of the work to be performed;
 - (iii) Documentation showing that no reasonable price can be obtained from LBE firms;
 - (iv) A statement of why agreements with LBE firms were not reached;
 - (g) a statement of the reason for rejecting any LBE firm which the contractor deemed to be unqualified; and
 - (h) documentation of efforts made to assist the LBE firms contacted that needed assistance in obtaining required insurance.

(E) Unless otherwise waived by the Commissioner with the approval of the Office of Economic and Financial Opportunity, failure of a proposed contractor to provide the information required by paragraphs (C) and (D) above may render the bid non-responsive and the Contract may not be awarded to the bidder. If the contractor states that it will subcontract a specific portion of the work, but can demonstrate despite good faith efforts it cannot achieve its required LBE percentage for subcontracted work until after award of Contract, the Contract may be awarded, subject to a letter of compliance from the contractor stating that it will comply with Administrative Code Section 6-108.1 and subject to approval by the Commissioner. If the contractor has not met its required LBE percentage prior to award, the contractor shall demonstrate that a good faith effort has been made subsequent to award to obtain LBEs on each subcontract until it meets the required percentage.

(F) When a bidder indicates prior to award that no work will be subcontracted, no work may be subcontracted without the prior written approval of the Commissioner, which shall be granted only if the contractor in good faith seeks LBE subcontractors at least six weeks prior to the start of work.

(G) The contractor may not substitute or change any LBE which was identified prior to award of the contract without the written permission of the Commissioner. The contractor shall make a written application to the Commissioner for permission to make such substitution or change, explaining why the contractor needs to change its LBE subcontractor and how the contractor will meet its LBE subcontracting requirement. Copies of such application must be served on the originally identified LBE by certified mail return receipt requested, as well as the proposed substitute LBE. The Commissioner shall determine whether or not to grant the contractor's request for substitution.

38. Bid Submission Requirements

The Bid Submission Requirements are set forth on page 2 of the Bid Booklet.

39. Comptroller's Certificate

This Contract shall not be binding or of any force unless it is registered by the Comptroller in accordance with Section 328 of the City Charter and the Procurement Policy Board Rules. This Contract shall continue in force only after annual appropriation of funds by the City of New York and certification as hereinabove set forth.

40. Procurement Policy Board Rules

This Invitation For Bids is subject to the Rules of the Procurement Policy Board of the City of New York. In the event of a conflict between said Rules and a provision of this Invitation For Bids, the Rules shall take precedence.

41. DDC Safety Requirements

The DDC Safety Requirements apply to the work to be performed pursuant to the Contract. The DDC Safety Requirements are set forth on the following pages.

CITY OF NEW YORK
DEPARTMENT OF DESIGN AND CONSTRUCTION
SAFETY REQUIREMENTS

THE DDC SAFETY REQUIREMENTS INCLUDE THE FOLLOWING SECTIONS:

- I. POLICY ON SITE SAFETY**
- II. PURPOSE**
- III. DEFINITIONS**
- IV. RESPONSIBILITIES**
- V. SAFETY QUESTIONNAIRE**
- VI. SAFETY PROGRAM AND SITE SAFETY PLAN**
- VII. KICK-OFF/PRE-CONSTRUCTION MEETINGS AND SAFETY REVIEW**
- VIII. EVALUATION DURING WORK IN PROGRESS**
- IX. SAFETY PERFORMANCE EVALUATION**

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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).

I. 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.

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.

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.

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

IX. SAFETY PERFORMANCE EVALUATION

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

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CITY OF NEW YORK
STANDARD CONSTRUCTION CONTRACT
DELAY DAMAGES PILOT

September 2008

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**CITY OF NEW YORK
STANDARD CONSTRUCTION CONTRACT**

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CITY OF NEW YORK

STANDARD CONSTRUCTION CONTRACT (September 2008)

The Standard Construction Contract dated September 2008 (the "Contract") is amended as set forth below.

- Article 77: Article 77, Part A, Section 5 is deleted in its entirety and replaced with the following:
 5. Where a Subcontractor 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 multi-year contracts, such list shall also be submitted every year thereafter. **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 a contract that is subject to a Project Labor Agreement] where the bidder is required to identify at the time of bid submission its intended subcontractors for the Wicks trades [i.e., 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 of the Wicks trades, regardless of what point in the life of the contract such subcontracts will occur, at the time of bid submission. In the event that the Contractor's selection of a subcontractor is disapproved, the Contractor shall have a reasonable time to propose alternate subcontractors.**

- Article 77: Article 77, Part A, Section 11 is deleted in its entirety and replaced with the following:
 11. **Modification of Subcontractor Utilization Plan.** A Contractor may request a modification of its Subcontractor Utilization Plan (Subcontractor Participation Goals) 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 a contract that is subject to a Project Labor Agreement] where the bidder is required to identify at the time of bid submission its intended subcontractors for the Wicks trades [i.e., 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 Subcontractor Utilization Plan as part of its bid submission. The Agency may grant a request for Modification of a Contractor's Subcontractor 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 Subcontractor Participation Goals. In making such determination, Agency shall consider evidence of the following efforts, as applicable, along with any other relevant factors:**

Sub-paragraphs (a) through (h) remain unchanged.

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WITNESSETH:

The parties in consideration of the mutual agreements contained herein, agree as follows:

CHAPTER I
THE CONTRACT AND DEFINITIONS

ARTICLE 1. THE CONTRACT

1.1 Except for titles, subtitles, headings, running headlines, tables of content and indices (all of which are printed herein merely for convenience), the following, except for such portions thereof as may be specifically excluded, shall be deemed to be part of this Contract:

1.1.1 All provisions required by law to be inserted in this Contract, whether actually inserted or not;

1.1.2 The Contract Drawings and Specifications;

1.1.3 The General Conditions and Special Conditions, if any;

1.1.4 The Contract;

1.1.5 The Information for Bidders; Request for Proposals; Notice of Solicitation and Proposal For Bids; Bid or Proposal, and, if used, the Bid Booklet;

1.1.6 The Budget Director's Certificate; all Addenda issued prior to the receipt of the bids; the Notice of Award; Performance and Payment Bonds, if required; and the Notice to Proceed with the Work.

1.2 Should any conflict occur in or between the Drawings and Specifications, the Contractor shall be deemed to have estimated the most expensive way of doing the Work, unless the Contractor shall have asked for and obtained a decision in writing from the Commissioner, of the Agency that is entering into this Contract, before the submission of its bid as to what shall govern.

ARTICLE 2. DEFINITIONS

2.1 The following words and expressions, or pronouns used in their stead, shall, wherever they appear in this Contract, be construed as follows, unless a different meaning is clear from the context:

2.1.1 "Addendum" or "Addenda" shall mean the additional Contract provisions issued in writing by the Commissioner prior to the receipt of bids.

2.1.2 "Agency" shall mean a city, county, borough or other office, position, department, division, bureau, board or commission, or a corporation, institution or agency of government, the expenses of which are paid in whole or in part from the City treasury.

2.1.3 "Agency Chief Contracting Officer" (ACCO) shall mean a person delegated authority by the Commissioner to organize and supervise the procurement activity of subordinate Agency staff in conjunction with the CCPO.

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

2.1.5 **"City Chief Procurement Officer"** (CCPO) shall mean a person delegated authority by the Mayor to coordinate and oversee the procurement activity of Mayoral agency staff, including the ACCO and any offices which have oversight responsibility for the procurement of construction.

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

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

2.1.8 **"Contract"** or **"Contract Documents"** shall mean each of the various parts of the contract referred to in Article 1 hereof, both as a whole and severally.

2.1.9 **"Contract Drawings"** shall mean only those drawings specifically entitled as such and listed in the Specifications or in any Addendum, or any drawings furnished by the Commissioner, pertaining or supplemental thereto.

2.1.10 **"Contract Work"** shall mean everything required to be furnished and done by the Contractor by any one or more of the parts of the Contract referred to in Article 1, except Extra Work as hereinafter defined.

2.1.11 **"Contractor"** shall mean the entity which executed this Contract, whether a corporation, firm, partnership, joint venture, individual, or any combination thereof, and it(s), their, his/ her successors, personal representatives, executors, administrators and assigns, and any person, firm, partnership, joint venture, individual, or corporation which shall at any time be substituted in the place of the Contractor under this Contract.

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

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

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

2.1.15 **"Extra Work"** shall mean Work other than that required by the Contract at the time of award which is authorized by the Commissioner pursuant to Chapter VI of this Contract.

2.1.16 **"Federal-Aid Contract"** shall mean a contract in which the United States (federal) Government provides financial funding as so designated in the Information for Bidders.

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

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

2.1.19 **"Law"** or **"Laws"** shall mean the Constitution of the State of New York, the New York City Charter, the New York City Administrative Code, a Statute of the United States or

of the State of New York, a local law of the City of New York, any ordinance, rule or regulation having the force of law, or common law.

2.1.20 **"Materialman"** shall mean any corporation, firm, partnership, joint venture, or individual, other than employees of the Contractor, who or which contracts with the Contractor or any Subcontractor, to fabricate or deliver, or who actually fabricates or delivers, plant, materials or equipment to be incorporated in the Work.

2.1.21 **"Means and Methods of Construction"** shall mean the labor, materials, temporary structures, tools, plant, and construction equipment, and the manner and time of their use, necessary to accomplish the result intended by this Contract.

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

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

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

2.1.25 **"Procurement Policy Board" (PPB)** shall mean the Agency of the City of New York whose function is to establish comprehensive and consistent procurement policies and rules which shall have broad application throughout the City.

2.1.26 **"Required Quantity"** in a unit price Contract shall mean the actual quantity of any item of Work or materials which is required to be performed or furnished in order to comply with the Contract.

2.1.27 **"Resident Engineer"** shall mean the representative of the Commissioner duly designated by the Commissioner to be his/her representative at the site of the Work.

2.1.28 **"Site"** shall mean the area upon or in which the Contractor's operations are carried on, and such other areas adjacent thereto as may be designated as such by the Engineer.

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

2.1.30 **"Subcontractor"** shall mean any person, firm or corporation, other than employees of the Contractor, who or which contracts with the Contractor or with its Subcontractors to furnish, or actually furnishes labor, or labor and materials, or labor and equipment, at the site. Wherever the word Subcontractor appears, it shall also mean Sub-Subcontractor.

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

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

2.1.33 **"Work"** shall mean all services required to complete the Project in accordance with the Contract Documents, including without limitation, labor, material, superintendence, management, administration, equipment, and incidentals, and shall include both Contract Work and Extra Work.

CHAPTER II THE WORK AND ITS PERFORMANCE

ARTICLE 3. CHARACTER OF THE WORK

3.1 Unless otherwise expressly provided in the **Contract Drawings, Specifications and Addenda**, the **Work** shall be performed in accordance with the best modern practice, utilizing, unless otherwise specified in writing, new and unused materials of standard first grade quality and workmanship and design of the highest quality, to the satisfaction of the **Commissioner**.

ARTICLE 4. MEANS AND METHODS OF CONSTRUCTION

4.1 Unless otherwise expressly provided in the **Contract Drawings, Specifications and Addenda**, the **Means and Methods of Construction** shall be such as the **Contractor** may choose; subject, however, to the **Engineer's** right to reject the **Means and Methods of Construction** proposed by the **Contractor** which in the opinion of the **Engineer**:

4.1.1 Will constitute or create a hazard to the **Work**, or to persons or property; or

4.1.2 Will not produce finished **Work** in accordance with the terms of the **Contract**; or

4.1.3 Will be detrimental to the overall progress of the **Project**.

4.2 The **Engineer's** approval of the **Contractor's Means and Methods of Construction**, or his/her failure to exercise his/her right to reject such means or methods, shall not relieve the **Contractor** of its obligation to complete the **Work** as provided in this **Contract**; nor shall the exercise of such right to reject create a cause of action for damages.

ARTICLE 5. COMPLIANCE WITH LAWS

5.1 The **Contractor** shall comply with all **Laws** applicable to this **Contract** and to the **Work** to be done hereunder.

5.2 Procurement Policy Board Rules: This **Contract** is subject to the Rules of the **PPB** ("**PPB Rules**") in effect at the time of the bid opening for this **Contract**. In the event of a conflict between the **PPB Rules** and a provision of this **Contract**, the **PPB Rules** shall take precedence.

5.3 Noise control code provisions.

5.3.1 In accordance with the provisions of Section 24-216(b) of the Administrative Code of the **City** ("**Administrative Code**"), Noise Abatement Contract Compliance, devices and activities which will be operated, conducted, constructed or manufactured pursuant to this **Contract** and which are subject to the provisions of the **City Noise Control Code** shall be operated, conducted, constructed, or manufactured without causing a violation of the **Administrative Code**. Such devices and activities shall incorporate advances in the art of noise control development for the kind and level of noise

emitted or produced by such devices and activities, in accordance with regulations issued by the **Commissioner** of the Department of Environmental Protection.

5.3.2 The Contractor agrees to comply with Section 24-219 of the Administrative Code of the City ("Administrative Code") and implementing rules codified at 15 Rules of the City of New York ("RCNY") Section 28-100 et. seq. In accordance with such provisions, the **Contractor**, if the Contractor is the responsible party under such regulations, shall prepare and post a Construction Noise Mitigation Plan at each work site, in which the **Contractor** shall certify that all construction tools and equipment have been maintained so that they operate at normal manufacturers operating specifications. If the **Contractor** cannot make this certification, it must have in place an Alternative Noise Mitigation Plan approved by the New York City Department of Environmental Protection. In addition, the Contractor's certified Construction Noise Mitigation Plan is subject inspection by the Department of Environmental Protection in accordance with 15 RCNY §28-101. No Contract work may take place at a worksite unless there is a Construction Noise Mitigation Plan or approved Alternative Noise Mitigation Plan in place. In addition, the **Contractor** shall create and implement a noise mitigation training program. Failure to comply with these requirements may result in fines and other penalties pursuant to the applicable provisions of the Administrative Code and RCNY.

5.4 Ultra Low Sulfur Diesel Fuel: In accordance with the provisions of Section 24-163.3 of the Administrative Code, the Contractor specifically agrees as follows:

5.4.1 Definitions. For purposes of this Article 5.4, the following definitions apply:

5.4.1(a) "Contractor" means any person or entity that enters into a Public Works Contract with a City agency, or any person or entity that enters into an agreement with such person or entity, to perform work or provide labor or services related to such Public Works Contract

5.4.1(b) "Motor Vehicle" means any self-propelled vehicle designed for transporting persons or property on a street or highway.

5.4.1(c) "Nonroad Engine" means an internal combustion engine (including the fuel system) that is not used in a Motor Vehicle or a vehicle used solely for competition, or that is not subject to standards promulgated under section 7411 or section 7521 of title 42 of the United States Code, except that this term shall apply to internal combustion engines used to power generators, compressors or similar equipment used in any construction program or project.

5.4.1(d) "Nonroad Vehicle" means a vehicle that is powered by a Nonroad Engine, fifty horsepower and greater, and that is not a Motor Vehicle or a vehicle used solely for competition, which shall include, but not be limited to, excavators, backhoes, cranes, compressors, generators, bulldozers and similar equipment, except that this term shall not apply to horticultural maintenance vehicles used for landscaping purposes that are powered by a Nonroad Engine of sixty-five horsepower or less and that are not used in any construction program or project.

5.4.1(e) "Public Works Contract" means a contract with a City agency for a construction program or project involving the construction, demolition, restoration, rehabilitation, repair, renovation, or abatement of any building, structure, tunnel, excavation, roadway, park or bridge; a contract with a City agency for the preparation for any construction program or project involving the construction, demolition, restoration, rehabilitation, repair, renovation, or abatement of any building, structure, tunnel, excavation, roadway, park or bridge; or a contract with a City agency for any final work involved in the completion of any construction program or project involving the construction, demolition, restoration, rehabilitation, repair, renovation, or abatement of any building, structure, tunnel, excavation, roadway, park or bridge.

5.4.1(f) "Ultra Low Sulfur Diesel Fuel" means diesel fuel that has a sulfur content of no more than fifteen parts per million.

5.4.2 Ultra Low Sulfur Diesel Fuel

5.4.2(a) All Contractors shall use Ultra Low Sulfur Diesel Fuel in diesel-powered Nonroad Vehicles in the performance of this Contract.

5.4.2(b) Notwithstanding the requirements of Article 5.4.2(a), Contractors may use diesel fuel that has a sulfur content of no more than thirty parts per million to fulfill the requirements of this Article 5.4.2, where the Commissioner of the New York City Department of Environmental Protection ("DEP Commissioner") has issued a determination that a sufficient quantity of Ultra Low Sulfur Diesel Fuel is not available to meet the needs of City agencies and Contractors. Any such determination shall expire after six months unless renewed.

5.4.2(c) Contractors shall not be required to comply with this Article 5.4.2 where the agency letting this contract makes a written finding, which is approved, in writing, by the DEP Commissioner, that a sufficient quantity of Ultra Low Sulfur Diesel Fuel, or diesel fuel that has a sulfur content of no more than thirty parts per million is not available to meet the requirements of Section 24-163.3 of the Administrative Code, provided that such Contractor in its fulfillment of the requirements of this Contract, to the extent practicable, shall use whatever quantity of Ultra Low Sulfur Diesel Fuel or diesel fuel that has a sulfur content of no more than thirty parts per million is available. Any finding made pursuant to this subdivision shall expire after sixty days, at which time the requirements of this Article 5.4.2 shall be in full force and effect unless the Agency renews the finding in writing and such renewal is approved by the DEP Commissioner.

5.4.2(d) Contractors may check on determinations and approvals issued by the DEP Commissioner pursuant to Section 24-163.3 of the Administrative Code, if any, at www.dep.nyc.gov or by contacting the Agency issuing this solicitation.

5.4.2(e) The requirements of this Article 5.4.2 do not apply where they are precluded by federal or State funding requirements or where the Contract is an emergency procurement.

5.4.3 Best Available Technology

5.4.3(a) All Contractors shall utilize the best available technology for reducing the emission of pollutants for diesel-powered Nonroad Vehicles in the performance of this Contract. For determinations of best available technology for each type of diesel-powered Nonroad Vehicle, Contractors shall comply with the regulations of the City Department of Environmental Protection, as and when adopted, Chapter 14 of Title 15 of the Rules of the City of New York (RCNY). The Contractor shall fully document all steps in the best available technology selection process and shall furnish such documentation to the Agency or the DEP Commissioner upon request. The Contractor shall retain all documentation generated in the best available technology selection process for as long as the selected best available technology is in use.

5.4.3(b) No Contractor shall be required to replace best available technology for reducing the emission of pollutants or other authorized technology utilized for a diesel-powered Nonroad Vehicle in accordance with the provisions of this Article 5.4.3 within three years of having first utilized such technology for such vehicle.

5.4.3(c) This Article 5.4.3 shall not apply to any vehicle used to satisfy the requirements of a specific Public Works Contract for fewer than twenty calendar days.

5.4.3(d) The Contractor shall not be required to comply with this Article 5.4.3 with respect to a diesel-powered Nonroad Vehicle under the following circumstances:

5.4.3(d)(1) Where the agency makes a written finding, which is approved, in writing, by the DEP Commissioner, that the best available technology for reducing the emission of pollutants as required by those paragraphs is unavailable for such vehicle, Contractor shall use whatever technology for reducing the emission of pollutants, if any, is available and appropriate for such vehicle.

5.4.3(d)(2) Where the DEP Commissioner has issued a written waiver based upon the Contractor having demonstrated to the DEP Commissioner that the use of the best available technology for reducing the emission of pollutants might endanger the operator of such vehicle or those working near such vehicle, due to engine malfunction, Contractor shall use whatever technology for reducing the emission of pollutants, if any, is available and appropriate for such vehicle, which would not endanger the operator of such vehicle or those working near such vehicle.

5.4.3(d)(3) In determining which technology to use for the purposes of Articles 5.4.3(d)(1) and 5.4.3(d)(2) above, Contractor shall primarily consider the reduction in emissions of particulate matter and secondarily consider the reduction in emissions of nitrogen oxides associated with the use of such technology, which shall in no event result in an increase in the emissions of either such pollutant.

5.4.3(d)(4) Contractors shall submit requests for a finding or a waiver pursuant to this Article 5.4.3(d) in writing to the DEP Commissioner, with a copy to the ACCO of the Agency issuing the solicitation. Any finding or waiver made or issued pursuant to Articles 5.4.3(d)(1) and 5.4.3(d)(2) above shall expire after one hundred eighty days, at which time the requirements of Article 5.4.3(a) shall be in full force and effect unless the Agency renews the finding, in writing, and the DEP Commissioner approves such finding, in writing, or the DEP Commissioner renews the waiver, in writing.

5.4.3(e) The requirements of this Article 5.4.3 do not apply where they are precluded by federal or State funding requirements or where the contract is an emergency procurement.

5.4.4 Section 24-163 of the Administrative Code. Contractors shall comply with Section 24-163 of the Administrative Code related to the idling of the engines of motor vehicles while parking.

5.4.5 Compliance

5.4.5(a) Contractor's compliance with Article 5.4 may be independently monitored. If it is determined that the Contractor has failed to comply with any provision of Article 5.4, any costs associated with any independent monitoring incurred by the City shall be reimbursed by the Contractor.

5.4.5(b) Any Contractor who violates any provision of Article 5.4, except as provided in Article 5.4.5(c) below, shall be liable for a civil penalty between the amounts of one thousand and ten thousand dollars, in addition to twice the amount of money saved by such Contractor for failure to comply with Article 5.4.

5.4.5(c) No Contractor shall make a false claim with respect to the provisions of Article 5.4 to a City agency. Where a Contractor has been found to have done so, such Contractor shall be liable for a civil penalty of twenty thousand dollars, in addition to twice the amount of money saved by such Contractor in association with having made such false claim.

5.4.6 Reporting

5.4.6(a) For all Public Works Contracts covered by this Article 5.4, the Contractor shall report to the Department the following information:

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

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

5.4.6(3) The number of such Nonroad Vehicles that utilized the best available technology for reducing the emission of pollutants, including a breakdown by vehicle model and the type of technology;

5.4.6(4) The number of such Nonroad Vehicles that utilized such other authorized technology in accordance with Article 5.4.3, including a breakdown by vehicle model and the type of technology used for each such vehicle;

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

5.4.6(6) Where a determination is in effect pursuant to Article 5.4.2(b) or 5.4.2(c), detailed information concerning the Contractor's efforts to obtain Ultra Low Sulfur Diesel Fuel or diesel fuel that has a sulfur content of no more than thirty parts per million.

5.4.6(b) The Contractor shall submit the information required by Article 5.4.6(a) at the completion of work under the Public Works Contract and on a yearly basis no later than August 1 throughout the term of the Public Works Contract. The yearly report shall cover work performed the preceding fiscal year (July 1 - June 30).

5.5 Ultra Low Sulfur Diesel Fuel. In accordance with the Coordinated Construction Act for Lower Manhattan, as amended:

5.5.1 Definitions. For purposes of this Article 5.5, the following definitions apply:

5.5.1(a) "Lower Manhattan" means the area to the south of and within the following lines: a line beginning at a point where the United States pierhead line in the Hudson river as it exists now or may be extended would intersect with the southerly line of West Houston street in the borough of Manhattan extended, thence easterly along the southerly side of West Houston street to the southerly side of Houston street, thence easterly along the southerly side of Houston street to the southerly side of East Houston street, thence northeasterly along the southerly side of East Houston street to the point where it would intersect with the United States pierhead line in the East river as it exists now or may be extended, including tax lots within or immediately adjacent thereto.

5.5.1(b) "Lower Manhattan Redevelopment Project" means any project in Lower Manhattan that is funded in whole or in part with federal or State funding, or any project intended to improve transportation between Lower Manhattan and the two air terminals in the City of New York known as LaGuardia Airport and John F. Kennedy International Airport, or between Lower Manhattan and the air terminal in Newark known as Newark Liberty International Airport, and that is funded in whole or in part with federal funding.

5.5.1(c) "Nonroad Engine" means an internal combustion engine (including the fuel system) that is not used in a Motor Vehicle or a vehicle used solely for competition, or that is not subject to standards promulgated under section 7411 or section 7521 of title 42 of the United States Code, except that this term shall apply to internal combustion engines used to power generators, compressors or similar equipment used in any construction program or project.

5.5.1(d) "Nonroad Vehicle" means a vehicle that is powered by a Nonroad Engine, fifty horsepower and greater, and that is not a Motor Vehicle or a vehicle used solely for competition, which shall include, but not be limited to, excavators, backhoes, cranes, compressors, generators, bulldozers and similar equipment, except that this terms shall not apply to horticultural maintenance vehicles used for landscaping purposes that are powered by a Nonroad Engine of sixty-five horsepower or less and that are not used in any construction program or project.

5.5.1(e) "Ultra Low Sulfur Diesel Fuel" means diesel fuel that has a sulfur content of no more than fifteen parts per million.

5.5.2 Requirements. **Contractors and Subcontractors** are required to use only Ultra Low Sulfur Diesel Fuel to power the diesel-powered Nonroad Vehicles with engine horsepower (HP) rating of 50 HP and above used on a Lower Manhattan Redevelopment Project and, where practicable, to reduce the emission of pollutants by retrofitting such Nonroad Vehicles with oxidation catalysts, particulate filters, or technology that achieves lowest particulate matter emissions.

5.6 Pesticides. In accordance with Section 17-1209 of the Administrative Code, to the extent that the **Contractor** or any **Subcontractor** applies pesticides to any property owned or leased by the **City**, the **Contractor** and any **Subcontractor** shall comply with chapter 12 of the Administrative Code.

ARTICLE 6. INSPECTION

6.1 During the progress of the **Work** and up to the date of **Final Acceptance**, the **Contractor** shall at all times afford the representatives of the **City** every reasonable, safe and proper facility for inspecting all **Work** done or being done at the **Site** and also for inspecting the manufacture or preparation of materials and equipment at the place of such manufacture or preparation.

6.2 The **Contractor's** obligation hereunder shall include the uncovering or taking down of finished **Work** and its restoration thereafter; provided, however, that the order to uncover, take down and restore shall be in writing, and further provided that if **Work** thus exposed proves satisfactory, and if the **Contractor** has complied with Article 6.1, such uncovering or taking down and restoration shall be considered an item of **Extra Work** to be paid for in accordance with the provisions of Article 26. If the **Work** thus exposed proves unsatisfactory, the **City** has no obligation to compensate the **Contractor** for the uncovering, taking down or restoration.

6.3 Inspection and approval by the **Commissioner**, the **Engineer**, **Project Manager**, or **Resident Engineer**, of finished **Work** or of **Work** being performed, or of materials and equipment at the place of manufacture or preparation, shall not relieve the **Contractor** of its obligation to perform the **Work** in strict accordance with the **Contract**. Finished or unfinished **Work** not found to be in strict accordance with the **Contract** shall be replaced as directed by the **Engineer**, even though such **Work** may have been previously approved and paid for. Such corrective work is **Contract Work** and shall not be deemed **Extra Work**.

6.4 Rejected **Work** and materials shall be promptly taken down and removed from the **Site**, which must at all times be kept in a reasonably clean and neat condition.

**ARTICLE 7. PROTECTION OF WORK AND OF PERSONS
AND PROPERTY; NOTICES AND INDEMNIFICATION**

7.1 During the performance of the **Work** and up to the date of **Final Acceptance**, the **Contractor** shall be under an absolute obligation to protect the finished and unfinished **Work** against any damage, loss, injury, theft and/or vandalism and in the event of such damage, loss, injury, theft and/or vandalism, it shall promptly replace and/or repair such **Work** at the **Contractor's** sole cost and expense, as directed by the **Resident Engineer**. The obligation to deliver finished **Work** in strict accordance with the **Contract** prior to **Final Acceptance** shall be absolute and shall not be affected by the **Resident Engineer's** approval of, or failure to prohibit, the **Means and Methods of Construction** used by the **Contractor**.

7.2 During the performance of the **Work** and up to the date of **Final Acceptance**, the **Contractor** shall take all reasonable precautions to protect the persons and property of the **City** and of others from damage, loss or injury resulting from the **Contractor's**, and/or its **Subcontractors'** operations under this **Contract**. The **Contractor's** obligation to protect shall include the duty to provide, place or replace and adequately maintain at or about the **Site** suitable and sufficient protection such as lights, barricades, and enclosures.

7.3 The **Contractor** shall comply with the notification requirements set forth below in the event of any loss, damage or injury to **Work**, persons or property, or any accidents arising out of the operations of the **Contractor** and/or its **Subcontractors** under this **Contract**.

7.3.1 The **Contractor** shall make a full and complete report in writing to the **Resident Engineer** within three (3) **Days** after the occurrence.

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

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

7.3.2(b) If the **Contractor** fails to provide any of the foregoing notices to any appropriate insurance carrier(s) in a timely and complete manner, the **Contractor** shall indemnify the **City** for all losses, judgments, settlements and expenses, including reasonable attorneys' fees, arising from an insurer's disclaimer of coverage citing late notice by or on behalf of the **City**.

7.4 To the fullest extent permitted by law, the **Contractor** shall indemnify, defend and hold the **City**, its employees and agents (the "Indemnitees") harmless against any and all claims (including but not limited to claims asserted by any employee of the **Contractor** and/or its **Subcontractors**) and costs and expenses of whatever kind (including but not limited to payment or reimbursement of attorneys' fees and disbursements) allegedly arising out of or in any way related to the operations of the **Contractor** and/or its **Subcontractors** in the performance of this **Contract** or from the **Contractor's** and/or its **Subcontractors'** failure to comply with any of the provisions of this **Contract** or of the **Law**. Such costs and expenses shall include all those incurred in defending the underlying claim and those incurred in connection with the enforcement of this Article 7.4 by way of cross-claim, third-party

claim, declaratory action or otherwise. The parties expressly agree that the indemnification obligation hereunder contemplates (1) full indemnity in the event of liability imposed against the Indemnitees without negligence and solely by reason of statute, operation of law or otherwise; and (2) partial indemnity in the event of any actual negligence on the part of the Indemnitees either causing or contributing to the underlying claim (in which case, indemnification will be limited to any liability imposed over and above that percentage attributable to actual fault whether by statute, by operation of law, or otherwise). Where partial indemnity is provided hereunder, all costs and expenses shall be indemnified on a pro rata basis.

7.4.1 Indemnification under Article 7.4 or any other provision of the Contract shall operate whether or not Contractor or its Subcontractors have placed and maintained the insurance specified under Article 22.

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

7.6 The provisions of this Article shall not be deemed to create any new right of action in favor of third parties against the Contractor or the City.

CHAPTER III TIME PROVISIONS

ARTICLE 8. COMMENCEMENT AND PROSECUTION OF THE WORK

8.1 The Contractor shall commence Work on the date specified in a written notice signed by the Commissioner. The time for performance of the Work under the Contract shall be computed from the date specified in such written notice. TIME BEING OF THE ESSENCE to the City, the Contractor shall thereafter prosecute the Work diligently, using such Means and Methods of Construction as are in accord with Article 4 herein and as will assure its completion not later than the date specified herein, or on the date to which the time for completion may be extended.

ARTICLE 9. PROGRESS SCHEDULES

9.1 To enable the Work to be performed in an orderly and expeditious manner, the Contractor, within fifteen (15) Days after the Notice to Proceed with this Contract, unless otherwise directed by the Engineer, shall submit to the Engineer a proposed progress schedule in the form of a bar graph or in such other form as specified by the Engineer, and monthly cash flow requirements, showing:

9.1.1 The anticipated time of commencement and completion of each of the various operations to be performed under this Contract; and

9.1.2 The sequence and interrelation of each of these operations with the others and with those of other related Contracts; and

9.1.3 The estimated time required for fabrication or delivery, or both, of all materials and equipment required for the Work; and

9.1.4 The estimated amount in dollars the Contractor will claim on a monthly basis.

9.2 The proposed schedule shall be revised as directed by the **Engineer**, until finally approved by the **Engineer**, and after such approval, subject to the provisions of Article 11, shall be strictly adhered to by the **Contractor**.

9.3 If the **Contractor** shall fail to adhere to the approved progress schedule, or to the schedule as revised pursuant to Article 11, it shall promptly adopt such other or additional **Means and Methods of Construction** as will make up for the time lost and will assure completion in accordance with the approved progress schedule. The approval by the City of a progress schedule which is shorter than the time allotted under the **Contract** shall not create any liability for the City if the approved progress schedule is not met.

9.4 The **Contractor** will not receive any payments until the proposed progress schedule is submitted.

ARTICLE 10. REQUESTS FOR INFORMATION OR APPROVAL

10.1 From time to time as the **Work** progresses and in the sequence indicated by the approved progress schedule, the **Contractor** shall submit to the **Engineer** a specific request in writing for each item of information or approval required by the **Contractor**. These requests shall state the latest date upon which the information or approval is actually required by the **Contractor**, and shall be submitted in a reasonable time in advance thereof to enable the **Engineer** a sufficient time to act upon such submissions, or any necessary re-submissions thereof.

10.2 The **Contractor** shall not have any right to an extension of time on account of delays due to the **Contractor's** failure to submit requests for the required information or the required approval in accordance with the above requirements.

ARTICLE 11. NOTICE OF CONDITIONS CAUSING DELAY AND DOCUMENTATION OF DAMAGES CAUSED BY DELAY

11.1 After the commencement of any condition which is causing or may cause a delay in completion of the **Work**, including conditions for which the **Contractor** may be entitled to an extension of time, the following notifications and submittals are required:

11.1.1 Within seven (7) **Days** after the commencement of such condition, the **Contractor** must notify the **Engineer** in writing of the existence, nature and effect of such condition upon the approved progress schedule and the **Work**, and must state why and in what respects, if any, the condition is causing or may cause a delay.

11.1.2 If the **Contractor** shall claim to be sustaining damages for delay as provided for in this Article, within forty-five (45) **Days** from the time such damages are first incurred, and every thirty (30) **Days** thereafter for as long as such damages are being incurred, the **Contractor** shall submit to the **Commissioner** verified written statements of the details and the amounts of such damages, together with documentary evidence of such damages, ("statement of delay damages") as further detailed in Section 11.6. The **Contractor** may submit any of the above statements within such additional time as may be granted by the **Commissioner** in writing upon written request therefor. On failure of the **Contractor** to fully comply with all of the foregoing provisions, such claims shall be deemed waived and no right to recover on such claims shall exist. Damages that the **Contractor** may claim in any action arising under or by reason of this **Contract** shall not be different from or in excess of the statements made and documentation provided pursuant to this article.

11.1.3 Within 60 days of submission of the final verified statement of claims pursuant to Article 44, the **Commissioner** shall make a determination as to whether a compensable

delay has occurred and, if so, the amount of compensation due the **Contractor**. Notwithstanding the above, the **Commissioner** may make a determination as to whether a compensable delay has occurred at any time after the **Contractor's** first submission of a statement of delay damages.

11.2 Failure of the **Contractor** to strictly comply with the requirements of Article 11.1.1 may, in the discretion of the **Commissioner**, be deemed sufficient cause to deny any extension of time on account of delay arising out of such condition. Failure of the **Contractor** to strictly comply with the requirements of Articles 11.1.1 and 11.1.2 shall be deemed a conclusive waiver by the **Contractor** of any and all claims for damages for delay arising from such condition and no right to recover on such claims shall exist.

11.3 When appropriate and directed by the **Engineer**, the progress schedule shall be revised by the **Contractor** until finally approved by the **Engineer**. The revised progress schedule must be strictly adhered to by the **Contractor**.

11.4 Compensable Delays

11.4.1 The **Contractor** agrees to make claim only for additional costs attributable to delay in the performance of this **Contract** necessarily extending the time for completion of the **Work** or resulting from acceleration directed by the City and required to maintain the project schedule, occasioned solely by any act or omission to act of the **City** listed below. The **Contractor** also agrees that delay from any other cause shall be compensated, if at all, solely by an extension of time to complete the performance of the **Work**.

11.4.1.1 The failure of the **City** to take reasonable measures to coordinate and progress the **Work**, except that the **City** shall not be responsible for the **Contractor's** obligation to coordinate and progress the **Work** of its subcontractors.

11.4.1.2 Extended delays attributable to the **City** in the review or issuance of change orders, in shop drawing reviews and approvals or as a result of the cumulative impact of multiple change orders, which have a verifiable impact on project costs.

11.4.1.3 The unavailability of the site for an extended period of time that significantly affects the scheduled completion of the **contract**.

11.4.1.4 The issuance by the **Engineer** of a stop work order relative to a substantial portion of work for a period exceeding thirty days, that was not brought about through any action or omission of the **Contractor**.

11.4.1.5 Differing site conditions that were not known or reasonably ascertainable on a pre-bid inspection of the site or review of the bid documents or other publicly available sources and that are not ordinarily encountered in the **Project's** geographical area or neighborhood or in the type of work to be performed.

11.4.1.6 Delays caused by the **City's** bad faith or its willful, malicious, or grossly negligent conduct;

11.4.1.7 Delays not contemplated by the parties;

11.4.1.8 Delays so unreasonable that they constitute an intentional abandonment of the **Contract** by the **City**; and

11.4.1.9 Delays resulting from the **City's** breach of a fundamental obligation of the **Contract**.

11.4.2 The provisions of this Article apply only to claims for additional costs attributable to delay and do not preclude determinations by the **Commissioner** allowing reimbursements for additional costs for **Extra Work** pursuant to Articles 25 and 26 of this **Contract**. To the extent that any cost attributable to delay is reimbursed as part of a change order, no additional claim for compensation under this section shall be allowed.

11.5 Non-Compensable Delays. The **Contractor** agrees to make no monetary request for, and has included in its bid prices for the various items of the **Contract**, the extra/additional costs attributable to any delays

caused by or attributable to the items set forth below. For such items, the **Contractor** shall be compensated, if at all, solely by an extension of time to complete the performance of the **Work**, in accordance with the provisions of Article 13. Such extensions of time will be granted, if at all, pursuant to the grounds set forth in Article 13.3.

11.5.1 The acts or omissions of any third parties, including but not limited to other contractors, public/ governmental bodies (other than **City** agencies), utilities or private enterprises, who are disclosed in the contract documents or are ordinarily encountered or generally recognized as related to the **Work**;

11.5.2 Any situation which was within the contemplation of the parties at the time of entering into the **Contract**, including any delay indicated or disclosed in the contract documents or generally recognized as related to the nature of the **Work**, and/or the existence of any facility or appurtenance owned, operated or maintained by any third party, as indicated or disclosed in the contract documents or ordinarily encountered or generally recognized as related to the nature of the **Work**;

11.5.3 Restraining orders, injunctions or judgments issued by a court which were caused by a Contractor's submission, action or inaction or by a Contractor's means and methods of construction, or by third-parties, unless such order, injunction or judgment was the result of an action or omission by the **City**;

11.5.4 Any labor boycott, strike, picketing or similar situation;

11.5.5 Any shortages of supplies of materials required by the contract work;

11.5.6 Climatic conditions, storms, floods, droughts, tidal waves, fires, hurricanes, earthquakes, landslides or other catastrophes, or acts of war or of the public enemy or terrorist acts;

11.5.7 Extra work which does not significantly affect the overall completion of the contract, reasonable delays in the review or issuance of change orders or field orders and/or in shop drawing reviews or approvals.

11.6 Required Content of Submission of Statement of Delay Damages

11.6.1 In the verified written statement of delay damages required by Article 11.1.2, the following information shall be provided by the **Contractor**:

11.6.1.1 For each delay, the dates of the claimed periods of delay and, in addition, a description of the operations that were delayed, the reasons for the delay and an explanation of how they were delayed.

11.6.1.2 A detailed factual statement of the claim providing all necessary dates, locations and items of work affected by the claim.

11.6.1.3 The amount of additional compensation sought and a breakdown of that amount into categories as described in Article 26.2, subject to the limitations set forth in section 11.7.

11.6.1.4 Any additional information requested by the **Commissioner**.

11.7 Recoverable Costs

11.7.1 Delay damages may be recoverable for the following costs actually and necessarily incurred in the performance of the **Work**:

11.7.1.1 Labor;

11.7.1.2 Materials;

11.7.1.3 Equipment;

- 11.7.1.4 Extended Field Office Costs;
 - 11.7.1.5 Extended Contract Site Overhead;
 - 11.7.1.6 Extended Home office overhead; and
 - 11.7.1.7 Insurance and Bond Costs.
- 11.7.2 Recoverable Subcontractor Costs. When the work is performed by a **Subcontractor**, the **Contractor** may be paid the actual and necessary costs of such subcontracted work as outlined above in 11.7.1.1 through 11.7.1.6, and an additional overhead of 5% of the costs outlined in 11.7.1.1 through 11.7.1.3.
- 11.7.3 Non-Recoverable Costs. The parties agree that the **City** will have no liability for the following items and the **Contractor** agrees it shall make no claim for the following items:
- 11.7.3.1 Profit, or loss of anticipated or unanticipated profit;
 - 11.7.3.2 Consequential damages, including but not limited to interest on monies in dispute, including interest which is paid on such monies, loss of bonding capacity, bidding opportunities, or interest in investment, or any resulting insolvency;
 - 11.7.3.3 Indirect costs or expenses of any nature;
 - 11.7.3.4 Direct or indirect costs attributable to performance of work where the **Contractor**, because of situations or conditions within its control, has not progressed the work in a satisfactory manner; and
 - 11.7.3.5 Attorneys' fees and dispute and claims preparation expenses.
- 11.8 Determinations under this Article 11 are not subject to the jurisdiction of the Contract Dispute Resolution Board pursuant to the dispute resolution process set forth in Article 27.
- 11.9 If the parties agree that a compensable delay has occurred and agree on the amount of compensation, payment may be made pursuant to a written change order, subject to pre-audit by the **Engineering Audit Officer**, and may be post-audited by the **Comptroller** and/or the **Department**.

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**. Except as provided for in Article 11.4.1.1, the **Contractor** agrees to make no claim against the **City** for

any damages relating to or arising out of any timely 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 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** except as set forth in Article 11, and agrees that all it may be entitled to on account of any such delay for which compensation is not specifically provided for in Article 11 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 force 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 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, shall 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 submitted 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, citizenship 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,

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 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 MacBridé Principles of nondiscrimination in employment.

69.1.3 Prospective **Contractors** are not required to agree to these conditions. However, in the case of **Contracts** let by competitive sealed bidding, whenever the lowest responsible bidder has not agreed to stipulate to the conditions set forth in this notice and another bidder who has agreed to stipulate to such conditions has submitted a bid within five (5%) percent of the lowest responsible bid for a **Contract** to supply goods, services or construction of comparable quality, the **Agency** shall refer such bids to the Mayor, the Speaker or other officials, as appropriate, who may determine, in accordance with applicable **Law** and rules, that it is in the best interest of the **City** that the **Contract** be awarded to other than the lowest responsible pursuant to Section 313(b)(2) of the **City Charter**.

69.1.4 In the case of **Contracts** let by other than competitive sealed bidding, if a prospective **Contractor** does not agree to these conditions, no **Agency**, elected official or the **City Council** shall award the **Contract** to that bidder unless the **Agency** seeking to use the goods, services or construction certifies in writing that the **Contract** is necessary for the **Agency** to perform its functions and there is no other responsible **Contractor** who will supply goods, services or construction of comparable quality at a comparable price.

69.2 In accordance with Section 6-115.1 of the Administrative Code, the **Contractor** stipulates that such **Contractor** and any individual or legal entity in which the **Contractor** holds a ten (10%) percent or greater ownership interest in the **Contractor** either:

69.2.1 Have no business operations in Northern Ireland, or

69.2.2 Shall take lawful steps in good faith to conduct any business operations they have in Northern Ireland in accordance with the MacBride Principles, and shall permit independent monitoring of their compliance with such principles.

69.3 For purposes of this Article, the following terms shall have the following meanings:

69.3.1 "MacBride Principles" shall mean those principles relating to nondiscrimination in employment and freedom of work-place opportunity which require employers doing business in Northern Ireland to:

69.3.1(a) increase the representation of individuals from under-represented religious groups in the workforce, including managerial, supervisory, administrative, clerical and technical jobs;

69.3.1(b) take steps to promote adequate security for the protection of employees from under-represented religious groups both at the work-place and while traveling to and from **Work**;

69.3.1(c) ban provocative religious or political emblems from the workplace;

69.3.1(d) publicly advertise all job openings and make special recruitment efforts to attract applicants from under-represented religious groups;

69.3.1(e) establish layoff, recall and termination procedures which do not in practice favor a particular religious group;

69.3.1(f) abolish all job reservations, apprenticeship restrictions and different employment criteria which discriminate on the basis of religion;

69.3.1(g) develop training programs that will prepare substantial numbers of current employees from under-represented religious groups for skilled jobs, including the expansion of existing programs and the creation of new programs to train, upgrade and improve the skills of workers from under-represented religious groups;

69.3.1(h) establish procedures to assess, identify and actively recruit employees from under-represented religious groups with potential for further advancement; and

69.3.1(i) appoint a senior management staff member to oversee affirmative action efforts and develop a timetable to ensure their full implementation.

69.4 The **Contractor** agrees that the covenants and representations in Article 69.2 are material conditions to this **Contract**. In the event the **Agency** receives information that the **Contractor** who made the stipulation required by this Article is in violation thereof, the **Agency** shall review such information and give the **Contractor** an opportunity to respond. If the **Agency** finds that a violation has occurred, the **Agency** shall have the right to declare the **Contractor** in default and/or terminate this **Contract** for cause and procure supplies, services or **Work** from another source in the manner the **Agency** deems proper. In the event of such termination, the

Contractor shall pay to the **Agency**, or the **Agency** in its sole discretion may withhold from any amounts otherwise payable to the **Contractor**, the difference between the **Contract** price for the uncompleted portion of this **Contract** and the cost to the **Agency** of completing performance of this **Contract** either itself or by engaging another **Contractor** or **Contractors**. In the case of a requirement **Contract**, the **Contractor** shall be liable for such difference in price for the entire amount of supplies required by the **Agency** for the uncompleted term of **Contractor's Contract**. In the case of a construction **Contract**, the **Agency** shall also have the right to hold the **Contractor** in partial or total default in accordance with the default provisions of this **Contract**, and/or may seek debarment or suspension of the **Contractor**. The rights and remedies of the **Agency** hereunder shall be in addition to, and not in lieu of, any rights and remedies the **Agency** has pursuant to this **Contract** or by operation of **Law**.

ARTICLE 70. HEALTH INSURANCE COVERAGE

70.1 If the price for which this **Contract** was awarded exceeds \$100,000, or if the price for which this **Contract** was awarded when combined with other construction or services contracts awarded the **Contractor** by the **City** in the year prior to award of this **Contract** exceeds \$100,000, the **Contractor**, following registration of the **Contract**, shall be required to submit responses to requests for information regarding the nature of any health insurance provided by the **Contractor** to its employees and their spouses and domestic partners, upon request of the **Agency** or other designated **City** agency.

ARTICLE 71. PROHIBITION OF TROPICAL HARDWOODS

71.1 Tropical hardwoods, as defined in Section 165 of the New York State Finance Law ("Finance Law"), shall not be utilized in the performance of this **Contract** except as expressly permitted by Section 165 of the Finance Law.

~~ARTICLE 72. CONFLICTS OF INTEREST~~

72.1 Section 2604 of the **City** Charter and other related provisions of the **City** Charter, the Administrative Code and the Penal Law are applicable under the terms of this **Contract** in relation to Conflicts of Interest and shall be extended to **Subcontractors** authorized to perform **Work**, labor and services pursuant to this **Contract** and further, it shall be the duty and responsibility of the **Contractor** to so inform its respective **Subcontractors**. Notice is hereby given that, under certain circumstances, penalties may be invoked against the donor as well as the recipient of any form of valuable gift.

ARTICLE 73. MERGER CLAUSE

73.1 The Written **Contract** herein, contains all the terms and conditions agreed upon by the parties hereto, and no other agreement, oral or otherwise, regarding the subject matter of this **Contract** shall be deemed to exist or to bind any of the parties hereto, or to vary any of the terms contained herein.

ARTICLE 74. STATEMENT OF WORK

74.1 The **Contractor** shall furnish all labor and materials and perform all **Work** in strict accordance with the **Specifications** and **Addenda** thereto, numbered 1.

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: *Four Million* Dollars, (\$ *4,373,773.00*), 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 Hundred Seventy-Three Thousand Seven Hundred Seventy-Three and 00/100

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 attached "EFT Vendor Payment Enrollment Form" 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 Section 6-129 to the Administrative Code of the City of New York. The local law creates a program for participation by minority-owned and women-owned business enterprises (MBEs and WBEs) in City procurement. As stated in the 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 made pursuant to Local Law 129, and the rules of the Department of Small Business Services ("DSBS") promulgated thereunder.

If this Contract is subject to the Minority-Owned and Women-Owned Business Enterprise ("M/WBE") program created by Local Law 129, the specific requirements of M/WBE participation for this Contract are set forth in Schedule B of the Contract (entitled the "Subcontractor Utilization Plan"), and are detailed below. The Contractor must comply with all applicable M/WBE requirements for this Contract. Schedule B of the Contract ("Subcontractor Utilization Plan") is included in the Bid Booklet.

Article I, Part A, below, sets forth provisions related to the participation goals for construction 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
AND PROFESSIONAL SERVICES CONTRACTS**

1. The Target Subcontracting Percentage applicable to this Contract is set forth on Schedule B, Part I to this Contract (see Page 1, line (1)). The "Target Subcontracting Percentage" is the percentage of the total Contract which Agency anticipates that the prime contractor for this Contract would in the normal course of business award to one or more subcontractors for amounts under \$1 million for construction and professional services.

A prospective contractor may seek a full or partial pre-award waiver of the Target Subcontracting Percentage in accordance with Local Law 129 and Part A, Section 10 below. To apply for the a full or partial waiver of the Target Subcontracting Percentage, a prospective contractor must complete Part III (Page 4) of Schedule B, and must submit such request no later than seven (7) days prior to the date and time the bids or proposals are due, in writing to the Agency by e-mail at poped@ddc.nyc.gov or via facsimile at (718) 391-1885. Bidders/proposers who have submitted requests will receive a response by no later than two (2) calendar days prior to the date bids or proposals are due, provided, however, that if that date would fall on a weekend or holiday, a response will be provided by close-of-business on the business day before such weekend or holiday date.

2. The Subcontractor Participation Goals established for this Contract are set forth on Schedule B, Part I to this Contract (see Page 1, line (2) and/or line (3)). The Subcontractor Participation Goals represent a percentage of the total dollar value of all construction and/or professional services subcontracts under this Agreement for amounts under \$1 million.

3. If Subcontractor Participation Goals have been established for this Contract, Contractor agrees or shall agree as a material term of the Agreement that, with respect to the total amount of the Agreement to be awarded to one or more subcontractors pursuant to subcontracts for amounts under \$1 million, Contractor shall be subject to the Subcontractor Participation Goals, unless the goals are modified by Agency in accordance with Local Law 129 and Part A, Section 11 below.

4. If Subcontractor 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, Part II Subcontractor Utilization Plan (see Page 2-3) indicating: (a) the percentage of work it intends to subcontract; (b) the percentage of work it intends to

award to subcontractors for amounts under \$1 million; (c) in cases where the prospective contractor intends to award subcontracts for amounts under \$1 million, a description of the type and dollar value of work designated for participation by MBEs and/or WBEs; and (d) the general time frames in which such work by MBEs and/or WBEs is scheduled to occur. In the event that this Subcontractor Utilization Plan indicates that the bidder or proposer, as applicable, does not intend to award the **Target Subcontracting Percentage**, 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 **Target Subcontracting Percentage** in accordance with Local Law 129 and Part A, Section 10 below.

THE BIDDER/PROPOSER MUST COMPLETE THE SUBCONTRACTOR UTILIZATION PLAN INCLUDED HEREIN (SCHEDULE B, PART II). SUBCONTRACTOR UTILIZATION PLANS WHICH DO NOT INCLUDE THE REQUIRED AFFIRMATIONS WILL BE DEEMED TO BE NON-RESPONSIVE, UNLESS A FULL WAIVER OF THE TARGET SUBCONTRACTING PERCENTAGE IS GRANTED (SCHEDULE B PART III). IN THE EVENT THAT THE CITY DETERMINES THAT VENDOR HAS SUBMITTED A SUBCONTRACTOR UTILIZATION PLAN WHERE THE REQUIRED AFFIRMATIONS ARE COMPLETED BUT OTHER ASPECTS OF THE PLAN ARE NOT COMPLETE, OR CONTAIN A COPY OR COMPUTATION ERROR THAT IS AT ODDS WITH THE AFFIRMATION, THE VENDOR 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 PLAN 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 EMAILED OR FAXED (IF THE VENDOR HAS PROVIDED AN EMAIL ADDRESS OR FAX NUMBER), OR NO LATER THAN FIVE (5) DAYS FROM THE DATE OF MAILING OR UPON DELIVERY, IF DELIVERED.

5. Where a Subcontractor 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 multi-year contracts, such list shall also be submitted every year thereafter. **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 Subcontractor Participation Goals established for this Contract by proposing one or more subcontractors that are M/WBEs for any portion of the Wicks trade work if the amount to be awarded to such M/WBE subcontractor is under \$1 million. 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. M/WBE firms must be certified by DSBS in order for the Contractor to credit such firms' participation toward the attainment of the M/WBE participation goals. Such certification must occur prior to the firms' commencement of work as subcontractors. A list of M/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.

7. Where a Subcontractor 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 paid to subcontractors (including subcontractors that are not MBEs or WBEs); the names, addresses and contact numbers of each MBE or WBE hired as a subcontractor pursuant to such plan as well as 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 paid to subcontractors (including subcontractors that are not MBEs or WBEs); 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 hired pursuant to such plan, 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 Subcontractor Utilization Plan, Agency shall take appropriate action, in accordance with Local Law 129 and Article II below, unless the Contractor has obtained a modification of its Subcontractor Utilization Plan in accordance with Local Law 129 and Part A, Section 11 below.

9. Where a Subcontractor Utilization Plan has been submitted, and the Contractor requests a change order the value of which exceeds 10 percent of the Agreement, Agency shall establish participation goals for the work to be performed pursuant to the change order.

10. Pre-award waiver of **Target Subcontracting Percentage**. Agency may grant a full or partial waiver of the **Target Subcontracting Percentage** to a bidder or proposer, as applicable, who demonstrates—before submission of the bid or proposal—that it has legitimate business reasons for proposing the level of subcontracting in its Subcontractor Utilization Plan. In making its determination, Agency shall consider factors that shall include, but not be limited to, whether the bidder or proposer, 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 for under one million dollars represented by the **Target Subcontracting Percentage**. In making such determination, Agency may consider whether the Subcontractor Utilization Plan is consistent with past subcontracting practices of the bidder or proposer, as applicable, and whether the bidder or proposer, as applicable, has made good faith efforts to identify portions of the Contract that it intends to subcontract.

11. Modification of Subcontractor Utilization Plan. A Contractor may request a modification of its Subcontractor Utilization Plan (**Subcontractor Participation Goals**) 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 Subcontractor Utilization Plan as part of its bid submission.** The Agency may grant a request for Modification of a Contractor's Subcontractor 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 **Subcontractor Participation Goals**. In making such determination, Agency shall consider evidence of the following efforts, as applicable, along with any other relevant factors:

- (a) 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;
- (b) The Contractor provided notice of specific opportunities to participate in the Contract, in a timely manner, to minority and women's business organizations;
- (c) The Contractor sent written notices, by certified mail or facsimile, in a timely manner, to advise MBEs and WBEs that their interest in the Contract was solicited;
- (d) 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 Subcontractor Utilization Plan, and for which the Contractor claims an inability to retain MBEs or WBEs;
- (e) 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;
- (f) The Contractor made efforts to negotiate with MBEs and/or WBEs as relevant to perform specific subcontracts;
- (g) Timely written requests for assistance made by the Contractor to Agency's M/WBE liaison officer and to DSBS;
- (h) 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.

12. If this Contract is for an indefinite quantity of construction or professional services or is a requirements type contract and the Contractor has submitted a Subcontractor Utilization Plan and has committed to subcontract work to MBEs and/or WBEs in order to meet the **Subcontractor Participation Goals**, the Contractor will not be deemed in violation of the M/WBE 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 **Subcontractor Participation Goals** have been established for 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 a Subcontractor 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 Subcontractor Utilization Plan.
2. Pursuant to DSBS rules, construction contracts that include a requirement for a Subcontractor Utilization Plan shall not be subject to the law governing Locally Based Enterprises set forth in Administrative Code Section 6-108.1.
3. DSBS is available to assist contractors and potential contractors in determining the availability of MBEs and WBEs to participate as subcontractors, and in identifying opportunities that are appropriate for participation by MBEs and WBEs in contracts.
4. Prospective contractors are encouraged to enter into joint ventures with MBEs and WBEs.
5. By submitting a bid or proposal the Contractor hereby acknowledges its understanding of the M/WBE requirements set forth herein and the pertinent provisions of Local Law 129 of 2005, and any rules promulgated thereunder, and if awarded this Contract, the Contractor hereby agrees to comply with the M/WBE requirements of this Contract and pertinent provisions of Local Law 129 of 2005, 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 M/WBE's to meet the required **Subcontractor 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 Subcontractor Utilization Plan, Agency shall send a written notice to the Contractor describing the alleged noncompliance and offering 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 this Section 6-129, including, but not limited to any Subcontractor 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) assess liquidated damages or reduction of fees, provided that liquidated damages may be based on amounts representing costs of delays in carrying out the purposes of the program established by Section 6-129, 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) exercise 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) take any other appropriate remedy.

4. If a Subcontractor Utilization Plan has been submitted, and pursuant to this Article II, Section 3, the Contractor has been found to have failed to award subcontracts to MBEs and/or WBEs sufficient to meet the Subcontractor Participation Goals contained in its Subcontractor Utilization Plan or the Subcontractor 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 subcontracts required to be awarded to MBE and/or WBE subcontractors to meet the Subcontractor Participation Goals and the dollar amount the Contractor actually awarded and paid to MBE and/or WBE subcontractors. In view of the difficulty of accurately ascertaining the loss which the City will suffer by reason of Contractor's failure to meet the Subcontractor 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 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), 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 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 Subcontractor Utilization Plan shall be a factor in the evaluation of its performance. Whenever a contracting agency determines that a contractor's compliance with a Subcontractor Utilization Plan has been unsatisfactory, the agency shall, after consultation with the city chief procurement officer, file an advice of caution form for inclusion in VENDEX as caution data.

Deputy

IN WITNESS WHEREOF, the 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: *[Signature]*
Deputy Commissioner

Commissioner of the Department of Transportation
Qualified in Richmond County
No. 03-04-0000
New York State Public Safety
EXPIRES 03/31/08

CONTRACTOR:

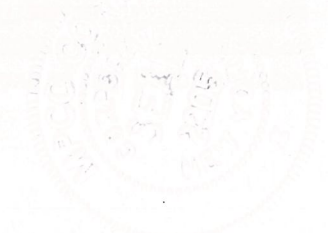
By: *[Signature]*
(Member of Firm or Officer of Corporation)
JOSEPH UBINATI, JR.

Title: *PRESIDENT*

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

Secretary

(Seal)



ACKNOWLEDGMENT OF PRINCIPAL, IF A CORPORATION

State of New York County of Queens ss:

On this 13th day of August 2013, before me personally came JOSEPH URBINATI, JR. to me known, who, being by me duly sworn did depose and say that he resides at HAMILTON, NY that he is the PRESIDENT

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

FRANCES M. ARTALE
Notary Public, State of New York
No. 43-4748045
Qualified in Richmond County
Commission Expires December 31, 2013
Frances M. Artale
Notary Public or Commissioner of Deeds

ACKNOWLEDGMENT OF PRINCIPAL, IF A PARTNERSHIP

State of _____ County of _____ ss:

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

Notary Public or Commissioner of Deeds

ACKNOWLEDGMENT OF PRINCIPAL, IF AN INDIVIDUAL

State of _____ County of _____ ss:

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

Notary Public or Commissioner of Deeds

ACKNOWLEDGMENT BY COMMISSIONER

State of New York County of Queens ss:

On this 13th day of August 2013, before me personally came David Resnick 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 he acknowledged to me that he executed the same as Deputy Commissioner for the purposes therein mentioned.

Frances M. Artale
Notary Public or Commissioner of Deeds

FRANCES M. ARTALE
Notary Public, State of New York
No. 43-4748045
Qualified in Richmond County
Commission Expires December 31, 2013

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

*Four Million Three Hundred Seventy Three Thousand
Seven Hundred Seventy Three and 00/100*

Dollars (\$4,373,773.00)

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.

[Signature]

Deputy Commissioner

COMPTROLLER'S CERTIFICATE

The City of New York _____

Pursuant to the provisions of Section 6-101 of the Administrative Code of the City of New York, I hereby certify that there remains unapplied and unexpended a balance of the above mentioned fund applicable to this Contract sufficient to pay the estimated expense of executing the same viz:

\$ _____

Comptroller

**MAYOR'S CERTIFICATE OR
CERTIFICATE OF THE DIRECTOR
OF THE BUDGET**

Performance Bond #1 (Pages 80 to 83): Use if the total contract price is \$5 Million Or Less. Performance Bond #1 has been approved by the U.S. Small Business Administration ("SBA") for participation in its Bond Guarantee Program.

PERFORMANCE BOND #1 (Page 1)

PERFORMANCE BOND #1

KNOW ALL PERSONS BY THESE PRESENTS, That we, _____

_____ hereinafter referred to as the "Principal", and _____

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

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

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

_____ a copy of which Contract is annexed to and hereby made a part of this bond as though herein set forth in full;



CERTIFICATE OF LIABILITY INSURANCE

DATE(MM/DD/YYYY)
08/06/2013

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 Aon Risk Services Northeast, Inc. Jericho NY Broadway Office 390 North Broadway Jericho NY 11753 USA	CONTACT NAME: PHONE (A/C. No. Ext): FAX (A/C. No.): E-MAIL ADDRESS:													
	<table border="1"> <thead> <tr> <th>INSURER(S) AFFORDING COVERAGE</th> <th>NAIC #</th> </tr> </thead> <tbody> <tr> <td>INSURER A: Wausau Underwriters Ins Co</td> <td>26042</td> </tr> <tr> <td>INSURER B: The Travelers Indemnity Co.</td> <td>25658</td> </tr> <tr> <td>INSURER C: Phoenix Ins Co</td> <td>25623</td> </tr> <tr> <td>INSURER D: Zurich American Ins Co</td> <td>16535</td> </tr> <tr> <td>INSURER E: Illinois Union Insurance Company</td> <td>27960</td> </tr> <tr> <td>INSURER F:</td> <td></td> </tr> </tbody> </table>	INSURER(S) AFFORDING COVERAGE	NAIC #	INSURER A: Wausau Underwriters Ins Co	26042	INSURER B: The Travelers Indemnity Co.	25658	INSURER C: Phoenix Ins Co	25623	INSURER D: Zurich American Ins Co	16535	INSURER E: Illinois Union Insurance Company	27960	INSURER F:
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INSURER F:														
INSURED MPCC Corp. 81 Rockdale Avenue New Rochelle NY 10801 USA														

Holder Identifier :

COVERAGES **CERTIFICATE NUMBER:** 570050952835 **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. **Limits shown are as requested**

INSR LTR	TYPE OF INSURANCE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	Limits shown are as requested	
B	GENERAL LIABILITY <input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input checked="" type="checkbox"/> PROJECT <input type="checkbox"/> LOC			DT1N4D015397IND13	07/19/2013	07/19/2014	EACH OCCURRENCE	\$2,000,000
							DAMAGE TO RENTED PREMISES (Ea occurrence)	\$300,000
							MED EXP (Any one person)	\$5,000
							PERSONAL & ADV INJURY	\$2,000,000
							GENERAL AGGREGATE	\$4,000,000
							PRODUCTS - COMP/OP AGG	\$4,000,000
	AUTOMOBILE LIABILITY <input checked="" type="checkbox"/> ANY AUTO <input type="checkbox"/> ALL OWNED AUTOS <input type="checkbox"/> HIRED AUTOS <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> NON-OWNED AUTOS			ASJ-Z11-260435-022	07/19/2012	08/19/2013	COMBINED SINGLE LIMIT (Ea accident)	\$1,000,000
							BODILY INJURY (Per person)	
							BODILY INJURY (Per accident)	
							PROPERTY DAMAGE (Per accident)	
D	<input checked="" type="checkbox"/> UMBRELLA LIAB <input checked="" type="checkbox"/> OCCUR <input type="checkbox"/> EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE DED <input checked="" type="checkbox"/> RETENTION \$10,000			AUC593204600 SIR applies per policy terms & conditions	07/19/2013	07/19/2014	EACH OCCURRENCE	\$9,000,000
							AGGREGATE	\$9,000,000
C	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 checked="" type="checkbox"/> N N/A			WCDTNUB4D02045113	07/19/2013	07/19/2014	<input checked="" type="checkbox"/> WC STATUTORY LIMITS <input type="checkbox"/> OTH-ER	
							E.L. EACH ACCIDENT	\$1,000,000
							E.L. DISEASE-EA EMPLOYEE	\$1,000,000
							E.L. DISEASE-POLICY LIMIT	\$1,000,000
E	Contractor Poll			CPYG24891914003 SIR applies per policy terms & conditions	07/19/2013	07/19/2014	Aggregate Occurrence	\$2,000,000 \$1,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)

Re: South Bronx Marine Transfer Station, DDC PIN: 8502013TR0004C.
 City of New York, including its officials and employees, and Greeley and Hansen, LLC. are included as Additional Insured in accordance with the policy provisions of the General Liability, Auto, Excess and Pollution policies.

CERTIFICATE HOLDER**CANCELLATION**

City of New York Department of Design and Construction 30-30 Thomson Avenue Long Island City NY 11101 USA	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 
--	---

Certificate No : 570050952835



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.

Aon Risk Services Northeast, Inc.
[Name of broker]

390 North Broadway, Jericho, NY 11753
[Address of broker]

Heather Dunlop
[Signature of authorized official or broker]

Heather Dunlop, Account Specialist
[Name and title of authorized official]

Sworn to before me this
6th day of August, 2013

Christina Krebs
Notary Public

CHRISTINA KREBS
Notary Public, State of New York
No. 01KR6211753
Qualified in Nassau County
Commission Expires September 21, 2017



1943-1944

1945-1946

STATE OF NEW YORK
WORKERS' COMPENSATION BOARD

CERTIFICATE OF NYS WORKERS' COMPENSATION INSURANCE COVERAGE

<p>1a. Legal Name & Address of Insured (Use street address only)</p> <p>PCC Corp. 61 Rockdale Avenue New Rochelle, NY 10801</p> <p>Work Location of Insured (Only required if coverage is specifically limited to certain locations in New York State, i.e., a Wrap-Up Policy)</p>	<p>1b. Business Telephone Number of Insured 914-636-0000</p> <p>1c. NYS Unemployment Insurance Employer Registration Number of Insured</p> <p>1d. Federal Employer Identification Number of Insured or Social Security Number 20-3655082</p>
<p>2. Name and Address of the Entity Requesting Proof of Coverage (Entity Being Listed as the Certificate Holder)</p> <p>City of New York Department of Design and Construction 30-30 Thomson Avenue Long Island City, NY 11101</p>	<p>3a. Name of Insurance Carrier The Phoenix Insurance Company</p> <p>3b. Policy Number of entity listed in box "1a" DTNUB4D02045113</p> <p>3c. Policy effective period 07/19/2013 to 07/19/2014</p> <p>3d. The Proprietor, Partners or Executive Officers are Check all that apply: <input checked="" type="checkbox"/> included. (Only check box if all partners/officers included) Check all that apply: <input type="checkbox"/> all excluded or certain partners/officers excluded.</p>

This certifies that the insurance carrier indicated above in box "3" insures the business referenced above in box "1a" for workers' compensation under the New York State Workers' Compensation Law. (To use this form, New York (NY) must be listed under **Item 3A** on the **INFORMATION PAGE** of the workers' compensation insurance policy). The Insurance Carrier or its licensed agent will send this Certificate of Insurance to the entity listed above as the certificate holder in box "2".

The Insurance Carrier will also notify the above certificate holder within 10 days IF a policy is canceled due to nonpayment of premiums or within 30 days IF there are reasons other than nonpayment of premiums that cancel the policy or eliminate the insured from the coverage indicated on this Certificate. (These notices may be sent by regular mail.) Otherwise, this Certificate is valid for one year after this form is approved by the insurance carrier or its licensed agent, or until the policy expiration date listed in box "3c", whichever is earlier.

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

Under penalty of perjury, I certify that I am an authorized representative or licensed agent of the insurance carrier referenced above and that the named insured has the coverage as depicted on this form.

Approved by: Heather Dunlop
(Print name of authorized representative or licensed agent of insurance carrier)

Approved by: Heather Dunlop 08/06/2013
(Signature) (Date)

Title: Account Specialist

Telephone Number of authorized representative or licensed agent of insurance carrier: 516-733-9200

Please Note: Only insurance carriers and their licensed agents are authorized to issue Form C-105.2. Insurance brokers are NOT authorized to issue it.



Workers' Compensation Law

Section 57. Restriction on issue of permits and the entering into contracts unless compensation is secured.

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

2. The head of a state or municipal department, board, commission or office authorized or required by law to enter into any contract for or in connection with any work involving the employment of employees in a hazardous employment defined by this chapter, notwithstanding any general or special statute requiring or authorizing any such contract, shall not enter into any such contract unless proof duly subscribed by an insurance carrier is produced in a form satisfactory to the chair, that compensation for all employees has been secured as provided by this chapter.



STATE OF NEW YORK
WORKERS' COMPENSATION BOARD

CERTIFICATE OF INSURANCE COVERAGE UNDER THE NYS DISABILITY BENEFITS LAW

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

1a. Legal Name and Address of Insured (Use street address only)

M. CORP.
81 ROCKDALE AVENUE
NEW ROCHELLE, NY 10801

1b. Business Telephone Number of Insured
914-636-0000

1c. NYS Unemployment Insurance Employer
Registration Number of Insured

1d. Federal Employer Identification Number of
Insured or Social Security Number
203655082

2. Name and Address of the Entity Requesting Proof of Coverage
(Entity Being Listed as the Certificate Holder)

City of New York Department of
Design and Construction
30-30 Thomson Avenue
Long Island City, NY 11101

3a. Name of Insurance Carrier

Zurich American Insurance Company
58 South Service Road, Melville, NY 11747

3b. Policy Number of entity listed in box "1a":
5364087 - 002

3c. Policy effective period:
4/1/2013 To 4/1/2014

4. Policy covers:

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

b. Only the following class or classes of the employer's employees:

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

Date Signed 8/6/2013

By



(Signature of insurance carrier's authorized representative or NYS Licensed Insurance Agent of that insurance carrier)

Telephone Number (631) 845-2200

Title Operations 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. 8 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 _____

Note: Only insurance carriers licensed to write NYS disability benefits insurance policies and NYS licensed insurance agents of insurance carriers are authorized to issue Form DB-120.1. Insurance brokers are NOT authorized to issue this form.



Additional Instructions for Form DB-120.1

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

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

DISABILITY BENEFITS LAW

§220. Subd. 8

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

(b) The head of a state or municipal department, board, commission or office authorized or required by law to enter into any contract for or in connection with any work involving the employment of employees in employment as defined in this article, and notwithstanding any general or special statute requiring or authorizing any such contract, shall not enter into any such contract unless proof duly subscribed by an insurance carrier is produced in a form satisfactory to the chair, that the payment of disability benefits for all employees has been secured as provided by this article.



Performance Bond #1 (Pages 80 to 83): Use if the total contract price is \$5 Million Or Less. Performance Bond #1 has been approved by the U.S. Small Business Administration ("SBA") for participation in its Bond Guarantee Program.

PERFORMANCE BOND #1 (Page 1)

PERFORMANCE BOND #1

KNOW ALL PERSONS BY THESE PRESENTS, That we, _____

MPCC CORP. _____

81 Rockdale Ave. _____

New Rochelle, NY 10801 _____

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

****Four Million Three Hundred Seventy-Three Thousand Seven Hundred Seventy-Three** _____

and no cents** _____

(\$ 4,373,773.00**) 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: S216-421 - E-PIN: 85013B007801 - DDC PIN: 8502013TR0004C** _____

South Bronx Marine Transfer Station Demolition _____

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 80 to 83): Use if the total contract price is \$5 Million Or Less. Performance Bond #1 has been approved by the U.S. Small Business Administration ("SBA") for participation in its Bond Guarantee Program.

PERFORMANCE BOND #1 (Page 2)

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 80 to 83): Use if the total contract price is \$5 Million Or Less. Performance Bond #1 has been approved by the U.S. Small Business Administration ("SBA") for participation in its Bond Guarantee Program.

PERFORMANCE BOND #1 (Page 3)

IN WITNESS WHEREOF, the Principal and the Surety (Sureties) have hereunto set their hands and seals, and such of them as are corporations have caused their corporate seals to be hereunto affixed and these presents to be signed by their proper officers, this 6th day of August, 2013.

(Seal)

MPCC CORP. (L.S.)
Principal

By: [Signature]
Joseph Urbinati, Jr., President

(Seal)

LIBERTY MUTUAL INSURANCE COMPANY
Surety

By: [Signature]
Barbara Zitt Attorney-In-Fact

(Seal)

Surety

By: _____

(Seal)

Surety

By: _____

Bond Premium Rate Scaled
Bond Premium Cost \$35,672.00

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

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

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



[Faint, illegible text or markings in the left margin area.]

Performance Bond #1 (Pages 80 to 83): Use if the total contract price is \$5 Million Or Less. Performance Bond #1 has been approved by the U.S. Small Business Administration ("SBA") for participation in its Bond Guarantee Program.

PERFORMANCE BOND #1 (Page 4)

ACKNOWLEDGMENT OF PRINCIPAL, IF A CORPORATION

State of New York County of Westchesters:

On this 6th day of August, 2013, before me personally came Joseph Urbinati, Jr. to me known, who, being by me duly sworn did depose and say that he resides at 79 Rye Ridge Road Harrison, NY 10528 that he is the President of the corporation described in and which executed the foregoing instrument; that he knows the seal of said corporation; that one of the seals affixed to said instrument is such seal; that it was so affixed by order of the directors of said corporation, and that he signed his name thereto by like order.

Joan M. Anderson
Notary Public or Commissioner of Deeds

JOAN M. ANDERSON
NOTARY PUBLIC-STATE OF NEW YORK
No. 01AN6092554
Qualified in Westchester County
My Commission Expires May 27, 2015

ACKNOWLEDGMENT OF PRINCIPAL, IF A PARTNERSHIP

State of _____ County of _____ ss:

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

Notary Public or Commissioner of Deeds

ACKNOWLEDGMENT OF PRINCIPAL, IF AN INDIVIDUAL

State of _____ County of _____ ss:

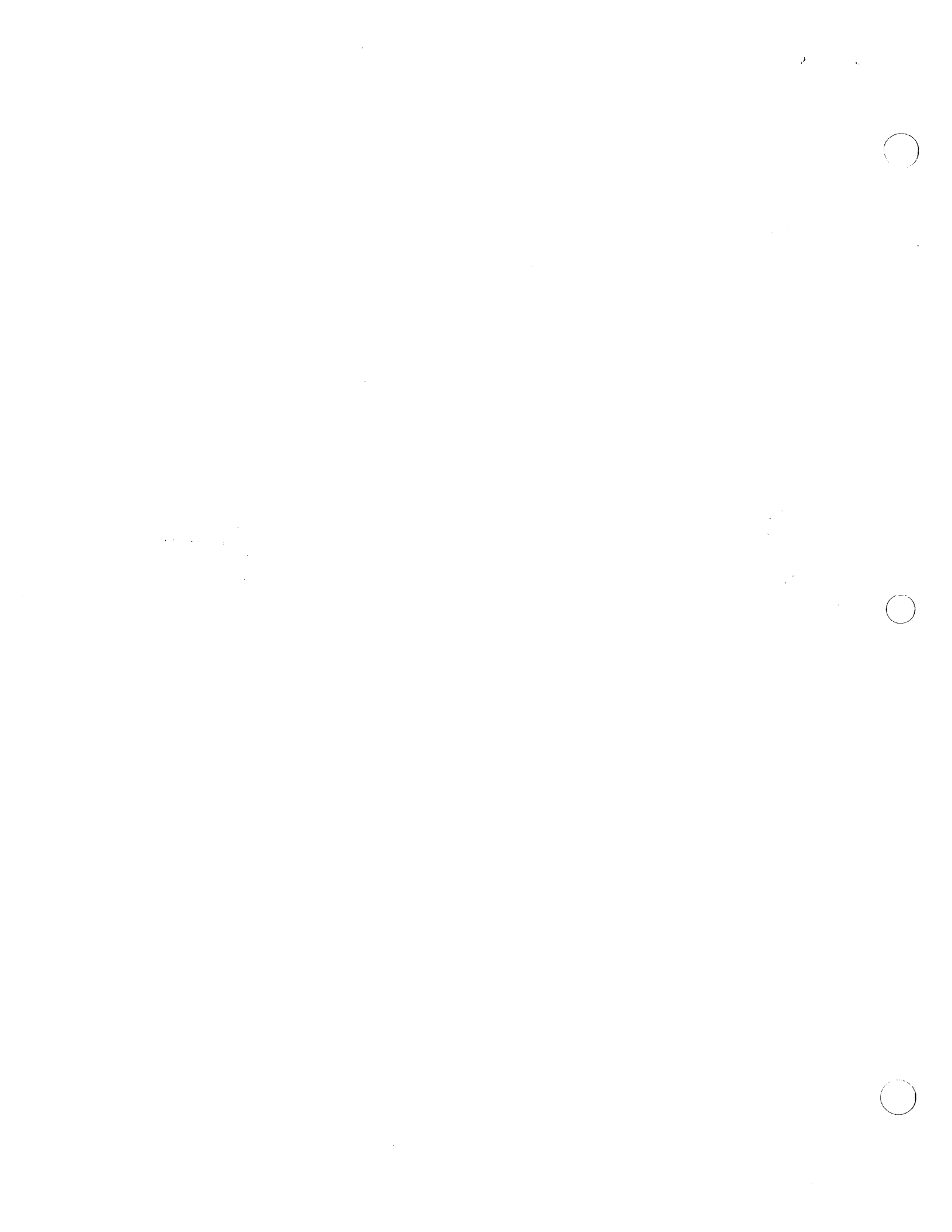
On this _____ day of _____, _____ before me personally appeared _____ to me known, and known to me to be the person described in and who executed the foregoing instrument; and acknowledged that he executed the same.

Notary Public or Commissioner of Deeds

Each executed bond should be accompanied by: (a) appropriate acknowledgments of the respective parties; (b) appropriate duly certified copy of Power of Attorney or other certificate of authority where bond is executed by agent, officer or other representative of Principal or Surety; (c) a duly certified extract from By-Laws or resolutions of Surety under which Power of Attorney or other certificate of authority of its agent, officer or representative was issued, and (d) certified copy of latest published financial statement of assets and liabilities of Surety.

Affix Acknowledgments and Justification of Sureties







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 3,066,051,537
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 14,510,466,662
	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



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. _____

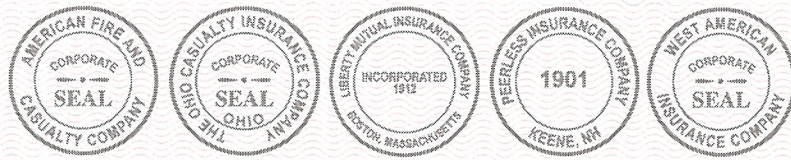
American Fire and Casualty Company Liberty Mutual Insurance Company
The Ohio Casualty Insurance Company Peerless Insurance Company
West American Insurance Company

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 Ohio, that Liberty Mutual Insurance Company is a corporation duly organized under the laws of the State of Massachusetts, that Peerless Insurance Company is a corporation duly organized under the laws of the State of New Hampshire, and West American Insurance Company is a corporation duly organized under the laws of the State of Indiana (herein collectively called the "Companies"), pursuant to and by authority herein set forth, does hereby name, constitute and appoint, CARL W. BULL, BARBARA ZITT,

all of the city of WEST NEW YORK, state of NEW JERSEY 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 14th day of May, 2012.



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

By: Gregory W. Davenport, Assistant Secretary

STATE OF WASHINGTON ss
COUNTY OF KING

On this 14th day of May, 2012, before me personally appeared Gregory W. Davenport, who acknowledged himself to be the Assistant Secretary of American Fire and Casualty Company, Liberty Mutual Insurance Company, The Ohio Casualty Company, Peerless Insurance Company and West American Insurance Company, and that he, as such, being authorized so to do, execute the foregoing instrument for the purposes therein contained by signing on behalf of the corporations by himself as a duly authorized officer.

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



By: KD Riley, Notary Public

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

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

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

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

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

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

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the seals of said Companies this 6th day of August, 2013.



By: David M. Carey, Assistant Secretary

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

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



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

PAYMENT BOND (Page 1)

PAYMENT BOND

KNOW ALL PERSONS BY THESE PRESENTS, That we, _____

MPCC CORP.

81 Rockdale Ave.

New Rochelle, NY 10801

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

Four Million Three Hundred Seventy-Three Thousand Seven Hundred Seventy-Three and

no cents**

(\$4,373,773.00) 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 FMD ID: S216-421 - E-PIN: 85013B007801 - DDC PIN: 8502013TR0004C

South Bronx Marine Transfer Station Demolition

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



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

PAYMENT BOND (Page 2)

engaged who perform the work of laborers or mechanics at or in the vicinity of the site of the Project regardless of any contractual relationship between the Principal or such Subcontractors, or his or their successors or assigns, on the one hand and such laborers or mechanics on the other, but not including office employees not regularly stationed at the site of the project; and

(b) Materials and supplies (whether incorporated in the permanent structure or not), as well as teams, fuels, oils, implements or machinery furnished, used or consumed by said Principal or any subcontractor at or in the vicinity of the site of the Project in the prosecution of the Work under said Contract and any amendment or extension thereof or addition thereto; then this obligation shall be void, otherwise to remain in full force and effect.

This bond is subject to the following additional conditions, limitations and agreements:

(a) The Principal and Surety (Sureties) agree that this bond shall be for the benefit of any materialmen or laborer having a just claim, as well as the City itself.

(b) All persons who have performed labor, rendered services or furnished materials and supplies, as aforesaid, shall have a direct right of action against the Principal and his, its or their successors and assigns, and the Surety (Sureties) herein, or against either or both or any of them and their successors and assigns. Such persons may sue in their own name, and may prosecute the suit to judgment and execution without the necessity of joining with any other persons as party plaintiff.

(c) The Principal and Surety (Sureties) agree that neither of them will hold the City liable for any judgment for costs of otherwise, obtained by either or both of them against a laborer or materialman in a suit brought by either a laborer or materialman under this bond for moneys allegedly due for performing work or furnishing material.

(d) The Surety (Sureties) or its successors and assigns shall not be liable for any compensation recoverable by an employee or laborer under the Workmen's Compensation Law.

(e) In no event shall the Surety (Sureties), or its successors or assigns, be liable for a greater sum than the penalty of this bond or be subject to any suit, action or proceeding hereon that is instituted by any person, firm, or corporation hereunder later than two years after the complete performance of said Contract and final settlement thereof.

The Principal, for himself and his successors and assigns, and the Surety (Sureties), for itself and its successors and assigns, do hereby expressly waive any objection that might be interposed as to the right of the City to require a bond containing the foregoing provisions, and they do hereby further expressly waive any defense which they or either of them might interpose to an action brought hereon by any person, firm or corporation, including subcontractors, materialmen and third persons, for work, labor, services, supplies or material performed rendered, or furnished as aforesaid upon the ground that there is no law authorizing the City to require the foregoing provisions to be placed in this bond.

And the Surety (Sureties), for value received, for itself and its successors and assigns, hereby stipulates and agrees that the obligation of said Surety (Sureties), and its bonds shall be in no way impaired or affected by any extension of time, modification, omission, addition, or change in or of the said Contract or the work to be performed thereunder, or by any payment thereunder before the time required therein, or by any waiver of any provisions thereof, or by any assignment, subletting or other transfer thereof or of any part thereof, or of any Work to be performed, or any moneys due to become due thereunder and said Surety (Sureties) does hereby waive notice of any and all of such extensions, modifications, omissions, additions, changes, payments, waivers, assignments, subcontracts and transfers, and hereby expressly stipulates and agrees that any and all things done and omitted to be done by and in relation to assignees, Subcontractors, and other transferees shall have the same effect as to said Surety (Sureties) as though done or omitted to be done or in relation to said Principal.



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

PAYMENT BOND (Page 3)

IN WITNESS HEREOF, 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 6th day of August, 2013.

(Seal) MPCC CORP. (L.S.)
Principal

By: [Signature]
Joseph Urbinati, Jr., President

(Seal) LIBERTY MUTUAL INSURANCE COMPANY
Surety

By: [Signature]
Barbara Zitt 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.

1. The first part of the document discusses the importance of maintaining accurate records of all transactions and activities. It emphasizes that this is essential for ensuring transparency and accountability in the organization's operations.

2. The second part of the document outlines the various methods and tools used to collect and analyze data. It highlights the need for consistent and reliable data collection processes to ensure the validity of the findings.

3.

4. The final part of the document provides a summary of the key findings and conclusions. It notes that the data collected over the period of the study indicates a clear trend towards improved performance and efficiency in the organization's processes.



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

PAYMENT BOND (Page 4)

ACKNOWLEDGMENT OF PRINCIPAL, IF A CORPORATION

State of New York County of Westchester ss:

On this 6th day of August, 2013 before me personally came Joseph Urbinati, Jr. to me known, who, being by me duly sworn did depose and say that he resides at 79 Rye Ridge Road Harrison, NY 10528 that he is the President of the corporation described in and which executed the foregoing instrument; that he knows the seal of said corporation; that one of the seals affixed to said instrument is such seal; that it was so affixed by order of the directors of said corporation, and that he signed his name thereto by like order.

Joan M. Anderson
Notary Public or Commissioner of Deeds

JOAN M. ANDERSON
NOTARY PUBLIC-STATE OF NEW YORK
No. 01AN6092854
Qualified in Westchester County
MV Commission Expires May 27, 2015

ACKNOWLEDGMENT OF PRINCIPAL, IF A PARTNERSHIP

State of _____ County of _____ ss:

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

Notary Public or Commissioner of Deeds

ACKNOWLEDGMENT OF PRINCIPAL, IF AN INDIVIDUAL

State of _____ County of _____ ss:

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

Notary Public or Commissioner of Deeds

Each executed bond should be accompanied by: (a) appropriate acknowledgments of the respective parties; (b) appropriate duly certified copy of Power of Attorney or other certificate of authority where bond is executed by agent, officer or other representative of Principal or Surety; (c) a duly certified extract from By-Laws or resolutions of Surety under which Power of Attorney or other certificate of authority of its agent, officer or representative was issued, and (d) certified copy of latest published financial statement of assets and liabilities of Surety.

Affix Acknowledgments and Justification of Sureties



Acknowledgment of Surety

State of New York)

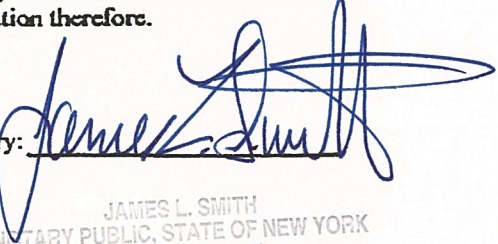
ss.:

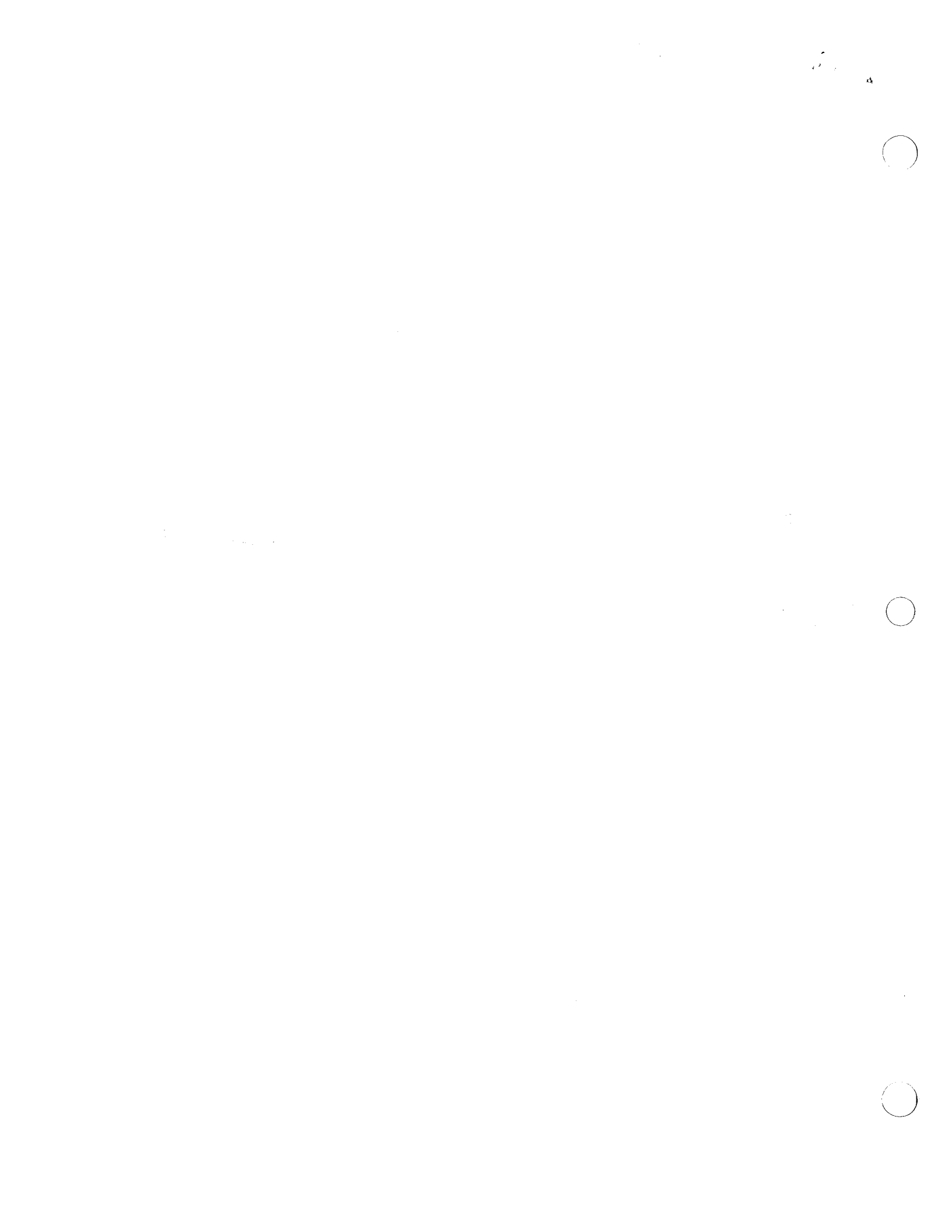
County of Rockland)

On this 6th day of August , 2013 before me personally came Barbara Zitt 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 the 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 Resolution therefore.

Notary: 
JAMES L. SMITH
NOTARY PUBLIC, STATE OF NEW YORK
NO. 03SM4880171
QUALIFIED IN WESTCHESTER COUNTY
COMMISSION EXPIRES JAN. 26, 20 15





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
	Capital Stock..... 10,000,000
	Paid in Surplus..... 7,899,471,886
	Unassigned Surplus..... 5,996,373,279
Total Admitted Assets..... <u>\$40,205,366,577</u>	Surplus to Policyholders <u>14,510,466,662</u>
	Total Liabilities and Surplus..... <u>\$40,205,366,577</u>



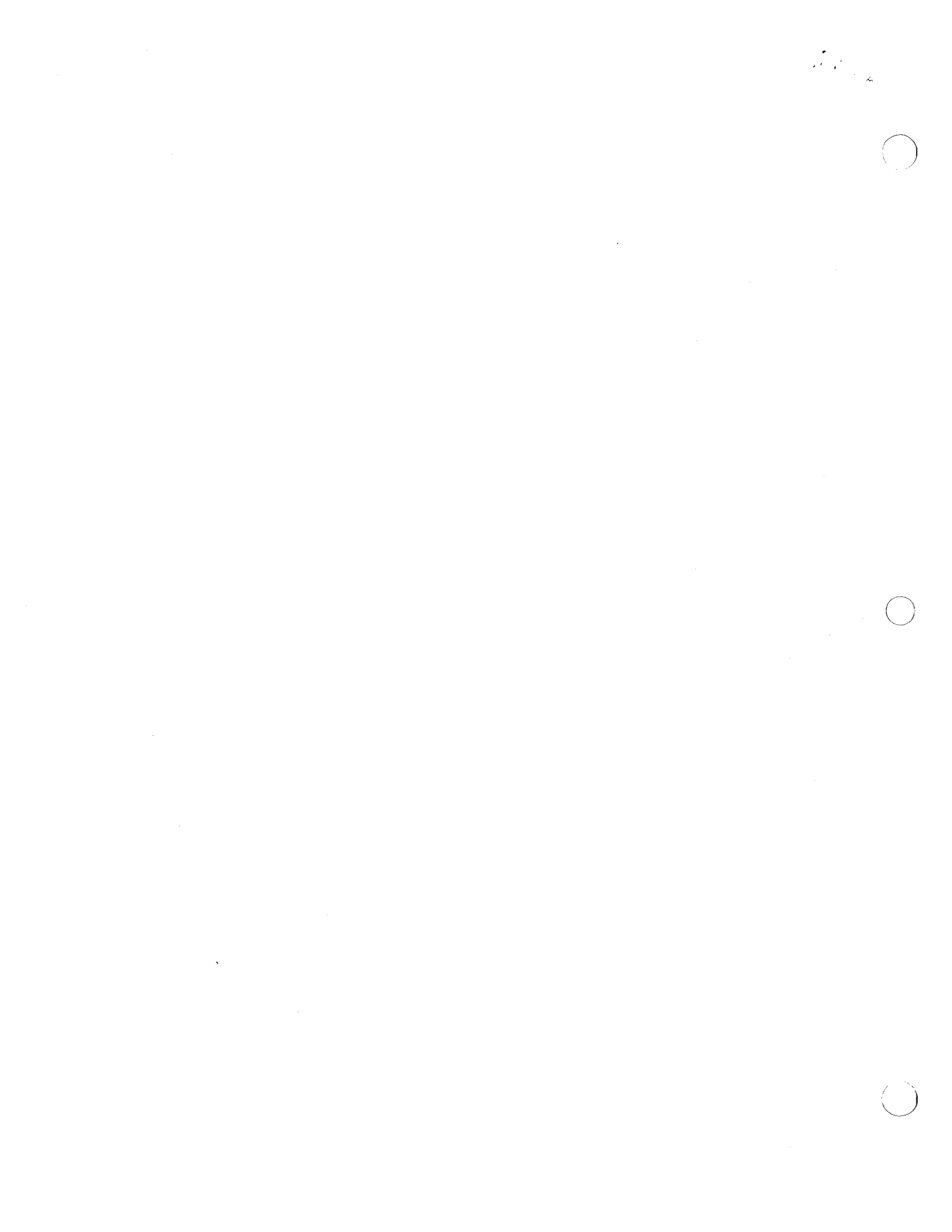
* Bonds are stated at amortized or investment value; Stocks at Association Market Values.
The foregoing financial information is taken from Liberty Mutual Insurance Company's financial statement filed with the state of Massachusetts Department of Insurance.

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



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

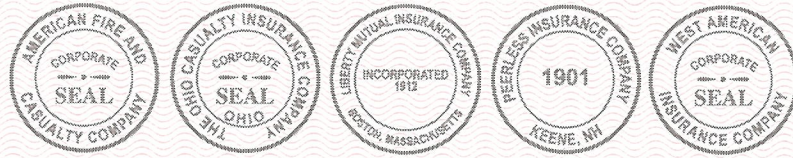
Liberty Mutual Insurance Company
Peerless Insurance Company

POWER OF ATTORNEY

KNOWN ALL PERSONS BY THESE PRESENTS: That American Fire & Casualty Company and The Ohio Casualty Insurance Company are corporations duly organized under the laws of the State of Ohio, that Liberty Mutual Insurance Company is a corporation duly organized under the laws of the State of Massachusetts, that Peerless Insurance Company is a corporation duly organized under the laws of the State of New Hampshire, and West American Insurance Company is a corporation duly organized under the laws of the State of Indiana (herein collectively called the "Companies"), pursuant to and by authority herein set forth, does hereby name, constitute and appoint, **CARL W. BULL, BARBARA ZITT,**

all of the city of WEST NEW YORK, state of NEW JERSEY 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 14th day of May, 2012.



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

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

STATE OF WASHINGTON ss
COUNTY OF KING

On this 14th day of May, 2012, before me personally appeared Gregory W. Davenport, who acknowledged himself to be the Assistant Secretary of American Fire and Casualty Company, Liberty Mutual Insurance Company, The Ohio Casualty Company, Peerless Insurance Company and West American Insurance Company, and that he, as such, being authorized so to do, execute the foregoing instrument for the purposes therein contained by signing on behalf of the corporations by himself as a duly authorized officer.

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



By: KD Riley
KD Riley, Notary Public

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

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

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

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

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

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

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the seals of said Companies this 6th day of August, 20 13.



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

Not valid for mortgage, note, loan, letter of credit, bank deposit, currency rate, interest rate or dual 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.

11/11/11



Performance Bond #1 (Pages 80 to 83): Use if the total contract price is \$5 Million Or Less.
Performance Bond #1 has been approved by the U.S. Small Business Administration (“SBA”) for participation in its Bond Guarantee Program.

PERFORMANCE BOND #1 (Page 2)

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 80 to 83): Use if the total contract price is \$5 Million Or Less. Performance Bond #1 has been approved by the U.S. Small Business Administration ("SBA") for participation in its Bond Guarantee Program.

PERFORMANCE BOND #1 (Page 3)

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

(Seal) _____ (L.S.)
Principal

By: _____

(Seal) _____
Surety

By: _____

(Seal) _____
Surety

By: _____

(Seal) _____
Surety

By: _____

Bond Premium Rate _____

Bond Premium Cost _____

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

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

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

Performance Bond #1 (Pages 80 to 83): Use if the total contract price is \$5 Million Or Less. Performance Bond #1 has been approved by the U.S. Small Business Administration ("SBA") for participation in its Bond Guarantee Program.

PERFORMANCE BOND #1 (Page 4)

ACKNOWLEDGMENT OF PRINCIPAL, IF A CORPORATION

State of _____ County of _____ ss:

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

Notary Public or Commissioner of Deeds

ACKNOWLEDGMENT OF PRINCIPAL, IF A PARTNERSHIP

State of _____ County of _____ ss:

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

Notary Public or Commissioner of Deeds

ACKNOWLEDGMENT OF PRINCIPAL, IF AN INDIVIDUAL

State of _____ County of _____ ss:

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

Notary Public or Commissioner of Deeds

Each executed bond should be accompanied by: (a) appropriate acknowledgments of the respective parties; (b) appropriate duly certified copy of Power of Attorney or other certificate of authority where bond is executed by agent, officer or other representative of Principal or Surety; (c) a duly certified extract from By-Laws or resolutions of Surety under which Power of Attorney or other certificate of authority of its agent, officer or representative was issued, and (d) certified copy of latest published financial statement of assets and liabilities of Surety.

* * * * *

Affix Acknowledgments and Justification of Sureties

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

PERFORMANCE BOND #2 (Page 1)

PERFORMANCE BOND #2

KNOW ALL PERSONS BY THESE PRESENTS, That we, _____

hereinafter referred to as the "Principal", and _____

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

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

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

a copy of which Contract is annexed to and hereby made a part of this bond as though herein set forth in full;

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

PERFORMANCE BOND #2 (Page2)

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 either (1) pay the full amount of the above penal sum in complete discharge and exoneration of this bond and of all the liabilities of the Surety relating to this bond, or (2) fully perform and complete the Work to be performed under the Contract, pursuant to the terms, conditions, and covenants thereof. The Surety (Sureties) further agrees, at its option, either to tender the penal sum or to commence and diligently perform the Work specified in the Contract, including physical site work, within twenty-five (25) business days after written notice thereof from the City and to complete all Work within the time set forth in the Contract or such other time as agreed to between the City and Surety in accordance with the Contract. The Surety and the City reserve all rights and defenses each may have against the other; provided, however, that the Surety expressly agrees that its reservation of rights shall not provide a basis for non-performance of its obligation to commence and to complete all Work as provided herein.

The Surety (Sureties), for value received, for itself and its successors and assigns, hereby stipulates and agrees that the obligation of said Surety (Sureties) and its bond shall be in no way impaired or affected by any extension of time, modification, omission, addition, or change in or to the said Contract or the Work to be performed thereunder, or by any payment thereunder before the time required therein, or by any waiver of any provisions thereof, or by any assignment, subletting or other transfer thereof or of any Work to be performed or any moneys due or to become due thereunder; and said Surety (Sureties) does hereby waive notice of any and all of such extensions, modifications, omissions, additions, changes, payments, waivers, assignments, subcontracts and transfers, and hereby expressly stipulates and agrees that any and all things done and omitted to be done by and in relation to assignees, subcontractors, and other transferees shall have the same effect as to said Surety (Sureties) as though done or omitted to be done by or in relation to said Principal.

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

PERFORMANCE BOND #2 (Page 3)

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

(Seal) _____ (L.S.)
Principal

By: _____

(Seal) _____
Surety

By: _____

(Seal) _____
Surety

By: _____

(Seal) _____
Surety

By: _____

(Seal) _____
Surety

By: _____

(Seal) _____
Surety

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.

ACKNOWLEDGMENT OF PRINCIPAL, IF A CORPORATION

State of _____ County of _____ ss:

On this _____ day of _____, 20____ before me personally came _____ to me known, who, being by me duly sworn did depose and say that he/she resides at _____; that he/she is the _____ of _____ the corporation described in and which executed the foregoing instrument; and that he signed his name to the foregoing instrument by order of the directors of said corporation as the duly authorized and binding act thereof.

Notary Public or Commissioner of Deeds

ACKNOWLEDGMENT OF PRINCIPAL, IF A PARTNERSHIP

State of _____ County of _____ ss:

On this _____ day of _____, 20____ before me personally came _____ to me known, who, being by me duly sworn did depose and say that he/she resides at _____; that he/she is _____ partner of _____, a limited/general partnership existing under the laws of the State of _____, the partnership described in and which executed the foregoing instrument; and that he/she signed his/her name to the foregoing instrument as the duly authorized and binding act of said partnership.

Notary Public or Commissioner of Deeds

ACKNOWLEDGMENT OF PRINCIPAL, IF AN INDIVIDUAL

State of _____ County of _____ ss:

On this _____ day of _____, 20____ before me personally came _____ to me known, who, being by me duly sworn did depose and say that he/she resides at _____, and that he/she is the individual whose name is subscribed to the within instrument and acknowledged to me that by his/her signature on the instrument, said individual executed the instrument.

Notary Public or Commissioner of Deeds

Each executed bond should be accompanied by: (a) appropriate acknowledgments of the respective parties; (b) appropriate duly certified copy of Power of Attorney or other certificate of authority where bond is executed by agent, officer or other representative of Principal or Surety; (c) a duly certified extract from By-Laws or resolutions of Surety under which Power of Attorney or other certificate of authority of its agent, officer or representative was issued, and (d) certified copy of latest published financial statement of assets and liabilities of Surety.

* * * * *

Affix Acknowledgments and Justification of Sureties.

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

PAYMENT BOND (Page 1)

PAYMENT BOND

KNOW ALL PERSONS BY THESE PRESENTS, That we, _____

hereinafter referred to as the "Principal", and _____

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

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

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

a copy of which Contract is annexed to and hereby made a part of this bond as though herein set forth in full;

NOW, THEREFORE, the conditions of this obligation are such that if the Principal, his or its representatives or assigns and other Subcontractors to whom Work under this Contract is sublet and his or their successors and assigns shall promptly pay or cause to be paid all lawful claims for

(a) Wages and compensation for labor performed and services rendered by all persons engaged in the prosecution of the Work under said Contract, and any amendment or extension thereof or addition thereto, whether such persons be agents servants or employees of the Principal or any such Subcontractor, including all persons so

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

PAYMENT BOND (Page 2)

engaged who perform the work of laborers or mechanics at or in the vicinity of the site of the Project regardless of any contractual relationship between the Principal or such Subcontractors, or his or their successors or assigns, on the one hand and such laborers or mechanics on the other, but not including office employees not regularly stationed at the site of the project; and

(b) Materials and supplies (whether incorporated in the permanent structure or not), as well as teams, fuels, oils, implements or machinery furnished, used or consumed by said Principal or any subcontractor at or in the vicinity of the site of the Project in the prosecution of the Work under said Contract and any amendment or extension thereof or addition thereto; then this obligation shall be void, otherwise to remain in full force and effect.

This bond is subject to the following additional conditions, limitations and agreements:

(a) The Principal and Surety (Sureties) agree that this bond shall be for the benefit of any materialmen or laborer having a just claim, as well as the City itself.

(b) All persons who have performed labor, rendered services or furnished materials and supplies, as aforesaid, shall have a direct right of action against the Principal and his, its or their successors and assigns, and the Surety (Sureties) herein, or against either or both or any of them and their successors and assigns. Such persons may sue in their own name, and may prosecute the suit to judgment and execution without the necessity of joining with any other persons as party plaintiff.

(c) The Principal and Surety (Sureties) agree that neither of them will hold the City liable for any judgment for costs of otherwise, obtained by either or both of them against a laborer or materialman in a suit brought by either a laborer or materialman under this bond for moneys allegedly due for performing work or furnishing material.

(d) The Surety (Sureties) or its successors and assigns shall not be liable for any compensation recoverable by an employee or laborer under the Workmen's Compensation Law.

(e) In no event shall the Surety (Sureties), or its successors or assigns, be liable for a greater sum than the penalty of this bond or be subject to any suit, action or proceeding hereon that is instituted by any person, firm, or corporation hereunder later than two years after the complete performance of said Contract and final settlement thereof.

The Principal, for himself and his successors and assigns, and the Surety (Sureties), for itself and its successors and assigns, do hereby expressly waive any objection that might be interposed as to the right of the City to require a bond containing the foregoing provisions, and they do hereby further expressly waive any defense which they or either of them might interpose to an action brought hereon by any person, firm or corporation, including subcontractors, materialmen and third persons, for work, labor, services, supplies or material performed rendered, or furnished as aforesaid upon the ground that there is no law authorizing the City to require the foregoing provisions to be placed in this bond.

And the Surety (Sureties), for value received, for itself and its successors and assigns, hereby stipulates and agrees that the obligation of said Surety (Sureties), and its bonds shall be in no way impaired or affected by any extension of time, modification, omission, addition, or change in or of the said Contract or the work to be performed thereunder, or by any payment thereunder before the time required therein, or by any waiver of any provisions thereof, or by any assignment, subletting or other transfer thereof or of any part thereof, or of any Work to be performed, or any moneys due to become due thereunder and said Surety (Sureties) does hereby waive notice of any and all of such extensions, modifications, omissions, additions, changes, payments, waivers, assignments, subcontracts and transfers, and hereby expressly stipulates and agrees that any and all things done and omitted to be done by and in relation to assignees, Subcontractors, and other transferees shall have the same effect as to said Surety (Sureties) as though done or omitted to be done or in relation to said Principal.

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

PAYMENT BOND (Page 3)

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

(Seal) _____ (L.S.)
Principal

By: _____

(Seal) _____
Surety

By: _____

(Seal) _____
Surety

By: _____

(Seal) _____
Surety

By: _____

(Seal) _____
Surety

By: _____

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

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

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

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

PAYMENT BOND (Page 4)

ACKNOWLEDGMENT OF PRINCIPAL, IF A CORPORATION

State of _____ County of _____ ss:

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

Notary Public or Commissioner of Deeds

ACKNOWLEDGMENT OF PRINCIPAL, IF A PARTNERSHIP

State of _____ County of _____ ss:

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

Notary Public or Commissioner of Deeds

ACKNOWLEDGMENT OF PRINCIPAL, IF AN INDIVIDUAL

State of _____ County of _____ ss:

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

Notary Public or Commissioner of Deeds

Each executed bond should be accompanied by: (a) appropriate acknowledgments of the respective parties; (b) appropriate duly certified copy of Power of Attorney or other certificate of authority where bond is executed by agent, officer or other representative of Principal or Surety; (c) a duly certified extract from By-Laws or resolutions of Surety under which Power of Attorney or other certificate of authority of its agent, officer or representative was issued, and (d) certified copy of latest published financial statement of assets and liabilities of Surety.

* * * * *

Affix Acknowledgments and Justification of Sureties

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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. 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.

Pursuant to Labor Law §220 (3) 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.

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

Prevailing Rate Schedule Information: The information below is intended to assist you in meeting your prevailing wage rate obligation.

Covered Workers: Any and all individuals who are engaged, employed or otherwise occupied as Workers, Laborers or Mechanics on the public work site.

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

220 SCHEDULE OF PREVAILING WAGES AND SUPPLEMENTAL BENEFITS ADDENDUM
EFFECTIVE PERIOD JANUARY 1, 2013 THROUGH JUNE 30, 2013

List of Amended Classifications

1. BOILERMAKER
2. CEMENT MASON
3. DERRICKPERSON AND RIGGER
4. DRIVER: TRUCK (TEAMSTER)
5. ENGINEER - FIELD (BUILDING CONSTRUCTION)
6. ENGINEER - OPERATING
7. HEAT AND FROST INSULATOR
8. HOUSE WRECKER
9. IRON WORKER - ORNAMENTAL
10. IRON WORKER - STRUCTURAL
11. MASON TENDER
12. MASON TENDER (INTERIOR DEMOLITION WORKER)
13. MOSAIC MECHANIC
14. PAPERHANGER
15. PLASTERER
16. PLASTERER - TENDER
17. PLUMBER
18. PLUMBER (MECHANICAL EQUIPMENT AND SERVICE)
19. PLUMBER (RESIDENTIAL RATES FOR 1, 2 AND 3 FAMILY HOME CONSTRUCTION)
20. ROOFER

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

21. SHEET METAL WORKER

22. SIGN ERECTOR

23. STEAMFITTER

24. STEAMFITTER - REFRIGERATION AND AIR CONDITIONER

25. TILE FINISHER

26. TILE LAYER - SETTER

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ASBESTOS HANDLER

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

Asbestos Handler

Effective Period: 7/1/2012 - 6/30/2013

Wage Rate per Hour: **\$35.10**

Supplemental Benefit Rate per Hour: **\$14.85**

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)

BLASTER

Blaster

Effective Period: 7/1/2012 - 6/30/2013

Wage Rate per Hour: **\$43.20**

Supplemental Benefit Rate per Hour: **\$37.29**

Blaster (Hydraulic)

Effective Period: 7/1/2012 - 6/30/2013

Wage Rate per Hour: **\$43.95**

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

Supplemental Benefit Rate per Hour: \$37.29

Blaster - Trac Drill Hydraulic

Effective Period: 7/1/2012 - 6/30/2013

Wage Rate per Hour: \$38.96

Supplemental Benefit Rate per Hour: \$37.29

Blaster - Wagon: Air Trac: Quarry Bar: Drillrunners

Effective Period: 7/1/2012 - 6/30/2013

Wage Rate per Hour: \$38.24

Supplemental Benefit Rate per Hour: \$37.29

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: 7/1/2012 - 6/30/2013

Wage Rate per Hour: \$37.29

Supplemental Benefit Rate per Hour: \$37.29

Blaster - Powder Carriers

Effective Period: 7/1/2012 - 6/30/2013

Wage Rate per Hour: \$33.73

Supplemental Benefit Rate per Hour: \$37.29

Blaster - Hydraulic Trac Drill Chuck Tender

Effective Period: 7/1/2012 - 6/30/2013

Wage Rate per Hour: \$32.57

Supplemental Benefit Rate per Hour: \$37.29

Blaster - Chuck Tender & Nipper

Effective Period: 7/1/2012 - 6/30/2013

Wage Rate per Hour: \$31.88

Supplemental Benefit Rate per Hour: \$37.29

Blaster - Magazine Keepers: (Watch Person)

Effective Period: 7/1/2012 - 6/30/2013

Wage Rate per Hour: \$19.26

Supplemental Benefit Rate per Hour: \$37.29

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

Overtime Description

For Blaster - Magazine Keepers: (Watch Person) only - time and one half the regular rate for work after an 8 hour day Saturday, Sunday and holidays listed below.

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: 7/1/2012 - 12/31/2012

Wage Rate per Hour: \$47.98

Supplemental Benefit Rate per Hour: \$37.88

Supplemental Note: The above rate applies to repair or maintenance and new construction; For time and one half overtime - \$56.36; For double overtime - \$74.86.

Effective Period: 1/1/2013 - 3/31/2013

Wage Rate per Hour: \$49.47

Supplemental Benefit Rate per Hour: \$39.48

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

Supplemental Note: The above rate applies to repair or maintenance and new construction; For time and one half overtime - \$58.78; For double overtime - \$78.07.

Effective Period: 4/1/2013 - 6/30/2013

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.

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: 7/1/2012 - 6/30/2013

Wage Rate per Hour: \$46.44

Supplemental Benefit Rate per Hour: \$27.53

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

Memorial Day

Independence Day

Labor Day

Thanksgiving Day

Christmas Day

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: 7/1/2012 - 6/30/2013

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.

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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

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: 7/1/2012 - 6/30/2013

Wage Rate per Hour: \$46.74

Supplemental Benefit Rate per Hour: \$42.37

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

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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 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: 7/1/2012 - 6/30/2013

Wage Rate per Hour: \$38.98

Supplemental Benefit Rate per Hour: \$25.67

Supplemental Note: \$28.42 on Saturdays; \$31.17 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

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Paid Holidays

1/2 day before Christmas Day
1/2 day before New Year's Day

Shift Rates

On shift work extending over a twenty-four hour period, all shifts are paid at straight time.

(Cement Concrete Workers District Council)

CEMENT MASON

Cement Mason

Effective Period: 7/1/2012 - 12/31/2012

Wage Rate per Hour: **\$42.50**

Supplemental Benefit Rate per Hour: **\$39.06**

Supplemental Note: Overtime supplemental benefit rate per hour: **\$57.56**

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

Wage Rate per Hour: **\$37.63**

Supplemental Benefit Rate per Hour: **\$39.06**

Supplemental Note: Overtime supplemental benefit rate per hour: **\$57.56**

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

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.

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Shift Rates

From 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.

(Local #780)

CORE DRILLER

Core Driller

Effective Period: 7/1/2012 - 6/30/2013

Wage Rate per Hour: **\$35.44**

Supplemental Benefit Rate per Hour: **\$19.75**

Core Driller Helper

Effective Period: 7/1/2012 - 6/30/2013

Wage Rate per Hour: **\$28.60**

Supplemental Benefit Rate per Hour: **\$19.75**

Core Driller Helper(Third year in the industry)

Effective Period: 7/1/2012 - 6/30/2013

Wage Rate per Hour: **\$25.74**

Supplemental Benefit Rate per Hour: **\$19.75**

Core Driller Helper (Second year in the industry)

Effective Period: 7/1/2012 - 6/30/2013

Wage Rate per Hour: **\$22.88**

Supplemental Benefit Rate per Hour: **\$19.75**

Core Driller Helper (First year in the industry)

Effective Period: 7/1/2012 - 6/30/2013

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.

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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)

DERRICKPERSON AND RIGGER

Derrick Person & Rigger

Effective Period: 7/1/2012 - 12/31/2012

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.

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

Wage Rate per Hour: \$41.00

Supplemental Benefit Rate per Hour: \$46.07

Supplemental Note: The above supplemental rate applies for work performed in Manhattan, Bronx, Brooklyn and Queens. \$47.49 - For work performed in Staten Island.

Derrick Person & Rigger - Site Work

For site work where no rigging is involved.

Effective Period: 7/1/2012 - 6/30/2013

Wage Rate per Hour: \$30.00

Supplemental Benefit Rate per Hour: \$31.32

Overtime Description

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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: 7/1/2012 - 6/30/2013

Wage Rate per Hour: \$58.95

Supplemental Benefit Rate per Hour: \$42.37

Diver Tender (Marine)

Effective Period: 7/1/2012 - 6/30/2013

Wage Rate per Hour: \$42.10

Supplemental Benefit Rate per Hour: \$42.37

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).

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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: 7/1/2012 - 6/30/2013

Wage Rate per Hour: \$46.74

Supplemental Benefit Rate per Hour: \$42.37

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

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None

Shift Rates

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 the straight time hourly wage for 9 hours and the straight time supplemental benefits for 8 hours.

(Carpenters District Council)

DRIVER: TRUCK (TEAMSTER)

Driver - Automobile Chauffeur (Dump Truck)

Effective Period: 7/1/2012 - 12/31/2012

Wage Rate per Hour: **\$35.84**

Supplemental Benefit Rate per Hour: **\$36.93**

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

Wage Rate per Hour: **\$37.01**

Supplemental Benefit Rate per Hour: **\$38.65**

Driver - Heavy Equipment Trailer Driver

Effective Period: 7/1/2012 - 12/31/2012

Wage Rate per Hour: **\$37.34**

Supplemental Benefit Rate per Hour: **\$36.93**

Note: For time and one half overtime Wage Rate - \$53.76; for double time overtime Wage Rate - \$71.68

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

Wage Rate per Hour: **\$38.51**

Supplemental Benefit Rate per Hour: **\$38.65**

Note: For time and one half overtime Wage Rate - \$55.51; for double time overtime Wage Rate - \$74.01

Driver - Euclid & Turnapull Operator

Effective Period: 7/1/2012 - 12/31/2012

Wage Rate per Hour: **\$36.41**

Supplemental Benefit Rate per Hour: **\$36.93**

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

Wage Rate per Hour: **\$37.57**

Supplemental Benefit Rate per Hour: **\$38.65**

Driver - Six Wheeler(3 Axle) Tractors & Trailers

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Effective Period: 7/1/2012 - 12/31/2012

Wage Rate per Hour: \$36.84

Supplemental Benefit Rate per Hour: \$36.93

Note: For time and one half overtime Wage Rate - \$54.62; for double time overtime Wage Rate - \$72.82

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

Wage Rate per Hour: \$38.01

Supplemental Benefit Rate per Hour: \$38.65

Note: For time and one half overtime Wage Rate - \$56.36; for double time overtime Wage Rate - \$75.14

Driver - Boom Truck

Effective Period: 7/1/2012 - 12/31/2012

Wage Rate per Hour: \$37.09

Supplemental Benefit Rate per Hour: \$36.93

Note: For time and one half overtime Wage Rate - \$54.62; for double time overtime Wage Rate - \$72.82

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

Wage Rate per Hour: \$38.26

Supplemental Benefit Rate per Hour: \$38.65

Note: For time and one half overtime Wage Rate - \$56.36; for double time overtime Wage Rate - \$75.14

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 1/2 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).

President's Day

Columbus Day

Veteran's Day

Day after Thanksgiving

Triple time the regular rate for work on the following holiday(s).

New Year's Day

Memorial Day

Independence Day

Labor Day

Presidential Election Day

Thanksgiving Day

Christmas Day

Paid Holidays

New Year's Day

President's Day

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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: 7/1/2012 - 6/30/2013

Wage Rate per Hour: \$37.47

Supplemental Benefit Rate per Hour: \$38.65

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
Veteran's Day
Thanksgiving Day
Day after Thanksgiving
Christmas Day

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(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: 7/1/2012 - 6/30/2013

Wage Rate per Hour: \$51.00

Supplemental Benefit Rate per Hour: \$42.45

Electrician "A" (Regular Day Overtime)

Effective Period: 7/1/2012 - 6/30/2013

Wage Rate per Hour: \$76.50

Supplemental Benefit Rate per Hour: \$45.13

Electrician "A" (Day Shift)

Effective Period: 7/1/2012 - 6/30/2013

Wage Rate per Hour: \$51.00

Supplemental Benefit Rate per Hour: \$42.45

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

Effective Period: 7/1/2012 - 6/30/2013

Wage Rate per Hour: \$76.50

Supplemental Benefit Rate per Hour: \$45.13

Electrician "A" (Swing Shift)

Effective Period: 7/1/2012 - 6/30/2013

Wage Rate per Hour: \$59.84

Supplemental Benefit Rate per Hour: \$48.20

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

Effective Period: 7/1/2012 - 6/30/2013

Wage Rate per Hour: \$89.76

Supplemental Benefit Rate per Hour: \$51.36

Electrician "A" (Graveyard Shift)

Effective Period: 7/1/2012 - 6/30/2013

Wage Rate per Hour: \$67.03

Supplemental Benefit Rate per Hour: \$53.07

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

Effective Period: 7/1/2012 - 6/30/2013

Wage Rate per Hour: \$100.55

Supplemental Benefit Rate per Hour: \$56.60

Overtime

Time and one half the regular rate after a 7 hour day.

Time and one half the regular rate for Saturday.

Time and one half the regular rate for Sunday.

Overtime Holidays

Time and one half the regular rate for work on a holiday.

New Year's Day

Martin Luther King Jr. Day

President's Day

Memorial Day

Independence Day

Labor Day

Columbus Day

Veteran's Day

Thanksgiving Day

Day after Thanksgiving

Christmas Day

Paid Holidays

None

Shift Rates

When so elected by the Employer, one or more shifts of at least five days duration may be scheduled as follows:

Day Shift: 8:00 am to 4:30 pm, Swing Shift 4:30 pm to 12:30 am, Graveyard Shift: 12:30 am to 8:00 am.

For multiple shifts of temporary light and/or power, the temporary light and/or power employee shall be paid for 8 hours at the straight time rate.

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,

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maintain and repair all kinds of lighting fixtures and local lighting controls and washing and cleaning of foregoing fixtures.

Effective Period: 7/1/2012 - 6/30/2013

Wage Rate per Hour: \$25.30

Supplemental Benefit Rate per Hour: \$17.52

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: 7/1/2012 - 6/30/2013

Wage Rate per Hour: \$37.95

Supplemental Benefit Rate per Hour: \$18.85

Overtime

Time and one half the regular rate after an 8 hour day.

Time and one half the regular rate for Saturday.

Time and one half the regular rate for Sunday.

Overtime Holidays

Time and one half the regular rate for work on the following holiday(s).

New Year's Day

Martin Luther King Jr. Day

President's Day

Memorial Day

Independence Day

Labor Day

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)

Am Technician

Effective Period: 7/1/2012 - 3/9/2013

Wage Rate per Hour: \$29.90

Supplemental Benefit Rate per Hour: \$13.70

Supplemental Note: \$12.20 only after 8 hours worked in a day

Effective Period: 3/10/2013 - 6/30/2013

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.

P Holidays

New Year's Day

Martin Luther King Jr. Day

President's Day

Memorial Day

Independence Day

Labor Day

Columbus Day

Veteran's Day

Thanksgiving Day

Day after Thanksgiving

Christmas Day

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

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(Local #3)

ELECTRICIAN-STREET LIGHTING WORKER

Electrician - Electro Pole Electrician

Effective Period: 7/1/2012 - 6/30/2013

Wage Rate per Hour: \$51.00

Supplemental Benefit Rate per Hour: \$44.18

Electrician - Electro Pole Foundation Installer

Effective Period: 7/1/2012 - 6/30/2013

Wage Rate per Hour: \$38.66

Supplemental Benefit Rate per Hour: \$34.12

Electrician - Electro Pole Maintainer

Effective Period: 7/1/2012 - 6/30/2013

Wage Rate per Hour: \$33.10

Supplemental Benefit Rate per Hour: \$30.84

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

(L #3)

ELEVATOR CONSTRUCTOR

Elevator Constructor

Effective Period: 7/1/2012 - 3/16/2013

Wage Rate per Hour: \$55.20

Supplemental Benefit Rate per Hour: \$32.78

Effective Period: 3/17/2013 - 6/30/2013

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.

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: 7/1/2012 - 3/16/2013

Wage Rate per Hour: **\$43.79**

Supplemental Benefit Rate per Hour: **\$31.37**

Effective Period: 3/17/2013 - 6/30/2013

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

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

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Cherry pickers 20 tons and over and Loaders (rubber tired and/or tractor type with a manufacturer's minimum capacity of six cubic yards and over).

Effective Period: 7/1/2012 - 6/30/2013

Wage Rate per Hour: \$58.75

Supplemental Benefit Rate per Hour: \$31.07

Supplemental Note: \$55.74 on overtime

Shift Wage Rate: \$94.00

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: 7/1/2012 - 6/30/2013

Wage Rate per Hour: \$57.00

Supplemental Benefit Rate per Hour: \$31.07

Supplemental Note: \$55.74 on overtime

Shift Wage Rate: \$91.20

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: 7/1/2012 - 6/30/2013

Wage Rate per Hour: \$56.74

Supplemental Benefit Rate per Hour: \$31.07

Supplemental Note: \$55.74 on overtime

Shift Wage Rate: \$90.78

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Engineer - Heavy Construction Maintenance Engineer II

On Base Mounted Tower Cranes

Effective Period: 7/1/2012 - 6/30/2013
Wage Rate per Hour: \$74.44
Supplemental Benefit Rate per Hour: \$31.07
Supplemental Note: \$55.74 on overtime
Shift Wage Rate: \$119.10

Engineer - Heavy Construction Maintenance Engineer III

On Generators, Light Towers

Effective Period: 7/1/2012 - 6/30/2013
Wage Rate per Hour: \$37.56
Supplemental Benefit Rate per Hour: \$31.07
Supplemental Note: \$55.74 on overtime
Shift Wage Rate: \$60.10

Engineer - Heavy Construction Maintenance Engineer IV

On Pumps and Mixers including mud sucking

Effective Period: 7/1/2012 - 6/30/2013
Wage Rate per Hour: \$38.53
Supplemental Benefit Rate per Hour: \$31.07
Supplemental Note: \$55.74 on overtime
Shift Wage Rate: \$61.65

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: 7/1/2012 - 6/30/2013
Wage Rate per Hour: \$54.09
Supplemental Benefit Rate per Hour: \$31.07
Supplemental Note: \$55.74 on overtime
Shift Wage Rate: \$86.54

Engineer - Heavy Construction Oilers I

Gradalls, Cold Planer Grader, Concrete Pumps, Driving Truck Cranes, Driving and Operating Fuel and Grease Trucks.

Effective Period: 7/1/2012 - 6/30/2013
Wage Rate per Hour: \$51.19

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Supplemental Benefit Rate per Hour: \$31.07

Supplemental Note: \$55.74 on overtime

Shift Wage Rate: \$81.90

Engineer - Heavy Construction Oilers II

All gasoline, electric, diesel or air operated Shovels, Draglines, Backhoes, Keystones, Pavers, Gunite Machines, Battery of Compressors, Crawler Cranes, two-person Trenching Machines.

Effective Period: 7/1/2012 - 6/30/2013

Wage Rate per Hour: \$35.50

Supplemental Benefit Rate per Hour: \$31.07

Supplemental Note: \$55.74 on overtime

Shift Wage Rate: \$56.80

Engineer - Steel Erection Maintenance Engineers

Derrick, Travelers, Tower, Crawler Tower and Climbing Cranes

Effective Period: 7/1/2012 - 6/30/2013

Wage Rate per Hour: \$54.33

Supplemental Benefit Rate per Hour: \$29.66

Supplemental Note: \$53.17 on overtime

Shift Wage Rate: \$86.93

Engineer - Steel Erection Oiler I

On a Truck Crane

Effective Period: 7/1/2012 - 6/30/2013

Wage Rate per Hour: \$50.91

Supplemental Benefit Rate per Hour: \$29.66

Supplemental Note: \$53.17 on overtime

Shift Wage Rate: \$81.46

Engineer - Steel Erection Oiler II

On a Crawler Crane

Effective Period: 7/1/2012 - 6/30/2013

Wage Rate per Hour: \$39.04

Supplemental Benefit Rate per Hour: \$29.66

Supplemental Note: \$53.17 on overtime

Shift Wage Rate: \$62.46

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.

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

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

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: 7/1/2012 - 6/30/2013

Wage Rate per Hour: **\$51.62**

Supplemental Benefit Rate per Hour: **\$29.66**

Supplemental Note: \$53.17 on overtime

Engineer - Building Work Maintenance Engineers II

On Pumps, Generators, Mixers and Heaters

Effective Period: 7/1/2012 - 6/30/2013

Wage Rate per Hour: **\$40.34**

Supplemental Benefit Rate per Hour: **\$29.66**

Supplemental Note: \$53.17 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

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Cranes: Driving and Operating Fuel and Grease Trucks, Cherrypickers (hydraulic cranes) over 70,000 GVW, and machines of a similar nature.

Effective Period: 7/1/2012 - 6/30/2013

Wage Rate per Hour: \$49.12

Supplemental Benefit Rate per Hour: \$29.66

Supplemental Note: \$53.17 on overtime

Engineer - Building Work Oilers II

Oilers on Crawler Cranes, Backhoes, Trenching Machines, Gunite Machines, Compressors (three or more in Battery).

Effective Period: 7/1/2012 - 6/30/2013

Wage Rate per Hour: \$36.75

Supplemental Benefit Rate per Hour: \$29.66

Supplemental Note: \$53.17 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

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)

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
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ENGINEER - CITY SURVEYOR AND CONSULTANT

Party Chief

Effective Period: 7/1/2012 - 6/30/2013

Wage Rate per Hour: **\$34.61**

Supplemental Benefit Rate per Hour: **\$17.30**

Instrument Person

Effective Period: 7/1/2012 - 6/30/2013

Wage Rate per Hour: **\$28.59**

Supplemental Benefit Rate per Hour: **\$17.30**

Rodperson

Effective Period: 7/1/2012 - 6/30/2013

Wage Rate per Hour: **\$24.79**

Supplemental Benefit Rate per Hour: **\$17.30**

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: 7/1/2012 - 12/31/2012

Wage Rate per Hour: \$53.64

Supplemental Benefit Rate per Hour: \$26.95

Supplemental Note: Overtime Benefit Rate - \$37.48 per hour (time & one half) \$48.00 per hour (double time).

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

Wage Rate per Hour: \$55.74

Supplemental Benefit Rate per Hour: \$29.73

Supplemental Note: Overtime Benefit Rate - \$41.40 per hour (time & one half) \$53.06 per hour (double time).

Field Engineer - BC Instrument Person

Effective Period: 7/1/2012 - 12/31/2012

Wage Rate per Hour: \$41.94

Supplemental Benefit Rate per Hour: \$26.95

Supplemental Note: Overtime Benefit Rate - \$37.48 per hour (time & one half) \$48.00 per hour (double time).

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

Wage Rate per Hour: \$43.30

Supplemental Benefit Rate per Hour: \$29.73

Supplemental Note: Overtime Benefit Rate - \$41.40 per hour (time & one half) \$53.06 per hour (double time).

Field Engineer - BC Rodperson

Effective Period: 7/1/2012 - 12/31/2012

Wage Rate per Hour: \$27.52

Supplemental Benefit Rate per Hour: \$26.95

Supplemental Note: Overtime Benefit Rate - \$37.48 per hour (time & one half) \$48.00 per hour (double time).

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

Wage Rate per Hour: \$27.97

Supplemental Benefit Rate per Hour: \$29.73

Supplemental Note: Overtime Benefit Rate - \$41.40 per hour (time & one half) \$53.06 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

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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: 7/1/2012 - 6/30/2013

Wage Rate per Hour: \$60.28

Supplemental Benefit Rate per Hour: \$29.73

Supplemental Note: Overtime benefit rate - \$41.40 per hour (time & one half), \$53.06 per hour (double time).

Field Engineer - HC Instrument Person

Effective Period: 7/1/2012 - 6/30/2013

Wage Rate per Hour: \$44.28

Supplemental Benefit Rate per Hour: \$29.73

Supplemental Note: Overtime benefit rate - \$41.40 per hour (time & one half), \$53.06 per hour (double time).

Field Engineer - HC Rodperson

Effective Period: 7/1/2012 - 6/30/2013

Wage Rate per Hour: \$37.11

Supplemental Benefit Rate per Hour: \$29.73

Supplemental Note: Overtime benefit rate - \$41.40 per hour (time & one half), \$53.06 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

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§220 PREVAILING WAGE SCHEDULE

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)

Field Engineer - Steel Erection Party Chief

Effective Period: 7/1/2012 - 6/30/2013

Wage Rate per Hour: **\$54.50**

Supplemental Benefit Rate per Hour: **\$26.95**

Supplemental Note: Overtime benefit rate - \$37.48 per hour (time & one half), \$48.00 per hour (double time).

Field Engineer - Steel Erection Instrument Person

Effective Period: 7/1/2012 - 6/30/2013

Wage Rate per Hour: **\$42.63**

Supplemental Benefit Rate per Hour: **\$26.95**

Supplemental Note: Overtime benefit rate - \$37.48 per hour (time & one half), \$48.00 per hour (double time).

Field Engineer - Steel Erection Rodperson

Effective Period: 7/1/2012 - 6/30/2013

Wage Rate per Hour: **\$28.84**

Supplemental Benefit Rate per Hour: **\$26.95**

Supplemental Note: Overtime benefit rate - \$37.48 per hour (time & one half), \$48.00 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

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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

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

Effective Period: 7/1/2012 - 6/30/2013

Wage Rate per Hour: \$64.38

Supplemental Benefit Rate per Hour: \$28.65

Supplemental Note: \$51.85 overtime hours

Shift Wage Rate: \$103.01

Operating Engineer - Road & Heavy Construction II

Backhoes, Power Shovels, Hydraulic Clam Shells, Steel Erection, Moles and machines of a similar nature.

Effective Period: 7/1/2012 - 6/30/2013

Wage Rate per Hour: \$66.70

Supplemental Benefit Rate per Hour: \$28.65

Supplemental Note: 51.85 overtime hours

Shift Wage Rate: \$106.72

Operating Engineer - Road & Heavy Construction III

Mine Hoists, Cranes, etc. (Used as Mine Hoists)

Effective Period: 7/1/2012 - 6/30/2013

Wage Rate per Hour: \$68.86

Supplemental Benefit Rate per Hour: \$28.65

Supplemental Note: \$51.85 overtime hours

Shift Wage Rate: \$110.18

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: 7/1/2012 - 6/30/2013

Wage Rate per Hour: \$67.21

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Supplemental Benefit Rate per Hour: \$28.65
Supplemental Note: \$51.85 overtime hours
Wage Rate: \$107.54

Operating Engineer - Road & Heavy Construction V

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

Effective Period: 7/1/2012 - 6/30/2013
Wage Rate per Hour: \$65.86
Supplemental Benefit Rate per Hour: \$28.65
Supplemental Note: \$51.85 overtime hours
Shift Wage Rate: \$105.38

Operating Engineer - Road & Heavy Construction VI

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

Effective Period: 7/1/2012 - 6/30/2013
Wage Rate per Hour: \$62.51
Supplemental Benefit Rate per Hour: \$28.65
Supplemental Note: \$51.85 overtime hours
Shift Wage Rate: \$100.02

Operating Engineer - Road & Heavy Construction VII

Barrier Movers , Barrier Transport and Machines of a Similar Nature.

Effective Period: 7/1/2012 - 6/30/2013
Wage Rate per Hour: \$50.27
Supplemental Benefit Rate per Hour: \$28.65
Supplemental Note: \$51.85 overtime hours
Shift Wage Rate: \$80.43

Operating Engineer - Road & Heavy Construction VIII

Utility Compressors

Effective Period: 7/1/2012 - 12/31/2012
Wage Rate per Hour: \$36.37
Supplemental Benefit Rate per Hour: \$28.65
Supplemental Note: \$51.85 overtime hours
Shift Wage Rate: \$46.38

Effective Period: 1/1/2013 - 6/30/2013
Wage Rate per Hour: \$38.78
Supplemental Benefit Rate per Hour: \$28.65
Supplemental Note: \$51.85 overtime hours

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Shift Wage Rate: \$49.16

Operating Engineer - Road & Heavy Construction IX

Horizontal Boring Rig

Effective Period: 7/1/2012 - 12/31/2012

Wage Rate per Hour: \$56.24

Supplemental Benefit Rate per Hour: \$28.65

Supplemental Note: \$51.85 overtime hours

Shift Wage Rate: \$89.98

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

Wage Rate per Hour: \$59.39

Supplemental Benefit Rate per Hour: \$28.65

Supplemental Note: \$51.85 overtime hours

Shift Wage Rate: \$95.02

Operating Engineer - Road & Heavy Construction X

Elevators (manually operated as personnel hoist).

Effective Period: 7/1/2012 - 6/30/2013

Wage Rate per Hour: \$54.50

Supplemental Benefit Rate per Hour: \$28.65

Supplemental Note: \$51.85 overtime hours

Shift Wage Rate: \$87.20

Operating Engineer - Road & Heavy Construction XI

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

Effective Period: 7/1/2012 - 6/30/2013

Wage Rate per Hour: \$42.11

Supplemental Benefit Rate per Hour: \$28.65

Supplemental Note: \$51.85 overtime hours

Shift Wage Rate: \$67.38

Operating Engineer - Road & Heavy Construction XII

All Drills and Machines of a similar nature.

Effective Period: 7/1/2012 - 6/30/2013

Wage Rate per Hour: \$63.18

Supplemental Benefit Rate per Hour: \$28.65

Supplemental Note: \$51.85 overtime hours

Shift Wage Rate: \$101.09

Operating Engineer - Road & Heavy Construction XIII

Concrete Pumps, Concrete Plant, Well Drilling Machines, Stone Crushers, Double Drum Hoist, Power Houses (other than above).

Effective Period: 7/1/2012 - 6/30/2013

Wage Rate per Hour: \$61.14

Supplemental Benefit Rate per Hour: \$28.65

Supplemental Note: \$51.85 overtime hours

Shift Wage Rate: \$97.82

Operating Engineer - Road & Heavy Construction XIV

Concrete Mixer

Effective Period: 7/1/2012 - 6/30/2013

Wage Rate per Hour: \$58.34

Supplemental Benefit Rate per Hour: \$28.65

Supplemental Note: \$51.85 overtime hours

Shift Wage Rate: \$93.49

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: 7/1/2012 - 6/30/2013

Wage Rate per Hour: \$39.03

Supplemental Benefit Rate per Hour: \$28.65

Supplemental Note: \$51.85 overtime hours

Shift Wage Rate: \$62.45

Operating Engineer - Road & Heavy Construction XVI

Concrete Breaking Machines, Single Drum Hoists, Locomotives (over ten tons) and Dinkies over ten tons, Hydraulic Crane-Second Engineer.

Effective Period: 7/1/2012 - 6/30/2013

Wage Rate per Hour: \$55.73

Supplemental Benefit Rate per Hour: \$28.65

Supplemental Note: \$51.85 overtime hours

Shift Wage Rate: \$89.17

Operating Engineer - Road & Heavy Construction XVII

Concrete plant engineer, On-site Asphalt Plant Engineer, and Vibratory console.

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Effective Period: 7/1/2012 - 6/30/2013
Wage Rate per Hour: \$56.19
Supplemental Benefit Rate per Hour: \$28.65
Supplemental Note: \$51.85 overtime hours
Shift Wage Rate: \$89.90

Operating Engineer - Road & Heavy Construction XVIII

Tower Crane

Effective Period: 7/1/2012 - 6/30/2013
Wage Rate per Hour: \$81.09
Supplemental Benefit Rate per Hour: \$28.65
Supplemental Note: \$51.85 overtime hours
Shift Wage Rate: \$129.74

Operating Engineer - Paving I

Asphalt Spreaders, Autogrades (C.M.I.), Roto/Mil

Effective Period: 7/1/2012 - 12/31/2012
Wage Rate per Hour: \$59.25
Supplemental Benefit Rate per Hour: \$28.65
Supplemental Note: \$51.85 overtime hours
Shift Wage Rate: \$94.80

Effective Period: 1/1/2013 - 6/30/2013
Wage Rate per Hour: \$62.51
Supplemental Benefit Rate per Hour: \$28.65
Supplemental Note: \$51.85 overtime hours
Shift Wage Rate: \$100.02

Operating Engineer - Paving II

Asphalt Roller

Effective Period: 7/1/2012 - 12/31/2012
Wage Rate per Hour: \$57.65
Supplemental Benefit Rate per Hour: \$28.65
Supplemental Note: \$51.85 overtime hours
Shift Wage Rate: \$92.24

Effective Period: 1/1/2013 - 6/30/2013
Wage Rate per Hour: \$60.85
Supplemental Benefit Rate per Hour: \$28.65
Supplemental Note: \$51.85 overtime hours
Shift Wage Rate: \$97.36

Operating Engineer - Paving III

Asphalt Plants

Effective Period: 7/1/2012 - 12/31/2012

Wage Rate per Hour: \$48.46

Supplemental Benefit Rate per Hour: \$28.65

Supplemental Note: \$51.85 overtime hours

Shift Wage Rate: \$77.54

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

Wage Rate per Hour: \$51.32

Supplemental Benefit Rate per Hour: \$28.65

Supplemental Note: \$51.85 overtime hours

Shift Wage Rate: \$82.11

Operating Engineer - Concrete I

Cranes

Effective Period: 7/1/2012 - 6/30/2013

Wage Rate per Hour: \$63.49

Supplemental Benefit Rate per Hour: \$28.65

Supplemental Note: \$51.85 overtime hours

Operating Engineer - Concrete II

Compressors

Effective Period: 7/1/2012 - 6/30/2013

Wage Rate per Hour: \$36.91

Supplemental Benefit Rate per Hour: \$28.65

Supplemental Note: \$51.85 overtime hours

Operating Engineer - Concrete III

Micro-traps (Negative Air Machines), Vac-All Remediation System.

Effective Period: 7/1/2012 - 6/30/2013

Wage Rate per Hour: \$50.31

Supplemental Benefit Rate per Hour: \$28.65

Supplemental Note: \$51.85 overtime hours

Operating Engineer - Steel Erection I

Three Drum Derricks

Effective Period: 7/1/2012 - 12/31/2012

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Wage Rate per Hour: **\$67.62**
Supplemental Benefit Rate per Hour: **\$28.65**
Supplemental Note: **\$51.85 overtime hours**
Shift Wage Rate: **\$108.19**

Effective Period: **1/1/2013 - 6/30/2013**
Wage Rate per Hour: **\$70.50**
Supplemental Benefit Rate per Hour: **\$28.65**
Supplemental Note: **\$51.85 overtime hours**
Shift Wage Rate: **\$112.80**

Operating Engineer - Steel Erection II

Cranes, 2 Drum Derricks, Hydraulic Cranes and Fork Lifts.

Effective Period: **7/1/2012 - 12/31/2012**
Wage Rate per Hour: **\$64.91**
Supplemental Benefit Rate per Hour: **\$28.65**
Supplemental Note: **\$51.85 overtime hours**
Shift Wage Rate: **\$103.86**

Effective Period: **1/1/2013 - 6/30/2013**
Wage Rate per Hour: **\$67.71**
Supplemental Benefit Rate per Hour: **\$28.65**
Supplemental Note: **\$51.85 overtime hours**
Shift Wage Rate: **\$108.34**

Operating Engineer - Steel Erection III

Compressors, Welding Machines.

Effective Period: **7/1/2012 - 12/31/2012**
Wage Rate per Hour: **\$37.87**
Supplemental Benefit Rate per Hour: **\$28.65**
Supplemental Note: **\$51.85 overtime hours**
Shift Wage Rate: **\$60.59**

Effective Period: **1/1/2013 - 6/30/2013**
Wage Rate per Hour: **\$39.86**
Supplemental Benefit Rate per Hour: **\$28.65**
Supplemental Note: **\$51.85 overtime hours**
Shift Wage Rate: **\$63.78**

Operating Engineer - Steel Erection IV

Compressors - Not Combined with Welding Machine.

Effective Period: **7/1/2012 - 12/31/2012**
Wage Rate per Hour: **\$36.00**

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Supplemental Benefit Rate per Hour: \$28.65
Supplemental Note: \$51.85 overtime hours
Shift Wage Rate: \$57.60

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

Wage Rate per Hour: \$37.93

Supplemental Benefit Rate per Hour: \$28.65

Supplemental Note: \$51.85 overtime hours

Shift Wage Rate: \$60.69

Operating Engineer - Building Work I

Forklifts, House Cars, Rack and Pinion, Plaster (Platform machine), Plaster Bucket, Concrete Pump and all other equipment used for hoisting material.

Effective Period: 7/1/2012 - 12/31/2012

Wage Rate per Hour: \$53.09

Supplemental Benefit Rate per Hour: \$28.65

Supplemental Note: \$51.85 overtime hours

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

Wage Rate per Hour: \$55.46

Supplemental Benefit Rate per Hour: \$28.65

Supplemental Note: \$51.85 overtime hours

Operating Engineer - Building Work II

Compressors, Welding Machines (Cutting Concrete-Tank Work), Paint Spraying, Sandblasting, Pumps (with the exclusion of Concrete Pumps), House Car (settlement basis only), All Engines irrespective of Power (Power-Pac) used to drive Auxiliary Equipment, Air, Hydraulic, etc.

Effective Period: 7/1/2012 - 12/31/2012

Wage Rate per Hour: \$39.35

Supplemental Benefit Rate per Hour: \$28.65

Supplemental Note: \$51.85 overtime hours

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

Wage Rate per Hour: \$41.32

Supplemental Benefit Rate per Hour: \$28.65

Supplemental Note: \$51.85 overtime hours

Operating Engineer - Building Work III

Double Drum

Effective Period: 7/1/2012 - 12/31/2012

Wage Rate per Hour: \$60.66

Supplemental Benefit Rate per Hour: \$28.65

Supplemental Note: \$51.85 overtime hours

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

Effective Period: 1/1/2013 - 6/30/2013
Wage Rate per Hour: \$63.25
Supplemental Benefit Rate per Hour: \$28.65
Supplemental Note: \$51.85 overtime hours

Operating Engineer - Building Work IV

Stone Derrick, Cranes, Hydraulic Cranes Boom Trucks.

Effective Period: 7/1/2012 - 12/31/2012
Wage Rate per Hour: \$64.35
Supplemental Benefit Rate per Hour: \$28.65
Supplemental Note: \$51.85 overtime hours

Effective Period: 1/1/2013 - 6/30/2013
Wage Rate per Hour: \$67.05
Supplemental Benefit Rate per Hour: \$28.65
Supplemental Note: \$51.85 overtime hours

Operating Engineer - Building Work V

Dismantling and Erection of Cranes, Relief Engineer.

Effective Period: 7/1/2012 - 12/31/2012
Wage Rate per Hour: \$59.17
Supplemental Benefit Rate per Hour: \$28.65
Supplemental Note: \$51.85 overtime hours

Effective Period: 1/1/2013 - 6/30/2013
Wage Rate per Hour: \$61.72
Supplemental Benefit Rate per Hour: \$28.65
Supplemental Note: \$51.85 overtime hours

Operating Engineer - Building Work VI

4 Pole Hoist, Single Drum Hoists.

Effective Period: 7/1/2012 - 12/31/2012
Wage Rate per Hour: \$58.53
Supplemental Benefit Rate per Hour: \$28.65
Supplemental Note: \$51.85 overtime hours

Effective Period: 1/1/2013 - 6/30/2013
Wage Rate per Hour: \$61.06
Supplemental Benefit Rate per Hour: \$28.65
Supplemental Note: \$51.85 overtime hours

Overtime Description

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

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
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

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: 7/1/2012 - 6/30/2013
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.

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

Overtime Holidays

Double time the regular rate for work on the following holiday(s).

New Year's Day
President's Day
Memorial Day
Independence Day
Labor Day
Columbus Day
Presidential Election Day
Thanksgiving Day
Day after Thanksgiving
Christmas Day

Paid Holidays

1/2 day on Christmas Eve if work is performed in the A.M.
1/2 day on New Year's Eve if work is performed in the A.M.

Shift Rates

Two shifts may be utilized with the first shift working 8:00 A.M. to the end of the shift at the straight time of pay. The second shift will receive one hour at double time rate for the last hour of the shift. (eight for seven, nine for eight).

(Carpenters District Council)

GLAZIER (New Construction, Remodeling, and Alteration)

Glazier

Effective Period: 7/1/2012 - 10/31/2012

Wage Rate per Hour: **\$40.00**

Supplemental Benefit Rate per Hour: **\$32.89**

Supplemental Note: Supplemental Benefit Overtime Rate: **\$40.54**

Effective Period: 11/1/2012 - 6/30/2013

Wage Rate per Hour: **\$40.50**

Supplemental Benefit Rate per Hour: **\$33.24**

Supplemental Note: Supplemental Benefit Overtime Rate: **\$41.24**

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.

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

Double time the regular time rate for Saturday.
Double time the regular rate for Sunday.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).

New Year's Day
President's Day
Memorial Day
Independence Day
Labor Day
Thanksgiving Day
Day after Thanksgiving
Christmas Day

Paid Holidays

None

Shift Rates

Shifts shall be any 7 hours beyond 4:00 P.M. for which the glazier shall receive 8 hours pay for 7 hours worked.

(Local #1281)

GLAZIER - REPAIR & MAINTENANCE

(For the Installation of Glass - All repair and maintenance work on a particular building, whenever performed, where the total cumulative contract value is under \$105,000. Except where enumerated (i.e. plate glass windows) does not apply to non-residential buildings.)

Craft Jurisdiction for repair, maintenance and fabrication

Plate glass replacement, Residential glass replacement, Residential mirrors and shower doors, Storm windows and storm doors, Residential replacement windows, Herculite door repairs, Door closer repairs, Retrofit apartment house (non commercial buildings), Glass tinting.

Effective Period: 7/1/2012 - 4/30/2013

Wage Rate per Hour: \$23.40

Supplemental Benefit Rate per Hour: \$18.04

Effective Period: 5/1/2013 - 6/30/2013

Wage Rate per Hour: \$23.50

Supplemental Benefit Rate per Hour: \$18.54

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

Double time the regular rate for Sunday.
Time and one half the regular hourly rate after 40 hours in any work week.

Paid Holidays

New Year's Day
President's Day
Memorial Day
Independence Day
Labor Day
Thanksgiving Day
Day after Thanksgiving
Christmas Day

(Local #1281)

HEAT AND FROST INSULATOR

Heat & Frost Insulator

Effective Period: 7/1/2012 - 12/31/2012
Wage Rate per Hour: \$54.28
Supplemental Benefit Rate per Hour: \$31.36

Effective Period: 1/1/2013 - 6/30/2013
Wage Rate per Hour: \$55.98
Supplemental Benefit Rate per Hour: \$32.36

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

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

Christmas Day

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: 7/1/2012 - 12/31/2012

Wage Rate per Hour: \$33.00

Supplemental Benefit Rate per Hour: \$24.15

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

Wage Rate per Hour: \$33.51

Supplemental Benefit Rate per Hour: \$24.64

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: 7/1/2012 - 12/31/2012

Wage Rate per Hour: \$23.05

Supplemental Benefit Rate per Hour: \$17.85

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

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

Wage Rate per Hour: \$23.25

Supplemental Benefit Rate per Hour: \$18.35

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

Effective Period: 7/1/2012 - 12/31/2012

Wage Rate per Hour: \$41.50

Supplemental Benefit Rate per Hour: \$39.52

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

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

Wage Rate per Hour: \$42.00

Supplemental Benefit Rate per Hour: \$42.89

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

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

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: 7/1/2012 - 12/31/2012

Wage Rate per Hour: \$45.05

Supplemental Benefit Rate per Hour: \$57.85

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

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

Wage Rate per Hour: \$46.00

Supplemental Benefit Rate per Hour: \$61.23

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

Overtime Description

Monday through Friday- the first eight hours are paid at straight time, the 9th and 10th hours are paid at time and one-half the regular rate, all additional weekday overtime is paid at double the regular rate. Saturdays- the first eight hours are paid at time and one-half the regular rate, double time thereafter. Sunday-all shifts are paid at double time.

Overtime

Time and one half the regular rate after an 8 hour day.

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
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: 7/1/2012 - 6/30/2013

Wage Rate per Hour: \$38.70

Supplemental Benefit Rate per Hour: \$31.75

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).

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

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: 7/1/2012 - 6/30/2013
Wage Rate per Hour: \$24.25
Supplemental Benefit Rate per Hour: \$12.30

Landscaper (3 - 6 years experience)

Effective Period: 7/1/2012 - 6/30/2013
Wage Rate per Hour: \$23.25
Supplemental Benefit Rate per Hour: \$12.30

Landscaper (up to 3 years experience)

Effective Period: 7/1/2012 - 6/30/2013
Wage Rate per Hour: \$20.75
Supplemental Benefit Rate per Hour: \$12.30

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

Groundperson

Effective Period: 7/1/2012 - 6/30/2013

Wage Rate per Hour: \$20.75

Supplemental Benefit Rate per Hour: \$12.30

Tree Remover / Pruner

Effective Period: 7/1/2012 - 6/30/2013

Wage Rate per Hour: \$29.25

Supplemental Benefit Rate per Hour: \$12.30

Landscaper Sprayer (Pesticide Applicator)

Effective Period: 7/1/2012 - 6/30/2013

Wage Rate per Hour: \$19.25

Supplemental Benefit Rate per Hour: \$12.30

Watering - Plant Maintainer

Effective Period: 7/1/2012 - 6/30/2013

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: 7/1/2012 - 6/30/2013

Wage Rate per Hour: **\$49.19**

Supplemental Benefit Rate per Hour: **\$32.24**

Marble Finisher

Effective Period: 7/1/2012 - 6/30/2013

Wage Rate per Hour: **\$39.05**

Supplemental Benefit Rate per Hour: **\$31.43**

Marble Polisher

Effective Period: 7/1/2012 - 6/30/2013

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

No

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

(Local #7)

MASON TENDER

Mason Tender

Effective Period: 7/1/2012 - 12/31/2012

Wage Rate per Hour: **\$34.24**

Supplemental Benefit Rate per Hour: **\$24.40**

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

Wage Rate per Hour: **\$34.50**

Supplemental Benefit Rate per Hour: **\$25.14**

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)

(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: 7/1/2012 - 12/31/2012

Wage Rate per Hour: **\$33.87**

Supplemental Benefit Rate per Hour: **\$19.22**

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

Wage Rate per Hour: **\$34.07**

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: 7/1/2012 - 12/31/2012

Wage Rate per Hour: **\$23.07**

Supplemental Benefit Rate per Hour: **\$13.53**

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

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

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

(Local #79)

METALLIC LATHER

Metallic Lather

Effective Period: 7/1/2012 - 6/30/2013

Wage Rate per Hour: \$41.23

Supplemental Benefit Rate per Hour: \$38.35

Supplemental Note: Supplemental benefits for overtime are paid at the appropriate overtime rate.

Overtime Description

Overtime would be time and one half the regular rate after a seven (7) or eight (8) hours workday, which would be set at the start of the job.

Overtime

Time and one half the regular rate for Saturday.

Double time the regular rate for Sunday.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).

New Year's Day

Washington's Birthday

Good Friday

Memorial Day

Independence Day

Labor Day

Columbus Day

Presidential Election Day

Thanksgiving Day

Christmas Day

Paid Holidays

1/2 day on Christmas Eve if work is performed in the A.M.

1/2 day on New Year's Eve if work is performed in the A.M.

Shift Rates

There shall be either two (2) or three (3) shifts, each shift shall be eight (8) hours with nine (9) hours pay, including one half (1/2) hour for lunch. Off-Hour Start shall commence after 3:30 P.M. and shall conclude by 6:00 A.M. The first consecutive seven (7) hours shall be at straight time with a differential of twelve dollars (\$12.00) per hour. Fringes shall be paid at the straight time rate.

(Local #46)

MILLWRIGHT

Millwright

Effective Period: 7/1/2012 - 6/30/2013

Wage Rate per Hour: \$46.19

Supplemental Benefit Rate per Hour: \$45.67

Overtime

Time and one half the regular rate after an 8 hour day.

Time and one half the regular rate for Saturday.

Double time the regular rate for Sunday.

Saturday may be used as a make-up day at straight time when a day is lost during that week to inclement weather.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).

New Year's Day

President's Day

Good Friday

Memorial Day

Independence Day

Labor Day

Columbus Day

Presidential Election Day

Thanksgiving Day

Christmas Day

Paid Holidays

1/2 day on Christmas Eve if work is performed in the A.M.

1/2 day on New Year's Eve if work is performed in the A.M.

Shift Rates

The first shift shall receive the straight time rate of pay. The second shift receives the straight time rate of pay plus fifteen (15%) per cent. Members of the second shift shall be allowed one half hour to eat, with this time being included in the hours of the workday established. There must be a first shift to work a second shift. All additional hours worked shall be paid at the time and one-half rate of pay plus fifteen (15%) per cent for weekday hours.

(Local #740)

MOSAIC MECHANIC

Mosaic Mechanic - Mosaic & Terrazzo Mechanic

Effective Period: 7/1/2012 - 12/31/2012

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

Wage Rate per Hour: \$43.93

Supplemental Benefit Rate per Hour: \$33.08

Supplemental Note: Supplemental benefits for overtime to be paid at the rate of \$44.05 per hour.

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

Wage Rate per Hour: \$44.39

Supplemental Benefit Rate per Hour: \$35.12

Supplemental Note: Supplemental benefits for overtime to be paid at the rate of \$46.09 per hour.

Mosaic Mechanic - Mosaic & Terrazzo Finisher

Effective Period: 7/1/2012 - 12/31/2012

Wage Rate per Hour: \$42.36

Supplemental Benefit Rate per Hour: \$33.08

Supplemental Note: Supplemental benefits for overtime to be paid at the rate of \$44.05 per hour.

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

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: 7/1/2012 - 12/31/2012

Wage Rate per Hour: \$42.36

Supplemental Benefit Rate per Hour: \$33.08

Supplemental Note: Supplemental benefits for overtime to be paid at the rate of \$44.05 per hour.

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

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

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

(Local #7)

PAINTER

Painter - Brush & Roller

Effective Period: 7/1/2012 - 10/31/2012

Wage Rate per Hour: \$35.50

Supplemental Benefit Rate per Hour: \$25.12

Supplemental Note: \$29.75 on overtime

Effective Period: 11/1/2012 - 4/30/2013

Wage Rate per Hour: \$36.00

Supplemental Benefit Rate per Hour: \$25.12

Supplemental Note: \$29.75 on overtime

Effective Period: 5/1/2013 - 6/30/2013

Wage Rate per Hour: \$37.50

Supplemental Benefit Rate per Hour: \$25.12

Supplemental Note: \$29.75 on overtime

Spray & Scaffold / Decorative / Sandblast

Effective Period: 7/1/2012 - 10/31/2012

Wage Rate per Hour: \$38.50

Supplemental Benefit Rate per Hour: \$25.12

Supplemental Note: \$29.75 on overtime

Effective Period: 11/1/2012 - 4/30/2013

Wage Rate per Hour: \$39.00

Supplemental Benefit Rate per Hour: \$25.12

Supplemental Note: \$29.75 on overtime

Effective Period: 5/1/2013 - 6/30/2013

Wage Rate per Hour: \$40.50

Supplemental Benefit Rate per Hour: \$25.12

Supplemental Note: \$29.75 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.

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

Overtime Holidays

Time and one half the regular rate for work on the following holiday(s).

- New Year's Day
- President's Day
- Memorial Day
- Independence Day
- Labor Day
- Columbus Day
- Thanksgiving Day
- Christmas Day

Paid Holidays

None

(District Council of Painters #9)

PAINTER - SIGN

Designer

Effective Period: 7/1/2012 - 6/30/2013

Wage Rate per Hour: \$36.15

Supplemental Benefit Rate per Hour: \$9.66

Journey person

Effective Period: 7/1/2012 - 6/30/2013

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

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

Christmas Day

Shift Rates

All work performed outside the regular 8 hour work day (either 7:00 A.M to 3:30 P.M or 8:00 A.M. to 4:30 P.M) shall be paid at time and one half the regular hourly rate.

(Local #8A-28A)

PAINTER - STRIPER

Striper (paint)

Effective Period: 7/1/2012 - 6/30/2013

Wage Rate per Hour: \$33.00

Supplemental Benefit Rate per Hour: \$11.52

Supplemental Note: Overtime Supplemental Benefit rate - \$7.42; New Hire Rate (0-3 months) - \$0.00

Lineperson (thermoplastic)

Effective Period: 7/1/2012 - 6/30/2013

Wage Rate per Hour: \$37.00

Supplemental Benefit Rate per Hour: \$11.52

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.

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Vacation

Employees with one to two years service shall accrue vacation based on hours worked: 250 hours worked - 1 day vacation; 500 hours worked - 2 days vacation; 750 hours worked - 3 days vacation; 900 hours worked - 4 days vacation; 1,000 hours worked - 5 days vacation. Employees with two to five years service receive two weeks vacation. Employees with five to twenty years service receive three weeks vacation. Employees with twenty to twenty-five years service receive four weeks vacation. Employees with 25 or more years service receive five weeks vacation. Vacation must be taken during winter months. 2 Personal Days except employees hired after 4/1/12 who do not have 2 years of service.

(Local #917)

PAINTER - STRUCTURAL STEEL

Painters on Structural Steel

Effective Period: 7/1/2012 - 9/30/2012

Wage Rate per Hour: \$46.25

Supplemental Benefit Rate per Hour: \$31.58

Effective Period: 10/1/2012 - 6/30/2013

Wage Rate per Hour: \$47.00

Supplemental Benefit Rate per Hour: \$32.08

Painter - Power Tool

Effective Period: 7/1/2012 - 9/30/2012

Wage Rate per Hour: \$52.25

Supplemental Benefit Rate per Hour: \$31.58

Effective Period: 10/1/2012 - 6/30/2013

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: 7/1/2012 - 4/30/2013

Wage Rate per Hour: **\$37.44**

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: 5/1/2013 - 6/30/2013

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.

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.

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(District Council of Painters #9)

PAVER AND ROADBUILDER

Paver & Roadbuilder - Formsetter

Effective Period: 7/1/2012 - 6/30/2013

Wage Rate per Hour: **\$42.86**

Supplemental Benefit Rate per Hour: **\$32.15**

Paver & Roadbuilder - Laborer

Paving and road construction work, regardless of material used, including but not limited to preparation of job sites, removal of old surfaces, asphalt and/or concrete, by whatever method, including but not limited to milling; laying of concrete; laying of asphalt for temporary, patchwork, and utility paving (but not production paving); site preparation and incidental work before the installation of rubberized materials and similar surfaces; installation and repair of temporary construction fencing; slurry seal coating, maintenance of safety surfaces; play equipment installation, and other related work.

Effective Period: 7/1/2012 - 6/30/2013

Wage Rate per Hour: **\$38.99**

Supplemental Benefit Rate per Hour: **\$32.15**

Production Paver & Roadbuilder - Screed Person

(Production paving is asphalt paving when using a paving machine or on a project where a paving machine is traditionally used)

Adjustment of paving machinery on production paving jobs.

Effective Period: 7/1/2012 - 6/30/2013

Wage Rate per Hour: **\$45.00**

Supplemental Benefit Rate per Hour: **\$32.15**

Production Paver & Roadbuilder - Raker

Effective Period: 7/1/2012 - 6/30/2013

Wage Rate per Hour: **\$44.49**

Supplemental Benefit Rate per Hour: **\$32.15**

Production Paver & Roadbuilder - Shoveler

General laborer (except removal of surfaces - see Paver and Roadbuilder-Laborer) including but not limited to tamper, AC paint and liquid tar work.

Effective Period: 7/1/2012 - 6/30/2013

Wage Rate per Hour: **\$41.20**

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Supplemental Benefit Rate per Hour: \$32.15

Overtime Description

Veteran's Day is a Paid Holiday for employees working on production paving.

If an employee works New Year's Day or Christmas Day, they receive the single time rate plus 15%, except if an employee works on production paving on New Year's Day or Christmas Day, they receive the single time rate plus one day's pay for the holiday worked.

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

Columbus Day

Election Day

Thanksgiving Day

Shift Rates

When two shifts are employed, the work period for each shift shall be a continuous eight (8) hours. When three shifts are employed, each shift will work seven and one half (7 ½) hours but will be paid for eight (8) hours since only one half (1/2) hour is allowed for meal time.

When two or more shifts are employed, single time will be paid for each shift.

Night Work - On night work, the first eight (8) hours of work will be paid for at fifteen percent (15%) over the single time rate, except that production paving work shall be paid at 25% over the single time rate. 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: 7/1/2012 - 12/31/2012

Wage Rate per Hour: \$40.78

Supplemental Benefit Rate per Hour: \$26.80

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

Wage Rate per Hour: \$40.78

Supplemental Benefit Rate per Hour: \$27.55

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Overtime

Time and one half the regular rate after a 7 hour day.

Time and one half the regular rate for Saturday.

Double time the regular rate for Sunday.

Saturday may be used as a make-up day at straight time when a day is lost during that week to inclement weather.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).

New Year's Day

Martin Luther King Jr. Day

President's Day

Good Friday

Memorial Day

Independence Day

Labor Day

Columbus Day

Presidential Election Day

Thanksgiving Day

Christmas Day

Paid Holidays

None

Shift Rates

When it is not possible to conduct alteration work during regular work hours, in a building occupied by tenants, said work shall proceed on a shift basis: however work over seven (7) hours in any twenty-four (24) hour period, the time after seven (7) hours shall be considered overtime.

The second shift shall start at a time between 3:30 p.m. and 7:00 p.m. and shall consist of seven (7) working hours and shall receive eight (8) hours of wages and benefits at the straight time rate. The workers on the second shift shall be allowed one-half (1/2) hour to eat with this time being included in the seven (7) hours of work.

(Local #530)

PLASTERER - TENDER

Plasterer - Tender

Effective Period: 7/1/2012 - 12/31/2012

Wage Rate per Hour: \$34.24

Supplemental Benefit Rate per Hour: \$24.40

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

Wage Rate per Hour: \$34.50

Supplemental Benefit Rate per Hour: \$25.14

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Overtime

Time and one half the regular rate after an 8 hour day.

Time and one half the regular rate for Saturday.

Double time the regular rate for Sunday.

Saturday may be used as a make-up day at straight time when a day is lost during that week to inclement weather.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).

New Year's Day

Washington's Birthday

Memorial Day

Independence Day

Labor Day

Presidential Election Day

Thanksgiving Day

Christmas Day

Paid Holidays

None

Shift Rates

When work commences outside regular work hours, workers receive an hour additional (differential) wage and supplement payment. Eight hours pay for seven hours work or nine hours pay for eight hours work.

(Mason Tenders District Council)

PLUMBER

Plumber

Effective Period: 7/1/2012 - 12/31/2012

Wage Rate per Hour: \$51.76

Supplemental Benefit Rate per Hour: \$37.19

Supplemental Note: Overtime supplemental benefit rate per hour: \$74.10

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

Wage Rate per Hour: \$52.36

Supplemental Benefit Rate per Hour: \$37.34

Supplemental Note: Overtime supplemental benefit rate per hour: \$74.40

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 million or less, and for public works jobs where the plumbing contract 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

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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: 7/1/2012 - 12/31/2012

Wage Rate per Hour: \$32.96

Supplemental Benefit Rate per Hour: \$15.93

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

Wage Rate per Hour: \$33.21

Supplemental Benefit Rate per Hour: \$16.43

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.

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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: 7/1/2012 - 12/31/2012

Wage Rate per Hour: **\$36.69**

Supplemental Benefit Rate per Hour: **\$25.46**

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

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

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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.

(Plumbers Local #1)

**PLUMBER: PUMP & TANK
(Installation and Maintenance)**

Plumber - Pump & Tank

Effective Period: 7/1/2012 - 6/30/2013

Wage Rate per Hour: \$52.31

Supplemental Benefit Rate per Hour: \$31.56

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

Effective Period: 7/1/2012 - 6/30/2013

Wage Rate per Hour: \$44.63

Supplemental Benefit Rate per Hour: \$23.10

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

Labour 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: 7/1/2012 - 12/31/2012

Wage Rate per Hour: \$38.00

Supplemental Benefit Rate per Hour: \$27.07

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

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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

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: 7/1/2012 - 6/30/2013

Wage Rate per Hour: **\$44.63**

Supplemental Benefit Rate per Hour: **\$23.10**

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).

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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)

SHEET METAL WORKER

Sheet Metal Worker

Effective Period: 7/1/2012 - 12/31/2012

Wage Rate per Hour: \$45.65

Supplemental Benefit Rate per Hour: \$40.50

Supplemental Note: Supplemental benefit contributions are to be made at the applicable overtime rates.

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

Wage Rate per Hour: \$45.65

Supplemental Benefit Rate per Hour: \$42.00

Supplemental Note: Supplemental benefit contributions are to be made at the applicable overtime rates.

Sheet Metal Worker - Duct Cleaner

Effective Period: 7/1/2012 - 6/30/2013

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: 7/1/2012 - 12/31/2012

Wage Rate per Hour: \$36.52

Supplemental Benefit Rate per Hour: \$40.50

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

Wage Rate per Hour: \$36.52

Supplemental Benefit Rate per Hour: \$42.00

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

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.

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Effective Period: 7/1/2012 - 6/30/2013

Wage Rate per Hour: \$40.09

Supplemental Benefit Rate per Hour: \$22.06

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

No

(Local #28)

SIGN ERECTOR (Sheet Metal, Plastic, Electric, and Neon)

Sign Erector

Effective Period: 7/1/2012 - 12/31/2012

Wage Rate per Hour: \$41.55

Supplemental Benefit Rate per Hour: \$39.32

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

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.

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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: 7/1/2012 - 12/31/2012

Wage Rate per Hour: **\$50.75**

Supplemental Benefit Rate per Hour: **\$49.68**

Supplemental Note: Overtime supplemental benefit rate: **\$98.62**

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

Wage Rate per Hour: **\$51.25**

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

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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: 7/1/2012 - 12/31/2012

Wage Rate per Hour: \$50.75

Supplemental Benefit Rate per Hour: \$49.68

Supplemental Note: Overtime supplemental benefit rate: \$98.62

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

Wage Rate per Hour: \$51.25

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

Columbus Day

Veteran's Day

Thanksgiving Day

Day after Thanksgiving

Christmas Day

Paid Holidays

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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: 7/1/2012 - 12/31/2012

Wage Rate per Hour: \$36.30

Supplemental Benefit Rate per Hour: \$11.76

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

Wage Rate per Hour: \$37.05

Supplemental Benefit Rate per Hour: \$12.26

Refrigeration and Air Conditioner Service Person V (4th year)

Effective Period: 7/1/2012 - 12/31/2012

Wage Rate per Hour: \$29.82

Supplemental Benefit Rate per Hour: \$10.71

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

Wage Rate per Hour: \$30.44

Supplemental Benefit Rate per Hour: \$11.13

Refrigeration and Air Conditioner Service Person IV (3rd year)

Effective Period: 7/1/2012 - 12/31/2012

Wage Rate per Hour: \$24.71

Supplemental Benefit Rate per Hour: \$9.80

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

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Wage Rate per Hour: \$25.22

Supplemental Benefit Rate per Hour: \$10.16

Refrigeration and Air Conditioner Service Person III (2nd year)

Filter changing and maintenance thereof, oil and greasing, tower and coil cleaning, scraping and painting, general housekeeping, taking of water samples.

Effective Period: 7/1/2012 - 12/31/2012

Wage Rate per Hour: \$21.21

Supplemental Benefit Rate per Hour: \$9.12

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

Wage Rate per Hour: \$21.65

Supplemental Benefit Rate per Hour: \$9.44

Refrigeration and Air Conditioner Service Person II (2nd six months)

Filter changing and maintenance thereof, oil and greasing, tower and coil cleaning, scraping and painting, general housekeeping, taking of water samples.

Effective Period: 7/1/2012 - 12/31/2012

Wage Rate per Hour: \$17.60

Supplemental Benefit Rate per Hour: \$8.50

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

Wage Rate per Hour: \$17.96

Supplemental Benefit Rate per Hour: \$8.78

Refrigeration and Air Conditioner Service Person I (1st six months)

Filter changing and maintenance thereof, oil and greasing, tower and coil cleaning, scraping and painting, general housekeeping, taking of water samples.

Effective Period: 7/1/2012 - 12/31/2012

Wage Rate per Hour: \$10.95

Supplemental Benefit Rate per Hour: \$7.90

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

Wage Rate per Hour: \$11.18

Supplemental Benefit Rate per Hour: \$8.10

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.

Time Holidays

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Double time the regular rate for work on the following holiday(s).

New Year's Day
Independence Day
Labor Day
Veteran's Day
Thanksgiving Day
Christmas Day

Double time and one half the regular rate for work on the following holiday(s).

Martin Luther King Jr. Day
President's Day
Memorial Day
Columbus Day

Paid Holidays

New Year's Day
Martin Luther King Jr. Day
President's Day
Memorial Day
Independence Day
Labor Day
Columbus Day
Veteran's Day
Thanksgiving Day
Christmas Day

(Local #638B)

STONE MASON - SETTER

Stone Mason - Setters

Effective Period: 7/1/2012 - 6/30/2013

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

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

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: 7/1/2012 - 12/25/2012

Wage Rate per Hour: \$43.32

Supplemental Benefit Rate per Hour: \$21.66

Effective Period: 12/26/2012 - 6/30/2013

Wage Rate per Hour: \$43.82

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.

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

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: 7/1/2012 - 6/30/2013

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.

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

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

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: 7/1/2012 - 12/31/2012

Wage Rate per Hour: **\$38.17**

Supplemental Benefit Rate per Hour: **\$26.76**

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

Wage Rate per Hour: **\$38.49**

Supplemental Benefit Rate per Hour: **\$27.42**

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

N

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

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: 7/1/2012 - 12/31/2012

Wage Rate per Hour: \$47.75

Supplemental Benefit Rate per Hour: \$30.83

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

Wage Rate per Hour: \$48.55

Supplemental Benefit Rate per Hour: \$31.46

Overtime

Time and one half the regular rate after a 7 hour day.

Time and one half the regular rate for Saturday.

Double time the regular rate for Sunday.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).

New Year's Day

President's Day

Good Friday

Memorial Day

Independence Day

Labor Day

Columbus Day

Veteran's Day

Thanksgiving Day

Day after Thanksgiving

Christmas Day

Shift Rates

Off shift work day (work performed outside the regular 8:00 A.M. to 3:30 P.M. workday): shift differential of one and one quarter (1¼) times the regular straight time rate of pay for the seven hours of actual off-shift work.

(Local #7)

TIMBERPERSON

Timberperson

Effective Period: 7/1/2012 - 6/30/2013

Wage Rate per Hour: \$42.63

Supplemental Benefit Rate per Hour: \$41.99

Overtime

Time and one half the regular rate after an 8 hour day.

Time and one half the regular rate for Saturday.

Double time the regular rate for Sunday.

Saturday may be used as a make-up day at straight time when a day is lost during that week to inclement weather.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).

New Year's Day

President's Day

Memorial Day

Independence Day

Labor Day

Columbus Day

Presidential Election Day

Thanksgiving Day

Christmas Day

Paid Holidays

None

Shift Rates

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

(Local #1536)

TUNNEL WORKER

Blasters, Mucking Machine Operators (Compressed Air Rates)

Effective Period: 7/1/2012 - 6/30/2013

Wage Rate per Hour: \$52.00

Supplemental Benefit Rate per Hour: \$46.85

Tunnel Workers (Compressed Air Rates)

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

Effective Period: 7/1/2012 - 6/30/2013
Wage Rate per Hour: \$50.19
Supplemental Benefit Rate per Hour: \$45.29

Top Nipper (Compressed Air Rates)

Effective Period: 7/1/2012 - 6/30/2013
Wage Rate per Hour: \$49.27
Supplemental Benefit Rate per Hour: \$44.51

Outside Lock Tender, Outside Gauge Tender, Muck Lock Tender (Compressed Air Rates)

Effective Period: 7/1/2012 - 6/30/2013
Wage Rate per Hour: \$48.37
Supplemental Benefit Rate per Hour: \$43.67

Bottom Bell & Top Bell Signal Person: Shaft Person (Compressed Air Rates)

Effective Period: 7/1/2012 - 6/30/2013
Wage Rate per Hour: \$48.37
Supplemental Benefit Rate per Hour: \$43.67

Changehouse Attendant: Powder Watchperson (Compressed Air Rates)

Effective Period: 7/1/2012 - 6/30/2013
Wage Rate per Hour: \$42.09
Supplemental Benefit Rate per Hour: \$41.41

Blasters (Free Air Rates)

Effective Period: 7/1/2012 - 6/30/2013
Wage Rate per Hour: \$49.62
Supplemental Benefit Rate per Hour: \$44.75

Tunnel Workers (Free Air Rates)

Effective Period: 7/1/2012 - 6/30/2013
Wage Rate per Hour: \$47.48
Supplemental Benefit Rate per Hour: \$42.84

All Others (Free Air Rates)

Effective Period: 7/1/2012 - 6/30/2013
Wage Rate per Hour: \$43.87
Supplemental Benefit Rate per Hour: \$39.62

Microtunneling (Free Air Rates)

Effective Period: 7/1/2012 - 6/30/2013

Wage Rate per Hour: \$37.98

Supplemental Benefit Rate per Hour: \$34.27

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.

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

Veterans Day

Thanksgiving Day

Christmas Day

(Local #147)

WELDER

**TO BE PAID AT THE RATE OF THE JOURNEYPERSON IN THE TRADE
PERFORMING THE WORK.**

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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.

APPRENTICESHIP SCHEDULE OF PREVAILING WAGES AND SUPPLEMENTAL BENEFITS
ADDENDUM
EFFECTIVE PERIOD JANUARY 1, 2013 THROUGH JUNE 30, 2013

List of Amended Classifications

1. Boilermaker
2. House Wrecker
3. Iron Worker - Ornamental
4. Iron Worker - Structural
5. Mason Tender
6. Plasterer
7. Plumber

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

Asbestos Handler (First 1000 Hours)

Effective Period: 7/1/2012 - 6/30/2013
Wage Rate Per Hour: 78% of Journeyman's rate
Supplemental Benefit Rate Per Hour: \$14.85

Asbestos Handler (Second 1000 Hours)

Effective Period: 7/1/2012 - 6/30/2013
Wage Rate Per Hour: 80% of Journeyman's rate
Supplemental Benefit Rate Per Hour: \$14.85

Asbestos Handler (Third 1000 Hours)

Effective Period: 7/1/2012 - 6/30/2013
Wage Rate Per Hour: 83% of Journeyman's rate
Supplemental Benefit Rate Per Hour: \$14.85

Asbestos Handler (Fourth 1000 Hours)

Effective Period: 7/1/2012 - 6/30/2013
Wage Rate Per Hour: 89% of Journeyman's rate
Supplemental Benefit Rate Per Hour: \$14.85

(Local #78)

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

Boilermaker (First Year)

Effective Period: 7/1/2012 - 12/31/2012
Wage Rate Per Hour: 65% of Journeyman's rate
Supplemental Benefit Rate Per Hour: \$27.41

Effective Period: 1/1/2013 - 3/31/2013
Wage Rate Per Hour: 65% of Journeyman's rate
Supplemental Benefit Rate Per Hour: \$28.45

Effective Period: 4/1/2013 - 6/30/2013
Wage Rate Per Hour: 65% of Journeyman's rate

Supplemental Benefit Rate Per Hour: \$28.75

Boilermaker (Second Year: 1st Six Months)

Effective Period: 7/1/2012 - 12/31/2012

Wage Rate Per Hour: 70% of Journeyman's rate

Supplemental Benefit Rate Per Hour: \$28.91

Effective Period: 1/1/2013 - 3/31/2013

Wage Rate Per Hour: 70% of Journeyman's rate

Supplemental Benefit Rate Per Hour: \$30.03

Effective Period: 4/1/2013 - 6/30/2013

Wage Rate Per Hour: 70% of Journeyman's rate

Supplemental Benefit Rate Per Hour: \$30.33

Boilermaker (Second Year: 2nd Six Months)

Effective Period: 7/1/2012 - 12/31/2012

Wage Rate Per Hour: 75% of Journeyman's rate

Supplemental Benefit Rate Per Hour: \$30.40

Effective Period: 1/1/2013 - 3/31/2013

Wage Rate Per Hour: 75% of Journeyman's rate

Supplemental Benefit Rate Per Hour: \$31.61

Effective Period: 4/1/2013 - 6/30/2013

Wage Rate Per Hour: 75% of Journeyman's rate

Supplemental Benefit Rate Per Hour: \$31.91

Boilermaker (Third Year: 1st Six Months)

Effective Period: 7/1/2012 - 12/31/2012

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

Supplemental Benefit Rate Per Hour: \$31.89

Effective Period: 1/1/2013 - 3/31/2013

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

Supplemental Benefit Rate Per Hour: \$33.19

Effective Period: 4/1/2013 - 6/30/2013

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

Supplemental Benefit Rate Per Hour: \$33.49

Boilermaker (Third Year: 2nd Six Months)

Effective Period: 7/1/2012 - 12/31/2012

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

Supplemental Benefit Rate Per Hour: \$33.38

Effective Period: 1/1/2013 - 3/31/2013

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

Supplemental Benefit Rate Per Hour: \$34.76

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

Effective Period: 4/1/2013 - 6/30/2013
Wage Rate Per Hour: 85% of Journeyperson's rate
Supplemental Benefit Rate Per Hour: \$35.06

Boilermaker (Fourth Year: 1st Six Months)

Effective Period: 7/1/2012 - 12/31/2012
Wage Rate Per Hour: 90% of Journeyperson's rate
Supplemental Benefit Rate Per Hour: \$34.88

Effective Period: 1/1/2013 - 3/31/2013
Wage Rate Per Hour: 90% of Journeyperson's rate
Supplemental Benefit Rate Per Hour: \$36.34

Effective Period: 4/1/2013 - 6/30/2013
Wage Rate Per Hour: 90% of Journeyperson's rate
Supplemental Benefit Rate Per Hour: \$36.64

Boilermaker (Fourth Year: 2nd Six Months)

Effective Period: 7/1/2012 - 12/31/2012
Wage Rate Per Hour: 95% of Journeyperson's rate
Supplemental Benefit Rate Per Hour: \$36.38

Effective Period: 1/1/2013 - 3/31/2013
Wage Rate Per Hour: 95% of Journeyperson's rate
Supplemental Benefit Rate Per Hour: \$37.90

Effective Period: 4/1/2013 - 6/30/2013
Wage Rate Per Hour: 95% of Journeyperson's rate
Supplemental Benefit Rate Per Hour: \$38.20

(Local #5)

BRICKLAYER

(Ratio of Apprentice to Journeyperson: 1 to 1, 1 to 4)

Bricklayer (First 750 Hours)

Effective Period: 7/1/2012 - 6/30/2013
Wage Rate Per Hour: 50% of Journeyperson's rate
Supplemental Benefit Rate Per Hour: \$16.60

Bricklayer (Second 750 Hours)

Effective Period: 7/1/2012 - 6/30/2013

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

Wage Rate Per Hour: 60% of Journeyperson's rate
Supplemental Benefit Rate Per Hour: \$16.60

Bricklayer (Third 750 Hours)

Effective Period: 7/1/2012 - 6/30/2013
Wage Rate Per Hour: 70% of Journeyperson's rate
Supplemental Benefit Rate Per Hour: \$16.60

Bricklayer (Fourth 750 Hours)

Effective Period: 7/1/2012 - 6/30/2013
Wage Rate Per Hour: 80% of Journeyperson's rate
Supplemental Benefit Rate Per Hour: \$16.60

Bricklayer (Fifth 750 Hours)

Effective Period: 7/1/2012 - 6/30/2013
Wage Rate Per Hour: 90% of Journeyperson's rate
Supplemental Benefit Rate Per Hour: \$16.60

Bricklayer (Sixth 750 Hours)

Effective Period: 7/1/2012 - 6/30/2013
Wage Rate Per Hour: 95% of Journeyperson's rate
Supplemental Benefit Rate Per Hour: \$16.60

(Bricklayer District Council)

CARPENTER

(Ratio of Apprentice to Journeyperson: 1 to 1, 1 to 4)

Carpenter (First Year)

Effective Period: 7/1/2012 - 6/30/2013
Wage Rate Per Hour: 40% of Journeyperson's rate
Supplemental Benefit Rate Per Hour: \$27.69

Carpenter (Second Year)

Effective Period: 7/1/2012 - 6/30/2013
Wage Rate Per Hour: 50% of Journeyperson's rate
Supplemental Benefit Rate Per Hour: \$27.69

Carpenter (Third Year)

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

Effective Period: 7/1/2012 - 6/30/2013
Wage Rate Per Hour: 65% of Journeyman's rate
Supplemental Benefit Rate Per Hour: \$27.69

Carpenter (Fourth Year)

Effective Period: 7/1/2012 - 6/30/2013
Wage Rate Per Hour: 80% of Journeyman's rate
Supplemental Benefit Rate Per Hour: \$27.69

(Carpenters District Council)

CEMENT MASON
(Ratio of Apprentice to Journeyman: 1 to 1, 1 to 4)

Cement Mason (First Year)

Effective Period: 7/1/2012 - 6/30/2013
Wage and Supplemental Rate Per Hour: 50% of Journeyman's Rate

Cement Mason (Second Year)

Effective Period: 7/1/2012 - 6/30/2013
Wage and Supplemental Rate Per Hour: 60% of Journeyman's Rate

Cement Mason (Third Year)

Effective Period: 7/1/2012 - 6/30/2013
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: 7/1/2012 - 6/30/2013
Wage Rate Per Hour: 50% of Journeyman's rate
Supplemental Benefit Rate Per Hour: \$17.54

Cement & Concrete Worker (501 - 1000 hours)

Effective Period: 7/1/2012 - 6/30/2013
Wage Rate Per Hour: 65% of Journeyman's rate
Supplemental Benefit Rate Per Hour: \$18.37

Cement & Concrete Worker (1001 - 2000 hours)

Effective Period: 7/1/2012 - 6/30/2013
Wage Rate Per Hour: 65% of Journeyman's rate
Supplemental Benefit Rate Per Hour: \$23.75

Cement & Concrete Worker (2001 - 4000 hours)

Effective Period: 7/1/2012 - 6/30/2013
Wage Rate Per Hour: 80% of Journeyman's rate
Supplemental Benefit Rate Per Hour: \$24.57

(Cement Concrete Workers District Council)

**DERRICKPERSON & RIGGER (STONE)
(Ratio of Apprentice to Journeyman: 1 to 1, 1 to 6)**

Derrickperson & Rigger (stone) - First Year

Effective Period: 7/1/2012 - 6/30/2013
Wage Rate Per Hour: 50% of Journeyman's rate
Supplemental Benefit Rate Per Hour: 50% of Journeyman's rate

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

Effective Period: 7/1/2012 - 6/30/2013
Wage Rate Per Hour: 70% of Journeyman's rate
Supplemental Benefit Rate Per Hour: 75% of Journeyman's rate

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

Effective Period: 7/1/2012 - 6/30/2013
Wage Rate Per Hour: 80% of Journeyman's rate
Supplemental Benefit Rate Per Hour: 75% of Journeyman's rate

Derrickperson & Rigger (stone) - Third Year

Effective Period: 7/1/2012 - 6/30/2013
Wage Rate Per Hour: 90% of Journeyman's rate
Supplemental Benefit Rate Per Hour: 75% of Journeyman's rate

(Local #197)

DOCKBUILDER/PILE DRIVER

(Ratio of Apprentice to Journeyman: 1 to 1, 1 to 6)

Dockbuilder/Pile Driver (First Year)

Effective Period: 7/1/2012 - 6/30/2013
Wage Rate Per Hour: 40% of Journeyman's rate
Supplemental Benefit Rate Per Hour: \$27.69

Dockbuilder/Pile Driver (Second Year)

Effective Period: 7/1/2012 - 6/30/2013
Wage Rate Per Hour: 50% of Journeyman's rate
Supplemental Benefit Rate Per Hour: \$27.69

Dockbuilder/Pile Driver (Third Year)

Effective Period: 7/1/2012 - 6/30/2013
Wage Rate Per Hour: 65% of Journeyman's rate
Supplemental Benefit Rate Per Hour: \$27.69

Dockbuilder/Pile Driver (Fourth Year)

Effective Period: 7/1/2012 - 6/30/2013
Wage Rate Per Hour: 80% of Journeyman's rate
Supplemental Benefit Rate Per Hour: \$27.69

(Carpenters District Council)

ELECTRICIAN

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

Electrician (First Year - Hired before 5/10/07)

Effective Period: 7/1/2012 - 6/30/2013
Wage Rate per Hour: \$14.25
Supplemental Benefit Rate per Hour: \$11.19
Overtime Wage Rate Per Hour: \$21.38

Overtime Supplemental Rate Per Hour: \$11.96

Electrician (First Year - Hired on or After 5/10/07)

Effective Period: 7/1/2012 - 6/30/2013

Wage Rate per Hour: \$11.50

Supplemental Benefit Rate per Hour: \$9.86

Overtime Wage Rate Per Hour: \$17.25

Overtime Supplemental Rate Per Hour: \$10.48

Electrician (Second Year - Hired before 5/10/07)

Effective Period: 7/1/2012 - 6/30/2013

Wage Rate per Hour: \$17.05

Supplemental Benefit Rate per Hour: \$12.54

Overtime Wage Rate Per Hour: \$25.58

Overtime Supplemental Rate Per Hour: \$13.47

Electrician (Second Year - Hired on or After 5/10/07)

Effective Period: 7/1/2012 - 6/30/2013

Wage Rate per Hour: \$13.50

Supplemental Benefit Rate per Hour: \$10.83

Overtime Wage Rate Per Hour: \$20.25

Overtime Supplemental Rate Per Hour: \$11.56

Electrician (Third Year - Hired before 5/10/07)

Effective Period: 7/1/2012 - 6/30/2013

Wage Rate per Hour: \$19.15

Supplemental Benefit Rate per Hour: \$13.56

Overtime Wage Rate Per Hour: \$28.73

Overtime Supplemental Rate Per Hour: \$14.60

Electrician (Third Year - Hired on or After 5/10/07)

Effective Period: 7/1/2012 - 6/30/2013

Wage Rate per Hour: \$15.50

Supplemental Benefit Rate per Hour: \$11.79

Overtime Wage Rate Per Hour: \$23.25

Overtime Supplemental Rate Per Hour: \$12.63

Electrician (Fourth Year - Hired before 5/10/07)

Effective Period: 7/1/2012 - 6/30/2013

Wage Rate per Hour: \$21.10

Supplemental Benefit Rate per Hour: \$14.50

Overtime Wage Rate Per Hour: \$31.65

Overtime Supplemental Rate Per Hour: \$15.65

Electrician (Fourth Year - Hired on or After 5/10/07)

Effective Period: 7/1/2012 - 6/30/2013

Wage Rate per Hour: \$17.50

Supplemental Benefit Rate per Hour: \$12.76

Overtime Wage Rate Per Hour: \$26.25

Overtime Supplemental Rate Per Hour: \$13.71

Electrician (Fifth Year - Hired before 5/10/07)

Effective Period: 7/1/2012 - 6/30/2013

Wage Rate per Hour: \$25.30

Supplemental Benefit Rate per Hour: \$17.52

Overtime Wage Rate Per Hour: \$37.95

Overtime Supplemental Rate Per Hour: \$18.85

Electrician (Fifth Year - Hired on or After 5/10/07)

Effective Period: 7/1/2012 - 6/30/2013

Wage Rate per Hour: \$21.50

Supplemental Benefit Rate per Hour: \$15.71

Overtime Wage Rate Per Hour: \$32.25

Overtime Supplemental Rate Per Hour: \$16.84

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 Journeyperson: 1 to 1, 1 to 2)

Elevator (Constructor) - First Year

Effective Period: 7/1/2012 - 6/30/2013

Wage Rate Per Hour: 50% of Journeyperson's rate

Supplemental Rate Per Hour: \$25.40

Effective 3/17/2013 - Supplemental Rate Per Hour: \$26.87

Elevator (Constructor) - Second Year

Effective Period: 7/1/2012 - 6/30/2013

Wage Rate Per Hour: 55% of Journeyperson's rate

Supplemental Rate Per Hour: \$26.43

Effective 3/17/2013 - Supplemental Rate Per Hour: \$27.92

Elevator (Constructor) - Third Year

Effective Period: 7/1/2012 - 6/30/2013
Wage Rate Per Hour: 65% of Journeyman's rate
Supplemental Rate Per Hour: \$27.84
Effective 3/17/2013 - Supplemental Rate Per Hour: \$29.38

Elevator (Constructor) - Fourth Year

Effective Period: 7/1/2012 - 6/30/2013
Wage Rate Per Hour: 75% of Journeyman's rate
Supplemental Rate Per Hour: \$29.25
Effective 3/17/2013 - Supplemental Benefit 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: 7/1/2012 - 6/30/2013
Wage Rate Per Hour: 50% of Journeyman's rate
Supplemental Benefit Per Hour: \$25.33
Effective 3/17/2013 - Supplemental Benefit Per Hour: \$26.79

Elevator Service/Modernization Mechanic (Second Year)

Effective Period: 7/1/2012 - 6/30/2013
Wage Rate Per Hour: 55% of Journeyman's rate
Supplemental Benefit Per Hour: \$25.65
Effective 3/17/2013 - Supplemental Benefit Per Hour: \$27.12

Elevator Service/Modernization Mechanic (Third Year)

Effective Period: 7/1/2012 - 6/30/2013
Wage Rate Per Hour: 65% of Journeyman's rate
Supplemental Benefit Per Hour: \$26.92
Effective 3/17/2013 - Supplemental Benefit Per Hour: \$28.43

Elevator Service/Modernization Mechanic (Fourth Year)

Effective Period: 7/1/2012 - 6/30/2013
Wage Rate Per Hour: 75% of Journeyman's rate
Supplemental Benefit Per Hour: \$28.19

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Effective 3/17/2013 - 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: 7/1/2012 - 6/30/2013

Wage Rate per Hour: \$21.64

Supplemental Benefit Rate per Hour: \$20.07

Engineer - Second Year

Effective Period: 7/1/2012 - 6/30/2013

Wage Rate per Hour: \$27.05

Supplemental Benefit Rate per Hour: \$20.07

Engineer - Third Year

Effective Period: 7/1/2012 - 6/30/2013

Wage Rate per Hour: \$29.75

Supplemental Benefit Rate per Hour: \$20.07

Engineer - Fourth Year

Effective Period: 7/1/2012 - 6/30/2013

Wage Rate per Hour: \$32.45

Supplemental Benefit Rate per Hour: \$20.07

(Local #15)

ENGINEER - OPERATING

(Ratio of Apprentice to Journeyman: 1 to 1, 1 to 5)

Operating Engineer - First Year

Effective Period: 7/1/2012 - 6/30/2013

Wage Rate Per Hour 40% of Journeyman's Rate

Supplemental Benefit Per Hour: \$18.65

Operating Engineer - Second Year

Effective Period: 7/1/2012 - 6/30/2013
Wage Rate Per Hour: 50% of Journeyman's Rate
Supplemental Benefit Per Hour: \$18.65

Operating Engineer - Third Year

Effective Period: 7/1/2012 - 6/30/2013
Wage Rate Per Hour: 60% of Journeyman's Rate
Supplemental Benefit Per Hour: \$18.65

(Local #14)

FLOOR COVERER

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

Floor Coverer (First Year)

Effective Period: 7/1/2012 - 6/30/2013
Wage Rate Per Hour: 40% of Journeyman's rate
Supplemental Rate Per Hour: \$25.75

Floor Coverer (Second Year)

Effective Period: 7/1/2012 - 6/30/2013
Wage Rate Per Hour: 50% of Journeyman's rate
Supplemental Rate Per Hour: \$25.75

Floor Coverer (Third Year)

Effective Period: 7/1/2012 - 6/30/2013
Wage Rate Per Hour: 65% of Journeyman's rate
Supplemental Rate Per Hour: \$25.75

Floor Coverer (Fourth Year)

Effective Period: 7/1/2012 - 6/30/2013
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: 7/1/2012 - 6/30/2013
Wage Rate Per Hour: 40% of Journeyman's rate
Supplemental Rate Per Hour: \$11.97

Glazier (Second Year)

Effective Period: 7/1/2012 - 10/31/2012
Wage Rate Per Hour: 50% of Journeyman's rate
Supplemental Rate Per Hour: \$21.01

Effective Period: 11/1/2012 - 6/30/2013
Wage Rate Per Hour: 50% of Journeyman's rate
Supplemental Rate Per Hour: \$21.13

Glazier (Third Year)

Effective Period: 7/1/2012 - 10/31/2012
Wage Rate Per Hour: 60% of Journeyman's rate
Supplemental Rate Per Hour: \$23.38

Effective Period: 11/1/2012 - 6/30/2013
Wage Rate Per Hour: 50% of Journeyman's rate
Supplemental Rate Per Hour: \$23.54

Glazier (Fourth Year)

Effective Period: 7/1/2012 - 10/31/2012
Wage Rate Per Hour: 80% of Journeyman's rate
Supplemental Rate Per Hour: \$28.14

Effective Period: 11/1/2012 - 6/30/2013
Wage Rate Per Hour: 50% of Journeyman's rate
Supplemental Rate Per Hour: \$28.34

(Local #1281)

HEAT & FROST INSULATOR

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

Heat & Frost Insulator (First Year)

Effective Period: 7/1/2012 - 6/30/2013
Wage and Supplemental Rate Per Hour: 40% of Journeyperson's rate

Heat & Frost Insulator (Second Year)

Effective Period: 7/1/2012 - 6/30/2013
Wage and Supplemental Rate Per Hour: 60% of Journeyperson's rate

Heat & Frost Insulator (Third Year)

Effective Period: 7/1/2012 - 6/30/2013
Wage and Supplemental Rate Per Hour: 70% of Journeyperson's rate

Heat & Frost Insulator (Fourth Year)

Effective Period: 7/1/2012 - 6/30/2013
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: 7/1/2012 - 12/31/2012
Wage Rate per Hour: \$20.06
Supplemental Benefit Rate per Hour: \$15.45

Effective Period: 1/1/2013 - 6/30/2013
Wage Rate per Hour: \$20.21
Supplemental Benefit Rate per Hour: \$15.80

House Wrecker - Second Year

Effective Period: 7/1/2012 - 12/31/2012
Wage Rate per Hour: \$21.06
Supplemental Benefit Rate per Hour: \$15.45

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

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Wage Rate per Hour: \$21.26
Supplemental Benefit Rate per Hour: \$15.80

House Wrecker - Third Year

Effective Period: 7/1/2012 - 12/31/2012
Wage Rate per Hour: \$22.56
Supplemental Benefit Rate per Hour: \$15.45

Effective Period: 1/1/2013 - 6/30/2013
Wage Rate per Hour: \$22.81
Supplemental Benefit Rate per Hour: \$15.80

House Wrecker - Fourth Year

Effective Period: 7/1/2012 - 12/31/2012
Wage Rate per Hour: \$25.06
Supplemental Benefit Rate per Hour: \$15.45

Effective Period: 1/1/2013 - 6/30/2013
Wage Rate per Hour: \$25.36
Supplemental Benefit Rate per Hour: \$15.80

(Local #79)

IRON WORKER - ORNAMENTAL

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

Iron Worker (Ornamental) - 1st Four Months - Hired on or Before 8/1/08

Effective Period: 7/1/2012 - 6/30/2013
Wage Rate Per Hour: 60% of Journeyman's rate
Supplemental Rate Per Hour: \$32.06

Iron Worker (Ornamental) 5 - 10 Months - Hired on or Before 8/1/08

Effective Period: 7/1/2012 - 6/30/2013
Wage Rate Per Hour: 65% of Journeyman's rate
Supplemental Rate Per Hour: \$32.89

Iron Worker (Ornamental) 11 - 16 Months - Hired on or Before 8/1/08

Effective Period: 7/1/2012 - 12/31/2012
Wage Rate Per Hour: 70% of Journeyman's rate
Supplemental Rate Per Hour: \$33.73

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Effective Period: 1/1/2013 - 6/30/2013
Wage Rate Per Hour: 70% of Journeyman's rate
Supplemental Rate Per Hour: \$34.34

Iron Worker (Ornamental) 17 - 22 Months - Hired on or Before 8/1/08

Effective Period: 7/1/2012 - 6/30/2013
Wage Rate Per Hour: 80% of Journeyman's rate
Supplemental Rate Per Hour: \$35.39

Iron Worker (Ornamental) 23 - 28 Months - Hired on or Before 8/1/08

Effective Period: 7/1/2012 - 6/30/2013
Wage Rate Per Hour: 85% of Journeyman's rate
Supplemental Rate Per Hour: \$36.22

Iron Worker (Ornamental) 29 - 36 Months - Hired on or Before 8/1/08

Effective Period: 7/1/2012 - 6/30/2013
Wage Rate Per Hour: 95% of Journeyman's rate
Supplemental Rate Per Hour: \$37.89

Iron Worker (Ornamental) - 1st Ten Months - Hired After 8/1/08

Effective Period: 7/1/2012 - 12/31/2012
Wage Rate Per Hour: 50% of Journeyman's rate
Supplemental Rate Per Hour: \$30.40

Effective Period: 1/1/2013 - 6/30/2013
Wage Rate Per Hour: 50% of Journeyman's rate
Supplemental Rate Per Hour: \$33.39

Iron Worker (Ornamental) - 11 - 16 Months - Hired After 8/1/08

Effective Period: 7/1/2012 - 12/31/2012
Wage Rate Per Hour: 55% of Journeyman's rate
Supplemental Rate Per Hour: \$31.23

Effective Period: 1/1/2013 - 6/30/2013
Wage Rate Per Hour: 55% of Journeyman's rate
Supplemental Rate Per Hour: \$34.34

Iron Worker (Ornamental) - 17 - 22 Months - Hired After 8/1/08

Effective Period: 7/1/2012 - 12/31/2012
Wage Rate Per Hour: 60% of Journeyman's rate
Supplemental Rate Per Hour: \$32.06

Effective Period: 1/1/2013 - 6/30/2013
Wage Rate Per Hour: 60% of Journeyman's rate
Supplemental Rate Per Hour: \$35.29

Iron Worker (Ornamental) - 23 - 28 Months - Hired After 8/1/08

Effective Period: 7/1/2012 - 12/31/2012
Wage Rate Per Hour: 70% of Journeyman's rate
Supplemental Rate Per Hour: \$33.73

Effective Period: 1/1/2013 - 6/30/2013
Wage Rate Per Hour: 70% of Journeyman's rate
Supplemental Rate Per Hour: \$37.19

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

Effective Period: 7/1/2012 - 12/31/2012
Wage Rate Per Hour: 80% of Journeyman's rate
Supplemental Rate Per Hour: \$35.39

Effective Period: 1/1/2013 - 6/30/2013
Wage Rate Per Hour: 80% of Journeyman's rate
Supplemental Rate Per Hour: \$39.09

(Local #580)

IRON WORKER - STRUCTURAL

(Ratio of Apprentice to Journeyman: 1 to 1, 1 to 6)

Iron Worker (Structural) - 1st Six Months

Effective Period: 7/1/2012 - 12/31/2012
Wage Rate per Hour: \$23.62
Supplemental Benefit Rate per Hour: \$41.21

Effective Period: 1/1/2013 - 6/30/2013
Wage Rate per Hour: \$24.10
Supplemental Benefit Rate per Hour: \$43.12

Iron Worker (Structural) - 7- 18 Months

Effective Period: 7/1/2012 - 12/31/2012
Wage Rate per Hour: \$24.22
Supplemental Benefit Rate per Hour: \$41.21

Effective Period: 1/1/2013 - 6/30/2013
Wage Rate per Hour: \$24.70
Supplemental Benefit Rate per Hour: \$43.12

Iron Worker (Structural) - 19 - 36 months

Effective Period: 7/1/2012 - 12/31/2012

Wage Rate per Hour: \$24.82

Supplemental Benefit Rate per Hour: \$41.21

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

Wage Rate per Hour: \$25.30

Supplemental Benefit Rate per Hour: \$43.12

(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: 7/1/2012 - 6/30/2013

Wage Rate Per Hour: 50% of Journeyperson's rate

Supplemental Rate Per Hour: \$31.75

Laborer (Foundation, Concrete, Excavating, Street Pipe Layer & Common) - Second 1000 hours

Effective Period: 7/1/2012 - 6/30/2013

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

Supplemental Rate Per Hour: \$31.75

Laborer (Foundation, Concrete, Excavating, Street Pipe Layer & Common) - Third 1000 hours

Effective Period: 7/1/2012 - 6/30/2013

Wage Rate Per Hour: 75% of Journeyperson's rate

Supplemental Rate Per Hour: \$31.75

Laborer (Foundation, Concrete, Excavating, Street Pipe Layer & Common) - Fourth 1000 hours

Effective Period: 7/1/2012 - 6/30/2013

Wage Rate Per Hour: 90% of Journeyperson's rate

Supplemental Rate Per Hour: \$31.75

(Local #731)

MARBLE MECHANICS

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

Cutters & Setters - First 750 Hours

Effective Period: 7/1/2012 - 6/30/2013

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

NO BENEFITS PAID DURING THE FIRST TWO MONTHS (PROBATIONARY PERIOD)

Cutters & Setters - Second 750 Hours

Effective Period: 7/1/2012 - 6/30/2013

Wage and Supplemental Rate Per Hour: 55% of Journeyman's rate

Cutters & Setters - Third 750 Hours

Effective Period: 7/1/2012 - 6/30/2013

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

Cutters & Setters - Fourth 750 Hours

Effective Period: 7/1/2012 - 6/30/2013

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

Cutters & Setters - Fifth 750 Hours

Effective Period: 7/1/2012 - 6/30/2013

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

Cutters & Setters - Sixth 750 Hours

Effective Period: 7/1/2012 - 6/30/2013

Wage and Supplemental Rate Per Hour: 95% of Journeyman's rate

Polishers & Finishers - First 750 Hours

Effective Period: 7/1/2012 - 6/30/2013

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

NO BENEFITS PAID DURING THE FIRST TWO MONTHS (PROBATIONARY PERIOD)

Polishers & Finishers - Second 750 Hours

Effective Period: 7/1/2012 - 6/30/2013

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

Polishers & Finishers - Third 750 Hours

Effective Period: 7/1/2012 - 6/30/2013

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

Polishers & Finishers - Fourth 750 Hours

Effective Period: 7/1/2012 - 6/30/2013

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: 7/1/2012 - 12/31/2012

Wage Rate per Hour: \$20.33

Supplemental Benefit Rate per Hour: \$16.16

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

Wage Rate per Hour: \$20.48

Supplemental Benefit Rate per Hour: \$16.51

Mason Tender - Second Year

Effective Period: 7/1/2012 - 12/31/2012

Wage Rate per Hour: \$21.33

Supplemental Benefit Rate per Hour: \$16.16

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

Wage Rate per Hour: \$21.53

Supplemental Benefit Rate per Hour: \$16.51

Mason Tender - Third Year

Effective Period: 7/1/2012 - 12/31/2012

Wage Rate per Hour: \$22.83

Supplemental Benefit Rate per Hour: \$16.16

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

Wage Rate per Hour: \$23.08

Supplemental Benefit Rate per Hour: \$16.51

Mason Tender - Fourth Year

Effective Period: 7/1/2012 - 12/31/2012

Wage Rate per Hour: \$25.33

Supplemental Benefit Rate per Hour: \$16.16

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

Wage Rate per Hour: \$25.63

Supplemental Benefit Rate per Hour: \$16.51

(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: 7/1/2012 - 6/30/2013

Wage Rate per Hour: \$27.91

Supplemental Benefit Rate per Hour: \$22.79

Metallic Lather (Second Year - Called Prior to 6/29/11)

Effective Period: 7/1/2012 - 6/30/2013

Wage Rate per Hour: \$32.51

Supplemental Benefit Rate per Hour: \$24.44

Metallic Lather (Third Year - Called Prior to 6/29/11)

Effective Period: 7/1/2012 - 6/30/2013

Wage Rate per Hour: \$37.57

Supplemental Benefit Rate per Hour: \$25.59

Metallic Lather (First Year -Called On Or After 6/29/11)

Effective Period: 7/1/2012 - 6/30/2013

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: 7/1/2012 - 6/30/2013
Wage Rate per Hour: \$22.71
Supplemental Benefit Rate per Hour: \$19.85

Metallic Lather (Third Year - Called On Or After 6/29/11)

Effective Period: 7/1/2012 - 6/30/2013
Wage Rate per Hour: \$27.71
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: 7/1/2012 - 6/30/2013
Wage Rate per Hour: \$25.40
Supplemental Benefit Rate per Hour: \$28.67

Millwright (Second Year)

Effective Period: 7/1/2012 - 6/30/2013
Wage Rate per Hour: \$30.02
Supplemental Benefit Rate per Hour: \$31.87

Millwright (Third Year)

Effective Period: 7/1/2012 - 6/30/2013
Wage Rate per Hour: \$34.64
Supplemental Benefit Rate per Hour: \$36.19

Millwright (Fourth Year)

Effective Period: 7/1/2012 - 6/30/2013
Wage Rate per Hour: \$43.88
Supplemental Benefit Rate per Hour: \$41.50

(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: 7/1/2012 - 6/30/2013

Wage Rate per Hour: \$25.72

Supplemental Benefit Rate per Hour: \$15.75

Paver and Roadbuilder - Second Year (Minimum 1000 hours)

Effective Period: 7/1/2012 - 6/30/2013

Wage Rate per Hour: \$27.29

Supplemental Benefit Rate per Hour: \$15.75

(Local #1010)

PAINTER

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

Painter - Brush & Roller - First Year

Effective Period: 7/1/2012 - 10/31/2012

Wage Rate per Hour: \$14.20

Supplemental Benefit Rate per Hour: \$10.88

Effective Period: 11/1/2012 - 6/30/2013

Wage Rate per Hour: \$14.40

Supplemental Benefit Rate per Hour: \$10.88

Painter - Brush & Roller - Second Year

Effective Period: 7/1/2012 - 10/31/2012

Wage Rate per Hour: \$17.75

Supplemental Benefit Rate per Hour: \$14.73

Effective Period: 11/1/2012 - 6/30/2013

Wage Rate per Hour: \$18.00

Supplemental Benefit Rate per Hour: \$14.73

Painter - Brush & Roller - Third Year

Effective Period: 7/1/2012 - 10/31/2012
Wage Rate per Hour: \$21.30
Supplemental Benefit Rate per Hour: \$17.64

Effective Period: 11/1/2012 - 6/30/2013
Wage Rate per Hour: \$21.60
Supplemental Benefit Rate per Hour: \$17.64

Painter - Brush & Roller - Fourth Year

Effective Period: 7/1/2012 - 10/31/2012
Wage Rate per Hour: \$28.40
Supplemental Benefit Rate per Hour: \$23.02

Effective Period: 11/1/2012 - 6/30/2013
Wage Rate per Hour: \$28.80
Supplemental Benefit Rate per Hour: \$23.02

(District Council of Painters)

PAINTER - STRUCTURAL STEEL
(Ratio of Apprentice to Journeyperson: 1 to 1, 1 to 3)

Painters - Structural Steel (First Year)

Effective Period: 7/1/2012 - 6/30/2013
Wage and Supplemental Rate Per Hour: 40% of Journeyperson's rate

Painters - Structural Steel (Second Year)

Effective Period: 7/1/2012 - 6/30/2013
Wage and Supplemental Rate Per Hour: 60% of Journeyperson's rate

Painters - Structural Steel (Third Year)

Effective Period: 7/1/2012 - 6/30/2013
Wage and Supplemental Rate Per Hour: 80% of Journeyperson's rate

(Local #806)

PLASTERER

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

Plasterer - First Year: 1st Six Months

Effective Period: 7/1/2012 - 12/31/2012
Wage Rate Per Hour: 40% of Journeyman's rate
Supplemental Rate Per Hour: \$14.61

Effective Period: 1/1/2013 - 6/30/2013
Wage Rate Per Hour: 40% of Journeyman's rate
Supplemental Rate Per Hour: \$15.36

Plasterer - First Year: 2nd Six Months

Effective Period: 7/1/2012 - 12/31/2012
Wage Rate Per Hour: 45% of Journeyman's rate
Supplemental Rate Per Hour: \$15.09

Effective Period: 1/1/2013 - 6/30/2013
Wage Rate Per Hour: 45% of Journeyman's rate
Supplemental Rate Per Hour: \$15.84

Plasterer - Second Year: 1st Six Months

Effective Period: 7/1/2012 - 12/31/2012
Wage Rate Per Hour: 55% of Journeyman's rate
Supplemental Rate Per Hour: \$17.06

Effective Period: 1/1/2013 - 6/30/2013
Wage Rate Per Hour: 55% of Journeyman's rate
Supplemental Rate Per Hour: \$17.81

Plasterer - Second Year: 2nd Six Months

Effective Period: 7/1/2012 - 12/31/2012
Wage Rate Per Hour: 60% of Journeyman's rate
Supplemental Rate Per Hour: \$18.14

Effective Period: 1/1/2013 - 6/30/2013
Wage Rate Per Hour: 60% of Journeyman's rate
Supplemental Rate Per Hour: \$18.89

Plasterer - Third Year: 1st Six Months

Effective Period: 7/1/2012 - 12/31/2012
Wage Rate Per Hour: 70% of Journeyman's rate
Supplemental Rate Per Hour: \$20.31

Effective Period: 1/1/2013 - 6/30/2013
Wage Rate Per Hour: 70% of Journeyperson's rate
Supplemental Rate Per Hour: \$21.06

Plasterer - Third Year: 2nd Six Months

Effective Period: 7/1/2012 - 12/31/2012
Wage Rate Per Hour: 75% of Journeyperson's rate
Supplemental Rate Per Hour: \$21.39

Effective Period: 1/1/2013 - 6/30/2013
Wage Rate Per Hour: 75% of Journeyperson's rate
Supplemental Rate Per Hour: \$22.14

(Local #530)

PLUMBER

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

Plumber - First Year: 1st Six Months

Effective Period: 7/1/2012 - 6/30/2013
Wage Rate per Hour: \$14.00
Supplemental Benefit Rate per Hour: \$0.71

Plumber - First Year: 2nd Six Months

Effective Period: 7/1/2012 - 6/30/2013
Wage Rate per Hour: \$14.00
Supplemental Benefit Rate per Hour: \$2.96

Plumber - Second Year

Effective Period: 7/1/2012 - 12/31/2012
Wage Rate per Hour: \$17.96
Supplemental Benefit Rate per Hour: \$16.25

Effective Period: 1/1/2013 - 6/30/2013
Wage Rate per Hour: \$18.26
Supplemental Benefit Rate per Hour: \$16.32

Plumber - Third Year

Effective Period: 7/1/2012 - 12/31/2012

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Wage Rate per Hour: **\$20.06**
Supplemental Benefit Rate per Hour: **\$16.25**

Effective Period: 1/1/2013 - 6/30/2013
Wage Rate per Hour: **\$20.36**
Supplemental Benefit Rate per Hour: **\$16.32**

Plumber - Fourth Year

Effective Period: 7/1/2012 - 12/31/2012
Wage Rate per Hour: **\$22.91**
Supplemental Benefit Rate per Hour: **\$16.25**

Effective Period: 1/1/2013 - 6/30/2013
Wage Rate per Hour: **\$23.21**
Supplemental Benefit Rate per Hour: **\$16.32**

Plumber - Fifth Year: 1st Six Months

Effective Period: 7/1/2012 - 12/31/2012
Wage Rate per Hour: **\$24.31**
Supplemental Benefit Rate per Hour: **\$16.25**

Effective Period: 1/1/2013 - 6/30/2013
Wage Rate per Hour: **\$24.61**
Supplemental Benefit Rate per Hour: **\$16.32**

Plumber - Fifth Year: 2nd Six Months

Effective Period: 7/1/2012 - 12/31/2012
Wage Rate per Hour: **\$36.38**
Supplemental Benefit Rate per Hour: **\$16.25**

Effective Period: 1/1/2013 - 6/30/2013
Wage Rate per Hour: **\$36.68**
Supplemental Benefit Rate per Hour: **\$16.32**

(Plumbers Local #1)

POINTER - WATERPROOFER, CAULKER MECHANIC (EXTERIOR BUILDING RENOVATION)

(Ratio of Apprentice to Journeyperson: 1 to 1, 1 to 4)

Pointer - Waterproofer, Caulker Mechanic - First Year

Effective Period: 7/1/2012 - 6/30/2013

Wage Rate per Hour: \$25.00

Supplemental Benefit Rate per Hour: \$3.45

Pointer - Waterproofer, Caulker Mechanic - Second Year

Effective Period: 7/1/2012 - 6/30/2013

Wage Rate per Hour: \$27.25

Supplemental Benefit Rate per Hour: \$8.40

Pointer - Waterproofer, Caulker Mechanic - Third Year

Effective Period: 7/1/2012 - 6/30/2013

Wage Rate per Hour: \$32.23

Supplemental Benefit Rate per Hour: \$11.15

Pointer - Waterproofer, Caulker Mechanic - Fourth Year

Effective Period: 7/1/2012 - 6/30/2013

Wage Rate per Hour: \$38.66

Supplemental Benefit Rate per Hour: \$11.15

(Bricklayer District Council)

ROOFER

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

Roofer - First Year

Effective Period: 7/1/2012 - 6/30/2013

Wage and Supplemental Rate Per Hour: 35% of Journeyman's Rate

Roofer - Second Year

Effective Period: 7/1/2012 - 6/30/2013

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

Roofer - Third Year

Effective Period: 7/1/2012 - 6/30/2013

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

Roofer - Fourth Year

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Effective Period: 7/1/2012 - 6/30/2013

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

(Local #8)

SHEET METAL WORKER

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

Sheet Metal Worker - First Year

Effective Period: 7/1/2012 - 6/30/2013

Wage Rate Per Hour: 30% of Journeyperson's rate

Supplemental Rate Per Hour: \$15.37

Sheet Metal Worker - Second Year

Effective Period: 7/1/2012 - 6/30/2013

Wage Rate Per Hour: 35% of Journeyperson's rate

Supplemental Rate Per Hour: \$18.24

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

Effective Period: 7/1/2012 - 6/30/2013

Wage Rate Per Hour: 40% of Journeyperson's rate

Supplemental Rate Per Hour: \$20.06

Sheet Metal Worker - Third Year (2nd Six Months)

Effective Period: 7/1/2012 - 6/30/2013

Wage Rate Per Hour: 45% of Journeyperson's rate

Supplemental Rate Per Hour: \$21.87

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

Effective Period: 7/1/2012 - 6/30/2013

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: 7/1/2012 - 6/30/2013

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: 7/1/2012 - 6/30/2013
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: 7/1/2012 - 6/30/2013
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: 7/1/2012 - 6/30/2013
Wage Rate Per Hour: 35% of Journeyperson's rate
Supplemental Rate Per Hour: \$5.96

Sign Erector - First Year: 2nd Six Months

Effective Period: 7/1/2012 - 6/30/2013
Wage Rate Per Hour: 40% of Journeyperson's rate
Supplemental Rate Per Hour: \$6.75

Sign Erector - Second Year: 1st Six Months

Effective Period: 7/1/2012 - 6/30/2013
Wage Rate Per Hour: 45% of Journeyperson's rate
Supplemental Rate Per Hour: \$7.55

Sign Erector - Second Year: 2nd Six Months

Effective Period: 7/1/2012 - 6/30/2013
Wage Rate Per Hour: 50% of Journeyperson's rate
Supplemental Rate Per Hour: \$8.34

Sign Erector - Third Year: 1st Six Months

Effective Period: 7/1/2012 - 6/30/2013
Wage Rate Per Hour: 55% of Journeyperson's rate
Supplemental Rate Per Hour: \$9.13

Sign Erector - Third Year: 2nd Six Months

Effective Period: 7/1/2012 - 6/30/2013
Wage Rate Per Hour: 60% of Journeyperson's rate
Supplemental Rate Per Hour: \$9.92

Sign Erector - Fourth Year: 1st Six Months

Effective Period: 7/1/2012 - 6/30/2013
Wage Rate Per Hour: 65% of Journeyperson's rate
Supplemental Rate Per Hour: \$10.72

Sign Erector - Fourth Year: 2nd Six Months

Effective Period: 7/1/2012 - 6/30/2013
Wage Rate Per Hour: 70% of Journeyperson's rate
Supplemental Rate Per Hour: \$11.51

Sign Erector - Fifth Year

Effective Period: 7/1/2012 - 6/30/2013
Wage Rate Per Hour: 75% of Journeyperson's rate
Supplemental Rate Per Hour: \$12.30

Sign Erector - Sixth Year

Effective Period: 7/1/2012 - 6/30/2013
Wage Rate Per Hour: 80% of Journeyperson's rate
Supplemental Rate Per Hour: \$12.30

(Local #137)

STEAMFITTER

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

Steamfitter - First Year

Effective Period: 7/1/2012 - 6/30/2013
Wage Rate and Supplemental Per Hour: 40% of Journeyperson's rate

Steamfitter - Second Year

Effective Period: 7/1/2012 - 6/30/2013
Wage Rate and Supplemental Rate Per Hour: 50% of Journeyperson's rate.

Steamfitter - Third Year

Effective Period: 7/1/2012 - 6/30/2013

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

Steamfitter - Fourth Year

Effective Period: 7/1/2012 - 6/30/2013

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

Steamfitter - Fifth Year

Effective Period: 7/1/2012 - 6/30/2013

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: 7/1/2012 - 6/30/2013

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

Stone Mason - Setters - Second 750 Hours

Effective Period: 7/1/2012 - 6/30/2013

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

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

Stone Mason - Setters - Third 750 Hours

Effective Period: 7/1/2012 - 6/30/2013

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: 7/1/2012 - 6/30/2013

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

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

Stone Mason - Setters - Fifth 750 Hours

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

Effective Period: 7/1/2012 - 6/30/2013
Wage Rate Per Hour: 90% of Journeyperson's rate
Supplemental Rate Per Hour: 50% of Journeyperson's rate

Stone Mason - Setters - Sixth 750 Hours

Effective Period: 7/1/2012 - 6/30/2013
Wage Rate Per Hour: 100% of Journeyperson's rate
Supplemental Rate Per Hour: 50% of Journeyperson's rate

(Bricklayers District Council)

TAPER

(Ratio of Apprentice to Journeyperson: 1 to 1, 1 to 4)

Drywall Taper - First Year

Effective Period: 7/1/2012 - 6/30/2013
Wage and Supplemental Rate Per Hour: 40% of Journeyperson's rate

Drywall Taper - Second Year

Effective Period: 7/1/2012 - 6/30/2013
Wage and Supplemental Rate Per Hour: 60% of Journeyperson's rate.

Drywall Taper - Third Year

Effective Period: 7/1/2012 - 6/30/2013
Wage and Supplemental Rate Per Hour: 80% of Journeyperson's rate

(Local #1974)

TILE LAYER - SETTER

(Ratio of Apprentice to Journeyperson: 1 to 1, 1 to 4)

Tile Layer - Setter - First 750 Hours

Effective Period: 7/1/2012 - 6/30/2013
Wage and Supplemental Rate Per Hour: 50% of Journeyperson's rate

Tile Layer - Setter - Second 750 Hours

Effective Period: 7/1/2012 - 6/30/2013

Wage and Supplemental Rate Per Hour: 55% of Journeyman's rate

Tile Layer - Setter - Third 750 Hours

Effective Period: 7/1/2012 - 6/30/2013

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

Tile Layer - Setter - Fourth 750 Hours

Effective Period: 7/1/2012 - 6/30/2013

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

Tile Layer - Setter - Fifth 750 Hours

Effective Period: 7/1/2012 - 6/30/2013

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

Tile Layer - Setter - Sixth 750 Hours

Effective Period: 7/1/2012 - 6/30/2013

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: 7/1/2012 - 6/30/2013

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

Supplemental Rate Per Hour: \$27.49

Timberperson - Second Year

Effective Period: 7/1/2012 - 6/30/2013

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

Supplemental Rate Per Hour: \$27.49

Timberperson - Third Year

Effective Period: 7/1/2012 - 6/30/2013

Wage Rate Per Hour: 65% of Journeyman's rate

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

Supplemental Rate Per Hour: \$27.49

Timberperson - Fourth Year

Effective Period: 7/1/2012 - 6/30/2013

Wage Rate Per Hour: 80% of Journeyperson's rate

Supplemental Rate Per Hour: \$27.49

(Local #1536)

**LABOR LAW § 230 AND NYC ADMINISTRATIVE CODE § 6-130
BUILDING SERVICE EMPLOYEES**

**PREVAILING WAGE FOR BUILDING SERVICE EMPLOYEES ON NYC CONTRACTS PURSUANT TO
LABOR LAW § 230 ET SEQ.**

Building service employees on public contracts must receive not less than the prevailing rate of wage and supplements for the classification of work performed. In accordance with Labor Law §230 et seq. the Comptroller of the City of New York has promulgated this schedule of prevailing wages and supplemental benefits for building service employees engaged on New York City public building service contracts in excess of \$1,500.00. Prevailing rates are required to be annexed to and form part of the contract pursuant to §231 (4).

Contracting agencies that anticipate doing work that may require building service trades or classifications not included in this schedule may request the Comptroller to establish a proper classification and wage determination for the work. Contractors using trades and/or classifications for which the Comptroller has not promulgated wages and benefits do so at their own risk.

Contractors are advised to review the applicable Comptroller's Prevailing Wage Schedule before bidding on public work. Any Prevailing Wage Rate error made by the Contracting Agency, whether in a contract document or other communication, will not preclude a finding against the contractor of a prevailing-wage violation.

**PREVAILING WAGE FOR BUILDING SERVICE EMPLOYEES IN NEW YORK CITY LEASED OR
FINANCIALLY ASSISTED FACILITIES PURSUANT TO NYC ADMINISTRATIVE CODE § 6-130**

Covered landlords & covered financial assistance recipients shall ensure that all building service employees performing building service work at the premises to which a lease or financial assistance pertains are paid no less than the prevailing wage listed in the Labor Law §230 Prevailing Wage Schedule.

Covered Landlords include:

Businesses (other than not-for-profit organizations) leasing to New York City agencies commercial office space or commercial office facilities of 10,000 square feet or more where the City leases or rents no less than 51% of the total square footage of the building to which the lease applies (no less than 80% in Staten Island or in an area not defined as an exclusion area pursuant to section 421-a of the real property tax law on the date of enactment of the local law).

Covered Financial Assistance Recipients include:

Businesses (other than not-for-profit organizations) with annual gross revenues of five million dollars or more who have received financial assistance from the City of New York (as defined in New York City Administrative Code §6-130) with a total value of one million dollars or more.

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

Exemptions: Business Improvement Districts and employers with manufacturing operations at the premises to which the financial assistance pertains.

The information is intended to assist you in meeting your prevailing wage obligation. You should consult New York City Administrative Code §6-130 to determine whether you are covered by this prevailing wage law. New York City Administrative Code § 6-130 requires the City to maintain an updated list of covered landlords and financial assistance recipients who are subject to the prevailing wage requirement.

Labor Law § 231 (6) and NYC Administrative Law §6-130 require contractors to post on the site of the work a current copy of this schedule of wages and supplements.

This schedule is applicable to work performed during the effective period, unless otherwise noted. Changes to this schedule are published on our web site www.comptroller.nyc.gov. Contractors must pay the wages and supplements in effect when the building service employee performs the work. Preliminary schedules for future one-year periods appear in the City Record on or about June 1 each succeeding year. Final schedules appear on or about July 1 in the City Record and on our web site www.comptroller.nyc.gov.

Contractors are solely responsible for maintaining original payroll records delineating, among other things, the hours worked by each employee within a given classification.

Some of the rates in this schedule are based on collective bargaining agreements. 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.

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.

Benefits are paid for **EACH HOUR WORKED** unless otherwise noted.

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



Office of the Comptroller
BUREAU OF LABOR LAW

CITY OF NEW YORK
OFFICE OF THE COMPTROLLER
JOHN C. LIU

BUREAU OF LABOR LAW

MUNICIPAL BUILDING
ONE CENTRE STREET, ROOM 1120
NEW YORK, N.Y. 10007-2341

TEL: (212) 669-4443
FAX: (212) 669-4002

If you are a Covered Building Service Employee and you have been paid less than the Prevailing Wage and Benefits, please contact us at 212-669-4443 or download our complaint form from our website at WWW.COMPTROLLER.NYC.GOV (click on the Bureau of Labor Law).

Si es un empleado de servicios a edificios elegible y recibió menos del sueldo prevalente y beneficios, por favor contáctenos en 212-669-4443 o descarga un formulario de reclamo del sitio del Internet WWW.COMPTROLLER.NYC.GOV (oprime "Oficina de Derecho Laboral").

Wasył Kinach, P.E.
Director of Classifications
Bureau of Labor Law

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

§230 SCHEDULE OF PREVAILING WAGES AND SUPPLEMENTAL BENEFITS ADDENDUM
EFFECTIVE PERIOD JANUARY 1, 2013 THROUGH JUNE 30, 2013

List of Amended Changes

1. MODIFIED PREAMBLE TO INCORPORATE PROVISIONS OF NYC
ADMINISTRATIVE CODE §6-130

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BOILER SERVICEPERSON/TANK CLEANER MECHANIC (LOW PRESSURE)

Boiler Service Person/Tank Cleaner Mechanic (Low Pressure)

Effective Period: 7/1/2012 - 6/30/2013

Wage Rate per Hour: \$11.37

Supplemental Benefit Rate per Hour: \$5.57

Overtime Description

Work in excess of 8 hours performed on a Sunday or Holiday shall be paid two and one half times the regular rate.

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.

Double time the regular rate for work on the following holiday(s).

Paid Holidays

New Year's Day

Martin Luther King Jr. Day

President's Day

Good Friday

Memorial Day

Independence Day

Labor Day

Columbus Day

Thanksgiving Day

Day after Thanksgiving

Christmas Day

Employee's Birthday

Vacation

1 year service.....five (5) days

3 years service or more.....ten (10) days

8 years service or more.....fifteen (15) days

13 years service or more.....twenty (20) days

SICK LEAVE:

1-2 years employment.....4 days

2-3 years employment.....5 days

3-4 years employment.....6 days

4-5 years employment.....8 days

6 years or more employment.....10 days

(Local #32 B/J)

BUILDING CLEANER AND MAINTAINER (OFFICE)

Office Building Class "A" Handyperson (Over 280,000 square feet gross area)

Effective Period: 7/1/2012 - 12/31/2012
Wage Rate per Hour: \$24.77
Supplemental Benefit Rate per Hour: \$9.13

Effective Period: 1/1/2013 - 6/30/2013
Wage Rate per Hour: \$25.10
Supplemental Benefit Rate per Hour: \$9.51

Office Building Class "A" Foreperson, Starter (Over 280,000 square feet gross area)

Effective Period: 7/1/2012 - 12/31/2012
Wage Rate per Hour: \$24.66
Supplemental Benefit Rate per Hour: \$9.13

Effective Period: 1/1/2013 - 6/30/2013
Wage Rate per Hour: \$24.99
Supplemental Benefit Rate per Hour: \$9.51

Office Building Class "A" Cleaner/Porter, Elevator Operator, Exterminator, Fire Safety Director (Over 280,000 square feet gross area)

Effective Period: 7/1/2012 - 12/31/2012
Wage Rate per Hour: \$22.65
Supplemental Benefit Rate per Hour: \$9.13
Supplemental Note: for new employee 0-12 months of employment - \$6.64; for new employee 13-24 months of employment - \$8.81

Effective Period: 1/1/2013 - 6/30/2013
Wage Rate per Hour: \$22.97
Supplemental Benefit Rate per Hour: \$9.51
Supplemental Note: for new employee 0-12 months of employment - \$6.92; for new employee 13-24 months of employment - \$9.18

NEW HIRE: Cleaner/Porter, Elevator Operator, Exterminator, Fire Safety Director may be paid 75% of the wage rate above for the first 21 months of employment, 85% of the wage rate above for the 22nd through 42nd months of employment, and upon the completion of 42 months of employment employee shall be paid the full wage rate. Note: New Hires hired before January 1, 2012 will continue to receive 80% of the wage rate above for the first 30 months, and upon the completion of 30 months of employment employee shall be paid the full wage rate. Upon completion of two years of employment the new hire receives the full supplemental benefit rate.

Office Building Class "B" Handyperson (Over 120,000 and less than 280,000 square feet gross area)

Effective Period: 7/1/2012 - 12/31/2012
Wage Rate per Hour: \$24.74
Supplemental Benefit Rate per Hour: \$9.13

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
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Effective Period: 1/1/2013 - 6/30/2013
Wage Rate per Hour: \$25.07
Supplemental Benefit Rate per Hour: \$9.51

Office Building Class "B" Foreperson, Starter (Over 120,000 and less than 280,000 square feet gross area)

Effective Period: 7/1/2012 - 12/31/2012
Wage Rate per Hour: \$24.63
Supplemental Benefit Rate per Hour: \$9.13

Effective Period: 1/1/2013 - 6/30/2013
Wage Rate per Hour: \$24.95
Supplemental Benefit Rate per Hour: \$9.51

Office Building Class "B" Cleaner/Porter, Elevator Operator, Exterminator, Fire Safety Director (Over 120,000 and less than 280,000 square feet gross area)

Effective Period: 7/1/2012 - 12/31/2012
Wage Rate per Hour: \$22.62
Supplemental Benefit Rate per Hour: \$9.13
Supplemental Note: for new employee 0-12 months of employment - \$6.64; for new employee 13-24 months of employment - \$8.81

Effective Period: 1/1/2013 - 6/30/2013
Wage Rate per Hour: \$22.94
Supplemental Benefit Rate per Hour: \$9.51
Supplemental Note: for new employee 0-12 months of employment - \$6.92; for new employee 13-24 months of employment - \$9.18

NEW HIRE: Cleaner/Porter, Elevator Operator, Exterminator, Fire Safety Director may be paid 75% of the wage rate above for the first 21 months of employment, 85% of the wage rate above for the 22nd through 42nd months of employment, and upon the completion of 42 months of employment employee shall be paid the full wage rate. Note: New Hires hired before January 1, 2012 will continue to receive 80% of the wage rate above for the first 30 months, and upon the completion of 30 months of employment employee shall be paid the full wage rate. Upon completion of two years of employment the new hire receives the full supplemental benefit rate.

Office Building Class "C" Handyperson (Less than 120,000 square feet gross area)

Effective Period: 7/1/2012 - 12/31/2012
Wage Rate per Hour: \$24.70
Supplemental Benefit Rate per Hour: \$9.13

Effective Period: 1/1/2013 - 6/30/2013
Wage Rate per Hour: \$25.02
Supplemental Benefit Rate per Hour: \$9.51

Office Building Class "C" Foreperson, Starter (Less than 120,000 square feet gross area)

Effective Period: 7/1/2012 - 12/31/2012

Wage Rate per Hour: \$24.59

Supplemental Benefit Rate per Hour: \$9.13

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

Wage Rate per Hour: \$24.91

Supplemental Benefit Rate per Hour: \$9.51

Office Building Class "C" Cleaner/Porter, Elevator Operator, Exterminator, Fire Safety Director (Less than 120,000 square feet gross area)

Effective Period: 7/1/2012 - 12/31/2012

Wage Rate per Hour: \$22.57

Supplemental Benefit Rate per Hour: \$9.13

Supplemental Note: for new employee 0-12 months of employment - \$6.64; for new employee 13-24 months of employment - \$8.81

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

Wage Rate per Hour: \$22.90

Supplemental Benefit Rate per Hour: \$9.51

Supplemental Note: for new employee 0-12 months of employment - \$6.92; for new employee 13-24 months of employment - \$9.18

NEW HIRE: Cleaner/Porter, Elevator Operator, Exterminator, Fire Safety Director may be paid 75% of the wage rate above for the first 21 months of employment, 85% of the wage rate above for the 22nd through 42nd months of employment, and upon the completion of 42 months of employment employee shall be paid the full wage rate. Note: New Hires hired before January 1, 2012 will continue to receive 80% of the wage rate above for the first 30 months, and upon the completion of 30 months of employment employee shall be paid the full wage rate. Upon completion of two years of employment the new hire receives the full supplemental benefit rate.

Overtime

Time and one half the regular rate after an 8 hour day.

Time and one half the regular rate for work on a holiday plus the day's pay.

Time and one half the regular hourly rate after 40 hours in any work week.

Paid Holidays

New Year's Day

President's Day

Good Friday

Memorial Day

Independence Day

Labor Day

Columbus Day

Thanksgiving Day

Day after Thanksgiving

Christmas Day

Vacation

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

Less than 6 months of work.....no vacation
6 months of work.....three (3) days
1 year of work.....ten (10) days
5 years of work.....fifteen (15) days
15 years of work.....twenty (20) days
21 years of work.....twenty-one (21) days
22 years of work.....twenty-two (22) days
23 years of work.....twenty-three (23) days
24 years of work.....twenty-four (24) days
25 years or more of work.....twenty-five (25) days
Plus two Personal Days per year.

Sick Leave:

10 sick days per year.

Unused sick leave paid in the succeeding January, one full day pay for each unused sick day.

(Local #32 B/J)

BUILDING CLEANER AND MAINTAINER (RESIDENTIAL)

Residential Building Class "A" Handyperson

Residential Buildings Class "A": buildings where the assessed value of the land and building, based upon the 1935 assessment, divided by the number of rooms in the building, gives an assessed value of over \$4000.00 a room.

Effective Period: 7/1/2012 – 4/20/2013

Wage Rate per Hour: **\$22.94**

Supplemental Benefit Rate per Hour: **\$8.68**

Supplemental Note: Effective 1/1/2013 - \$9.43

Effective Period: 4/21/2013 - 6/30/2013

Wage Rate per Hour: **\$23.57**

Supplemental Benefit Rate per Hour: **\$9.43**

Residential Building Class "A" Cleaner/Porter

Residential Buildings Class "A": buildings where the assessed value of the land and building, based upon the 1935 assessment, divided by the number of rooms in the building, gives an assessed value of over \$4000.00 a room.

Effective Period: 7/1/2012 - 4/20/2013

Wage Rate per Hour: **\$20.77**

Supplemental Benefit Rate per Hour: **\$8.68**

Supplemental Note: for new employee 0-12 months of employment - \$6.37; for new employee 13-24 months of employment - \$8.43

Effective 1/1/2013 - \$9.43; for new employee 0-12 months of employment - \$6.92; for new employee 13-24 months of employment - \$9.18

Effective Period: 4/21/2013 - 6/30/2013

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

Wage Rate per Hour: **\$21.34**

Supplemental Benefit Rate per Hour: **\$9.43**

Supplemental Note: for new employee 0-12 months of employment - \$6.92; for new employee 13-24 months of employment - \$9.18

NEW HIRE: Porter/Cleaner, may be paid a starting rate of 80% of the hourly rate published above. Upon completion of 30 months of employment, the new hire shall be paid the full wage rate. Upon completion of two years of employment the new hire receives the full supplemental benefit rate.

Residential Building Class "B" Handyperson

Residential Building Class "B": buildings where the assessed value of the land and building, based upon the 1935 assessment, divided by the number of rooms in the building, gives an assessed value of over \$2000.00 a room and not over \$4000.00 a room.

Effective Period: 7/1/2012 - 4/20/2013

Wage Rate per Hour: **\$22.88**

Supplemental Benefit Rate per Hour: **\$8.68**

Supplemental Note: Effective 1/1/2013 - \$9.43

Effective Period: 4/21/2013 - 6/30/2013

Wage Rate per Hour: **\$23.51**

Supplemental Benefit Rate per Hour: **\$9.43**

Residential Building Class "B" Cleaner/Porter

Residential Building Class "B": buildings where the assessed value of the land and building, based upon the 1935 assessment, divided by the number of rooms in the building, gives an assessed value of over \$2000.00 a room and not over \$4000.00 a room.

Effective Period: 7/1/2012 - 4/20/2013

Wage Rate per Hour: **\$20.71**

Supplemental Benefit Rate per Hour: **\$8.68**

Supplemental Note: for new employee 0-12 months of employment - \$6.37; for new employee 13-24 months of employment - \$8.43

Effective 1/1/2013 - \$9.43; for new employee 0-12 months of employment - \$6.92; for new employee 13-24 months of employment - \$9.18

Effective Period: 4/21/2013 - 6/30/2013

Wage Rate per Hour: **\$21.28**

Supplemental Benefit Rate per Hour: **\$9.43**

Supplemental Note: for new employee 0-12 months of employment - \$6.92; for new employee 13-24 months of employment - \$9.18

NEW HIRE: Porter/Cleaner, may be paid a starting rate of 80% of the hourly rate published above. Upon completion of 30 months of employment, the new hire shall be paid the full wage rate. Upon completion of two years of employment the new hire receives the full supplemental benefit rate.

Residential Building Class "C" Handyperson

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

Residential Building Class "C": buildings where the assessed value of the land and building, based upon the 1935 assessment, divided by the number of rooms in the building, gives an assessed value of \$2000.00 or less a room.

Effective Period: 7/1/2012 - 4/20/2013

Wage Rate per Hour: \$22.83

Supplemental Benefit Rate per Hour: \$8.68

Supplemental Note: Effective 1/1/2013 - \$9.43

Effective Period: 4/21/2013 - 6/30/2013

Wage Rate per Hour: \$23.45

Supplemental Benefit Rate per Hour: \$9.43

Residential Building Class "C" Cleaner/Porter

Residential Building Class "C": buildings where the assessed value of the land and building, based upon the 1935 assessment, divided by the number of rooms in the building, gives an assessed value of \$2000.00 or less a room.

Effective Period: 7/1/2012 - 4/20/2013

Wage Rate per Hour: \$20.65

Supplemental Benefit Rate per Hour: \$8.68

Supplemental Note: for new employee 0-12 months of employment - \$6.37; for new employee 13-24 months of employment - \$8.43

Effective 1/1/2013 - \$9.43; for new employee 0-12 months of employment - \$6.92; for new employee 13-24 months of employment - \$9.18

Effective Period: 4/21/2013 - 6/30/2013

Wage Rate per Hour: \$21.23

Supplemental Benefit Rate per Hour: \$9.43

Supplemental Note: for new employee 0-12 months of employment - \$6.92; for new employee 13-24 months of employment - \$9.18

NEW HIRE: Porter/Cleaner, may be paid a starting rate of 80% of the hourly rate published above. Upon completion of 30 months of employment, the new hire shall be paid the full wage rate. Upon completion of two years of employment the new hire receives the full supplemental benefit rate.

Overtime

Time and one half the regular rate after an 8 hour day.

Time and one half the regular rate for work on a holiday plus the day's pay.

Time and one half the regular hourly rate after 40 hours in any work week.

Paid Holidays

New Year's Day

Martin Luther King Jr. Day

President's Day

Memorial Day

Independence Day

Labor Day

Columbus Day

Election Day

Thanksgiving Day

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

Christmas Day

Vacation

6 months.....three (3) days
1 year.....ten (10) days
5 years.....fifteen (15) days
15 years.....twenty (20) days
21 years.....twenty-one (21) days
22 years.....twenty-two (22) days
23 years.....twenty-three (23) days
24 years.....twenty-four (24) days
25 years.....twenty-five (25) days
Plus two Personal Days per year.

SICK LEAVE

After 1 year of service.....ten (10) days per year

(Local #32 B/J)

BUILDING HVAC SERVICES OPERATOR

Engineer (Refrigeration)

Effective Period: 7/1/2012 - 12/31/2012

Wage Rate per Hour: **\$34.15**

Supplemental Benefit Rate per Hour: **\$15.44**

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

Wage Rate per Hour: **\$35.18**

Supplemental Benefit Rate per Hour: **\$15.78**

Fireperson

Fireperson (Helper): Assists the Engineer

Effective Period: 7/1/2012 - 12/31/2012

Wage Rate per Hour: **\$26.59**

Supplemental Benefit Rate per Hour: **\$15.09**

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

Wage Rate per Hour: **\$27.39**

Supplemental Benefit Rate per Hour: **\$15.41**

Overtime Description

All hours worked on a holiday shall be paid at two and one half times the regular wage rate in lieu of the paid day off.

Overtime

Time and one half the regular rate after an 8 hour day.

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

Time and one half the regular rate for Saturday.
Time and one half the regular rate for Sunday.

Paid Holidays

New Year's Day
Memorial Day
Independence Day
Labor Day
Thanksgiving Day
Christmas Day
Plus six (6) floating Holidays

Vacation

6 months	three (3) days
1 year	ten (10) days
5 years	fifteen (15) days
15 years	twenty (20) days
21 years.....	twenty-one (21) days
22 years.....	twenty-two (22) days
23 years.....	twenty-three (23) days
24 years.....	twenty-four (24) days
25 years.....	twenty-five (25) days

(Local #94)

CLEANER (PARKING GARAGE)

Garage Cleaner

Effective Period: 7/1/2012 - 6/30/2013
Wage Rate per Hour: \$10.00
Supplemental Benefit Rate per Hour: \$1.50

Overtime

Time and one half the regular rate after an 8 hour day or after 40 hours in any work week.

(NYC Administrative Code §6-109)

FUEL OIL

Fuel Oil, Coal, Fuel Gas, Petroleum Product Chauffeur (5th Year and above)

Effective Period: 7/1/2012 - 12/15/2012
Wage Rate per Hour: \$30.11
Supplemental Benefit Rate per Hour: \$18.80

Effective Period: 12/16/2012 - 6/30/2013

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
\$230 PREVAILING WAGE SCHEDULE

Wage Rate per Hour: \$30.61

Supplemental Benefit Rate per Hour: \$19.80

Supplemental Note: Effective 1/1/2013 - \$20.42

Fuel Oil, Coal, Fuel Gas, Petroleum Product Chauffeur (4th Year)

Effective Period: 7/1/2012 - 12/15/2012

Wage Rate per Hour: \$27.50

Supplemental Benefit Rate per Hour: \$18.80

Effective Period: 12/16/2012 - 6/30/2013

Wage Rate per Hour: \$28.00

Supplemental Benefit Rate per Hour: \$19.80

Supplemental Note: Effective 1/1/2013 - \$20.42

Fuel Oil, Coal, Fuel Gas, Petroleum Product Chauffeur (3rd Year)

Effective Period: 7/1/2012 - 12/15/2012

Wage Rate per Hour: \$25.50

Supplemental Benefit Rate per Hour: \$18.80

Effective Period: 12/16/2012 - 6/30/2013

Wage Rate per Hour: \$26.00

Supplemental Benefit Rate per Hour: \$19.80

Supplemental Note: Effective 1/1/2013 - \$20.42

Fuel Oil, Coal, Fuel Gas, Petroleum Product Chauffeur (2nd Year)

Effective Period: 7/1/2012 - 12/15/2012

Wage Rate per Hour: \$23.50

Supplemental Benefit Rate per Hour: \$18.80

Effective Period: 12/16/2012 - 6/30/2013

Wage Rate per Hour: \$24.00

Supplemental Benefit Rate per Hour: \$19.80

Supplemental Note: Effective 1/1/2013 - \$20.42

Fuel Oil, Coal, Fuel Gas, Petroleum Product Chauffeur (1st Year)

Effective Period: 7/1/2012 - 12/15/2012

Wage Rate per Hour: \$21.50

Supplemental Benefit Rate per Hour: \$18.80

Effective Period: 12/16/2012 - 6/30/2013

Wage Rate per Hour: \$22.00

Supplemental Benefit Rate per Hour: \$19.80

Supplemental Note: Effective 1/1/2013 - \$20.42

On time

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

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).

- Martin Luther King Jr. Day
- Lincoln's Birthday
- Washington's Birthday
- Memorial Day
- Independence Day
- Labor Day
- Columbus Day
- Election Day
- Veteran's Day

Triple time the regular rate for work on the following holiday(s).

- New Year's Day
- Thanksgiving Day
- Christmas Day

Paid Holidays

- New Year's Day
- Martin Luther King Jr. Day
- Lincoln's Birthday
- Washington's Birthday
- Memorial Day
- Independence Day
- Labor Day
- Columbus Day
- Election Day
- Veteran's Day
- Thanksgiving Day
- Christmas Day

Vacation

Less than 75 days worked.....no vacation.
75 days worked, but less than 110 days worked in a calendar year.....five (5) days the following year.
110 days or more worked in a calendar year.....ten (10) days the following year.

SICK LEAVE:

1 day sick leave earned for each 40 days worked in the preceding calendar year for a maximum of five (5) days per calendar year.

(Local #553).

GARDENER

Gardener

Effective Period: 7/1/2012 - 6/30/2013

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

Wage Rate per Hour: \$17.04

Supplemental Benefit Rate per Hour: \$1.72

Overtime

Time and one half the regular rate after an 8 hour day or 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)

LOCKSMITH

Locksmith

Effective Period: 7/1/2012 - 6/30/2013

Wage Rate per Hour: \$21.46

Supplemental Benefit Rate per Hour: \$5.89

Overtime

Time and one half the regular rate after an 8 hour day or 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)

MEDICAL WASTE REMOVAL

Driver

Effective Period: 7/1/2012 - 3/31/2013

Wage Rate per Hour: \$17.75

Supplemental Benefit Rate per Hour: \$8.79

Effective Period: 4/1/2013 - 6/30/2013

Wage Rate per Hour: \$18.00

Supplemental Benefit Rate per Hour: \$9.34

Helper

Effective Period: 7/1/2012 - 3/31/2013

Wage Rate per Hour: \$14.00

Supplemental Benefit Rate per Hour: \$8.79

Effective Period: 4/1/2013 - 6/30/2013

Wage Rate per Hour: \$14.25

Supplemental Benefit Rate per Hour: \$9.34

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

Tractor Trailer Driver

Effective Period: 7/1/2012 - 3/31/2013

Wage Rate per Hour: **\$20.25**

Supplemental Benefit Rate per Hour: **\$8.79**

Effective Period: 4/1/2013 - 6/30/2013

Wage Rate per Hour: **\$20.50**

Supplemental Benefit Rate per Hour: **\$9.34**

Overtime Description

Time and one half the regular hourly rate after an 8 hour day or after 40 hours in any work week. The seventh day of work in a workweek is paid at double time the regular hourly rate. Time and one half the regular hourly rate for work on a holiday plus days pay for below paid holidays.

Paid Holidays

Presidents' Day
Memorial Day
Independence Day
Labor Day
Thanksgiving Day
Christmas Day

Vacation

1 year of service but less than five years.....	10 days
5 years of service but less than ten years.....	15 days
10 years of service.....	16 days
11 years.....	17 days
12 years.....	18 days
13 years.....	19 days
14 years.....	20 days
20 years.....	21 days
21 years.....	22 days
22 years.....	23 days
23 years.....	24 days
24 years.....	25 days

Plus 5 Personal Days

(Local #813)

MOVER – OFFICE FURNITURE AND EQUIPMENT

Heavy and Tractor Trailer Truck Driver

Tractor-trailer combination or a truck with a capacity of at least 26,000 pounds Gross Vehicle Weight (GVW)

Effective Period: 7/1/2012 - 6/30/2013

Wage Rate per Hour: **\$23.11**

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

Supplemental Benefit Rate per Hour: \$4.10

Lot Truck Driver

Effective Period: 7/1/2012 - 6/30/2013

Wage Rate per Hour: \$18.08

Supplemental Benefit Rate per Hour: \$4.10

Laborer and Freight, Stock, and Material Movers, Hand

Effective Period: 7/1/2012 - 6/30/2013

Wage Rate per Hour: \$17.68

Supplemental Benefit Rate per Hour: \$4.10

Overtime

Time and one half the regular rate after an 8 hour day or 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)

REFUSE REMOVER

Refuse Remover

Effective Period: 7/1/2012 - 6/30/2013

Wage Rate per Hour: \$27.62

Supplemental Benefit Rate per Hour: \$4.10

Overtime

Time and one half the regular rate after an 8 hour day or 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)

SECURITY GUARD (ARMED)

Security Guard (Armed)

Effective Period: 7/1/2012 - 12/31/2012

Wage Rate per Hour: \$27.75

Supplemental Benefit Rate per Hour: \$4.73

Supplemental Note: for new employee 0-30 days of employment - \$4.09; for new employee 31-120 days of employment - \$4.26; for new employee 121 days - 2 years of employment - \$4.37

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

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

Wage Rate per Hour: **\$28.00**

Supplemental Benefit Rate per Hour: **\$4.90**

Supplemental Note: for new employee 0-30 days of employment - \$4.26; for new employee 31-120 days of employment - \$4.43; for new employee 121 days - 2 years of employment - \$4.54

Months of employment shall be defined as an Employee's length of service with the Employer or at the Facility, whichever is greater.

Overtime Description

A guard who works a holiday is paid the regular rate plus receives the paid holiday.

Supplemental Benefits shall be paid for each hour paid, up to forty (40) paid hours per week.

Overtime

Time and one half the regular rate after an 8 hour day.

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

Christmas Day

Vacation

Months on payroll	Vacation with Pay
6	3 days
12	5 days
24	10 days
60	15 days
180	20 days
300	25 days

Sick Leave

Employees accrue paid sick leave at the rate of one (1) sick day for every six (6) months worked, up to a maximum of six (6) days a year.

(Local #32B/J)

SECURITY GUARD (UNARMED)

Security Guard (Unarmed) 0 - 6 months

Effective Period: 7/1/2012 - 12/31/2012

Wage Rate per Hour: **\$12.60**

Supplemental Benefit Rate per Hour: **\$4.37**

Supplemental Note: for new employee 0-30 days of employment - \$4.09; for new employee 31-120 days of employment - \$4.26

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
\$230 PREVAILING WAGE SCHEDULE

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

Wage Rate per Hour: \$12.85

Supplemental Benefit Rate per Hour: \$4.54

Supplemental Note: for new employee 0-30 days of employment - \$4.26; for new employee 31-120 days of employment - \$4.43

Security Guard (Unarmed) 7 - 12 months

Effective Period: 7/1/2012 - 12/31/2012

Wage Rate per Hour: \$13.10

Supplemental Benefit Rate per Hour: \$4.37

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

Wage Rate per Hour: \$13.35

Supplemental Benefit Rate per Hour: \$4.54

Security Guard (Unarmed) 13 - 18 months

Effective Period: 7/1/2012 - 12/31/2012

Wage Rate per Hour: \$13.60

Supplemental Benefit Rate per Hour: \$4.37

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

Wage Rate per Hour: \$13.85

Supplemental Benefit Rate per Hour: \$4.54

Security Guard (Unarmed) 19 - 24 months

Effective Period: 7/1/2012 - 12/31/2012

Wage Rate per Hour: \$14.10

Supplemental Benefit Rate per Hour: \$4.37

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

Wage Rate per Hour: \$14.35

Supplemental Benefit Rate per Hour: \$4.54

Security Guard (Unarmed) 25 - 30 months

Effective Period: 7/1/2012 - 12/31/2012

Wage Rate per Hour: \$14.60

Supplemental Benefit Rate per Hour: \$4.73

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

Wage Rate per Hour: \$14.85

Supplemental Benefit Rate per Hour: \$4.90

Security Guard (Unarmed) 31 months or more

Effective Period: 7/1/2012 - 12/31/2012

Wage Rate per Hour: \$14.75

OFFICE OF THE COMPTROLLER, CITY OF NEW YORK
\$230 PREVAILING WAGE SCHEDULE

Supplemental Benefit Rate per Hour: \$4.73

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

Wage Rate per Hour: \$15.15

Supplemental Benefit Rate per Hour: \$4.90

Months of employment shall be defined as an Employee's length of service with the Employer or at the Facility, whichever is greater.

Overtime Description

A guard who works a holiday is paid the regular rate plus receives the paid holiday.
Supplemental Benefits shall be paid for each hour paid, up to forty (40) paid hours per week.

Overtime

Time and one half the regular rate after an 8 hour day.
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
Christmas Day

Vacation

Months on payroll	Vacation with Pay
6	3 days
12	5 days
24	10 days
60	15 days
180	20 days
300	25 days

Sick Leave

Employees accrue paid sick leave at the rate of one (1) sick day for every six (6) months worked, up to a maximum of six (6) days a year.

(Local #32B/J)

WINDOW CLEANER

Window Cleaner

Effective Period: 7/1/2012 - 12/31/2012

Wage Rate per Hour: \$26.12

Supplemental Benefit Rate per Hour: \$9.13

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

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

Wage Rate per Hour: \$26.44

Supplemental Benefit Rate per Hour: \$9.51

Power Operated Scaffolds, Manual Scaffolds, and Boatswain Chairs

Effective Period: 7/1/2012 - 12/31/2012

Wage Rate per Hour: \$28.37

Supplemental Benefit Rate per Hour: \$9.13

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

Wage Rate per Hour: \$28.69

Supplemental Benefit Rate per Hour: \$9.51

Window Cleaner Apprentice (0 - 3 months)

Employee must be a registered apprentice with the New York State Department of Labor

Effective Period: 7/1/2012 - 12/31/2012

Wage Rate per Hour: \$19.35

Supplemental Benefit Rate per Hour: \$0.00

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

Wage Rate per Hour: \$19.59

Supplemental Benefit Rate per Hour: \$0.00

Window Cleaner Apprentice (4 - 7 months)

Employee must be a registered apprentice with the New York State Department of Labor

Effective Period: 7/1/2012 - 12/31/2012

Wage Rate per Hour: \$20.92

Supplemental Benefit Rate per Hour: \$9.13

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

Wage Rate per Hour: \$21.18

Supplemental Benefit Rate per Hour: \$9.51

Window Cleaner Apprentice (8 - 11 months)

Employee must be a registered apprentice with the New York State Department of Labor

Effective Period: 7/1/2012 - 12/31/2012

Wage Rate per Hour: \$22.17

Supplemental Benefit Rate per Hour: \$9.13

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

Wage Rate per Hour: \$22.44

Supplemental Benefit Rate per Hour: \$9.51

Window Cleaner Apprentice (12 - 15 months)

Employee must be a registered apprentice with the New York State Department of Labor

Effective Period: 7/1/2012 - 12/31/2012

Wage Rate per Hour: **\$23.43**

Supplemental Benefit Rate per Hour: **\$9.13**

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

Wage Rate per Hour: **\$23.72**

Supplemental Benefit Rate per Hour: **\$9.51**

Window Cleaner Apprentice (16 - 17 months)

Employee must be a registered apprentice with the New York State Department of Labor

Effective Period: 7/1/2012 - 12/31/2012

Wage Rate per Hour: **\$24.70**

Supplemental Benefit Rate per Hour: **\$9.13**

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

Wage Rate per Hour: **\$25.01**

Supplemental Benefit Rate per Hour: **\$9.51**

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

Martin Luther King Jr. Day

President's Birthday

Good Friday

Memorial Day

Independence Day

Labor Day

Columbus Day

Thanksgiving Day

Day after Thanksgiving

Christmas Day

Personal Day

Vacation

After 7 months but less than 1 year of service.....5 days

1 year but less than 5 years of service.....10 days

5 years of service but less than 15 years of service.....15 days

15 years of service but less than 21 years of service.....20 days

21 years.....21 days

22 years.....22 days

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

23 years.....23 days
24 years.....24 days
25 years or more of service.....25 days
Plus 1 day per year for medical visit

SICK LEAVE:

10 days after one year worked. Unused sick days to be paid in cash.

(Local #32 B/J)

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SECTION 01000

GENERAL CONDITIONS

APPLICABLE TO ALL CONTRACTS

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The ADDENDUM TO THE GENERAL CONDITIONS is contained in Volume 3 of the Contract Documents. Volume 3 contains the following:

- Addendum to the General Conditions
- Specifications

**SECTION 01000
GENERAL CONDITIONS**

PART 1 - GENERAL

1.01 Applicability of General Conditions

- A. Since there are several separate Contracts pertaining to the construction of this project, for convenience, the General Conditions are stated only once. These General Conditions are applicable to all Contracts and shall constitute an integral part of each separate Contract to the same extent as though they were repeated in full therein.
- B. The Contractor is advised that various sections of these General Conditions are amended by the Addendum to the General Conditions. This Addendum also includes various schedules referred to in these General Conditions (Schedules A through F). These schedules contain important information that is specific to this project. The Addendum, including Schedules A through F, is set forth in Volume 3 of the Contract Documents.
- C. Throughout these General Conditions, various responsibilities and obligations are assigned to each of the following four Contractors: (1) General Construction, (2) Plumbing, (3) Heating/Ventilating/Air-Conditioning/Fire Protection, and (4) Electrical. In the event the Project does not involve all four Contracts, the responsibilities and obligations of each omitted Contract shall be assigned to one of the Contracts which is included in the Project. The Addendum to the General Conditions specifies which Contractor shall perform the responsibilities and obligations of each omitted contract, as set forth in the General Conditions.

1.02 Scope and Intent

- A. DESCRIPTION OF PROJECT - Refer to the Addendum to the General Conditions for a description of this project.

3. PROGRESS SCHEDULE

- 1. Within 15 days after the Notice to Proceed, the Contractor for General Construction Work shall prepare a composite Job Progress Chart that shall indicate graphically and chronologically the time the various parts of the work of all Contracts shall commence and be completed. The Chart shall be in a reproducible form approved by the Commissioner.
- 2. Immediately after the Notice to Proceed of their Contracts, the Contractors for Plumbing Work, Heating, Ventilating and Air Conditioning Work (HVAC) and Electrical Work, as applicable, shall furnish all necessary data to the Contractor for General Construction Work, and cooperate in all respects in connection with formulation of the Chart.
- 3. The Chart shall show the sequence and interrelationship of each operation of all the Contracts.
- 4. The Chart shall show the estimated time for fabrication and/or delivery of all materials and equipment required for the work.
- 5. As directed by the Resident Engineer, the Contractors shall meet with each other and with the Resident Engineer to review and make the necessary adjustments to the composite Job Progress Chart, and to coordinate the work indicated thereon. (Article 12 of the Contract).
- 6. When completed, the Job Progress Chart shall be signed and dated by each Contractor or their official representative. The Resident Engineer is authorized to sign the Chart for the Department of Design and Construction. Thereafter, the Chart shall be modified only with the Commissioner's approval. When directed by the Commissioner, the Chart shall be revised and updated. If necessary, a new revised Chart shall be prepared in the same manner as outlined above for the original Chart.

7. The approved Chart shall be distributed by the Contractor for General Construction Work, as follows: the original and two (2) copies to the Resident Engineer, two (2) copies to each Contractor, and two (2) copies to the Department of Design and Construction
 8. All Contractors shall consult the approved Progress Chart and install their work within the time limits indicated on the Chart.
 9. The Resident Engineer shall post in a prominent place in the field office a copy of the Chart and mark thereon the progress of the work, including the times when various parts of the work commenced and were completed.
- C. **COMPLETION OF WORK** - Work to be done under each separate Contract comprises the furnishing of all labor, materials, equipment and other appurtenances and obtaining of all regulatory agency approvals necessary and required to complete the construction work in accordance with the Contract.
- D. **OMISSION OF DETAILS** - All work called for in the Specifications applicable to each separate Contract but not shown on the Contract Drawings in their present form, or vice versa, is required, and shall be performed by the Contractor as though it were originally delineated or described. Such work is deemed included in the Bid Price.
- E. **WORK NOT IN SPECIFICATIONS OR CONTRACT DRAWINGS** - Work not particularly specified in the Specifications nor detailed on the Contract Drawings but involved in carrying out their intent or in the complete and proper execution of the work, is required, and shall be performed by the Contractor. Such work is deemed included in the Bid Price.
- F. **SILENCE OF THE SPECIFICATIONS** - The apparent silence of the Specifications as to any detail, or the apparent omission from them of a detailed description concerning any work to be done and materials to be furnished, shall be regarded as meaning that only the best practice is to prevail and that only the best material and workmanship is to be used and interpretation of the Specifications shall be made upon that basis.
- G. **CONFLICT BETWEEN CONTRACT DRAWINGS AND SPECIFICATIONS** - Should any conflict occur in or between the Drawings and Specifications, the Contractor shall be deemed to have estimated on the most expensive way of doing the work unless the Contractor shall have asked for and obtained a decision in writing from the Commissioner before the submission of the bid as to what shall govern.
- H. **COOPERATION BETWEEN CONTRACTORS** - Inasmuch as the completion of the project within the prescribed limit of time is dependent largely upon the close and active cooperation of all those engaged therein, it is therefore expressly understood and agreed that the Contractor shall lay out and install all work at such time or times and in such manner as not to delay or interfere with the carrying forward of the work of other Contractors. In the event of any dispute arising as to possible or alleged interference between the various Contractors which may retard the progress of the work, the dispute shall be adjudicated by the Commissioner, whose decision as to the party or parties at fault and as to the manner in which the matter may be adjudicated, shall be binding and conclusive on all parties.
- I. **"DIRECTED," "REQUIRED," ETC.** - Wherever reference is made in the Contract to the work or its performance, the terms "directed," "required," "permitted," "ordered," "designated," "prescribed," "determined," and words of similar import shall, unless expressed otherwise, imply the direction, requirements, permission, order, designation or prescription of the Commissioner.
- J. **"APPROVED," ETC.** - "Approved," "acceptable," "satisfactory," and words of similar import shall mean and intend approved, acceptable or satisfactory to the Commissioner.
- K. **CONFLICTS OF INTERESTS** - The Charter of the City of New York, Section 2604, provides a number of safeguards in relation to conflicts of interest. Such safeguards include, without limitation, the following: "No public servant shall receive compensation except from the City for performing any official duty or accept or receive any gratuity from any person whose interest may be affected by the

public servant's official action."

1. Other sections of the City Charter, the Administrative Code and the Penal Law are applicable in implementing the basic Conflicts of Interest Section and under certain circumstances penalties may be invoked against the donor as well as the recipient of any form of valuable gift.
2. Notice is hereby given that sections of the City Charter, the Administrative Code and the Penal Law alluded to herein shall apply under the terms of this Contract to circumstances relevant to conflicts of interest and shall be extended in application to subcontractors authorized to perform work, labor and services pursuant to this Contract and further, it shall be the duty and responsibility of the Contractors to so inform their respective subcontractors.

1.03 Provisions Referenced in the Contract

- A. Various Articles of the Contract refer to requirements set forth in Schedule A of the General Conditions. Schedule A, which is included in the Addendum to the General Conditions, sets forth 1) the referenced Articles of the Contract, and 2) the specific requirements applicable to each respective Contract.
- B. Applications for Extensions of Time, as indicated in Article 13 of the Contract, shall be made in accordance with the Rules of the Procurement Policy Board.
- C. **PARTIAL PAYMENTS FOR MATERIALS IN ADVANCE OF THEIR INCORPORATION IN THE WORK PURSUANT TO ARTICLE 42 OF THE "CONTRACT"** - In order to better insure the availability of materials, fixtures and equipment when needed for the work, the Commissioner may authorize partial payment for certain materials, fixtures and equipment, prior to their incorporation in the work, but only in strict accordance with, and subject to, all the terms and conditions set forth in the Specifications, unless an alternate method of payment is elsewhere provided in the Specifications for specified materials, fixtures or equipment.
 1. The Contractor shall submit to the Commissioner a written request, in quadruplicate, for payment for materials purchased or to be purchased for which the Contractor needs to be paid prior to their actual incorporation in the work. The request shall be accompanied by a schedule of the types and quantities of materials, and shall state whether such materials are to be stored on or off the site.
 2. Where the materials are to be stored off the site, they shall be stored at a place other than the Contractor's premises (except with the written consent of the Commissioner) and under the conditions prescribed or approved by the Commissioner. The Contractor shall set apart and separately store at the place or places of storage all materials and shall clearly mark same "PROPERTY OF THE CITY OF NEW YORK", and further, shall not at any time move any of said materials to another off-site place of storage without the prior written consent of the Commissioner. Materials may be removed from their place of storage off the site for incorporation in the work upon approval of the Resident Engineer.
 3. Where the materials are to be stored at the site, they shall be stored at such locations as shall be designated by the Resident Engineer and only in such quantities as, in the opinion of the Resident Engineer, will not interfere with the proper performance of the work by the Contractor or by other Contractors then engaged in performing work on the site. Such materials shall not be removed from their place of storage on the site except for incorporation in the work, without the approval of the Resident Engineer.
4. **INSURANCE**
 - a. **STORAGE OFF-SITE** - Where the materials are stored off the site and until such time as they are incorporated in the work, the Contractor shall fully insure such materials against any and all risks of destruction, damage or loss including but not limited to fire, theft, and any other casualty or happening. The policy of insurance shall be payable to the City of New York. It shall be in such terms and amounts as shall be approved by the Commissioner and shall be

placed with a company duly licensed to do business in the State of New York. The Contractor shall deliver the original and one (1) copy of such policy or policies marked "Fully Paid" to the Commissioner.

- b. STORAGE ON THE SITE - Where the materials are stored at the site, the Contractor shall furnish satisfactory evidence to the Commissioner that they are properly insured against loss, by endorsements or otherwise, under the policy or policies of insurance obtained by the Contractor to cover losses to materials owned or installed by the Contractor. The policy of insurance shall cover fire and extended coverage against windstorm, hail, explosion and riot attending a strike, civil commotion, aircraft, vehicles and smoke.
5. All costs, charges and expenses arising out of the storage of such materials, shall be paid by the Contractor and the City hereby reserves the right to retain out of any partial or final payment made under the Contract an amount sufficient to cover such costs, charges and expenses with the understanding that the City shall have and may exercise any and all other remedies at law for the recovery of such cost, charges and expenses. There shall be no increase in the Contract price for such costs, charges and expenses and the Contractor shall not make any claim or demand for compensation therefor.
6. The Contractor shall pay any and all costs of handling and delivery of materials, to the place of storage and from the place of storage to the site of the work; and the City shall have the right to retain from any partial or final payment an amount sufficient to cover the cost of such handling and delivery.
7. In the event that the whole or any part of these materials are lost, damaged or destroyed in advance of their satisfactory incorporation in the work, the Contractor, at the Contractor's own cost, shall replace such lost, damaged or destroyed materials of the same character and quality. The City will reimburse the Contractor for the cost of the replaced materials to the extent, and only to the extent, of the funds actually received by the City under the policies of insurance hereinbefore referred to. Until such time as the materials are replaced, the City will deduct from the value of the stored materials or from any other money due under the Contract, the amount paid to the Contractor for such lost, damaged or destroyed materials.
8. Should any of the materials paid for the City hereunder be subsequently rejected or incorporated in the work in a manner or by a method not in accordance with the Contract and Specifications, the Contractor shall remove and replace, at Contractor's own cost, such defective or improperly incorporated material with materials complying with the Contract and Specifications. Until such materials are replaced, the City will deduct from the value of the stored materials or from any other money due the Contractor, the amount paid by the City for such rejected or improperly incorporated materials.
9. Payments for the cost of materials made hereunder shall not be deemed to be an acceptance of such materials as being in accordance with the Contract Documents, and the Contractor always retains and must comply with the Contractor's duty to deliver to the site and properly incorporate in the work only materials which comply with the Contract Documents.
10. The Contractor shall retain any and all risks in connection with the damage, destruction or loss of the materials paid for hereunder to the time of delivery of the same to the site of the work and their proper incorporation in the work in accordance with the Contract Documents.
11. The Contractor shall comply with all laws and the regulations of any governmental body or agency pertaining to the priority purchase, allocation and use of the materials.
12. When requesting payment for such materials, the Contractor shall submit with the partial estimate duly authenticated documents of title, such as bills of sale, invoices or warehouse receipts, all in quadruplicate. The executed bills of sale shall transfer title to the materials from the Contractor to the City (in the event that the invoices state that the material has been purchased by a subcontractor, bills of sale in quadruplicate will also be required transferring title to the materials

from subcontractor to the Contractor).

13. Where the Contractor, with the approval of the Commissioner, has purchased unusually large quantities of materials in order to assure their availability for the work, the Commissioner, at the Commissioner's option, may waive the requirements of Paragraph 12 provided the Contractor furnishes evidence in the form of an affidavit from the Contractor in quadruplicate, and such other proof as the Commissioner may require, that the Contractor is the sole owner of such materials and has purchased them free and clear of all liens and other encumbrances. In such event, the Contractor shall pay for such materials and submit proof thereof, in the same manner as provided in Paragraph 12 hereof, within seven (7) days after receipt of payment therefor from the Comptroller. Failure on the part of the Contractor to submit satisfactory evidence that all such materials have been paid for in full, shall preclude the Contractor from payments under the Contract.
14. The Contractor shall include in each succeeding partial estimate requisition a summary of materials stored which shall set forth the quantity and value of materials in storage, on or off the site, at the end of each preceding estimate period; the amount removed for incorporation in the work; the quantity and value of materials delivered during the current period and the total value of materials on hand for which payment thereof will be included in the current payment estimate.
15. Upon proof to the satisfaction of the Commissioner of the actual cost of such materials and upon submission of proper proof of title as required under Paragraph 12 or Paragraph 13 hereof, payment will be made therefore to the extent of 85%, provided however, that the cost so verified, established and approved shall not exceed the estimated cost of such materials included in the approved detailed breakdown estimate submitted in accordance with Article 41 of the Contract; if it does; the City will pay only 85% approved estimated cost.
16. Upon the incorporation in the work of any such materials, which have been paid for in advance of such incorporation in accordance with the foregoing provisions, payment will be made for such materials incorporated in the work pursuant to Article 42 of the Contract, less any sums paid pursuant to Paragraph 15 herein.

D. **EXCISE AND TRANSPORTATION TAXES-** Pursuant to Section 6 of the "Information for Bidders", the Contractor may be exempted from the payment of Federal Excise and Transportation Taxes in accord with the following:

1. Excise Tax Exemption Certificate will be certified by the Department of Design and Construction where requested by the Contractor, for items which fall within the scope of the Contract and which may be exempt from Federal Excise Tax.
2. **TRANSPORTATION TAX** - The 3% Federal Tax has been repealed and is hereby deleted from the Contract. The 10% Federal Tax for travel remains in effect.

E. **CORRESPONDENCE** - There shall be six (6) copies of all letters of correspondence to the Department of Design and Construction. An additional copy of all correspondence shall be sent directly to the Resident Engineer at the job site.

F. **MOBILIZATION PAYMENT** - A line item for mobilization shall be allowed on the Contractor's Detailed Estimate Breakdown submitted in accordance with Article 41 of the Contract. The Mobilization Payment is intended to include the cost of required bonds, insurance coverage and/or any other expenses required for the initiation of the Contract Work. All costs for mobilization shall be deemed included in the total Contract Price. The Detailed Estimate shall reflect, and the Mobilization Payment shall be made, in accordance with the following schedule:

Contract Amount	Percent	Mobilization
Less than \$ 50,000 x	0 =	0
\$ 50,000 - \$ 100,000	= \$	6,000
\$ 100,001 - \$ 500,000 x	6 = \$	6,000 (min) - \$ 30,000 (max)

\$ 500,001 - \$ 2,500,000	x	5	=	\$ 30,000 (min) - \$ 125,000 (max)
Over \$ 2,500,000	x	4	=	\$ 125,000 (min) - \$ 300,000 (max)

The Contractor may requisition for one-half (1/2) of the Mobilization Payment upon satisfactory completion of the following:

1. Installation of any required field office(s).
2. Submission of all required insurance certificates and bonds.
3. Approval by the Department of Design and Construction of the coordinated progress schedule for the project and the Contractor's Shop Drawing schedule.

The remaining balance of the Mobilization Payment may be requisitioned only after 10 percent (10%) of the Contract price, exclusive of the total amount of Mobilization Payments made or to be made hereunder, shall have been approved for payment.

1.04 Contract Drawings

- A. **SCHEDULE C** - The Contract Drawings are listed in Schedule C, which is set forth in the Addendum to the General Conditions. Such drawings referred to in the Contract, and in the applicable Specifications for the various Contracts bear the general title:

City of New York
 Department of Design and Construction
 Division of Structures

- B. **DOCUMENTS FURNISHED TO THE CONTRACTOR** - After the award of the Contract, the Contractor for General Construction Work will be furnished with five (5) sets of paper prints of all Contract Drawings mentioned in Paragraph A above.
- C. **PRINTS (REFER TO THE ADDENDUM TO THE GENERAL CONDITIONS FOR THE APPLICABILITY OF THIS ARTICLE)**

Each Contractor, other than the Contractor for General Construction Work referred to in Paragraph B, will receive two (2) sets of paper prints of all Drawings listed in Paragraph A and three (3) sets of paper prints of all Contract Drawings applying directly to each Contractor's own Contract.

- D. Each Contractor will receive nine (9) complete sets of Specifications.
- E. **ADDITIONAL COPIES** of Drawings and Specifications, when requested, will be furnished to the Contractor if available.
- F. **COORDINATION AND COOPERATION** - Since the Contracts are all related to the project, the Contractor shall consult and study the requirement of the Contract Drawings and Specifications of all Contracts furnished to the Contractor, so that the Contractor may become acquainted with the work of the project as a whole in order to achieve the proper coordination and cooperation necessary for the efficient and timely performance of the work.
- G. **SUPPLEMENTARY DRAWINGS** - When, in the opinion of the Commissioner, it becomes necessary to more fully explain the work to be done, or to illustrate the work further, or to show any changes which may be required, drawings known as Supplementary Drawings will be prepared by the Commissioner.
- H. **COMPENSATION** - Where Supplementary Drawings entail extra work, compensation therefor to the Contractor shall be subject to the terms of the "Contract". The Supplementary Drawings shall be binding upon the Contractor with the same force as the Contract Drawings.

- I. SUPPLEMENTARY DRAWING PRINTS - Three (3) copies of prints of these Supplementary Drawings will be furnished to the Contractor.
- J. COPIES TO SUBCONTRACTORS - The Contractor shall furnish each of its subcontractors and material suppliers such copies of Contract Drawings, Supplementary Drawings, or copies of the Specifications as may be required for its work.
- K. CONTRACTOR TO CHECK DRAWINGS - The Contractor shall verify all dimensions, quantities and details shown on the Contract Drawings, Schedules, or other data received from the Commissioner, and shall notify the Commissioner of all errors, omissions, conflicts and discrepancies found therein. Notice of such errors shall be given before the Contractor proceeds with any work. Figures shall be used in preference to scale dimensions and large-scale drawings in preference to small-scale drawings.

1.05 Shop Drawings and Record Drawings

A. SHOP DRAWINGS

- 1. SUBMISSION OF SHOP DRAWINGS - For instructions relative to Shop Drawings involving electrical or mechanical work or equipment of any nature called for in any Contract, see the General Electrical Requirements and the General Mechanical Requirements.
- 2. SHOP DRAWINGS - The Contractor shall promptly prepare and submit layout detail and Shop Drawings of such parts of the work as are indicated in the Specifications or as required. These Shop Drawings shall be made in accordance with the Contract Drawings, Specifications and Supplementary Drawings, if any. The Shop Drawings shall be accurate and distinct and give all the dimensions required for the fabrication, erection and installation of the work.
- 3. SIZE OF DRAWINGS - The Shop Drawings, unless otherwise directed, shall preferably be on sheets of the same size as the Contract Drawings, with a one half (1/2) inch marginal space on each side and a two (2) inch marginal space for binding on the left side.
- 4. SCOPE OF DRAWINGS - Shop Drawings shall be numbered consecutively and shall accurately and distinctly represent the following:
 - a. All working and erection dimensions.
 - b. Arrangements and sectional views.
 - c. Necessary details, including performance characteristics, and complete information for making necessary connections with other work.
 - d. Kinds of materials including thicknesses and finishes.
 - e. All other information required by the Commissioner.
- 5. TITLES AND REFERENCE - Shop Drawings shall be dated and contain:
 - a. Name of the Project, DDC Project Number and Contract Number.
 - b. The descriptive names of equipment, or materials covered by the Contract Drawings and the classified item number or numbers, if any, under which it is, or they are required.
 - c. The locations or points at which materials, or equipment, are to be installed in the work.
 - d. Cross references to the section number, detail number and paragraph number of the Contract Specifications.

- e. Cross references to the sheet number, detail number, etc., of the Contract Drawings.

NOTE: In addition to the above requirements, the Shop Drawings shall bear a stamp having the following wording:

FIELD MEASUREMENTS - The Contractor certifies that it has verified and supplemented the Contract Drawings by taking all required field measurements, that said measurements correctly reflect all field conditions and that this Shop Drawing incorporates said measurements.

6. THE SUBMISSION OF SHOP DRAWINGS - The Shop Drawings shall be accompanied by a letter of transmittal, in triplicate, containing the name of the Project, the name of the Contractor, the number of Drawings, titles and any other requirements. Re-submission of the same drawings shall bear the original number of the drawings and the original titles.
7. PRELIMINARY SUBMISSION - The Contractor shall submit one (1) set of sepia Shop Drawings to the Consultant Architect/Engineer for their approval. A satisfactory Shop Drawing will be stamped "Approved", be dated and one (1) copy thereof will be returned to the Contractor by letter. Should the Shop Drawing not be approved by the Consultant Architect/Engineer, the Commissioner will return the sepia Shop Drawings with the necessary corrections and changes to be made as indicated thereon.
8. REVISIONS - The Contractor must make such corrections and changes and again submit one (1) set of sepia drawings for the approval of the Consultant Architect/Engineer. The Contractor shall revise and resubmit the Shop Drawing as required by the Consultant Architect/Engineer until approval thereof is obtained. However, Shop Drawings which have been stamped "Approved As Noted" shall be considered an "Approved" Shop Drawing and NEED NOT be revised and resubmitted.
- No work called for by the Shop Drawings shall be done until the approval of the said drawings by the Consultant Architect/Engineer is given. In addition to the foregoing Shop Drawing transmissions, a copy of any Shop Drawing prepared by any of the Contractors which Shop Drawing indicated work related to, adjacent to, impinging upon, or affecting work to be done by other Contractors, shall be transmitted to the Contractors so affected. These approved Shop Drawings shall be delivered to the Resident Engineer for distribution to the affected Contractors at the job meetings and shall be so recorded in the minutes.
9. FINAL SUBMISSION - When approval of any Shop Drawing is obtained by the Contractor, it shall insert the date of the approval of the drawing and promptly furnish the Consultant Architect/Engineer with eight (8) additional prints of the approved Drawings. No work called for by the Shop Drawings shall be performed until the approval of the said drawings by the Commissioner is given. In addition to the foregoing Shop Drawing transmissions, a copy of any Shop Drawing prepared by any of the Contractors which indicates work related to, adjacent to, impinging upon, or affecting work to be done by other Contractors, shall be transmitted to the Contractors so affected. These approved Shop Drawings shall be delivered to the Resident Engineer for distribution to the affected Contractors at the job meetings and shall be so recorded in the minutes.
10. VARIATIONS - If the Shop Drawings show variations from the Contract requirements because of standard shop practice or other reasons, the Contractor shall make specific mention of such variations in its letter of submittal. Approval of the Shop Drawings shall constitute approval of the subject matter thereof only and not of any structural apparatus shown or indicated.
11. CATALOGUE CUTS - Except as otherwise prescribed herein, the submission of catalogue cuts shall conform to the procedures specified for Shop Drawings.
- a. PRELIMINARY SUBMISSION - The Contractor shall submit three (3) sets of catalogue cuts to the Consultant Architect/Engineer to approve. A satisfactory catalogue cut will be stamped

"Approved", be dated and one (1) copy thereof will be returned to the Contractor by letter. Should the catalogue cut not be approved by the Commissioner, the Commissioner will return one (1) set of such catalogue cuts with the necessary corrections and changes to be made indicated thereon.

- b. REVISIONS - The Contractor shall make such corrections and changes and again submit four (4) sets of the catalogue cuts, in duplicate, for the approval of the Commissioner. The Contractor shall revise and resubmit the catalogue cuts as required by the Consultant Architect/Engineer until approval thereof is obtained.

However, catalogue cuts which have been stamped "Approved As Noted" shall be considered an "Approved" catalogue cut and need not be revised and resubmitted.

- c. FINAL SUBMISSION - When approval of any catalogue cut is obtained by the Contractor, it shall insert the date of the approval and promptly furnish the Consultant Architect/Engineer with four (4) additional sets of the approved catalogue cuts.
12. RESPONSIBILITY OF CONTRACTOR - The approval of Shop Drawings will be general and shall not relieve the Contractor of responsibility for the accuracy of such Shop Drawings, nor for the proper fitting and construction of the work, nor of the furnishing of materials or work required by the Contract and not indicated on the Shop Drawings. Approval of Shop Drawings shall not be construed as approving departures from the Contract Drawings, Supplementary Drawings or Specifications.
 13. SHOP DRAWINGS AND MATERIAL SAMPLES SCHEDULE - The Shop Drawings and Material Samples Schedule is set forth in Schedule F, which is included in the Addendum to the General Conditions. Completion of this Schedule shall be in accordance with Article 1.41 (A) of these General Conditions.
 14. PROCEDURE FOR PREPARING, FORWARDING, CHECKING AND RETURN - of all Shop Drawings shall be, generally, as follows:

The Contractor shall make available to its subcontractors the necessary Contract Documents and have them determine dimensions and conditions in the field, particularly with reference to coordination with other trades or work under other Contractors. The Contractor shall direct its subcontractors to prepare Shop Drawings for submission to the Consultant Architect/Engineer in accordance with the requirements of these General Conditions. The Contractor shall also direct its subcontractors to "Ring Up" corrections made on all re-submissions for approval, so as to be readily seen, and that the symbol "sub" be used to identify the source of the correction or information that has been added.

The Contractor shall:

- a. Review and be responsible to the Commissioner, or the Commissioner's authorized representative, for information shown on subcontractor's Shop and Installation drawings and manufacturers' data, and also for conformity to Contract Documents.
- b. "Ring Up" corrections made on all submissions for approval, so as to be readily seen, and that the symbol "GC", "PL", "HVAC" or "EL" be used to indicate that the correction and/or information added was made by the Contractor.
- c. Clearly designate which trade is to perform the work when the term, "work by others" or other similar phrases are indicated on the Contract Drawings before submission to the Consultant Architect/Engineer.
- d. Stamp submissions "Recommended for Approval", date and forward to the Commissioner or the Commissioner's authorized representative.

In order to expedite Shop Drawing procedures, the Contractor shall write a Shop Drawing status letter directly to the Consultant Architect/Engineer, each week, containing the following subject matter:

- (1) A list of all Shop Drawings which have been sent to but not returned by the Architect or Engineer giving name of the subcontractor, drawing number, title and date of submission.
- (2) An indication of the desired priority of the return, if necessary.

NOTE: The status letter shall be prepared and sent at a given time each week, preferably Friday afternoon, to enable the Consultant Architect/Engineer to receive the letter on Monday morning. This procedure shall be maintained throughout the active Shop Drawing period of construction.

B. INTEGRATED DRAWINGS (REFER TO THE ADDENDUM TO THE GENERAL CONDITIONS FOR THE APPLICABILITY OF THIS ARTICLE)

1. The Contractor for General Construction Work shall provide to the Contractor for Heating, Ventilating and Air Conditioning Work reflected ceiling starting points or plans, beam soffit elevations, ceiling heights, roof openings, etc.
2. The Contractor for Heating, Ventilating and Air Conditioning Work shall prepare a drawing or drawings showing ductwork, heating and sprinkler piping. This drawing shall include location of grilles, registers, etc. and access doors in hung ceilings. Locations shall be fixed by elevations and dimensions from column center lines and/or walls.
3. The Contractor for Heating, Ventilating and Air Conditioning Work shall prepare and distribute to each of the other Contractors, the Resident Engineer and to the Consultant Architect a sepia of the above.
4. The Contractor for General Construction Work shall lay out on its sepia, the reflected ceiling plan, beam soffit elevations, ceiling heights, roof openings, etc.
5. The Contractor for Plumbing Work shall lay out its piping, valves, cleanouts, etc., indicating locations and elevations and shall indicate the necessary access doors.
6. The Contractor for Electrical Work shall indicate its fixtures, large conduit runs, clearances, pull boxes, junction boxes, sound system speakers, etc.
7. The Resident Engineer will call as many meetings with the Contractors as are necessary to resolve any conflicts that become apparent. The Resident Engineer will call on the services of the Consultant Engineer or Architect where necessary. The Resident Engineer is responsible for the coordination of the Contract Drawings.
8. Upon resolution of the conflicts, each Contractor shall enter its own work on the Resident Engineer's sepia, which will become the Master or Integrated Drawing. The Master Sepia shall be signed by each Contractor to indicate its acceptance of the arrangement of the work.
9. A reproducible copy of the Master Integrated Drawing or Drawings will be prepared and distributed by the Contractor for Heating, Ventilating and Air Conditioning Work to each Contractor and to the Consultant Architect for information.
10. Each Contractor shall prepare its Shop Drawings in accordance with the Integrated Drawings. No work will be permitted without approved Shop Drawings. It is therefore essential that this procedure be instituted as quickly as possible.
11. Contractors shall be held strictly accountable for cooperation in preparing the Integrated Drawing or Drawings.

C. RECORD DRAWINGS

1. The Department of Design and Construction, at the start of construction (kick-off meeting), will furnish to each Contractor at no cost a complete set of Contract Document mylars pertaining to the work to be performed under its Contract. It is the responsibility of each Contractor to modify the Contract Drawings to indicate all changes and corrections, if any, occurring in the work as actually installed. The Contractor is required to furnish all other mylar drawings if necessary such as Addenda Drawings and Supplementary Drawings as may be necessary to indicate all work in detail as actually completed.

NOTE TO CONTRACTOR: All professional seals must be blocked out. Title box complete with project title and Consultants' names will remain.

2. Each Contractor shall maintain, during the progress of the work, an accurate record of the work as actually installed, on Record Drawings, on mylar, in ink. These Record Drawings shall be made available to the Resident Engineer upon request.

The Contractor's attention is particularly directed to the necessity of keeping accurate records of all subsurface and concealed work, so that the Record Drawings may contain this information in exact detail and location. Record Drawings should also show all connections, valves, gates, switches, cut-outs and similar operating equipment.

Before substantial completion payment, each Contractor shall furnish to the Commissioner one (1) complete set of mylar Record Drawings, in ink indicating all of the work and locations as actually installed, plus one (1) set of paper prints which will be furnished to sponsoring agency by Department of Design and Construction.

3. Record Drawings shall be of the same size as that of the Contract Drawings, with a one (1) inch margin on three (3) sides and a two (2) inch margin on the left side.
4. Each Record Drawing shall bear the legend "RECORD DRAWING" in heavy block lettering, one half (1/2) inch high, and contain the following data:

RECORD DRAWING

Contractor's Name _____

Contractor's Address _____

Made by _____ Date _____

Checked by _____ Date _____

Commissioner's Representatives:	
(Resident Engineer)	DDC
(Plumbing Inspector)	DDC
(Heating & Ventilating Inspector)	DDC
(Electrical Inspector)	DDC

5. RECORD DRAWING TITLE SHEET - Each Contractor shall prepare a title sheet, the same size as Record Drawings, which shall contain the following:
 - a. Heading:
The City of New York
Department of Design and Construction
Division of Structures
 - b. Capital Budget Project Number (CAPIS ID)

- c. Name and Location of Project
 - d. Contractor's Name and Address
 - e. Record of changes (a caption description of work affected, and the date and number of Change Order or other authorization)
 - f. List of Record Drawings
6. All changes from Contract Drawings shall be distinctly encircled and identified by Change Order number correlating to changes listed on the "Title Sheet." The Contractor shall show within the encircled areas the work as actually installed.
7. **BULLETINS, OPERATING AND SERVICE MANUALS** - Where the Contractor has submitted prints in the form of technical bulletins, operating and service manuals, or other printed matter as a Shop Drawing, having diagrams or drawings thereon of a material or equipment installed in the work, the Contractor shall furnish three (3) sets thereof so that the Commissioner may have all the necessary information for the proper operation maintenance and repair of the material and equipment and the ordering of spare parts. All bulletins and operating and service manuals shall be compiled and indexed in book form for each Contract.

1.06 Approval of Materials

- A. **LOCAL LAWS** - All materials, appliances and types or methods of construction shall be in accordance with the Specifications and shall in no event be less than that necessary to conform to the requirements of the Building Code of the City of New York, Administrative Code and Charter of the City of New York.
- B. **APPROVAL OF MANUFACTURER** - The names of proposed manufacturers, material suppliers, and dealers who are to furnish materials, fixtures, equipment, appliances or other fittings shall be submitted to the Commissioner for approval, as early as possible, to afford proper review and analysis.
- C. **REPUTE OF MANUFACTURER** - No manufacturer will be approved for any materials to be furnished under the Contract unless it shall be of good reputation, shall have a plant of ample capacity and shall have successfully produced similar products. All required approvals for legal use of materials and equipment such as B.S.A. and M.E.A. must be obtained prior to installation.
- D. **ALL MATERIALS** - fixtures, fittings, supplies and equipment furnished under the Contract shall be new and unused, except as approved by the Agency, and of standard first-grade quality and of the best workmanship and design. The City of New York encourages the use of recycled products where practical.
- E. **INFORMATION TO SUPPLIERS** - In asking for prices on materials under any item of the Contract, the Contractor shall provide the manufacturer or dealer with such complete information from the Specifications and Contract Drawings as may in any case be necessary, and in every case the Contractor shall inform the manufacturer or dealer of all the General Conditions and requirements herein contained.
- F. **STANDARD REFERENCES** - Whenever reference is made to the furnishing of materials or testing thereof to conform to the standards of any technical society, organization or body, it shall be construed to mean the latest standard, code, specification or tentative specification adopted and published at the date of advertisement for bids, even though reference has been made to an earlier standard.
- G. **REFERENCES** - Reference to a technical society, organization or body may be made in the Specifications by abbreviations in accordance with the following list:

A.I.A. for American Institute of Architects

A.C.I.	for American Concrete Institute
A.G.A.	for American Gas Association
A.G.M.A.	for American Gear Manufacturer Association
A.I.E.E.	for American Institute of Electrical Engineers
A.I.S.C.	for American Institute of Steel Construction
A.S.A.	for American Standards Association
A.S.T.M.	for American Society for Testing Materials
A.W.S.C.	for American Welding Society Code
A.W.W.A.	for American Water Works Association
B.S. & A.	for New York City Board of Standards & Appeals
C.I.P.R.A.	for Cast Iron Pipe Research Association
B.G. & E.	for Bureau of Gas & Electricity of the City of New York
FED. SPEC.	for Federal Specification
I.P.C.E.A.	for Insulated Power Cable Engineer's Association
NAVY SPEC.	for Navy Department Specification
N.E.C.	for National Electric Code
N.E.M.A.	for National Electrical Manufacturers Association
N.Y.B.C.	for New York City Building Code
N.Y.E.C.	for New York City Electrical Code
N.Y. SPEC.	for New York City Department of Purchase Specification
P.P.S.	for Power Piping Society
S.A.E.	for Society of Automotive Engineers Standards
S.H.B.I.	for Steel Heating Boiler Institute

H. **STANDARD SPECIFICATIONS** - When no reference is made to a code, standard or specification, the Standard Specifications of the ASTM or the AIEE, as the case may be, shall govern.

I. **SAMPLES OF MATERIALS** - The Contractor shall submit to the Commissioner for approval, samples of all materials specified to be used in the project.

1. For samples of materials involving electrical work of any nature, see the General Electrical Requirements.
2. Samples shall be in triplicate, of sufficient size to show the quality, type, range of color, finish and texture of the material. However, in addition thereto, after approval, three (3) additional samples showing the material, color and texture of all interior finishes, including the finishes of exposed built-in equipment, trim, glazing, fittings and fixtures, etc., shall also be furnished. The sizes of these additional samples shall be as directed by and acceptable to the Commissioner.
3. Each of the samples shall be labeled, bearing the name and quality of the material, the Contractor's name, date, Contract and project, and the related Specification or Contract Drawing reference to the samples submitted.
4. A letter of transmittal, in triplicate, from the Contractor requesting approval must accompany all such samples.
5. Transportation charges to the Commissioner's office must be prepared on all samples forwarded.
6. Samples for testing purposes shall be as required in the Specifications.

J. **SAMPLES ON DISPLAY** - When samples are specified to be equal to samples in the office of the Commissioner, they shall be carefully examined by the bidders and by those whom the bidder expects to employ for the furnishing of such materials.

K. **TIMELY SUBMISSIONS LOG/SCHEDULE** - Samples shall be submitted in accordance with approved Shop Drawing log so as to permit proper consideration without delaying any operation under the project. Materials should not be ordered until approval is received, in writing, from the Commissioner. All materials shall be furnished equal in every respect to the approved samples.

- L. **THE APPROVAL OF ANY SAMPLES** - will be given as promptly as possible, and shall be only for the characteristic color, texture, strength, or other feature of the material named in such approval, and no other. When this approval is issued by the Commissioner, it is done with the distinct understanding that the materials to be furnished will fully and completely comply with the Specifications, the determination of which may be made at some later date by a laboratory test or by other procedure. Use of materials will be permitted only so long as the quality remains equal to the approved samples and complies in every respect with the Specifications, and the colors and textures of the samples on file in the Office of the Commissioner, for the project.
- M. **ACCEPTIBILITY OF TEST DATA** - The Commissioner will be the final judge as to acceptability of laboratory test data and performance in service of materials submitted.
- N. **VALUABLE SAMPLES** - such as hardware, plumbing and electrical fixtures, etc., not destroyed by inspection or test, will be returned to the Contractor and may be incorporated into the work after all questions of acceptability have been settled, providing suitable permanent records are made as to the location of the samples, their properties, etc.
- O. **EQUIVALENT QUALITY OF MATERIALS** - All materials and equipment which are designated in the Specifications by a number in the catalogue of any manufacturer or by a manufacturer's grade or trade name, are designated for the purpose of describing the article and fixing the standard or the quality and finish. Materials and equipment, which are, in the opinion of the Commissioner, the equivalent to that specified, will be acceptable.
- P. The submission of any material, or article, as the equal of the materials or articles set forth in the Specifications as a standard shall be accompanied by illustrations, drawings, descriptions, catalogues, records of tests, samples and any and all other information essential for judging the equality to the materials, finish and durability of that specified as standard, as well as information indicating satisfactory use under similar operating conditions.
- Q. **MANUFACTURER'S DIRECTIONS** - Where the Specifications provide that the manufacturer's directions are to be used, such printed directions shall be submitted to the Commissioner.
- R. **COMMISSIONER TO SELECT INSPECTORS** - Except as specifically provided in the Specifications, the Commissioner will select and designate all persons, firms, or corporations to make or witness each and every inspection, test or analyses, with or without reports.
- S. **NOTICE** - The Contractor shall give notice in writing to the Commissioner sufficiently in advance of its intention to commence the manufacture or preparation of materials especially manufactured or prepared for use in or as part of the permanent construction. Such notice shall contain a request for inspection, the date of commencement and the expected date of completion of the manufacture or preparation of materials. Upon receipt of such notice, the Commissioner will arrange to have a representative present at such times during the manufacture as may be necessary to inspect the materials, or the Commissioner will notify the Contractor that the inspection will be made at a point other than the point of manufacture, or the Commissioner will notify the Contractor that inspection will be waived.
- T. **NO SHIPPING BEFORE INSPECTION** - The Contractor shall comply with the foregoing before shipping any material.
- U. **CERTIFICATE OF MANUFACTURE** - When the Commissioner so requires, the Contractor shall furnish to the Commissioner authoritative evidence in the form of Certificates of Manufacture that the materials to be used in the work have been manufactured and tested in conformity with the Specifications. These certificates shall include copies of the results of physical tests and chemical analyses where necessary, that have been made directly on the product, or on similar products being fabricated by the manufacturer. This may include such approvals as B.S.A., M.E.A., B.E.C. Advisory Board, etc.

- V. ACCEPTANCE - When materials or manufactured products shall comprise such quantity that it is not practical to make physical tests or chemical analyses directly on the product furnished, a certificate stating the results of such tests or analyses of similar materials which were concurrently produced may, at the discretion of the Commissioner, be considered as the basis for the acceptance of such material or manufactured product.
- W. TESTING COMPLIANCE - The testing personnel shall make the necessary inspections and tests, and the reports thereof shall be in such form as will facilitate checking to determine compliance with the Specifications, indicating thereon all analyses and/or test data and interpreted results thereof.
- X. REPORTS - Six (6) copies of the reports shall be submitted and authoritative certification thereof must be furnished to the Commissioner as prerequisite for the acceptance of any material or equipment.
- Y. REJECTIONS - If, in making any test, it is ascertained by the Commissioner that the material or equipment does not comply with the Specifications, the Contractor will be notified thereof, and will be directed to refrain from delivering said materials or equipment, or to promptly remove it from the site or from the work and replace it with acceptable material without cost to the City.
- Z. FURNISH DESIGNATED MATERIAL - Upon rejection of any material or equipment submitted as the equivalent of that specifically named in the Specifications, the Contractor shall immediately proceed to furnish the designated material or equipment.
- AA. COST OF TESTS BORNE BY CITY - Where the City directs test to be performed to determine compliance with the Specifications regarding materials or equipment, and where such compliance is ascertained as a result thereof, the City will bear the cost of such tests.
- BB. COST OF TESTS BORNE BY CONTRACTOR - Where tests are specifically called for in the Specifications to be made by the Contractor, the cost thereof shall be borne by the Contractor and shall be deemed to be included in the Contract price. The expenses of the testing personnel assigned by the City shall not be the Contractor's obligation. The Contractor shall reimburse the City for expenditures incurred in the making of tests on materials and equipment submitted by the Contractor as the equivalent of that specifically named in the Specifications and rejected for non-compliance.

1.07 Delivery of Materials

- A. MATERIAL ORDERS - The Contractor shall furnish to the Commissioner a copy of each material order, indicating date of order and quantity of material, and shall also notify the Commissioner when materials have been delivered to the site and in what quantities.
- B. AMPLE QUANTITIES - The Contractor shall deliver materials in ample quantities to insure the most prompt and uninterrupted progress of the work so as to complete the work within the Contract time.
- C. CONTAINERS - The manufacturer's containers shall be delivered with unbroken seals and shall bear proper labels.
- D. THE CONTRACTOR SHALL COORDINATE DELIVERIES - in order to avoid delaying or impeding the progress of the work of any related Contractor.
- E. STACKING - All materials shall be properly stacked in convenient places adjacent to the site, or where directed, and protected in a satisfactory manner. Stacked materials shall be so arranged as to not interfere with visibility of traffic control devices.
- F. OVERLOADING - If authority is given to store materials in any part of the project area, they shall be so stored as to cause no overloading.
- G. NO INTERFERENCE - If it becomes necessary to remove and restack materials to avoid impeding the progress of any part of the work or interfering with the work to be done by any other Contractor, the relevant Contractor shall remove and restack such materials at no additional cost to the City.

1.08 Temporary Structures

- A. **FIELD OFFICE FOR CONTRACTOR** - The Contractor shall establish a temporary field office for its own use at the site during the period of construction, at which readily accessible copies of all Contract Documents shall be kept.
- B. The field office shall be located where it will not interfere with the progress of any part of the work or with visibility of traffic control devices.
- C. **CONTRACTOR'S REPRESENTATIVE** - In charge of each office there shall be a responsible and competent representative of the Contractor, duly authorized to receive orders and directions and to put them into effect.
- D. **TELEPHONE ARRANGEMENTS** - Arrangements shall be made by the Contractor whereby its representative may be readily accessible by telephone.
- E. **MATERIAL SHEDS** - used by the Contractor for the storage of its materials shall be kept at locations which will not interfere at any time with the progress of any part of the work or with visibility of traffic control devices.
- F. **SUBSTANTIAL CONSTRUCTION** - All temporary structures shall be of substantial construction and neat appearance, and shall be painted a uniform gray unless otherwise directed by the Commissioner.
- G. **ADVERTISING PRIVILEGES** - The City reserves the right to all advertising privileges. The Contractor shall not cause any signs of any kind to be displayed at the site unless specifically required herein or authorized by the Commissioner.
- H. **CONTRACTOR'S SIGN** - The Contractor shall post and keep posted, on the outside of its field office, office or exterior fence or wall at site of work, a legible sign giving full name of the company, address of the company and telephone number(s) of responsible representative(s) of the firm who can be reached in event of an emergency at any time.

1.09 Surveys (REFER TO THE ADDENDUM TO THE GENERAL CONDITIONS FOR THE APPLICABILITY OF THIS ARTICLE)

- A. **LINE AND GRADE** - The City will establish a baseline and bench mark near the site of the work for use of the Contractor in connection with the performance of the work.
- B. **RESPONSIBILITY** - The Contractor shall establish all other lines and elevations required for its work and shall be solely responsible for the accuracy thereof.
- C. **SAFEGUARD ALL POINTS** - Each Contractor shall safeguard all points, stakes, grade marks and bench marks made or established by the Contractor on the work, shall re-establish same if disturbed and bear the entire expense of rectifying the work improperly installed due to not maintaining, not protecting or removing without authorization such established points, stakes, or marks.
- D. **CITY MONUMENTS AND MARKS** - No work shall be performed near City monuments or marks so as to disturb them until the said monuments or marks have been referenced or reset or otherwise disposed of by the relevant Agency or party who installed them.
- E. **FOUNDATIONS** - The Contractor for General Construction Work shall furnish certification from a licensed Surveyor that all portions of the foundation work are located in accordance with the Contract Drawings and at the elevations required thereby. This certification shall show the actual locations and the actual elevations of all the work in relation to the locations and elevations shown on the Contract Drawings, including but not restricted to the following:
 - 1. The locations and elevations of all piles, if any.

2. Elevations of tops of all spread footings, tops of pile caps, and tops of all foundation walls, elevator pit walls and ramp walls.
3. Location of all footing centers and pier centers including those for exterior wall columns.
4. Location of all foundation walls including wall columns, elevator pit walls and ramp walls.

F. **WALL LINES** - After the first courses of masonry or stone have been laid, the Contractor for General Construction Work shall establish the permanent lines of exterior walls. Such Contractor shall furnish promptly, certification from a licensed Surveyor, in the form of signed original drawings showing the exact location of such wall lines, of all portions of all structures. Except at its own risk, the Contractor for General Construction Work shall not proceed further with the erection of walls until the Surveyor's certification has been submitted and verified for correct location of wall lines.

G. **SURVEYOR** - The Surveyor selected for any of the purposes mentioned in Paragraph E and Paragraph F above, and Paragraph I below, shall be a licensed Surveyor and shall be subject to the approval of the Commissioner. The Surveyor shall not be a regular employee of the Contractor, nor shall the Surveyor have any interest in the Contract. The Surveyor shall not be employed by the Contractor in laying out any work, it being intended that the Surveyor's certification shall represent an independent and disinterested verification of such layout. The Surveyor shall report to the Department of Design and Construction's Resident Engineer each time upon arrival to and departure from the site and review with the Resident Engineer the data required for the project.

H. **FINAL CERTIFICATION** - Final certification shall be submitted upon completion of the work or upon completion of any subdivision of the work as directed by the Commissioner. Any exceptions or deviations from the drawings shall be noted on the final certificate and there shall be included any maps, plates, notes, pertinent documents and data necessary, in the opinion of the Commissioner, to constitute a full and complete report.

FINAL SURVEY - The Contractor for General Construction Work shall submit to the Department of Design and Construction for submission to the Department of Buildings a final Survey by the licensed Surveyor showing the location of the new Structure, before completion of the Structure. This Survey shall show the location of the first tier of beams or of the first floor; the finish grades of the open spaces on the plot; the established curb level and the location of all other Structures on the plan, together with the location and boundaries of the lot or plot upon which the Structure is constructed, curb cuts, all yard dimensions, etc.

1.10 Contractor's Superintendent

A. **SUPERINTENDENT** - The Contractor shall devote its time and personal attention to the work and shall employ and retain at the project site, from the commencement until the entire completion of the work, a Contractor's Superintendent competent and capable of maintaining proper supervision and care of the work and acceptable to the Commissioner, who, in the absence of the Contractor, and irrespective of any superintendent or foreman employed by any subcontractor, shall see that the instructions of the Commissioner are carried out.

B. **REPLACEMENT** - The Contractor's Superintendent on the job shall not be changed or removed without the consent of the Commissioner.

1.11 Permits

The Contractor shall comply with all local, state and federal laws, rules and regulations affecting the Work of this Project, including, without limitation, (1) obtaining all necessary permits for the performance of the Work prior to commencement thereof, and (2) complying with all requirements for the disposal of demolition and/or construction debris, waste, etc., including disposal in City landfills. The Contractor shall be responsible for all costs in connection with such regulatory compliance, unless otherwise specified in the Contract.

1.12 Transportation

- A. AVAILABILITY - It shall be the duty of the Contractor to determine the availability of transportation facilities and dockage for the use of its employees, equipment and material and the conditions under which such use will be permitted.
- B. COSTS - If transportation facilities and dockage are available and are permitted to be used by the governmental agency having jurisdiction, the Contractor shall pay all necessary costs and expenses, and abide by all rules and regulations promulgated in connection therewith.
- C. VEHICLES - With respect to the use of vehicles on highways and bridges, the Contractor's attention is directed to the limitations set forth in the Rules of the City of New York, Title 34, Chapter 4, Section 4-15.
- D. CONTINUED USE - It is understood that the Commissioner makes no warranty as to the continued use by the Contractor of such facilities.

1.13 Sleeves And Hangers (REFER TO THE ADDENDUM TO THE GENERAL CONDITIONS FOR THE APPLICABILITY OF THIS ARTICLE)

- A. COORDINATE TO PROGRESS SCHEDULE - Contractors required to furnish and install conduits, outlets, piping sleeves, boxes, inserts and all other materials and equipment necessary to be built into the work to be performed by the Contractor for General Construction Work, shall promptly furnish and set such sleeves or other materials in conformity with the requirements of the project.
- B. COOPERATION OF CONTRACTORS - All Contractors shall fully cooperate with each other in connection with the performance of the above work as "cutting in" new work is neither contemplated nor will it be tolerated.
- C. TIMELINESS - In the event that timely delivery of sleeves and other materials cannot be made, and to avoid delay, the affected Contractor may arrange to have boxes or other forms set at the locations where the piping or other material is to pass through or into the slabs, walls or other work. Upon the subsequent installation of the sleeves or other material, the Contractor for General Construction Work shall fill around them with materials as required by the Contract. The necessary expenditures incurred for the boxing out and filling in shall be borne by the Contractor or Contractors responsible therefore.
- D. INSERTS - The Contractor for General Construction Work is to install strip inserts four (4) foot on center and perpendicular to beams in ceiling slabs of boiler, machine and mechanical equipment rooms. Inserts are to be installed for strippable concrete slabs only.

1.14 Cutting And Patching

- A. RESPONSIBILITY - Each Contractor shall do all cutting, patching and restoration required by its work, unless otherwise particularly specified in the Specifications of its Contract.
- B. RESTORE WORK - Each Contractor shall restore any work they damage that is the work of another Contractor.
- C. COMPETENT WORKERS - All restoration work shall be done to the satisfaction of the Commissioner by competent workers skilled in the trade required by such restoration. If, in the judgment of the Commissioner, workers engaged in restoration work are incompetent, they shall be replaced immediately by competent workers.
- D. REMOVALS - Each Contractor must remove from the premises all demolished materials of every nature or description resulting from cutting, patching and restoration work, in accordance with the requirements hereinafter stipulated under article on REMOVAL OF RUBBISH AND SURPLUS MATERIALS.

1.15 Temporary Heat (REFER TO THE ADDENDUM TO THE GENERAL CONDITIONS FOR THE APPLICABILITY OF THIS ARTICLE)

A. GENERAL

1. Definition - The provision of Temporary Heat shall mean the provision of heat in order to permit construction to be performed in accordance with the Progress Schedule during all seasons of the year and to protect the work from the harmful effects of low temperature. In the event the building, or any portion thereof, is occupied during construction, the provision of Temporary Heat shall include the provision of heat to permit normal operations in such occupied areas.
 - a. The provision of Temporary Heat shall be in accordance with the temperature requirements set forth in Paragraph (c) below.
 - b. The provision of Temporary Heat shall include the provision of: 1) all fuel necessary and required, 2) all equipment necessary and required, and 3) all operating labor necessary and required. Operating labor shall mean that minimum force required for the safe day to day operation of the system for the provision of Temporary Heat and shall include, without limitation, heating maintenance labor and/or Firewatch as required by NYC Fire Department regulations. Operating labor may be required seven (7) days per week and during other than normal working hours, for the period of time required by seasonal weather conditions.
 - c. In the event the building, or any portion thereof, is occupied and the Project involves the replacement, modification and/or shut down of the permanent heating system, or any key component thereof; and such system is a combined system which furnishes domestic hot water for the building occupants, the provision of Temporary Heat shall include the provision of domestic hot water at the same temperature as the system which is being replaced. Domestic hot water shall be provided in accordance with the phasing requirements set forth in the Contract Documents.
2. Responsibility - The Contractor responsible for the provision of Temporary Heat, and all expenses in connection therewith, shall be as set forth below.
 - a. Projects Involving Enclosure of the Building
 - (1) Prior to Enclosure - Until the Commissioner determines that the building has been enclosed, as set forth in Paragraph (b) below, each Contractor shall be responsible for the provision of its own Temporary Heat.
 - (2) Post Enclosure - Once the Commissioner determines that the building, or any portion thereof, has been enclosed, as set forth in Paragraph B below, the Contractor for Heating, Ventilating and Air Conditioning Work ("HVAC Work") shall be responsible for the provision of Temporary Heat by one or more of the following means: 1) by an existing heating system (if any), 2) by a permanent heating system which is being installed as part of the Project, or 3) by a temporary heating system(s). The Contractor for HVAC Work shall, within two (2) weeks of the kick-off meeting, submit to DDC for review its proposed plan to provide Temporary Heat. Such plan is subject to approval by the Resident Engineer. The Contractor for HVAC Work shall provide Temporary Heat in accordance with the approved plan until written acceptance by the Commissioner of the work of all Contractors, including punch list work, unless directed otherwise in writing by the Commissioner. The responsibility of the Contractor for HVAC Work provided for herein is subject to the exception set forth in Paragraph H.3.b.(2) below.
 - b. Projects not involving Enclosure of the Building
 - (1) If the Project involves the installation of a new permanent heating system if one did not exist previously, or the replacement, modification and/or shut down of the existing

permanent heating system, or any key component thereof, the Contractor for HVAC Work shall be responsible for the provision of Temporary Heat, except as otherwise provided in Paragraph H.3.b.(2) below.

- (2) If the Project does not involve the installation of a new permanent heating system if one did not exist previously, or the replacement, modification and/or shut down of the existing permanent heating system, or any key component thereof; there is no Contractor responsibility of the provision of Temporary Heat, unless otherwise specified in the Contract Documents. However, if the Commissioner, pursuant to Paragraph H.3.b.(1) below, determines that the provision of Temporary Heat is necessary due to special and/or unforeseen circumstances, the Contractor for HVAC Work shall be responsible for the provision of Temporary Heat and such Contractor shall be paid for the same in accordance with Paragraph H.3.b.(1).

B. ENCLOSURE OF STRUCTURES

1. Notification - The Contractor for General Construction Work shall notify all other Contractors and the Resident Engineer at least 30 days prior to the anticipated date that the building(s) will be enclosed.
2. Commissioner Determination - The Commissioner shall determine whether the building, or any portion thereof, has been enclosed. As indicated in Paragraph A above, once the building has been enclosed, the Contractor for HVAC Work shall be responsible for the provision of Temporary Heat. The Commissioner's determination with respect to building enclosure shall be based upon all relevant facts and circumstances, including without limitation, 1) whether the building meets the criteria set forth in Paragraph 3 below, and 2) whether the openings in the building, such as doorways and windows, have been sufficiently covered so as to provide reasonable heat retention and protection from the elements.
3. Criteria for enclosure
 - a. Roof Area
 - (1) A building shall be considered to be roofed when the area to be roofed is covered by a permanent structure and all openings through the permanent structure are covered and protected by temporary covers in Paragraph (c) below.
 - (2) Intermediate floor structures of multi-floor buildings shall be considered to be roofed subject to the same requirements of the building roof.
 - (3) The final roofing system need not be in place for the building or structure to be determined to be enclosed; provided, however, all openings through the permanent structure covering the roof must be covered and protected by temporary covers, as described in Paragraph (c) below.
 - b. Walls - For the walls to be determined to be enclosed, permanent exterior wall elements or facing material must be in place and all openings must be covered and protected by temporary covers, as described in Paragraph (c) below.
 - c. Temporary Covers - In order to be acceptable, temporary covers must be securely fixed to prevent the entrance of rain, snow and direct wind. The minimum material requirements for temporary covers are as follows: 1) minimum 10 mil. plastic, 2) minimum 12 ounce waterproof canvas tarpaulins, or 3) a minimum three-eighths (3/8) inch thickness exterior grade plywood.
 - d. Temporary covers for openings shall be the responsibility of the Contractor for General Construction Work, and such work shall be deemed included in the Contractor for General Construction Work's bid price.

C. TEMPERATURE REQUIREMENTS

1. Unoccupied Buildings - The temperature requirement for the provision of Temporary Heat in unoccupied buildings shall be the GREATER of the following: 1) 50 degrees Fahrenheit, or 2) the temperature requirement for the particular type of work set forth in the Contract Documents.
2. Occupied Buildings - The temperature requirement for the provision of Temporary Heat in occupied buildings, or portions thereof, shall be the GREATER of the following: 68 degrees Fahrenheit or the temperature requirement for the particular type of work set forth in the Contract Documents.

D. DURATION

1. The Contractor for HVAC Work shall be required to provide Temporary Heat until written acceptance by the Commissioner of the work of all Contractors, including punch list work, unless directed otherwise in writing by the Commissioner. The Contractor for HVAC Work shall be responsible for the provision of Temporary Heat for the time specified herein, regardless of any delays in completion of the Project, including delays that result in the commencement of the provision of Temporary Heat during a season that is later than that which may have been originally anticipated. The Contractor for HVAC Work shall include in its Total Bid Price all expenses in connection with the provision of Temporary Heat in accordance with the requirements specified herein.
2. The total Contract duration is set forth in consecutive calendar days in Schedule A of the General Conditions. The Table set forth below indicates the number of full heating seasons that are deemed included in various contract durations, which are specified in consecutive calendar days (ccds). At a minimum, a full heating season shall extend from October 15th to April 15th.

Contract Duration	Full Heating Seasons Required
up to 360 ccds	1 full heating season
360 to 720 ccds	2 full heating seasons
more than 720 ccds	3 full heating seasons

E. METHOD OF TEMPORARY HEAT

1. The method of temporary heat shall be in conformance with all applicable laws, rules and regulations. Prior to implementation, such method shall be subject to the written approval of the Commissioner.
2. The method of temporary heat shall:
 - a. Not cause the deposition of dirt or smudges upon any finished work or cause any defacement or discoloration to the finished work.
 - b. Not be injurious or harmful to people or materials.
3. No open fires will be permitted.
4. Electric heating will not be permitted unless required by Contract Documents and Specifications or otherwise approved by the Commissioner.
5. Direct-fired equipment will be allowed in construction areas where the use of such equipment will not damage or deteriorate the construction or finishes or be harmful to persons working in the area.

F. TEMPORARY HEATING SYSTEM

1. The temporary system for the provision of Temporary Heat provided by the Contractor for HVAC

Work following enclosure of the building shall be complete including, but not limited to, torpedo blowers and/or propane heaters subject to provisions of paragraph E above), boilers and fuel storage, pumps, radiators, unit heaters, water and heating piping, insulation and controls. The temporary system for the provision of Temporary Heat shall be capable of maintaining the minimum temperature requirements set forth in Paragraph C above.

G. THE CONTRACTOR FOR GENERAL CONSTRUCTION WORK

1. The Contractor for General Construction Work shall coordinate with the Contractor for HVAC Work in the work of providing Temporary Heat, and shall so coordinate its operations as to insure sufficient and timely performance of the work under all Contracts. The Contractor for General Construction Work shall supply and pay for all water required and used in the building for the operation of the heating system(s) for the purpose of Temporary Heat. The Contractor for General Construction Work shall include all expenses in connection with the supply of water for Temporary Heat in its Total Bid Price. During the period in which Temporary Heat in an enclosed building is being furnished and maintained by the Contractor for HVAC Work, the Contractor for General Construction Work shall, in order to provide proper ventilating and drying, open and close the windows and other openings when necessary for the proper execution of the work and also when directed by DDC. The Contractor for General Construction Work shall maintain all permanent or temporary enclosures at its own expense.

H. THE CONTRACTOR FOR HVAC WORK

1. Use of Permanent Heating System for Temporary Heat after Building Enclosure
 - a. The Contractor for HVAC Work shall provide all labor and materials to promptly furnish and set all required equipment and convectors and/or radiators, piping, valves, fitting, etc., in ample time for their use for the provision of Temporary Heat after enclosure of the building.
 - b. New portions of the permanent heating system that are used for furnishing Temporary Heat shall be left in near perfect condition when delivered to the City for operation. Any repairs required, other than for ordinary wear and tear on the equipment, shall be made by the Contractor for HVAC Work at his expense. The starting date for the warranty or guarantee period for such equipment shall be the date of Substantial Completion acceptance.
 - c. In the event that the Contractor for HVAC Work does not advance the installation of the permanent heating system in sufficient time to permit its use for Temporary Heat as determined by DDC, the Contractor for HVAC Work shall furnish and install a separate system for the provision of Temporary Heat as required to maintain the minimum temperature requirements set forth in Paragraph C above.
2. All equipment for the system for the provision of Temporary Heat shall be placed so as to comply with the requirements specified hereinbefore, and shall be connected, disconnected and suitably supported and located so as to permit construction work, including finish work such as wall plastering and painting, to proceed. The installation of the system for the provision of Temporary Heat by the Contractor for HVAC Work, including the placing of ancillary system equipment, shall be coordinated with the operations of all Contractors so as to insure sufficient and timely performance of the work of all Contractors. Once the permanent heating system is operating properly, the Contractor for HVAC Work shall remove all portions of the system for Temporary Heat which are not part of the permanent heating system.
3. Temporary Heat Allowance for Special Conditions or and/or Unforeseen Circumstances.
 - a. The City has established an allowance in the Contract for HVAC Work for payment of costs and expenses in connection with the provision of Temporary Heat as set forth herein. The amount of such allowance is set forth on the Bid Form for the Contract for HVAC Work and shall be included in the Total Bid Price of the Contractor for HVAC Work. The Contractor for HVAC Work shall only be entitled to payment from this allowance under the conditions and in

accordance with the requirements set forth below. In the event this allowance or any portion thereof remains unexpended at the conclusion of the Contract, such allowance shall remain the sole property of the City. Should the amount of the allowance be insufficient to provide payment for the expenses specified below, the City will increase the amount of the allowance.

b. The allowance set forth herein may be utilized only under the conditions set forth below.

(1) In the event the Project does not involve the installation of a new permanent heating system if one did not exist previously, or the replacement, modification and/or shut down of the existing permanent heating system, or any key component thereof, and the Commissioner determines that the provision of Temporary Heat is necessary due to special and/or unforeseen circumstances, the Contractor for HVAC Work shall be responsible for the provision of Temporary Heat, as directed by the Commissioner. The City shall pay such Contractor for all costs for labor, material, and equipment necessary and required for the same. Payment shall be made in accordance with Article 26 of the Contract, except that the cost of fuel shall be as set forth in Paragraph (c) below.

(2) In the event that after enclosure of the building, the Commissioner determines that (i) Contractors other than the Contractor for HVAC Work have not sufficiently advanced the work of their contracts that is necessary and required to permit the Contractor for HVAC Work to use the permanent or other heating equipment for the provision of Temporary Heat, and (ii) the Contractor for HVAC Work does not bear any responsibility for such other Contractors' failure to advance the work, the City shall pay the Contractor for HVAC Work for all differential costs for labor, material, and equipment necessary and required for the provision of a substitute system(s) for the provision of Temporary Heat or portions thereof in lieu of the permanent or other systems intended for Temporary Heat. Payment shall be made in accordance with Article 26 of the Contract, except that the cost of fuel shall be as set forth in Paragraph (c) below.

(3) In the event the Commissioner determines that there is a need for maintenance of the permanent heating system by the Contractor for HVAC Work after written acceptance by the Commissioner of the work of all Contractors, and that the need for such maintenance is not the fault of the Contractor for HVAC Work, the Contractor for HVAC Work shall provide the required maintenance of the permanent heating system for the period of time directed by the Commissioner. The City shall pay the Contractor for HVAC Work for the cost of direct labor and fuel necessary and required in connection with such maintenance, excluding the cost of any foremen or other supervision. Payment shall be made in accordance with Article 26 of the Contract, except that the cost of fuel shall be as set forth in Paragraph (c) below.

c. Payment for Fuel Costs - Payment from the allowance set forth herein for the cost of fuel necessary and required to operate the system for the provision of Temporary Heat or to maintain the permanent heating system under the conditions set forth in Paragraph b above shall be limited to the direct cost of such fuel. The Contractor for HVAC Work shall not be entitled to any overhead and/or profit for such fuel costs. In order to receive payment for such fuel costs, the Contractor for HVAC Work must present original invoices for the same. DDC reserves the right to furnish the required fuel.

d. Deduction - In the event that any amount of the allowance set forth herein is expended for payment to the Contractor for HVAC Work under the circumstances set forth in Paragraph b.(2) above, the Commissioner shall deduct and retain such amount out of moneys that are due and owing hereunder to the other Contractor(s) responsible for the failure to advance the work, as determined by the Commissioner. In the event the amount expended from the allowance exceeds the total sum due and owing to such other Contractor(s), such excess shall be paid to the City by such other Contractor(s) immediately upon demand.

THE CONTRACTOR FOR ELECTRICAL WORK

1. The Contractor for Electrical Work shall be responsible for providing the items set forth below and shall include all expenses in connection with such items in its Total Bid Price. The Contractor for Electrical Work shall provide such items promptly when required and shall in all respects coordinate its work with the Contractor for General Construction Work and the Contractor for HVAC Work in order to facilitate the provision of Temporary Heat by the Contractor for HVAC Work.
 - a. The Contractor for Electrical Work shall provide all labor, materials, equipment and power necessary and required to furnish and maintain any temporary or permanent electrical connections to all equipment specified to be connected as part of the work of his Contract.
 - b. The Contractor for Electrical Work shall supply and pay for all power necessary and required for the operation of the system for the provision of Temporary Heat and/or the permanent heating system used for Temporary Heat by the Contractor for HVAC Work. Such power shall be provided by the Contractor for Electrical Work for the duration the Contractor for HVAC Work is required to provide Temporary Heat, as set forth in Paragraph D above.
2. In providing the items set forth in Paragraph 1 above, the Contractor for Electrical Work is advised that labor may be required seven (7) days a week and/or during other than normal working hours for the period of time required by seasonal weather conditions.

J. THE CONTRACTOR FOR PLUMBING WORK

1. The Contractor for Plumbing Work shall be responsible for providing all labor, materials and equipment necessary and required to furnish and maintain all temporary or permanent connections to all equipment or plumbing outlets specified to be provided as part of the work of his Contract. The Contractor for Plumbing Work shall include all expenses in connection with such items of work in its Total Bid Price. The Contractor for Plumbing Work shall provide such items of work promptly when required and shall in all respects coordinate its work with the Contractor for General Construction Work and the Contractor for HVAC Work in order to facilitate the provision of Temporary Heat by the Contractor for HVAC Work.
2. In the event portions of the permanent plumbing equipment furnished by the Contractor for Plumbing Work as part of the work of his Contract are used for the provision of Temporary Heat by the Contractor for HVAC Work, either during construction or prior to acceptance by the City of the complete plumbing system, the Contractor for Plumbing Work shall be responsible to provide such plumbing equipment to the City in near perfect condition and shall make any repairs required, other than for ordinary wear and tear on the equipment, at his expense. The starting date for warranty and/or guarantee period for such plumbing equipment shall be the date of Substantial Completion acceptance by the City.
3. For Projects requiring the installation of new and/or modified gas service, as well as associated meter installations, the Contractor for Plumbing Work shall promptly perform all required filings and coordination with the Utility Companies in order to expedite the installation, testing, and approval of the gas service and associated meter(s).

1.16 Scaffolding and Platforms

A. **CONFORMANCE:** Unless otherwise indicated, the Contractor for General Construction is responsible for providing, erecting, installing and maintaining all temporary scaffolding and platforms which shall comply with requirements of Chapter 33 (Safeguards During Construction or Demolition) of the NYC Building Code, NYC Local Law 52 of 2005, OSHA Construction Standard 1926 Subpart L, and furnishing the following items.

B. RESPONSIBILITY

1. A Jobsite Monitor who shall be a competent person, designated and employed by the contractor who has a daily presence on the site during scaffold use. This designee must possess and

maintain a valid New York City Department of Buildings supported scaffold certificate of completion. An alternate shall also be designated, in the event that the Jobsite Monitor is absent. The Jobsite Monitor shall:

- a. Verify completeness of documentation and submittals (as described below).
 - b. Verify that inspections are performed, including pull tests (see below), reports are filed and reported deficiencies are corrected.
 - c. Monitor trades using scaffold.
 - d. Limit access to scaffold areas that are tagged for non-use.
 - e. Inform trades of scaffold load limitations.
 - f. Monitor loading of decks.
 - g. Verify that any ties that are temporarily removed are properly restored in the same shift.
 - h. Verify that outriggers and planks that are moved are properly set up and secured.
 - i. Verify that all scaffold decks in use have proper access/egress.
 - j. Verify that all open sides of decks in excess of 14 inches have proper guardrails and toe-boards.
 - k. Notify appropriate parties, including but not limited to the Resident Engineer, site safety coordinator / monitor, site safety consultant, scaffold users, contractor and the scaffold engineer, of misuses, non-conformances, hazards and accidents.
 - l. Keep a log of significant actions and events connected with the scaffolding.
2. The Contractor shall be responsible for erection, maintenance and dismantling of the scaffold / shed in conformance with the New York City Building Code and OSHA requirements, contract documents and engineering specifications. The Contractor shall also be guided by generally accepted standards of scaffold industry practice as promulgated by the Scaffold Industry Association.
 3. Scaffold Engineer is a New York State licensed PE engaged by the scaffold contractor / erector and responsible to ensure that the installation design conforms to the New York City Building Code and OSHA requirements, that the design comports with the capabilities of the components and the characteristics of the site, that scaffold loads on the host building, including netting, have been properly considered and that the design documents communicate information for erectors and users.
 4. Scaffold users are trade contractors assigned to work on the scaffold. Training certificates from a New York City Department of Buildings approved training provider are mandatory. These users have the duty to become familiar with the New York City Building Code and OSHA requirements germane to users, to obey the instructions of the Jobsite Monitor and inform the Jobsite Monitor of known hazards, non-conformances or violations.

C. JOBSITE DOCUMENTATION AND SUBMITTALS:

1. NYC Department of Buildings permit(s) for scaffold and sidewalk sheds (as applicable) including filing applications signed and sealed by A Professional Engineer licensed in the State of New York;
2. Site logistics plan / site safety plan;
3. Installation drawing(s), design and product data to be provided for all scaffold(s) and shed(s) must include, at a minimum:
 - a. Plan(s);
 - b. Elevation(s);
 - c. Duty load designation; "standard" (150 psf live load) or "heavy duty" (300 psf live load).
 - d. Details including base support, anchors and ties;
 - e. Notes and specifications including load limits, number of planked levels, tie spacing, netting, and sequence of installation and removal.
 - f. Anchorage into sound material.
 - g. Load limits based on pull tests;
 - h. Specifications for pull test(s), method, proof load and the number of trials;
 - i. Elevations, levels or heights, where anchorage is made into masonry;

- j. Specifications for frames, planks, screw jacks, anchors, and any other ancillary hardware;
- k. Samples for anchors, ties and netting;
- l. Sequence of operations for erection and demolition;
- m. Location plan, heights, widths, "jumps" over doorways and driveways;
- n. Specify size, maximum span and maximum spacing of headers and stringers;
- o. Specify legs, girts, braces, nailing and connections;
- p. All sidewalk sheds shall be designed, engineered, signed and sealed by a Professional Engineer licensed in the State of New York;
 - 1) Generic (not job specific) engineering drawings are satisfactory for standard sheds and arrangements.
 - 2) Special engineering is required for custom sheds, site-specific problems or non-standard arrangements.

D. INSPECTIONS:

- 1. Signed inspection reports shall be issued for each inspection and pull-test below, and shall be logged and maintained on site by the Jobsite Monitor for the duration of the project.
- 2. Pull testing shall be required during design, and during or post erection, where anchorage is made into masonry. The Scaffold Engineer shall specify the test method, proof load and the number of trials.
- 3. Sidewalk sheds shall be inspected after initial installation, major modification, or damage and thence every three months. Inspections shall be by a Scaffold Engineer for custom sheds and by a competent person employed by the Contractor for standard sheds.
- 4. Scaffolds shall be inspected by the Scaffold Engineer during erection, post-erection and prior to use and thence every three months. The Scaffold Engineer shall repeat inspections after major alteration/modification, damage.
- 5. A qualified person assigned by the Contractor shall inspect the progress of erection and dismantling, and the condition and integrity of the sidewalk sheds after high winds, major storms and at least once per month during usage.
- 6. A qualified person assigned by the Contractor shall inspect the progress of erection and dismantling at least weekly, and the condition and integrity of the scaffold after high winds, major storms and at least once per month during usage.
- 7. Scaffolds shall be inspected daily by the Jobsite Monitor or alternate prior to use by scaffold users.
- 8. At the completion of the project, submit all inspection documents to the Commissioner for record purposes.

E. LADDERS AND STAIRS: The Contractor for General Construction Work shall provide and maintain ladders or temporary stairs extending from the street to the first story, and to and from every floor and roof level of the project.

F. ACCESS AND EXITS: The ladders or temporary stairs shall be of acceptable size, number and location, so that proper and convenient access may be had by those required to proceed to and from all parts of the project.

1.17 Hoists and Hoistways

A. RESPONSIBILITY - The Contractor for General Construction Work shall provide adequate numbers of material hoists for the most expeditious performance of all parts of its work. All other Contractors are required to provide their own facilities for the hoisting of materials under their respective Contracts. However, these Contractors may make arrangements, whenever possible, with the Contractor for General Construction Work for the use of its hoist upon such terms and conditions as it may prescribe.

- B. LOCATIONS - No hoists shall be constructed at such locations as will interfere with, or affect the construction of, floor arches, or the work of other Contractors. The hoists may be located at the exterior sides of the structure or in the courtyard and extend upward adjacent to the line of window openings. The hoists shall be located a sufficient distance from the exterior walls and be so protected as to prevent any of the permanent work from being damaged, stained or marred.
- C. ELEVATOR SHAFT - Wherever possible, one or more of the permanent elevator shafts may be used as temporary hoistways providing such use meets with the Building Code of the City of New York and the approval of the Commissioner, and providing further it entails no interference with the progress of the work of any Contractor.
- D. PROTECTION FOR INTERIOR HOISTS - All interior material hoistways shall be enclosed on each floor and shall be adequately protected with appropriate safety guards. In no event shall the protection be less than that required by law.

1.18 Certificates of Approval

- A. RESPONSIBILITY - Each Contractor shall be responsible for and shall obtain all final approvals for the work installed under its Contract in the form of such certificates that are required by all governmental agencies having jurisdiction over the work of the Contract.
- B. TRANSMITTAL - All such certificates shall be forwarded to the Commissioner through the Resident Engineer before final acceptance of the work of the Contract.

1.19 Acceptance Tests

- A. GOVERNMENTAL AGENCIES - All equipment and appliances furnished and installed under the Contract shall conform with the requirements of the Specifications, and shall in no event be less than that necessary to comply with the minimum requirements of the law and all of the governmental agencies having jurisdiction.
- B. NOTICE OF TEST - Whenever the Specifications and/or any governmental agency having jurisdiction requires the acceptance test, the Contractor shall give written notice to all concerned of the time when these tests will be conducted.
- C. ENERGY - The City will furnish all energy, fuel, water and light required for tests.
- D. LABOR AND MATERIALS - The Contractor shall furnish labor and all other material and instruments necessary to conduct the acceptance tests at no additional cost to the City.
- E. CERTIFICATES - The final acceptance by the Commissioner shall be contingent upon the Contractor delivering to the Commissioner all necessary certificates evidencing compliance in every respect with the requirements of the regulatory agencies having jurisdiction.
- F. RESULTS - If the results of tests and Controlled Inspections indicate that the material or procedures do not meet requirements as set forth on the Contract Drawings or in the Specifications or are otherwise unsatisfactory, the Contractor shall only proceed as directed by the Resident Engineer. Additional costs resulting from retesting, reinspecting, replacing of material and/or damage to the work of other trades and any delay caused to the schedule shall be borne by the Contractor.

1.20 Progress Photographs (REFER TO THE ADDENDUM TO THE GENERAL CONDITIONS FOR THE APPLICABILITY OF THIS ARTICLE)

- A. PHOTOGRAPHER - The Contractor for General Construction Work shall employ and pay for the services of a competent photographer who shall take photographs showing the progress of the work.
- B. PHOTOGRAPHS - There shall be four (4) photographs taken each month from the commencement of the Contract to the time of completion. These photographs shall show as far as possible, the work

completed within and on the exterior of the structure. The first series of photographs shall be taken prior to the actual commencement of work at the site. In addition thereto before final payment, there shall be six (6) photographs taken of unobstructed views of the completed project or projects and site, as directed by the Commissioner and after all scaffolding, hoists, shanties, field offices or other temporary work has been removed and final cleaning done. (For demolition work included in the Contract there shall be four (4) photographs taken before commencement of demolition operations; four (4) at the mid-point of operations; and four (4) at the completion of demolition operations). The prints shall be 8" x 10" gloss finish, mounted with a one (1) inch binding flap of muslin on the left side. They shall be marked on the back with date of exposure; the title of the project; and the specific location. Three (3) copies of each photograph shall be furnished free of charge to the Department of Design and Construction. Photographs shall be taken as ordered by the Commissioner.

1.21 Job Meetings

- A. **MEETINGS SCHEDULE** - Meetings shall be held as scheduled by the Resident Engineer in his office at the site, at which time Contractors for all separate Contracts shall have their representatives present to discuss all details relative to the execution of the work.
- B. **ACCOMODATIONS** - The Contractor for General Construction Work shall provide ample tables and chairs to accommodate all present at the meetings, and table space for Contract Drawings.
- C. **AGENDA** - The Resident Engineer shall preside over these meetings. Prior to each meeting, the Resident Engineer will consult with the Contractors and will prepare an agenda of items to be discussed. In general, after informal discussion of any item on the agenda, the Resident Engineer will summarize the discussion in a brief written statement, and each Contractor will then dictate a brief statement for the record.

The Contractor for General Construction Work shall furnish all necessary typing and printing of the minutes prepared by the Consultant Architect/Engineer. Ample copies of the printed minutes shall be furnished to the Resident Engineer for distribution to all Contractors and representatives of the Commissioner.

- D. **COORDINATION** - Job meetings shall also be called by the Contractor for General Construction Work for the purpose of coordinating, expediting and scheduling the work of all Contracts in accordance with the master coordinated Job Progress Chart. All Contractors and their subcontractors, material suppliers or vendors whose presence is necessary, are required to attend. These meetings may, at the discretion of the Contractor for General Construction Work, be held at the same place and immediately following the Job Meetings held by the Resident Engineer. Minutes of these meetings shall be recorded, typed and printed by the Contractor for General Construction Work and distributed to all parties concerned.

1.22 Guarantees and Warranties - Refer to the Addendum to the General Conditions for the applicability of this article.

- A. **SCHEDULE B** - Requirements for guarantees and warranties for the Project are set forth in Schedule B, which is included as part of the Addendum to the General Conditions.
- B. **FORM** - For all guarantee requirements set forth in Schedule B, the Contractor shall provide a written guaranty, in the form set forth on the following page.

GUARANTY

DDC PROJECT # _____

PROJECT DESCRIPTION _____

CONTRACT # _____

SPECIFICATION SECTION # AND TITLE _____

GUARANTY TO BE IN EFFECT FROM _____

TO _____

The Contractor hereby guarantees that the work specified under the above section of the aforesaid Contract will be free from defects of material and/or workmanship, for the period indicated above.

The Contractor also guarantees that it will promptly repair, restore, rebuild or replace whichever may be deemed necessary by the City, any or all defective material or workmanship of the aforementioned section, that may appear within the guaranty period and any finished work to which damage may occur because of such defects, to the satisfaction of the City and without any cost or expense to the City.

The Contractor hereby agrees to pay to the City the cost of the repairs or replacements should the City make the same because of the failure of the Contractor to do so.

Contractor

By

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

Notary Public

1.23 Removal of Rubbish and Surplus Materials

- A. RUBBISH - Rubbish shall not be thrown from the windows or other parts of the project. Mason's rubbish, dirt and other dust-producing material shall be wetted down periodically.
- B. LOCATION - Each Contractor shall sweep up and deposit, at a location designated on each floor by the Contractor for General Construction Work, all of its rubbish, debris and waste materials, as it accumulates and when directed by the Resident Engineer. Wood cratings shall be broken up, neatly bundled, tied and stacked ready for removal and be deposited at a location designated on each floor by the Contractor for General Construction Work.
- C. LABORERS - The Contractor for General Construction Work shall be responsible for the removal of all rubbish, etc., from the site. The Contractor shall remove from the designated locations all piles of rubbish, debris, waste material and wood cratings as they accumulate and when directed by the Resident Engineer, and shall remove them from the site. The Contractor shall employ and keep engaged for this purpose an adequate number of laborers.
- D. SURPLUS MATERIALS - Each Contractor shall remove from the site all surplus materials when there is no further use for same.
- E. TOOLS AND MATERIALS - At the conclusion of the work, all erection plant, tools, temporary structures and materials belonging to the Contractor shall be promptly removed.

1.24 Cleaning

Each Contractor shall thoroughly clean all equipment and materials furnished and installed and shall deliver such materials and equipment undamaged in a clean and new appearing condition at time of substantial completion.

1.25 Inspections by Other City Agencies

- A. LETTER OF COMPLETION - Just prior to substantial completion of this Project, the Commissioner will file with the Department of Buildings, an application for a Letter of Completion or a Certificate of Occupancy for the structure.
- B. FINAL INSPECTIONS - In connection with the above mentioned application for a Letter of Completion or a Certificate of Occupancy and before certificates of final payments are issued, each Contractor will be required to arrange for all final inspections by the inspectional staff of the Department of Buildings or other governmental agencies having jurisdiction, and secure all reports, sign offs, certificates, etc., by such inspection staff or other governmental agencies, in order that a Letter of Completion or Certificate of Occupancy can be issued promptly.

1.26 Security Guards/Fire Guards on the Site (REFER TO THE ADDENDUM TO THE GENERAL CONDITIONS FOR THE APPLICABILITY OF THIS ARTICLE)

- A. SECURITY GUARDS (WATCHMEN)
 - 1. The Contractor for General Construction Work shall provide competent Security Guards on the site until final completion of the project or earlier if so notified in writing by the Commissioner. The Security Service shall commence with the start of work. There shall be no less than one (1) Security Guard on duty every day, including Saturdays, Sunday and Holidays, 24 hours a day, except between the hours of 8:00 A.M. and 4:00 P.M. on any day which is a regular working day for a majority of the trades. This exception during the working day shall not apply after the finishing painting of the plaster work is commenced; thereafter, not less than one (1) Security Guard shall be on duty continuously, 24 hours a day, until final completion of the project or earlier if so notified in writing by the Commissioner.

2. Every Security Guard shall be required to hold a "Certificate of Fitness" issued by the Fire Department. Every Security Guard shall, during their tour of duty, perform the duties of Fire Guard in addition to their security obligations.
 3. Should the Commissioner find that any Security Guard is unsatisfactory, such guard shall be replaced by the Contractor for General Construction Work upon the written demand of the Commissioner.
 4. Each Security Guard furnished by the Contractor for General Construction Work shall be instructed by the Contractor for General Construction Work to include in their duties the entire construction site including the Field Office, temporary structures, and equipment, materials, etc.
 5. Should the Contractor for General Construction Work or any other Contractor consider the security requirements outlined above inadequate, it shall provide such additional security as it thinks necessary, after obtaining the written consent of the Commissioner. The additional cost of such approved increased protection will be paid by the Contractor who provides the additional protection.
 6. Nothing contained in this Article shall diminish in any way the responsibility of each Contractor for its own work, materials, tools, equipment, nor for any of the other risks and obligations outlined hereinbefore in this Article.
- B. **COSTS** - The Contractor for General Construction Work shall employ Security Guards/Fire Guards at all times, except as otherwise modified by the detailed Specifications and as approved by the Commissioner, for the purpose of safeguarding and protecting the site. All costs for Security Guards/Fire Guards shall be borne by the Contractor for General Construction Work.
- C. **RESPONSIBILITY** - All Contractors will be responsible for safeguarding and protecting their own work, materials, tools and equipment.

27 Contractor's Daily Reports

- A. **DAILY REPORTS** - As soon as the Contractor has started work on the Project, it shall submit to the Resident Engineer written daily reports of the work performed the previous day by any of its employees, including the employees of its subcontractors.
- B. **INFORMATION** - The reports shall be prepared by the Contractor's Superintendent and shall bear the Contractor's Superintendent signature. Each report shall contain the following information:
1. The type of materials and/or major equipment being installed by the Contractor and the total number of employees working in each category on that particular day.
 2. The names of the subcontractors working and the type of materials and/or major equipment being installed by each, together with the total number of employees working for each subcontractor on that particular day.
 3. The major construction equipment being used by each Contractor and/or subcontractor.

1.28 Alternate or Substitute Equipment

- A. In general, the Contract Drawings and Specifications show and describe arrangements suitable for the specific items of equipment either named or described. In the event that a Contractor submits for approval, and receives such approval, a device or piece of equipment which requires connections (vacuum, gas, steam, water, air, electric, etc.) or arrangements of these services, differing from those indicated or described in the Contract Documents, it shall be incumbent upon the Contractor submitting the alternate or substitute equipment to give timely notice to the other Contractors involved so that they may make suitable alterations in the work to accommodate the substitute or alternate equipment. The Contractor making the substitution shall be responsible for any and all additional

costs incurred by any of the Contractors by virtue of the substitution of equipment for the equipment named or described in the Contract Documents.

1.29 Sleeve and Penetration Drawings (REFER TO THE ADDENDUM TO THE GENERAL CONDITIONS FOR THE APPLICABILITY OF THIS ARTICLE)

- A. As soon as practicable after the commencement of work and when the order in which concrete for the first slabs, walls, etc. to be poured is determined, the Contractors for the engineering trades (Plumbing, Heating, Ventilating and Air Conditioning, and Electrical) shall submit to the Department of Design and Construction a sketch indicating the location and size of all penetrations for sleeves, ducts, etc. which will be required to accommodate the mechanical trades, in order that it may be determined if such penetrations will materially weaken the project's structure. The sketch will be stamped and returned if approved and/or comments will be transmitted. The engineering Contractors shall continue to submit sketches as the pouring schedule and the concrete work progresses and, until approvals for the penetration sketches have been given, shall not predicate their layout work on unapproved sketches.

1.30 Location of Partitions (REFER TO THE ADDENDUM TO THE GENERAL CONDITIONS FOR THE APPLICABILITY OF THIS ARTICLE)

- A. Within three (3) weeks after the concrete slabs have been poured on each floor level, the Contractor for General Construction Work shall immediately locate accurately all of the partitions, including the door openings, on the floor slabs in a manner approved by the Resident Engineer.

1.31 Furniture and Equipment

- A. **RESPONSIBILITY** - Each Contractor is responsible for moving all loose furniture and/or equipment in all areas when such furniture and/or equipment interferes with the proper performance of its work.
- B. **PROTECTION** - All such furniture and/or equipment must be adequately protected with dust cloths and returned to their original locations when directed to do so by the Resident Engineer.

1.32 Overtime Work (Ordered by Commissioner)

- A. **OVERTIME** - The Commissioner reserves right to order and pay for overtime work.
1. The Commissioner can order overtime work when in the Commissioner's opinion, delay occurs and such delay is not the fault of the Contractor, or
 2. When work is of such an important nature that delay in carrying such work to completion would result in serious disadvantage to the public.
- B. **ORDER FOR OVERTIME WORK** - When overtime work is ordered by the Commissioner, such "Order" will be issued by the Commissioner on a special form letter over the signature of the Commissioner.
- C. **CONTRACTOR'S PROCEDURE PRIOR TO COMMENCING WORK**
1. Make immediate application to the Commissioner of Department of Labor, State of New York, for dispensation in accordance with Subdivision 2 of Section 220 of the Labor Law.
 2. Upon receipt of such dispensation, proceed expeditiously with ordered overtime work.

1.33 Compliance with OSHA Regulations

These Contract Documents and the work hereby contemplated shall be governed, at all times, by the following Federal Laws:

- A. William Steiger Occupational Safety and Health Act of 1970, Public Law 91-596;

- B. Part 1910 - Occupational Safety and Health Standards, Chapter XVII of Title 29, Code of Federal Regulations;
- C. Part 1926 - Safety and Health Regulations for Construction, Chapter XVII of Title 29, Code of Federal Regulations.

1.34 Temporary Services

PART A (REFER TO THE ADDENDUM TO THE GENERAL CONDITIONS FOR THE APPLICABILITY OF THIS ARTICLE)

- A. TEMPORARY WATER - during construction shall be furnished in the following manner:
 - 1. Immediately after the Contractor for General Construction Work has been ordered by the Commissioner to start work, it shall file an application with the Dept. of Environmental Protection for the schedule of charges for water use during construction. The Contractor for General Construction Work will be responsible for payment of water charges.
 - 2. Immediately after the Contractor for Plumbing Work has been ordered by the Commissioner to start work, it shall file an application with the Department of Environmental Protection's Bureau of Water Supply and obtain its permit to install the temporary water supply system. The system shall be installed and maintained for the use of all Contractors. A copy of the above mentioned permit shall be filed with the Commissioner. The Contractor for Plumbing Work shall provide temporary water main, risers and waste stacks as directed and install on each floor, outlets with two (2) 3/4" hose valve connections over a barrel installed on a steel pan. The Contractor for Plumbing Work shall provide drains from the pans to the stack and house sewer and hose bibs to drain the water supply risers and mains. During winter months the Contractor for Plumbing Work shall take the necessary precautions to prevent the temporary systems from freezing.
- B. TOILET FACILITIES - both exterior and interior, for the use of all Contractors, shall be furnished and installed in the following manner:
 - 1. Toilet fixtures shall be furnished, installed and maintained in a satisfactory operating condition by the Contractor for Plumbing Work.
 - 2. Enclosures for the toilet fixtures shall be erected and maintained by the Contractor for General Construction Work.
 - 3. Heating for the enclosures shall be furnished, installed and maintained by the Contractor for General Construction Work.
 - 4. Electric lighting for the enclosures shall be furnished, installed and maintained by the Contractor for Electrical Work.
 - 5. The Contractor for General Construction Work shall keep the temporary toilet fixtures and enclosures in a clean and sanitary manner.
 - 6. No Contractor shall cause any sanitary nuisances to be committed by its employees in or about the work. Each Contractor shall enforce all sanitary regulations of the City and State Health Authorities.
- C. OVERTIME USE - Whenever any Contractor(s) work before or after the regular work hours hereinafter specified under Subparagraph D, or on a Saturday, Sunday or Holiday of any trade, such Contractor(s) shall pay the Contractor for Plumbing Work for the activation of the temporary water system and toilet facility services during such overtime periods. When more than one (1) Contractor is involved in overtime work, the costs thereof shall be prorated as determined by the Resident Engineer. When overtime is required by any or all Contractors on the work, the provisions for payment for regular time use of the temporary water supply system as specified in Subparagraph D shall apply.

- D. **ACTIVATION** - The Contractor for Plumbing Work shall bear the cost of keeping the temporary water supply system activated from a period of time 15 minutes before the established starting time of that trade which starts work earliest in the morning, to 15 minutes after the established quitting time of that trade which stops work latest in the evening. This applies to every day in the week which is established as a regular working day for aforementioned trades and holds until completion and final acceptance of the work of the Contractor for Plumbing Work or until the services are terminated by instructions from the Commissioner.

PART B (REFER TO THE ADDENDUM TO THE GENERAL CONDITIONS FOR THE APPLICABILITY OF THIS ARTICLE)

- A. **WATER** - The Contractor for General Construction Work will be responsible for payment of water charges. Billing will be in accordance with the Department of Environmental Protection schedule of charges for Building Purposes.
- B. **ELECTRICITY** - for temporary light and the operation of small tools, is available in the area of this project and will be furnished to the Contractor for General Construction Work by the Contractor for Electrical Work without cost.
- C. **TOILET FACILITIES** - The Contractor for General Construction Work shall arrange with the Commissioner for the temporary use of certain toilets or washrooms within the project for the use of all employees during the execution of the work.
- D. **MAINTENANCE** - The Contractor for General Construction Work shall maintain the temporary toilet facilities in a clean and sanitary manner and make all necessary repairs due to misuse.
- E. **NUISANCES** - The Contractors shall not cause any sanitary nuisance to be committed by its employees in or about the work, and shall enforce all sanitary regulations of the City and State Health Authorities.

1.35 Temporary Use, Operation and Maintenance of Elevators during Construction

PART A - FOR NEW BUILDINGS UP TO AND INCLUDING 15 STORIES (REFER TO THE ADDENDUM TO THE GENERAL CONDITIONS FOR THE APPLICABILITY OF THIS ARTICLE)

- A. **INSTALLATION** - The Contractor for General Construction Work shall install and complete, as indicated herein, one (1) selected main elevator in the Project for temporary operation by the Contractor for General Construction Work for the transporting of employees of all Contractors and representatives of the Department of Design and Construction and other Governmental Agencies having jurisdiction of work at the project. The Contractor for General Construction Work shall furnish, install and maintain for such elevators, all necessary hoisting ropes, governor cables, traveling conductor cables, operating devices, temporary hand reset target annunciators, temporary signal devices, and all other permanent or temporary parts. The installation and maintenance of the temporary elevator and all equipment and/or parts utilized in connection therewith shall be in accordance with the rules and regulations of all agencies and/or entities having jurisdiction over elevators in temporary use.
- B. **RESPONSIBILITY** - The Contractor for General Construction shall be responsible for any injury to persons or damage to property arising out of the temporary elevator and all equipment and/or parts utilized in connection therewith. The Contractor for General Construction shall employ and pay wages, including overtime wages if necessary, for all workers required for the operation and maintenance of the temporary elevator. The Contractor for General Construction shall be responsible for all costs for: (1) the installation of the temporary elevator, (2) maintaining the temporary elevator in clean, proper operating condition, including the cost of lubricants and/or parts for such maintenance, (3) all work in pits, shaftways and machine rooms necessary for the operation of the elevator, and (4) the replacement of the temporary elevator or parts utilized in connection therewith, if required.

- C. **ACTIVATION TIME** - The Contractor for General Construction Work shall keep the temporary elevator activated from a period of time 15 minutes before the established starting time of that trade which starts work earliest in the morning to 15 minutes after the established quitting time of that trade which stops work latest in the evening. This applies to every day in the week, which is established as a regular working day for the aforementioned trades.
- D. **COMMENCEMENT OF SERVICE** - The Contractor for General Construction Work shall begin to provide temporary elevator service using the selected main passenger elevator no later than eight (8) weeks (40 working days) after the machine room roof slab, or that portion of it surrounding the elevator shaft, has been placed. No later than three (3) weeks (15 working days) after the machine room roof slab, or that portion of it surrounding the elevator shaft, has been placed the following work shall have been completed:
1. The shaft shall have been completely enclosed by either the permanent or a temporary enclosure meeting the requirements of the law.
 2. The machine room shall have been made completely watertight either by permanent or temporary construction. Beams or other devices, either permanent or temporary shall be provided which will enable the safe and practicable hoisting of the elevator machinery for installation.
 3. There shall have been installed on all floors at the shaftway entrances to the elevator, solid substantial frames and either sliding or swing doors with substantial hardware and door locks and any necessary approved wire mesh barricades for adjacent shaftways.
 4. There shall have been furnished and installed solid substantial enclosures at front, back, sides and top of car platform enclosure, with emergency exit at top of car, excepting that the portion of the front at the elevator entrance shall have been provided with a substantial temporary door or gate.
- E. **ELECTRICAL INSTALLATION** - The Contractor for Electrical Work, not later than 20 calendar days after the machine room roof slab or that portion of its surrounding the elevator has been placed, shall have furnished and installed temporary or permanent power and light feeders as required for the elevator used for temporary service and shall have connected such feeders to the terminals on the starter panels or controllers in the machine room to the low voltage transformers and car light outlets in the center of shaftway and for the car control and signal traveling cables. The Contractor for Electrical Work shall make all these required connections as soon as the equipment is declared ready for such connections by the Resident Engineer. The cost of this work shall be included in the Contractor for Electrical Work's Contract.
- F. **REMOVAL** - When elevators for permanent use have been installed and are in condition for service, and when directed by the Commissioner, the Contractor for General Construction Work shall remove the temporary enclosures and all temporary elevator equipment and promptly proceed with the installation of the permanent equipment as is required under the Contract.
- G. **INSPECTION** - Before temporary elevator equipment has been removed, a joint inspection of the equipment shall be made by the Contractor for General Construction Work and the Commissioner to determine the condition of this equipment upon the discontinuation of its temporary use. If this inspection deems it necessary, the Contractor for General Construction Work shall furnish and install new governor and compensating ropes, new traveling cables and new controller parts, etc. The car and counterweight safeties shall be thoroughly cleaned of all dirt and all foreign matter, then properly lubricated and placed in good operating condition to the satisfaction of the Commissioner. If it is determined and ordered by the Commissioner that new hoist ropes are required, such ropes shall be installed and payment therefor will be made in accordance with Article 26 of the Contract.
- H. **REPLACEMENT** - The Contractor for General Construction Work shall replace with new, any of the equipment or parts of the temporary elevator installation that were damaged, destroyed, or that indicate excessive wear or corrosion excepting the replacement of hoisting ropes. All shaftways, pits, motor rooms and sheave spaces used for temporary operation of elevators shall be thoroughly

cleaned. Where lubricated rails are used they shall be washed down. If roller guides are used, all rust, dirt, etc., must be moved from the rails. The full cost of parts replacement, cleaning, etc., shall be borne by the Contractor for General Construction Work except for the replacement of hoisting ropes.

- I. COSTS - The Contractor for Electrical Work shall pay the costs of all electrical current used for operating the temporary elevators. The Contractor for General Construction Work shall provide all necessary conduit and wiring connections for the proper operation of the elevator and the signaling of the temporary elevators.
- J. LIMITATIONS OF USE - The temporary elevator shall not be used during its operation for hoisting of materials or removal of rubbish, but shall be limited only to the transportation of employees of all Contractors and the representatives of City Departments and other Governmental Agencies having jurisdiction of work at the project. However, the Resident Engineer may grant special permission at specified times to the various Contractors to hoist materials, which in the Resident Engineer's opinion will not overload or damage the elevator installation, but only after such times as all plastering has been completed from the second floor up. The particular Contractor using the elevator for the hoisting of its material shall be responsible for any damage to the elevator during the entire period of such use. The Contractor for General Construction Work shall give notification in writing to the Resident Engineer of any alleged damage to the elevator installation within 24 hours after the elevator has been employed for the hoisting of materials by the particular Contractor(s).
- K. PAYMENT FOR USE - The Contractor for General Construction Work shall be paid for its operation and maintenance of the temporary elevator or permanent elevator used for temporary service at the daily rate indicated under the Item of its Contract. All other costs in connection with the elevator installation and equipment, excepting electrical work done by the Contractor for Electrical Work under its Contract, shall be included in the Contractor for General Construction Work's Contract.
- L. LIQUIDATED DAMAGES - The Contractor for General Construction Work will be charged at the rate of \$100 per day for each day it fails to provide the temporary elevator service described in this section beginning with the 41st working day after the machine room roof slab, or that portion of it surrounding the elevator shaft, has been placed and stripped. This charge will be deducted from any amount due and owing to the Contractor for General Construction Work.
- M. OVERTIME USE - All Contracts. Whenever any Contractor or Contractors work before or after the regular work hours as indicated in Paragraph B above, or on a Saturday, Sunday or Holiday, such Contractor or Contractors shall pay the Contractor for General Construction Work for the operation and maintenance of the temporary elevator, if required by such Contractor or Contractors, at the daily rate indicated in the Contract but increased to reflect the difference between regular wage rates and overtime wage rates. The basic hourly charge shall be considered as one ninth (1/9) of the amount shown in the Item of the Bid form of the General Construction Work Contract. The City will not pay any Contractor for such overtime use of the elevator. When more than one (1) Contractor is involved in the overtime work, the charges shall be prorated as determined by the Resident Engineer unless otherwise agreed mutually among all the Contractors involved.

PART B - FOR NEW BUILDINGS OVER 15 STORIES (REFER TO THE ADDENDUM TO THE GENERAL CONDITIONS FOR THE APPLICABILITY OF THIS ARTICLE)

- A. INSTALLATION - The Contractor for General Construction Work shall install and complete, as indicated herein, two (2) selected main elevators in the Project for temporary operation by the Contractor for General Construction Work for the transporting of employees of all Contractors and representatives of the Department of Design and Construction and other Governmental Agencies having jurisdiction over work at the project. The Contractor for General Construction Work shall furnish, install and maintain for such elevators; all necessary hoisting ropes, governor cables, traveling conductor cables, operating devices, temporary hand reset target annunciators, temporary signal devices and all other permanent or temporary parts. The installation and maintenance of the temporary elevator and all equipment and/or parts utilized in connection therewith shall be in accordance with the rules and regulations of all agencies and/or entities having jurisdiction over elevators in temporary use. The two (2) elevators will not be operated simultaneously.

- B. **RESPONSIBILITY** - The Contractor for General Construction shall be responsible for any injury to persons or damage to property arising out of the temporary elevator and all equipment and/or parts utilized in connection therewith. The Contractor for General Construction shall employ and pay wages, including overtime wages if necessary, for all workers required for the operation and maintenance of the temporary elevator. The Contractor for General Construction shall be responsible for all costs for: (1) the installation of the temporary elevator, (2) maintaining the temporary elevator in clean, proper operating condition, including the cost of lubricants and/or parts for such maintenance, (3) all work in pits, shaftways and machine rooms necessary for the operation of the elevator, and (4) the replacement of the temporary elevator or parts utilized in connection therewith, if required.
- C. **ACTIVATION TIME** - The Contractor for General Construction Work shall keep the temporary elevator activated from a period of time 15 minutes before the established starting time of that trade which starts work earliest in the morning to 15 minutes after the established quitting time of that trade which stops work latest in the evening. This applies to every day in the week, which is established as a regular working day for the aforementioned trades.
- D. **LOW RISE ELEVATOR** - The Contractor for General Construction Work shall begin to provide temporary elevator service using one (1) selected main passenger elevator no later than six (6) weeks (30 working days) after the 12th Floor slab, or that portion of it surrounding the elevator shaft, has been placed and stripped. No later than one (1) week, five (5) working days, after the 12th Floor slab, or that portion of it surrounding the elevator shaft, has been placed and stripped the following work shall have been completed:
1. The shaft shall have been completely enclosed up to the 12th Floor by either the permanent or a temporary enclosure meeting the requirements of the law.
 2. A temporary machine room enclosure shall have been provided at the 11th Floor and shall have been made completely watertight either by permanent or temporary construction. Beams or other devices, either permanent or temporary, shall be provided which will enable the safe and practicable hoisting of the elevator machinery for installation.
 3. There shall have been installed on all floors up to and including the 9th Floor at the shaft entrances to the elevator, solid substantial wood frames and either sliding or swing doors with substantial hardware and door locks, also any necessary approved wire mesh barricades for adjacent shaftways.
 4. There shall have been furnished and installed solid substantial enclosures at front, back, sides and top of car platform enclosure, with an emergency exit at top of car, excepting that the portion of the front at the elevator entrance shall have been provided with a substantial temporary door or gate.
- E. **ELECTRICAL INSTALLATION** - The Contractor for Electrical Work, not later than 10 calendar days after the 12th Floor slab or that portion of it surrounding the elevator, has been poured and stripped, shall have furnished and installed temporary or permanent power and light feeders as required for the elevator used for temporary service and shall have connected such feeders to the terminals on the starter panels or controllers in the temporary machine room, to the low voltage transformers and car light outlets in the center of the shaftway and for the car control and signal traveling cables. The Contractor for Electrical Work shall make all these required connections as soon as the Equipment is declared ready for such connections by the Resident Engineer. The cost of this work shall be included in the Contractor for Electrical Work's Contract.
- F. **HIGH RISE ELEVATOR** - The Contractor for General Construction Work shall begin to provide temporary elevator service to all floors, using a selected main passenger elevator, no later than eight (8) weeks (40 working days) after the machine room roof slab, or that portion of it surrounding the elevator shaft, has been placed. No later than three (3) weeks (15 working days) after the machine room roof slab, or that portion of it surrounding the elevator shaft, has been placed, the following work shall have been completed:

1. The shaft shall have been completely enclosed by either the permanent or temporary enclosure, meeting the requirements of the law.
2. The machine room shall have been made completely watertight either by permanent or temporary construction. Beams or other devices, either permanent or temporary shall be provided which will enable the safe and practicable hoisting of the elevator machinery for installation.
3. There shall have been installed on all floors at the shaftway entrances to the elevator, solid substantial frames and either sliding or swing doors with substantial hardware and door locks, also any necessary approved wire mesh barricades for adjacent shaftways.
4. There shall have been furnished and installed, solid substantial enclosures at front, back, sides and top of car platform enclosure, with an emergency exit at top of car, excepting that the portion of the front at the elevator entrance shall have been provided with a substantial temporary door or gate.

G. The Contractor for Electrical Work, not later than 20 calendar days after the machine room slab or that portion of it surrounding the elevator shaft has been placed, shall have furnished and installed temporary or permanent power and light feeders as required for the high rise elevator to be used for temporary service and shall have connected such feeders to the terminals on the motor-generator starter panels or controllers in the machine room, to the signal circuits low voltage transformers for the annunciators and car light outlets in the center of shaftway.

The Contractor for Electrical Work shall make all these required connections as soon as the equipment is declared ready for such connections by the Resident Engineer. The cost of this work shall be included in the Contractor for Electrical Work's Contract.

H. When the high rise elevator is completed and ready for temporary operation, the low rise temporary elevator shall be shut down.

I. When one (1) or more elevators for permanent use have been installed and are in condition for service, and when directed by the Commissioner, the Contractor for General Construction Work shall remove the temporary enclosures and all temporary elevator equipment, and promptly proceed with the installation of the permanent equipment as is required under the Contract.

J. Before temporary elevator equipment has been removed, a joint inspection of the equipment shall be made by the Contractor for General Construction Work and the Commissioner to determine the condition of this equipment upon the discontinuation of its temporary use. If this inspection determines it necessary, the Contractor for General Construction Work shall furnish and install new governor and compensating ropes, new traveling cables, new controller parts, etc. The car and counterweight safeties shall be thoroughly cleaned of all dirt and all foreign matter, then properly lubricated and placed in good operating condition to the satisfaction of the Commissioner. If it is determined and ordered by the Commissioner that new hoist ropes are required, such ropes shall be installed and payment therefor will be made in accordance with Article 26 of the Contract.

K. The Contractor for General Construction Work shall replace with new, any of the equipment or parts of the temporary elevator installations that were damaged, destroyed, or that indicate excessive wear or corrosion excepting the replacement of hoisting ropes. All shaftways, pits, motor rooms and sheaves spaces used for temporary operation of elevators shall be thoroughly cleaned down. Where lubricated rails are used they shall be washed down, if roller guides are used, all rust, dirt, etc., must be removed from the rails. The full cost of parts replacement cleaning, etc., shall be borne by the Contractor for General Construction Work except for the replacement of hoisting ropes.

L. The Contractor for Electrical Work shall pay the costs of all electrical current used for operating the temporary elevators. The Contractor for General Construction Work shall provide all necessary conduits and wiring connections for the proper operation of the elevators and the signaling of the temporary elevators.

- M. No temporary elevator shall be used during its operation for hoisting of materials or removal of rubbish, but shall be limited only to the transportation of employees of all Contractors and the representatives of City Departments and other governmental agencies having jurisdiction of work at the project. However, the Resident Engineer may grant special permission at specific times to the various Contractors to hoist materials which, in the Resident Engineer's opinion, will not overload or damage the elevator installation, but only after such time as all plastering has been completed from the second floor up. The particular Contractor using the elevator for the hoisting of its material shall be responsible for any damage to the elevator during the entire period of such use. The Contractor for General Construction Work shall give notification in writing to the Resident Engineer of any alleged damage to the elevator installation within 24 hours after the elevator has been employed for the hoisting of materials by the other Contractors.
- N. The Contractor for General Construction Work shall be paid for its operation and maintenance of each temporary elevator or permanent elevator used for temporary service at the daily rate indicated under the item of its Contract. All other costs in connection with elevator installation and equipment, excepting Electrical Work done by the Contractor for Electrical Work under its Contract, shall be included in the Contractor for General Construction Work's Contract.
- O. LIQUIDATED DAMAGES - The Contractor for General Construction Work will be charged at the rate of \$100 per day for each day it fails to provide the temporary elevator service described in this Section beginning with the 31st working day after the 12th Floor slab, or that portion of the 12th Floor slab surrounding the elevator shaft, has been placed and stripped. This charge will be deducted from any amount due and owing to the Contractor for General Construction Work.
- P. OVERTIME USE - ALL CONTRACTS. Whenever any Contractor(s) work before or after the regular work hours as indicated in Subparagraph B above, or on a Saturday, Sunday or Holiday, such Contractor or Contractors shall pay the Contractor for General Construction Work for the operation and maintenance of the temporary elevator, if required by such Contractor or Contractors, at the rate indicated in the Item of the bid form of the General Construction Work Contract but increased to reflect the difference between regular wage rates and overtime wage rates. The basic hourly charge shall be considered as one ninth (1/9) of the amount shown in the item of the General Construction Work Contract. The City will not pay any Contractor for such overtime use of the elevator. When more than one (1) Contractor is involved in the overtime work, the charges shall be prorated as determined by the Resident Engineer unless otherwise agreed mutually among all the Contractors involved.

PART C - EXISTING BUILDINGS (REFER TO THE ADDENDUM TO THE GENERAL CONDITIONS FOR THE APPLICABILITY OF THIS ARTICLE)

- A. The Contractor for General Construction Work may use, at the Commissioner's discretion, one (1) selected elevator in the project for temporary operation by the General Construction Work Contractor for the transportation of employees of all Contractors and representatives of the Department of Design and Construction and other Governmental Agencies having jurisdiction over work at the Project. The Contractor for General Construction Work shall maintain for such elevators, all necessary hoisting ropes, governor cables, traveling conductor cables, operating devices hand reset target annunciators, signal devices, and all other permanent or temporary parts. The installation and maintenance of the temporary elevator and all equipment and/or parts utilized in connection therewith shall be in accordance with the rules and regulations of all agencies and/or entities having jurisdiction over elevators in temporary use.
- B. The Contractor for General Construction shall be responsible for any injury to persons or damage to property arising out of the temporary elevator and all equipment and/or parts utilized in connection therewith. The Contractor for General Construction shall employ and pay wages, including overtime wages if necessary, for all workers required for the operation and maintenance of the temporary elevator. The Contractor for General Construction shall be responsible for all costs for: (1) the installation of the temporary elevator, (2) maintaining the temporary elevator in clean, proper operating condition, including the cost of lubricants and/or parts for such maintenance, (3) all work in pits, shaftways and machine rooms necessary for the operation of the elevator, and (4) the replacement of

the temporary elevator or parts utilized in connection therewith, if required.

- C. The Contractor for General Construction Work shall keep the temporary elevator activated from a period of time of 15 minutes before the established starting time of that trade which starts work earliest in the morning to 15 minutes after the established quitting time of that trade which stops work latest in the evening. This applies to every day in the week, which is established as a regular working day for the aforementioned trades.
- D. The Contractor for General Construction Work shall replace with new any of the equipment or parts of the elevator for temporary operation installation that were damaged, destroyed, or that indicate excessive wear or corrosion excepting the replacement of hoisting ropes. All shaftways, pits, motor rooms and sheave spaces used for temporary operation of elevators shall be thoroughly cleaned down. Where lubricated rails are used they shall be washed down, if roller guides are used, all rust, dirt, etc., must be moved from the rails. The full cost of parts replacement, cleaning, etc., shall be borne by the Contractor for General Construction Work except for the replacement of hoisting ropes.
- E. The elevator for temporary operations shall be used during its operation for hoisting of materials or removal of rubbish, but shall be limited only to the transportation of employees of all Contractors and the representative of City Departments and other Governmental Agencies having jurisdiction of work at the project. However, the Resident Engineer may grant special permission at specified times to the various Contractors to hoist materials which, in the Resident Engineer's opinion, will not overload or damage the elevator installation. The particular Contractor using the elevator for the hoisting of its material shall be responsible for any damage to the elevator during the entire period of such use. The Contractor for General Construction Work shall give notification in writing to the Resident Engineer of any alleged employed for the hoisting of materials by the particular Contractor(s).
- F. The Contractor for General Construction Work shall pay all costs for the operation and maintenance of the elevator for temporary operation. All other costs in connection with the elevator and equipment excepting electrical work done by the Contractor for Electrical Work under its Contract, shall be included in the Contractor for General Construction Work's Contract.
- G. **LIQUIDATED DAMAGES** - The Contractor for General Construction Work will be charged at the rate of \$100 per day for each day it fails to provide elevator services described in this section beginning with 15 consecutive calendar days from notice to proceed. This charge will be deducted from any amount due and owing to the Contractor for General Construction Work.
- H. **OVERTIME USE - ALL CONTRACTS** - Whenever any Contractor(s) work before or after the regular work hours as indicated in Paragraph B above, or on a Saturday, Sunday or Holiday, such Contractor(s) shall pay the Contractor for General Construction Work for the operation and maintenance of the elevator, if required by such Contractor(s) at the union daily rates but increased to reflect the difference between regular wage rates and overtime wage rates. The City will not pay any Contractor for overtime use of the elevator. When more than one (1) Contractor is involved in the overtime work, the charges shall be prorated as determined by the Resident Engineer unless otherwise agreed mutually among all the Contractors involved.

1.36 General Mechanical Requirements (REFER TO THE ADDENDUM TO THE GENERAL CONDITIONS FOR THE APPLICABILITY OF THIS ARTICLE)

- A. The General Mechanical Requirements contained herein shall be followed by all Contractors furnishing mechanical equipment under their respective Contracts.
- B. **CONCEALED PIPING** - and ducts shall mean piping and ducts hidden from sight in masonry or other construction, in floor fill, trenches, partitions, hung ceilings, furred spaces, pipe shafts and in service tunnels not used for passage. Where piping and ducts run in areas that have hung ceilings, such piping and ducts shall be installed in the hung ceilings.
- C. **THE CONTRACT DRAWINGS** - are in part diagrammatic and show the general arrangement of the equipment, ducts and piping included in the Contract and the approximate size and location of the

equipment. The Contractor shall follow these Contract Drawings in laying out the work and shall consult the Contract Drawings of the other Contracts to become familiar with all conditions affecting it and to verify the spaces in which it will be installed. The Contractor shall cooperate with the Public Utilities doing certain necessary work for this project. The attention of the Contractor is called to the Contract Drawings for General Construction Work for the location, arrangement and extent of plumbing and other fixtures and equipment. All work shall be installed in locations as shown on these Contract Drawings.

- D. **CERTIFICATES** - On completion of the work, the Contractor shall obtain certificates of inspection, approval, acceptance and of compliance with all laws from all agencies and/or entities having jurisdiction over the work and shall deliver these certificates to the Commissioner. The work shall not be deemed substantially complete until the certificates have been delivered.
- E. **SHOP DRAWING SUBMITTALS** - Contractors doing mechanical work shall submit, as directed, Shop Drawings, roughing drawings, manufacturer's Shop Drawings, field drawings, cuts, bulletins, etc., of all materials, equipment and methods of installation shown or specified.
1. Submit sheet metal shop standards. Submit manufacturer's product data including gauges, materials, types of joints, scaling materials and installations for metal ductwork materials and products.
 2. Submit scaled layout drawing (3/8"=1") of metal ductwork and fittings including, but not limited to, duct sizes, locations, elevations, slopes of horizontal runs, wall and floor penetrations and connections. Show modifications of indicated requirements made to conform to local shop practice and how those modifications ensure that free area, materials and rigidity are not reduced. Layouts should include all the room plans, mechanical equipment rooms and penthouses. Method of attachment of duct hangers to building construction all with the support details. Coordinate shop drawings with related trades prior to submission.
 3. Indicate duct fittings, particulars such as gauges, sizes, welds and configuration prior to start of work for low-pressure systems.
 4. Submit maintenance data and parts lists for metal ductwork materials and products. Include this data, product data and shop drawings in maintenance manual.
- F. **ACCESSIBILITY** - All work shall be installed by the Contractor so as to be readily accessible for inspection, operation, maintenance and repair. Minor deviations from the arrangement indicated on the Contract Drawings may be made to accomplish this, but they shall not be made without approval by the Commissioner.
- G. **CHANGES IN PIPING, DUCTS, AND EQUIPMENT** - Wherever field conditions are such that for proper execution of the work, reasonable changes in location of piping, ducts and equipment are necessary and required, the Contractor shall make such changes as directed and approved, without extra cost to the City.
- H. **CLEANING OF PIPING, DUCTS, AND EQUIPMENT** - Piping, ducts and equipment shall be thoroughly cleaned by the Contractor of all dirt, cuttings and other foreign substances. Should any pipe, duct or other part of the several systems be obstructed by any foreign matter, the Contractor will be required to pay for disconnecting, cleaning and reconnecting wherever necessary for the purpose of locating and removing obstructions. The Contractor shall pay for repairs to other work damaged in the course of removing obstructions.
- I. **STANDARDIZATION OF SIMILAR EQUIPMENT** - Unless otherwise particularly specified, all equipment of the same kind, type or classification, and used for identical purposes, shall be the product of one (1) manufacturer.
- J. **MACHINERY PARTS** - shall conform exactly to the dimensions shown on the Contract Drawings. The equivalent parts of identical machines shall be identical so that they can be interchangeable.

- K. **FITTINGS** - All grease lubricating fittings on equipment shall be of a uniform type and shall be readily accessible and types proposed to be used shall be submitted for approval.
- L. **GUARDS** - All machinery shall be designed with protecting guards conforming with the requirements of the Industrial Code of the New York State Department of Labor or OSHA, whichever is stricter.
- M. **LIMIT SWITCHES** - Unless otherwise specified, limit switches and other mechanically actuated switches shall be enclosed in tight metal boxes and be installed in the proper locations ready for conduit connections. Switches shall be complete with all supports, stops, cams, arms, tripping and operating members, which shall be adjustable where required for proper functioning.
- N. **ANCHORS, BOLTS, ETC. AND FOUNDATIONS** - Unless otherwise specified, the Contractor shall furnish the necessary anchors, bolts, guides, track rails, bearing plates, substantial templates and all other appurtenances, and build the necessary foundations, as approved by the Commissioner, for all equipment supplied by the Contractor under its Contract.
- O. **EQUIPMENT DESIGN** - Equipment and appurtenances shall be designed in conformity with ASME and AIEE standards and shall be of rugged construction and of sufficient strength to withstand all stresses which may occur during fabrication, testing, transportation, installation, and all conditions of operations. Adequate stays, braces and anchors shall be provided. All bearings and moving parts shall be adequately protected against wear by bushings, or other approved means, and shall be fully lubricated by readily accessible devices. Details shall be designed for appearance as well as utility. Protruding members, joints, corners, gear covers and the like shall be finished in appearance. All exposed welds shall be ground smooth and the corners of structural shapes shall be mitered.
- P. **SUPPORTING STRUCTURES DESIGNED BY THE CONTRACTOR** - Unless otherwise specified, supporting structures for equipment to be furnished by the Contractor shall be designed and built by the Contractor of sufficient strength to safely withstand all stresses to which they may be subjected, within permissible deflections, and shall meet the following standards:
1. Structural Steel - ASTM Standard Specifications, AISC and NYBC.
 2. Concrete for supports for equipment shall conform to the Specifications for concrete herein, but in no case shall be less than the requirements of the NYBC for average concrete.
 3. Steel reinforcement for concrete shall be of intermediate grade and shall meet the requirements of the Standard Specifications for Billet Steel-Concrete Reinforcement Bars, ASTM.
- Q. **ENGINEER'S ASSUMED DESIGN DATA** - All structural steel, concrete and reinforcement indicated or specified to support the equipment or appurtenances and the area immediately adjacent thereto have been designed from data based on assumed average anticipated clearances and loading. The final structural design in these locations will be based on definite data received from the Contractor after the Commissioner approves the equipment and appurtenances to be installed. The Commissioner will then redesign, if necessary, the supporting structure to properly support and maintain the approved equipment and appurtenances. Necessary major changes in design will be covered by Supplementary Drawings that will be furnished to the Contractor. All changes indicated or necessary to accommodate the equipment and appurtenances, shall be incorporated into the Working Drawings submitted for approval, and the cost of furnishing and installing the work necessitated by these changes shall be borne by the Contractor furnishing the equipment.
- R. **INSTALLATION OF EQUIPMENT** - Equipment shall be erected in a neat and workmanlike manner on the foundations, at the locations and elevations shown on the Contract Drawings or as required. All equipment shall be correctly aligned, leveled and adjusted for satisfactory operation and shall be installed so that proper and necessary connections can be made readily between various units and with piping and equipment that may be installed under other Contracts. When required by the Specifications, the Contractor shall obtain the assistance of a competent and experienced Engineer or Superintendent, in the employ of the manufacturer, to install the equipment.

- S. **ELIMINATION OF NOISE** - All work provided under the Contract shall operate without objectionable noise or vibration.
1. Should operation of any one or more of the several systems produce noise or vibration which is, in the opinion of the Commissioner, objectionable, the Contractor shall at its own expense make changes in piping, equipment, etc. and do all work necessary to eliminate objectionable noise or vibration.
 2. Should noise or vibration found objectionable by the Commissioner be transmitted by any pipe or portions of the structure from equipment installed under the Contract, the Contractor shall at its own expense install such insulators and make such changes in or additions to the installations as may be necessary to prevent transmission of this noise or vibration.
- T. **GROUTING** - The Contractor shall furnish all material and labor for proper bedding on Portland Cement grout, the equipment or its supporting base. Grout shall consist of one (1) part Portland Cement and one (1) part of approved sand. The top of the masonry foundation shall be properly cleaned and wetted before grouting. Grout shall completely fill all spaces between the equipment, or base, and the foundation and it shall generally average one (1) inch in thickness. Leveling wedges shall not be removed before the grout has reached its final set. Voids left by wedges shall be pointed with grout. Exposed surfaces of the grout shall have a finished appearance.
- U. **PRELIMINARY FIELD TEST** - As soon as conditions permit, the Contractor shall furnish all necessary labor and materials for, and shall make, preliminary field tests of the equipment to ascertain compliance with the requirements of the Contract. If the preliminary field tests disclose equipment that does not comply with the Contract, the Contractor shall, prior to the acceptance test, make all changes, adjustments and replacements required.
- V. **INSTRUCTIONS ON OPERATION** - At the time the equipment is placed in permanent operation by the City, the Contractor shall make all adjustments and tests required by the Commissioner to prove that such equipment is in proper and satisfactory operating condition. The Contractor shall instruct the City's operating personnel on the proper maintenance and operation of the equipment for the period of time called for in the Specifications.

1.37 General Electrical Requirements

SCOPE - This Article sets forth the general requirements applicable to electrical work for the Project. Such requirements are intended to be read in conjunction with the Specifications and Contract Drawings for the Project. In the event of any conflict between the requirements set forth in this Article and the requirements of the Specifications and/or the Contract Drawings, whichever requirements is the most stringent, as determined by the Commissioner, shall take precedence.

PART A - PROCEDURE--ELECTRICAL APPROVALS

SCOPE- This Section sets forth general electrical information, as well as required approvals for all electrical work required for the Project, including ancillary electrical work which may be included in contracts for other than the Contract for Electrical Work.

- A. **ELECTRIC SERVICE** - The electric service supply is subject to commercial and operating variation of the utility company. Proper provision shall be made to have all apparatus operate normally under these conditions.
- B. **SUPERVISION AND ACCEPTANCE** - The electrical work and equipment shall be installed under the supervision of the Commissioner's representative. Final acceptance and approval of the work will be contingent upon the inspection and test of the installation by the City regulatory agency, on completion.
- TESTS** - The Contractor shall notify the Commissioner when the Contractor will examine and begin

work and shall also notify the Commissioner when the Contractor has completed the work and is ready to have it inspected and tested. Upon completion of the work and prior to final payment, tests shall be made as required by the Commissioner of all electrical materials, electrical and associated mechanical equipment, and of appliances installed hereunder. The Contractor shall furnish all labor and material for such tests. Should the tests show that any of the material, appliances or workmanship are not first class or not in compliance with the Contract, the Contractor on written notice shall remove and promptly replace them with other materials in conformity with the Contract.

- D. **CERTIFICATE OF THE BUREAU OF ELECTRICAL CONTROL, OF THE DEPARTMENT OF BUILDINGS (B.E.C.)** - Before final payment is made, there must be filed with the Department of Design and Construction, a Certificate of Inspection signed by the Director of the B.E.C., which Certificate shall certify that all materials and workmanship comply with the rules and regulations of the B.E.C. of the City of New York and with the Electrical Code of the Administrative Code of the City of New York.
- E. **RESPONSIBILITY FOR CARE AND PROTECTION OF EQUIPMENT**
1. The Contractor furnishing any equipment shall be responsible for the equipment until it has been finally inspected, tested and accepted, in accordance with the requirements of these Specifications.
 2. After delivery and before and after installation, the Contractor shall protect all equipment against theft, injury or damage from all causes. The Contractor shall carefully store all equipment received for work, which is not immediately installed. If any apparatus has been subject to possible injury by water, it shall be thoroughly dried out and put through a special dielectric test as directed by the Commissioner, at the expense of the Contractor or replaced by the Contractor without additional cost to the City.
- F. **UNIFORMITY OF EQUIPMENT** - Any two (2) or more pieces of apparatus or materials of the same kind, type or classification and being used for identical types of service, shall be made by the same manufacturer.
- G. **CONTRACTOR'S ELECTRICAL DRAWINGS AND SAMPLES FOR APPROVAL**
1. The Contractor shall submit to the Commissioner for approval, complete dimensional drawings of all equipment, wiring diagrams, motor test data, details of control, installation layouts showing all details and locations and including all schedules, and descriptions and supplementary data to comprise complete working drawings and instructions for the performance of the work. A description of the operation of the equipment and controls shall be included. A letter, in triplicate, shall accompany each submittal.
 2. The Contractor shall submit duplicate samples of such materials and appliances as may be requested by the Commissioner for approval. These samples shall be properly tagged for identification and submitted for examination and test. After the samples are approved, one (1) sample will be returned to the Contractor and the other sample will be filed in the office of the Commissioner's representative for inspection use. After the Contract is completed, the second set of samples will be returned to the Contractor.
- H. **TIMELINESS** - All material shall be submitted in sufficient time for the program of construction. Failure to promptly submit acceptable samples and dimensional drawings of equipment will not be accepted as grounds for an extension of time. The Commissioner may decline to consider submittals unless all related items are submitted at the same time.
- I. **CONTRACTOR'S STATEMENT WITH SUBMITTALS** - All dimensional drawings of equipment, blueprints, catalogues, models, samples and other data relative to the equipment, the materials, the work or any part thereof submitted for approval are to be accompanied by a statement that they have been examined by the Contractor and that the drawings, data and other material submitted agree with the requirements of the Contract and Specifications and shall list and describe the points of

disagreements, if any exist. In the absence of such statement, approvals will be given with the understanding that articles of equipment or materials or methods of installation are in substantial compliance with the Contract and that if the adoption of these designs, details, articles, equipment, materials, constructions, installations, places and locations necessitate changes, alterations or replacements at an increased cost to the Contractor or others, the Contractor making the substitution for the specified equipment or material shall bear all such additional expense involved.

- J. **BULLETINS AND INSTRUCTIONS** - The Contractor shall furnish and deliver to the Commissioner, after acceptance of the work, four (4) complete sets of instructions, technical bulletins and any other printed matter (diagrams, prints, or drawings) required to provide complete information for the proper operation, maintenance and repair of the equipment and the ordering of spare parts.

PART B - TEMPORARY LIGHTING, SITE SECURITY LIGHTING & POWER

SCOPE - This Section sets forth the General Conditions and procedures relating to Temporary Lighting, Site Security Lighting and Power during the construction period, and is applicable to, and binding on, all Contracts insofar as they are affected.

A. TEMPORARY LIGHTING (REFER TO THE ADDENDUM TO THE GENERAL CONDITIONS FOR THE APPLICABILITY OF THIS ARTICLE)

1. Energy for the Temporary Lighting System for minor rehabilitation projects (those projects whose existing distribution system is not being changed or modified under the scope of this project) may be taken from the existing electrical distribution system if the existing system is of adequate capacity for the additional temporary lighting load. The Contractor for Electrical Work is to cooperate and coordinate with the facility custodian so as not to interfere with the normal operation of the facility.
2. Energy for the Temporary Lighting system for new projects and for those existing projects that are not covered in the preceding paragraph shall be provided as in the following paragraphs.
3. **CONNECTION TO UTILITY LINES** - Temporary Electric Service for use during construction shall be provided as follows: The Contractor for Electrical Work shall provide adequate service for the temporary lighting system, or a minimum of 100 Amperes, 3-phase, 4-wire service for the temporary lighting system, whichever is greater, and make all necessary arrangements with the Public Utility Company and pay all charges by them for the Temporary Lighting system. The Contractor for Electrical Work shall include in its bid any charges which may be made by the Public Utility Company for extending its electrical facilities, and for making final connections. The Contractor for Electrical Work shall make payment directly to the Public Utility Company.
4. **APPLICATIONS FOR METER** - The Contractor for Electrical Work shall make application to the Public Utility Company and sign all documents necessary for, and pay all charges incidental to, the installation of a watt hour meter or meters for Temporary Lighting. The Contractor for Electrical Work shall pay to the Public Utility Company, all bills for Temporary Lighting energy used throughout the work, as they become due.
5. **SERVICE AND METERING EQUIPMENT** - The Contractor for Electrical Work shall furnish and install, at a suitable location on the site, approved service and metering equipment for the Temporary Lighting System, ready for the installation of the Public Utility Company's metering devices. The temporary service mains to and from the metering location shall be not less than 100 Amperes, 3-phase, 4-wire and shall be of sufficient capacity to take care of all demands for Temporary Lighting and Site Security Lighting and shall meet all requirements of the NYCEC.
6. The Contractor for Electrical Work shall furnish and connect to the metered service point, a system of Temporary Lighting to illuminate the entire area where work is being performed and points adjacent to the work, with separately fused circuits for stairways and bridges. Control switches for stairway circuits shall be located near entrance on ground floor.

7. ITEMS - The Temporary Lighting System shall consist of wiring, fixtures, left-hand double sockets, (one (1) double socket for every 400 square feet, with one (1) lamp and one (1) three-prong outlet) lamps, fuses, locked type guards, trailers and any other incidental material. Additional details may be outlined in the detailed Specifications for the Electrical Work. Changes may be made, provided the full equivalent of those requirements is maintained.
8. The Temporary Lighting System shall be progressively installed as required for the advancement of the work under the various Contracts.
9. RELOCATION - Any Contractor requiring the relocation or extension of the original Temporary Lighting System that is not required due to the normal advancement of the work, as determined by the Commissioner's field representative, shall bear all costs thereof.
10. TRAILERS - Trailers shall be furnished with left-hand sockets with locked type guards and 40 feet of rubber covered cable. The Contractor for Electrical Work shall furnish and distribute a minimum of three (3) complete trailers to each Contractor. See the detailed Electrical Specifications for possible additional trailers required.
11. LAMPS - The Contractor for Electrical Work shall furnish and install one (1) complete set of lamps, including those for the trailers. Broken and burned out lamps in the general lighting system shall be replaced by the Contractor for Electrical Work while those in the trailers shall be replaced by the Contractor using such equipment. All lamps shall be 100 watt.
12. CIRCUIT PROTECTION - The Contractor for Electrical Work shall furnish and install GFI protection for the Temporary Lighting and Site Security Systems.
13. ENERGIZING - The Contractor for Electrical Work shall keep the Temporary Lighting System energized from a period of time, 15 minutes before the established starting time of that trade, which starts work earliest in the morning to 15 minutes after the established quitting time of that trade which stops work latest in the evening. This applies to every day in the week which is established as a regular working day for any trade involved in the construction of this facility and holds until completion and final acceptance of the work of the Contractor for Electrical Work or until the services are terminated by instructions from the Commissioner.
14. MAINTENANCE OF TEMPORARY LIGHTS
 - a. The Contractor for Electrical Work shall maintain the Temporary Lighting System in good working order during the scheduled hours established.
 - b. The Contractor for Electrical Work is to include in its contract all charges for energy for the Temporary Lighting System.
 - c. The Contractor is advised to show the estimated cost of the installation, maintenance and energy of temporary electrical facilities in its detailed cost estimate of its Contract so as to facilitate partial payments during construction.
15. OVERTIME USE - Any Contractor requiring Temporary Lighting Service before or after hours set forth hereinbefore, or on weekends or a Holiday for all trades involved in the construction of this facility, shall pay for the additional cost of keeping the system energized and repaired. If more than one (1) Contractor is involved, the charges shall be prorated, or shared by other acceptable means previously agreed upon by the Contractors involved. When overtime is required by all Contractors on the work, the provisions for payment for regular time use of the Temporary Lighting System shall apply.
16. SERVICE BEYOND COMPLETION DATE - When failure to comply with the terms and conditions of any Contract necessitates temporary light beyond the date set for completion of the Contract for Electrical Work, the Contractor requiring such additional service shall pay for keeping it energized. When more than one (1) Contractor requires such service, the expense thereof shall be prorated

as determined by the Commissioner.

17. **ADJUSTMENT IN CONTRACT PRICE FOR TEMPORARY LIGHTING MAINTENANCE** - In the event that the temporary lighting maintenance extends beyond the Contract time through no fault of the Contractor for Electrical Work, the additional maintenance cost will be in accordance with the requirements of the following paragraphs:
 - a. Payment for maintaining Temporary facilities when required will be made at the average hourly wage for electricians plus 69% of this rate, for each hour of work done upon order of the Resident Engineer. Payments will be included in partial estimates upon submission of detailed vouchers stating date, hour and time expended for each item of work.
 - b. The addition of 69% of the average hourly wage rate specified above shall be deemed as the total allowance for all profit and overhead and for any and all other costs and expenses of any nature whatsoever, including but not limited to allowance for insurance, workman's compensation, unemployment insurance and other supplementary benefits.
18. **REMOVAL OF TEMPORARY LIGHTING WIRING** - The temporary lighting system shall be removed by the Contractor for Electrical Work when authorized by the Commissioner.
19. **HAND TOOLS** - The temporary electric lighting system shall not be used for power purposes, excepting that light hand tools not larger than 1/4 horsepower may be operated therefrom by any Contractor.

B. SITE SECURITY LIGHTING (FOR NEW CONSTRUCTION ONLY) (REFER TO THE ADDENDUM TO THE GENERAL CONDITIONS FOR THE APPLICABILITY OF THIS ARTICLE)

1. The Contractor for the Electric Work shall furnish, install and maintain a system of site security lighting, as herein specified, to illuminate the construction site of the project, and it shall be connected to and energized from the Temporary Lighting System.
2. It is essential that the site security lighting system be completely installed and operating, at the earliest possible date. All Contractors must cooperate, coordinate and exert every effort to accomplish an early complete installation of the site security lighting system. After the system is installed and in operation, and a part of the system interferes with the work of any trade, that trade shall be completely responsible for the expense of removing, relocating and replacing all equipment necessary to reinstate the system to proper operating conditions.
3. The system shall consist of flood lighting by pole mounted guarded sealed-beam units. Floodlight units shall be mounted 16 feet above grade. Floodlights shall be spaced around the perimeter of the site to produce an illumination level of no less than one (1) foot candle around the perimeter of the site, as well as in any potentially hazardous area or any other area within the site that might be deemed by the Resident Engineer to require security illumination. The system shall be installed in a manner acceptable to the Resident Engineer. The first lighting unit in each circuit shall be provided with a photoelectric cell for automatic control. The photoelectric cell shall be installed as per manufacturer's recommendations.
4. All necessary poles shall be furnished and installed by the Contractor for Electrical Work.
5. The site security system shall be kept illuminated at all times during the hours of darkness. The Contractor for Electrical Work, at its own expense, shall keep the system in operation, furnishing and installing all material necessary to replace all damaged or burned out parts.
6. The Contractor for Electrical Work shall be on telephone call alert for maintaining the system during the operating period stated above.
7. All materials and equipment furnished under this section shall remain the property of the Contractor for Electrical Work and shall be removed and disposed of by the Contractor for

Electrical Work upon completion of that phase of the project.

C. TEMPORARY POWER

1. Any Contractor requiring temporary power for equipment larger than 1/4 horsepower shall arrange with the Public Utility for service and pay for all electrical energy consumed by its lines.
2. The Contractor shall provide service, metering equipment and distribution centers as required, and be responsible for keeping the system in working order.
3. When directed by the Commissioner, the Contractor shall remove its own temporary power system.

D. USE OF COMPLETED PORTIONS OF THE ELECTRICAL WORK

1. **USE OF MAIN DISTRIBUTION PANEL** - As soon as the permanent electric service feeders and equipment, metering equipment and main distribution panel are installed and ready for operation, the Contractor for Electrical Work shall have the temporary lighting system changed over from the temporary service points to the main distribution panel.
2. **COST OF CHANGE OVER** - The Contractor for Electrical Work shall be responsible for all cost due to this change over of service and it shall also make application to the Public Utility Company for a watt hour meter to be set on the permanent meter equipment.
3. The requirements for temporary lighting specified herein shall be adhered to after change over of service.
4. **NO EXTRA COST** - The operation of the service and switchboard equipment shall be under the supervision of the Contractor for Electrical Work, but this shall in no way be interpreted to mean the acceptance of such part of the installation or relieve the Contractor from its responsibility for the complete work or any part thereof. There shall be no additional charge for supervision by the Contractor for Electrical Work.

PART C - ELECTRICAL INSTALLATION PROCEDURE

SCOPE - This Section sets forth the general installation procedure that shall apply to all electrical work and electrical equipment appearing in any of the Contracts.

- A. **INTENT OF CONTRACT DOCUMENTS** - Contract Specifications and Contract Drawings are to be interpreted as a means of conveying the scope and intent of the work without giving every minor electrical detail. It is intended, nevertheless, that each Contractor shall provide whatever labor and materials are found necessary, within the scope of its Contract, for the successful operation of the installation. Specific details of individual installations are to be finally decided upon when the Contractor submits Working or Shop Drawings for approval to the Department of Design and Construction. Whenever there are two (2) or more methods to complete project work within the Contract scope, the Commissioner reserves the right to choose that method which, in the Commissioner's opinion, will afford the most satisfactory performance, lasting qualities, and accessibility for repairs, even though this selection is the most costly.
- B. **SCHEMATIC PLANS - APPROXIMATE LOCATIONS** - Conduits and wiring are shown on the plans for diagrammatic purposes only. Therefore, conduit layouts may not necessarily give the actual physical route of the conduits. The Contractor who installs a conduit system will also be required, as part of the work, to furnish and install all hangers and pull-boxes, including any special pull-boxes found necessary to overcome interferences, and to facilitate the pulling of electrical cables. Similarly, the locations of equipment, appliances, outlets and other items shown on Contract Drawings are only approximate and are to be definitively established when equipment Shop Drawings are submitted and approved by the Department of Design and Construction during construction.

- C. **SLEEVES** - required for conduits passing through walls or floors, shall be furnished and set by the Contractor installing the conduits. Sleeves in waterproofed floors shall be provided with flashing extending 12 inches in all directions from sleeve and secured to waterproofing. Flashing shall be turned down into space between pipe and sleeve and caulked watertight. Flashing shall be 20 oz. cold rolled copper. Sleeves shall be supplied with welded flanges similar to those supplied by the Contractor for Plumbing Work and shall extend one (1) inch above finished floor.
- D. **COORDINATION** - Each Contractor shall keep in close touch with the construction progress and obtain the necessary information for the accurate placement of its work in ample time before project construction operations obstruct its work. Each Contractor is to consult all other Contract Drawings, as well as approved equipment Shop Drawings on file in the Resident Engineer's Field Office. This will aid in avoiding interferences, omissions and errors in the electrical installation.
- E. **RESPONSIBILITY FOR ERRORS OF INSTALLATION** - In case of interference with the work of others or erroneous placement of work with respect to equipment or structures, each Contractor shall cooperate with other affected Contractors for an immediate agreeable solution of the affected work with each Contractor furnishing its responsible share of the labor and materials necessary to complete the installation in an approved manner.
- F. **RESTORATION** - If drilling or cutting is done on finished surfaces of equipment or the structure, any marring of the surface shall be repaired or replaced by the Contractor who caused the damage. Each Contractor shall be held responsible for corrective restoration due to its cutting or drilling, and for any damage to the project or its contents caused by the Contractor or the Contractor's workers. Any Contractor who pierces waterproofing because of the installation of their work shall, at their own expense, restore the waterproofing to the satisfaction of the Commissioner.
- G. **ELECTRICAL WORK AT SITE** - Any Contractor who is required to furnish equipment consisting of a number of related electrical devices or appliances, mounted in a single enclosure, or on a common base, shall furnish this unit complete with internal wiring, connections, terminal boxes with copper connectors and/or lugs and ample electrical leads, ready for connection and operation. The cost of any wiring, re-wiring or other work required to be done on this unit in the field, shall be borne by the Contractor who furnished the unit, without cost to the City.
- H. **COOPERATION AMONG CONTRACTORS** - Whenever an electrically operated unit or system involves the combined work of several Contractors for its installation and successful operation, each Contractor shall exercise the utmost diligence in cooperating with others to produce a complete, harmonious installation.
- I. **DEFINITIONS**
1. **WIRING** means both wire and raceway (rigid steel, heavy wall conduit unless specifically indicated otherwise).
 2. **POWER WIRING** means wiring from a panelboard or other specified source to a starter (if required) then to a disconnect (if required) then to the final point of usage such as a motor, unit or device.
 3. **CONTROL and/or INTERLOCK WIRING** means that wiring that signals the device to operate or shut down in response to a signal from a remote control device such as a temperature, smoke, pressure, float, etc. device (starters and disconnect switches are not included in this definition) regardless of the voltage required for the controlling device.
- J. **WORK BY CONTRACTORS FURNISHING ELECTRICAL EQUIPMENT** - Any Contractor who furnishes an electrically operated or motorized unit of equipment shall install same and, as part of its Contract, perform the following work in connection therewith:
1. **FOUNDATIONS** - Unless otherwise specified or indicated, the Contractor furnishing electrically operated equipment shall also furnish and install approved foundations for same. Special

foundations, if required, will be described in the detailed Specification.

- a. MATERIAL - All foundations, unless required otherwise, shall rest on a structural slab and shall be of poured concrete, of a mixture specified for reinforced concrete. Foundations shall present a neat, smooth appearance without voids, sharp corners or edges.
 - b. DIMENSIONS - Foundation dimensions, height above floor, methods of setting, aligning and anchoring of equipment shall be as recommended by the manufacturer of equipment and approved by the Commissioner. The minimum height of foundations above finished floor shall be four (4) inches and foundations shall extend at least six (6) inches at all sides beyond the base plates of equipment.
2. At least one (1) inch of grout shall be applied under the equipment base plate after placement and alignment of the equipment.
 3. ITEMS - Anchor plates, bolts, sleeves, nuts and washers and other necessary items for proper installation of equipment shall be provided. The Contractor shall also furnish and set required templates to locate accurately the positions of the hold-down bolts.
 4. VIBRATION ISOLATION - If specifically required in the detailed Specifications for a particular unit, vibration isolators shall be provided for rotating equipment.
 5. SUPPORTS - If any motorized equipment is required to be mounted overhead or off a wall, the Contractor supplying the unit shall furnish and install a suitable platform, bracket or shelf, whichever is appropriate or specified, and mount the equipment thereon. This support shall be constructed of substantial steel members, plates, etc., and the whole securely fastened to the structure or to anchors previously embedded in the wall or slab. In case of excessive vibration transmitted to structure, isolating pads or other devices shall be installed. The Contractor shall apply one (1) coat of approved primer paint to the support and one (1) additional coat of approved paint in the field.
 6. ASSOCIATED EQUIPMENT - The Contractor who furnishes a motorized or electrically operated unit of equipment shall also furnish all associated motor starters, disconnect means, relays, control devices, lamps, or other devices, necessary for the successful functioning of the unit.
 7. POINT OF DELIVERY - Any item specified to be installed by the Contractor for Electrical Work and delivered to the site that can not be hand carried (due to bulk, weight or timeliness) to the location of its installation is to be delivered and set in place, leveled and secured by the Contractor furnishing the equipment. Such delivery shall be to the location where it is to be installed by the Contractor for Electrical Work.
 8. CONTROL AND INTERLOCK WIRING
 - a. General Construction Work and Plumbing Work.
 - (1) All control wiring associated with doors and door hardware is to be furnished and installed, unless otherwise indicated, by the Contractor furnishing the doors. Power for the door operation and for its controls shall be furnished and installed by the Contractor for Electrical Work.
 - (2) All other control wiring associated with equipment furnished by either the Contractor for General Construction Work or the Contractor for Plumbing Work is to be furnished and installed by the Contractor for Electrical Work.
 - b. Contractor for Heating, Ventilating and Air Conditioning Work
 - (1) The furnishing and installing of all control devices and all control and interlock wiring for equipment furnished under the Heating, Ventilating and Air Conditioning Contract shall be

by that Contractor, including any power required for any control device.

- (2) The Contractor for Heating, Ventilating and Air Conditioning Work shall deliver to the Contractor for Electrical Work all starters and disconnect switches specified to be furnished under the Heating, Ventilating and Air Conditioning Contract. The Contractor for Electrical Work is to install the starters and disconnect switches, and furnish and install all power wiring and make connections between the starter, disconnect switch and motor or equipment being served. The motor or equipment is to be mounted by the Contractor furnishing the motor.

9. **INSTALLATION OF BURNER** - The Contractor who furnishes and installs the gas/oil-fired boiler/furnace shall also include as part of its Contract, the work of furnishing, installing and connecting all equipment, controls with necessary conduits and wiring, to a service point provided by the Contractor for Electrical Work. Unless detailed otherwise in the Specific Requirements, the Contractor for Electrical Work shall furnish power from the power source to a junction box furnished and installed by the Contractor for the Electrical Work and located near the boiler/furnace control panel. The Contractor for Electrical Work shall also furnish and install an empty conduit and a junction box to be located at a remote location (outside of the boiler/furnace room) for an emergency shut-off switch. The shut-off switch and all other conduit and wire shall be furnished and installed by the Contractor furnishing the boiler/furnace.

K. **WORK BY CONTRACTOR FOR ELECTRICAL WORK** - The Contractor for Electrical Work shall perform the following work:

1. **PANELETTE** - The Contractor for Electrical Work shall furnish and install a four (4) circuit panelette in each mechanical equipment room.
2. **STARTERS AND DISCONNECT SWITCHES** - The associated disconnect switches and starters approved by the Department of Design and Construction which require mounting or wiring apart from a main equipment unit shall be delivered, prewired, to the Contractor for Electrical Work at the site of the project, who shall install and wire them. The electrical Contractor shall acknowledge acceptance in writing to the Contractor supplying them, and thereafter assume responsibility for their safe keeping until final acceptance of its work by the City.
3. **CONTROL DEVICES** - The Contractor for Electrical Work shall install conduit, wire, and make all connections for all interlock and control devices furnished under the Plumbing Work Contract and also all control and interlock devices furnished under the General Construction Work Contract, except for door control wiring. The various control and interlock devices, furnished (prewired) by the Contractors for Plumbing and General Construction Work Contractors, shall be installed and final connections made by the Contractor for Electrical Work.
4. **DOOR CONTROL WIRING** - Unless specifically detailed otherwise in the Contract Documents for Electrical Work, all door control and interlock devices are to be furnished and installed and wired by the Contractor furnishing the required control and interlock devices.
5. **TESTS** - The Contractor supplying the equipment, together with the Contractor for Electrical Work shall cooperate in making preliminary tests to establish the correctness of the installation. If a faulty operation of the unit is discovered, the Contractor whose work is the cause shall, without delay, remedy the trouble.

L. **PAINTING**

1. Ingredients and methods of application shall conform to that as required for similar work under the Contract for General Construction Work.
2. **ALL METAL CABINETS** - including switchboards, panelboards, boxes (pull, junction and outlet), trims, doors and covers shall be painted as follows:

All surfaces inside and outside, one (1) approved coat of primer. All accessible surfaces one (1) coat of approved paint inside and outside, in the field after installation.

3. HANGERS, CONDUITS AND FITTINGS – The Contractor who installs them shall give one (1) field applied, approved coat primer, followed by a second coat.
4. FINAL COAT--A final or third coat of paint, as directed, shall be applied by the Contractor installing them when the wall surfaces on which they are supported or the ceiling from which they are hung are not painted by the Contractor for General Construction Work. Pull boxes shall be neatly and legibly stenciled to show service.
5. PAINTING OF MOTORIZED EQUIPMENT - The Contractor furnishing electrically driven equipment shall paint motors and driven equipment, starters and controllers and other equipment provided by the Contractor. The Contractor shall provide any painting or finishing that may be required in the Specifications. For certain equipment having special corrosion resistant factory finishes, painting may be waived by special permission. Equipment shall be neatly stenciled, with legible characters to indicate service by the Contractor who supplies the equipment.
6. NAME PLATES - shall be left clean of all paint.

PART D - ELECTRICAL CONDUIT SYSTEM INCLUDING BOXES (PULL, JUNCTION AND OUTLET) - (REFER TO THE ADDENDUM TO THE GENERAL CONDITIONS FOR THE APPLICABILITY OF THIS ARTICLE)

SCOPE - This Section sets forth the requirements applying to any Contract requiring the installation of electrical conduits, boxes or fittings. Rigid steel conduit shall be used through out, unless specifically indicated otherwise. TYPES-where the word 'conduit', without a modifier such as, rigid steel, EMT, etc., is specified to be used, it shall be interpreted to mean, rigid steel, heavy wall, threaded conduit.

A. CONDUIT TYPES

1. RIGID STEEL CONDUIT - shall be interpreted to mean rigid steel, heavy wall conduit that is hot dipped galvanized inside and outside. The conduit shall meet the requirements of the latest edition, as amended, of the "Standard for Rigid Steel Conduit" of the Underwriters' Laboratories, Inc. Unless otherwise specified in the Specifications or indicated on the Contract Drawings, rigid steel conduit shall be used for all exposed work, for all underground conduits in contact with earth and for fire alarm systems as required by the Building Code. Rigid steel conduit shall be used for all underground conduits in contact with earth, for Fire Alarm Systems and as required by authorities having jurisdiction.
2. ELECTRICAL METALLIC TUBING (EMT) - shall be industry standard thin wall conduit of galvanized steel only. All elbows, bends, couplings and similar fittings which constitute a part of the conduit system shall be specifically designed for use with electric metallic tubing. Couplings and terminating fittings shall be of the pressure type as approved by the Commissioner. Set screw fittings will not be acceptable. EMT shall meet the requirements of the latest edition, as amended, of the "Standard for Electrical Metallic Tubing of the Underwriters Laboratories Inc." EMT may only be used where specifically indicated. In no case will EMT be permitted in spaces other than hung ceilings and dry wall partitions.
3. FLEXIBLE METALLIC - For final connections to motors and motorized equipment, not more than a 4' - 0" length of flexible conduit may be used; for watertight installations, this conduit shall be of a watertight type, attached with watertight glands or fittings, for final connections from outlet box to recessed lighting fixtures and in locations only where specifically permitted by the Specifications or Contract Drawings.

B. INSTALLATIONS AND APPLICATIONS

1. Unless otherwise specified or indicated on the Contract Drawings, conduit runs shall be installed

concealed in finished spaces.

2. **CONDUIT SIZES** - The sizes of conduit shall be as indicated on the Contract Drawings. Wherever conduit sizes are not indicated, the conduit shall meet the requirements of the NYCEC to accommodate the conductors to be installed therein.
3. Conduits shall be reamed smooth after cutting. No running threads will be permitted. Universal type couplings shall be used where required. Conduit joints shall be screwed up to butt. Empty conduits after installation shall have all open ends temporarily plugged to prevent the entrance of water or other foreign matter.
4. Conduits being installed in concrete or masonry shall be securely held in place by the Contractor installing them during pouring and construction operations. A group of conduits terminating together shall be held in place by a template.
5. **UNDERGROUND STEEL CONDUITS** - Unless otherwise specified, all underground steel conduits in contact with earth shall be encased by the Contractor who installs them, in a covering of not less than two (2) inches of an approved concrete mixture. Concrete mix shall be one (1) part cement to four and one-half (4 ½) parts of fine and coarse aggregate.
6. **EXCAVATION RESTORATION PERMITS** - The Contractor installing underground conduits, duct banks or manholes shall perform, as part of its Contract, the work of cutting pavement, excavation shoring, keeping trenches or holes pumped dry, backfilling, restoration of surfaces to original condition and removal of excess earth and rubbish from premises. During the work, the Contractor shall provide adequate crossovers, protective barriers, lamps, flags, etc., to safeguard traffic and the public. When the work is in a public highway or street, the Contractor shall secure and pay for all necessary permits and inspection fees and pay the cost of repaving.
7. **EXPOSED CONDUIT SUPPORTS** - Exposed conduit shall be supported by zinc coated hangers with necessary inserts, beam clamps of approved design or attached to walls or ceilings by expansion bolts. Exposed conduits shall be supported or fastened at intervals not more than five (5) feet.
8. Exposed conduit shall be installed parallel or at right angles to ceiling, walls and partitions. Where direction changes of exposed conduit cannot be made with neat bends, such as required around beams or columns, conduit type fitting shall be used.
9. The conduit shall be installed with an approved expansion joint:
 - a. Wherever the conduit crosses a building expansion joint (each Contractor will be held responsible for determining where the building expansion joints are located).
 - b. Every 200 feet, when in straight runs of 200 feet or longer.
10. Conduit may only enter and leave a floating slab in the vertical direction, and then only in an approved manner. Horizontal entries into floating slabs are not permitted.
11. Conduit installed in pipe shafts shall be properly supported to carry the total weight of the raceway system complete with cable. In addition at least one (1) horizontal brace per 10 ft. section shall be provided to assure stability of the raceway system.
12. **BUSHINGS AND LOCKNUTS** - Approved bushings and locknuts shall be used wherever conduits enter outlet boxes, switch boxes, pull boxes, panel board cabinets, etc. For conduits one (1) inch in diameter or larger, insulating bushings to be O.Z. or approved equal.
13. **CONDUIT BENDS** - shall be made without kinking conduit or appreciably reducing the internal diameter. All bends in conduit of two (2) inch in diameter or larger shall be made with a hydraulic or power pipe bender. The radius of the inner edge of any bend shall not be less than six (6)

times the internal diameter of the conduit where rubber covered conductors are to be installed. And not less than 10 times the internal diameter of the conduit where lead covered conductors are to be used. Long gradual sweeps will be required, rather than sharp bends, when changes of direction are necessary.

14. EMPTY CONDUITS

- a. TESTS - All conduits and ducts required to be installed and left empty shall be tested for clear bore and correct installation by the Contractor who installed them using a ball mandrel and a brush and snake before the installation will be accepted. The ball shall be of lignum vitae turned to approximately 85% of the internal diameter of the raceway to be tested. Two (2) short wire brushes shall be included in the mandrel assembly. Snaking of conduits, ducts, etc., shall be performed by the Contractor in the presence of the Electrical Inspector. Any conduits or ducts which reject the mandrel shall be cleared at once with the Contractor bearing all costs, such as chopping concrete, to replace the defective conduit and restore the surface to its original condition.
- b. TAGS - Numbers or letters shall be assigned to the various conduit runs, and as they test clear they shall be identified by a fiber tag not less than 1-¼ inch width, attached by means of a nylon cord. All conduit terminations in panel, splice or pull boxes as well as those out of the floor or ceiling shall be tagged.
- c. TEST RECORDS - As the conduit runs clear, a record shall be kept under the heading of "Empty Conduit Tested, Left Clear, Tagged and Capped" showing conduit designation, diameter, location, date tested and by whom. When complete, this record shall be signed by the Electrical Inspector and submitted in triplicate for approval. This record shall be entered on the Record drawings, which are required under "General Conditions Governing All Contracts."
- d. CAPPING - All empty conduit and duct openings, after test, shall be capped or plugged by the Contractor as directed.
- e. DRAG LINES - A drag line shall be left in all empty conduit.

C. BOXES

1. The Contractor shall furnish and erect all pull boxes indicated on the plans or where required. Sides, top and bottom of pull boxes shall be zinc coated and shall be built of No. 12 USSG steel reinforced at corners by substantial angle irons and riveted or welded to plates. Bottom or side of pull boxes shall be removable and held in place by corrosion resistant machine screws. Pull boxes in damp locations shall have threaded hubs and gaskets. All pull boxes shall be suspended from ceiling or walls in the most substantial manner.
2. For large boxes, sufficient suitable porcelain clamp insulators or other approved devices shall be provided in the pull boxes for supporting the cables passing through the box so that the cables will not be unsupported for a distance greater than three (3) feet and so as to permit a neat and orderly arrangement of the cables.
3. For pull boxes having the largest side more than nine (9) square feet in area, special rectangular and diagonal angle-iron bracing will be required as approved.
4. Pull boxes of special or odd shapes are required to be installed by the Contractor, even though not shown on plans, where necessary to overcome interference or to facilitate the pulling of conductors in conduits.
5. In centering outlets, the Contractor is cautioned to allow for overhead pipes, ducts and other obstructions, and for variations in arrangement and thickness of fireproofing, soundproofing and plastering. Precautions should be exercised regarding the location of window and door trims,

paneling, etc. Mistakes resulting from failure to observe these precautions, must be corrected by the Contractor without cost to the City. Outlets in hung ceilings shall be supported from the black iron or structure.

6. The exact location of all outlets in finished rooms shall be as directed. When the interior finish has been applied, the Contractor shall make any necessary adjustment of its work to properly center the outlets. All outlet boxes for local switches near doors shall be located at the strike side of doors as finally hung, whether so indicated on the drawings or not.
7. Exposed wall outlet boxes shall be erected neatly and tight against the walls and securely anchored to same.
8. All wall outlets of each type shall be set accurately at the same level on each floor, except where otherwise specified or directed. Where special conditions occur, outlets shall be located as directed.
9. MOUNTING HEIGHTS - The following heights are standard heights and are subject to correction due to coordination with Contract Drawings. All such changes must be approved by the Resident Engineer. Heights given are from finished floor to center line of outlet or device on wall or partition, unless otherwise indicated.

a. General Convenience Outlets (mount vertical)	1'-6"
b. Clock Outlets	8'-6" or 1'-6" below ceiling
c. Wall Lighting Switches	4'-0"
d. Motor Controllers	5'-0"
e. Motor Push-button	4'-2"
f. Telephone Outlets	As Directed
g. Fire Alarm Bells	8'-6" or 1'-6" below ceiling
h. Fire Alarm Stations	4'-0"
i. Intercom Outlet	1'-6"
j. Cooking and Refrigerator Unit	As Directed
10. Outlet boxes shall be of approved design and construction; of form and dimensions suited and adapted to its specific location; the kind of fixture to be used and the number and arrangements of conduits, etc., connecting therewith. All ferrous outlet boxes shall meet the requirements for zinc coating as specified under Electrical Conduit Systems.
11. There shall be knockouts opened only for the insertion of conduit. Any outlet boxes with more openings than are necessary for conduit insertion, shall be sealed by the Contractor without additional charge.
12. All outlet boxes and junction boxes for exposed work shall be galvanized cast iron or cast aluminum with threaded openings. Outlet boxes for exposed inside work in damp locations shall be galvanized cast iron or cast aluminum with threaded hubs and neoprene gaskets.
13. Junction boxes shall not be less than 4 11/16" square and shall be equipped with zinc coated plates. Where plates are exposed they shall be finished to match the room decor.
14. FIXTURE SUPPORTS - Outlet boxes supporting lighting fixtures shall be equipped with fixture studs held by approved galvanized stove bolts or integral with the box. Cast iron or malleable boxes shall have four (4) tapped holes for mounting required cover or fixtures.
15. Outlet boxes exposed to the weather or indicated W.P., shall be cast iron or cast aluminum and the covers made watertight with neoprene gaskets. The boxes shall have external lugs for mounting. Drilling of the body of the fitting for mounting will not be permitted. The cover screws shall be appropriate in size, noncorrodible and not less than four (4) in number for each box opening.

PART E - ELECTRICAL WIRING DEVICES (REFER TO THE ADDENDUM TO THE GENERAL CONDITIONS FOR THE APPLICABILITY OF THIS ARTICLE)

- A. WALL SWITCHES shall be of the best specification grade, quiet type, and shall have a rating of 20 Amperes at 277 volts, as manufactured by Bryant, Hubbell or approved equal. The mechanism shall be equipped with arc snuffers. They shall be of the tumbler type, single pole. Switches of the 3-way type shall have a similar rating.
- B. RECEPTACLES
1. CONVENIENCE OUTLETS - shall be of the best specification grade, duplex, two-pole, 3-wire, 15 Amperes at 125 volts. It shall have a grounding pole that shall be grounded to the conduit system. Receptacles shall be capable of both back and side wiring and shall have only one (1) grounding screw. Receptacles shall be Hubbell Cat. #5262 or approved equal.
 2. HEAVY DUTY RECEPTACLE OUTLETS - shall have the Ampere rating and the number of poles specified on the Contract Drawings and shall be Hubbell, Russell-Stoll, Bryant, AH & H or approved equal. Each outlet shall have a grounding pole, which shall be grounded to the conduit system.
 3. FLOOR RECEPTACLES - shall be Russell & Stoll #3040 or approved equal, to fit into floor box previously specified.
 4. NAMEPLATES - are required for all receptacles other than 120V.
- C. CLOCK HANGERS - Clock outlets for surface type clocks shall be equipped with a supporting hook and recessed faceplate to conceal the electrical cord.
- D. WATERTIGHT DEVICES - For installations exposed to weather or in damp locations, the devices shall be in a gasketed, cast iron enclosure.
- E. PLATES
1. Every convenience outlet and switch outlet shall be covered by means of a stainless steel No. 302 - 0.4" antimagnetic plate with an approved finish, unless provided otherwise in the detailed Specifications.
 2. Where two (2) or three (3) switches are grouped together a single faceplate shall be used. Where more than three (3) switches are located at one (1) point, the faceplates may be made up in multiple units.

PART F - ELECTRICAL CONDUCTORS AND TERMINATIONS (REFER TO THE ADDENDUM TO THE GENERAL CONDITIONS FOR THE APPLICABILITY OF THIS ARTICLE)

- A. CONDUCTORS FOR LIGHT AND POWER - All wire and cable shall be of annealed copper of 98% conductivity. Aluminum wire or cable will not be permitted. The insulation shall be flame retardant, moisture and heat resistant, thermoplastic, type THW or THWN rated for 600 volts at 75 degrees C. for both wet and dry locations. Wires No. 8 or larger shall be stranded. Wires and cables shall also be subject to the requirements of the NYCEC. Cables for incoming service or wire in conduits contiguous with the earth or in concrete or other damp or wet locations shall be synthetic rubber insulated with neoprene jacket, heat and moisture resistant and shall be equal to UL Type USE and rated for 600 volts at 75 degrees C. for both wet and dry locations.
- B. FIXTURE WIRE - Lighting fixtures shall be wired with No. 14 gauge wire designated as AWM and rated at 105 degrees C.
- C. OTHER TYPES - Cables and wires for interior communication systems are described in detailed

Specifications of applicable Contracts.

- D. MINIMUM SIZE - Conductors smaller than No. 12 AWG shall not be used for light or power.
- E. COLOR CODE - Wires shall have a phase color code, and multiple conductor cables shall be color coded.
- F. CABLE DATA - The Contractor shall submit for approval the following information for each size and type of cable to be furnished.
 - 1. Manufacture of Cable - Location of Plant.
 - 2. Minimum insulation resistance at standard test temperature.
 - 3. Days required for delivery to site of work after order to proceed with manufacture.
- G. ORIGINAL REELS - Cable and wire shall be delivered to the site of the work on original sealed factory reels.
- H. TESTS
 - 1. NOTIFICATION OF TEST - No cable shall be released for shipment from the mill unless authorized by the Commissioner. The Contractor shall give the Commissioner at least 10 days notice when the cable will be available for testing at the mill. The Contractor's representative or inspector shall have access during working hours to all parts of the plant where the cable is being manufactured, and all reasonable inspection and testing facilities shall be afforded to the Contractor without increase in price to the City. The Inspector shall witness the complete test of cable and receive a copy of all test data.
 - 2. TEST DATA - The Contractor shall forward to the Commissioner six (6) copies of all test data for approval before accepting shipment of the cable.
 - 3. INSPECTION DURING MANUFACTURE - The Commissioner reserves the right to dispatch a representative to the factory at any time during the period of manufacture of the cable for the purpose of expediting or checking progress. The living and traveling expenses of the City Engineers making these inspections and witness tests will be borne by the City of New York.
 - 4. TEST IN CITY LABORATORY - Sufficient additional length of conductor shall be provided on each reel, so that a six (6) foot sample may be removed for testing in the City's Laboratories. This sample shall be cut from the reel in the presence of the Inspector of the Department of Design and Construction and cut in two (2) three-foot lengths, each piece to be tagged showing reel number, size and type, manufacture, date, name or project & Contract number. Samples shall be handed to the Inspector for transmittal. If it is found as the result of test that the cable does not comply with the approved factory test the Contractor will be ordered to remove all cable which came off the reel and has been installed, and to replace the defective cable not used, without cost to the City. The Contractor will be held responsible for any delays in the construction program caused by the defective cable.
 - 5. FINAL FIELD TEST - After conductors are installed and connected, the City will test the work for overall insulation resistance. The Contractor shall furnish all test equipment necessary. To be acceptable, the test shall meet the requirements set forth in the NYCEC.
- I. WIRE INSTALLATION
 - 1. INSTALL WIRES AFTER PLASTERING - Feeder and branch circuits wiring shall not be installed in conduit before the rough plastering work is completed. No conductors shall be pulled into floor conduits before floor is poured.

2. **CONDUIT SECURED IN PLACE** - No conductor shall be pulled into any conduit run before all joints are made up tightly and the entire run rigidly secured in place.
3. **WIRE ENDS** - All wires shall be left with sufficiently long ends for proper connection and stowing.
4. **PULLING COMPOUNDS** - When required to ease the pulling-in of wires into conduit, only approved compounds as recommended by cable manufacturers shall be used.
5. **PRESSURE CONNECTORS** - for wires shall be of the cast copper or forged copper pressure plate type. Connectors shall be O.Z., Burndy, National Electric Products or approved equal.
6. **Splices and feeder taps in the gutters of panel boxes** shall be made by means of pressure plate type connectors encased in composition covers as manufactured by O.Z., Burndy, National Electric Products or approved equal.
7. **Splices in branch wiring for sound systems and fire systems**, shall be first made mechanically secure, then soldered and taped.
8. **In lieu of soldered splices (except for sound and Fire Systems, which must have soldered splices)** the following alternates are acceptable for operating temperatures up to 105 degrees C., for fluorescent fixtures and for the splicing of branch circuit wiring up to No. 8 AWG wire:
 - a. **Mechanical splices made with mechanical connectors** as manufactured by the Minnesota Manufacturing Company "Scotchlock" or approved equal. Mechanical connectors requiring a special tool (pressure connectors, insulators and locking rings) by Buchanan or approved equal. The tool used for connector application shall be as approved by the connector manufacturer.
 - b. **For wire and cable No. 6 AWG and larger for branch circuit wiring** the seamless tubular connector will only be accepted. Application of this connector shall be with a tool recommended by the connector manufacturer.
9. **TAGS** - All feeders and risers shall be tagged at both ends, and in all pull and junction boxes and gutter spaces through which they pass. Such tags shall be of fiber and have the feeder designation and size stamped thereon.

10. BRANCH CIRCUIT WIRING

- a. **The Contractor installing branch circuit wiring** shall test the work for correct connections and leave all loop splices in the fixture outlet boxes properly spliced and taped. The Contractor shall provide wire ends long enough for convenient connection to device.
- b. **NEUTRALS** - No common neutrals shall be used except for lighting branch circuits. Each neutral wire shall be terminated separately on a neutral busbar in the panelboard. No common neutrals will be permitted for convenience receptacle branch circuits.

J. TERMINATIONS

1. **LUGS** - All lugs for all devices and all cable terminations shall be copper. AL/CU rated lugs will not be permitted. The only exception to this requirement is when the particular device is not manufactured with copper lugs by any manufacture. Lugs for No. 6 AWG cable and larger shall be cast copper or forged copper pressure plate type. Lugs for 1/0 and larger shall be fastened with two (2) bolts.
2. **All lugs shall be of the proper size to accept the cable connected to them.** Any Contractor furnishing a device containing lugs is to coordinate with the Electrical Work Contract Documents to insure that the device terminations are adequate for the wire or cable (whose size may be larger than expected due to voltage drop considerations) connected to the device. This requirement

applies to both the Contractor for Electrical Work whose branch circuit protector must have lugs of the proper size, as well as to the Contractor who furnishes the device who may have to increase the size of that particular device.

PART G - CIRCUIT PROTECTIVE DEVICES (REFER TO THE ADDENDUM TO THE GENERAL CONDITIONS FOR THE APPLICABILITY OF THIS ARTICLE)

SCOPE - This Section sets forth the circuit protective devices such as circuit breakers and safety switches, used in connection with Motor Control Equipment, Distribution Centers, Panelboards and Service Entrance.

A. CIRCUIT BREAKERS

1. CIRCUIT BREAKERS shall be operable in any position and shall be of the quick-make, quick-break type on manual operation. The handle shall be trip free, preventing contacts from being held in closed position against abnormal overloads or short circuits. Positive visual indication of automatic tripped position of breaker shall be provided, in addition to the "On" and "Off" indication. All circuit breakers shall be of the bolted type.
2. TRIP RATING - Circuit breakers shall be provided with the required number of trip elements, calibrated at 40 degrees C., ambient temperature, in accordance with wire sizes or motor currents as shown on Contract Drawings or indicated in the Specifications.
3. POLE BARRIERS - Multipole pole breakers shall be designed to break all poles simultaneously. They shall be provided with barriers between poles and arc suppressing devices.
4. ELEMENTS - Multipole circuit breakers shall have frames of not less than a 100 Ampere rating. Multipole circuit breakers for 480 volts AC operation shall have an NEMA interrupting rating of 18,000 Amperes, unless a higher rating is specified in the Specific Requirements or indicated on the Contract Drawings.
5. For circuit breakers with frame size up to and including 225 Amperes, the breakers may be provided with non-interchangeable trip elements. For frame ratings above 225 Amperes, the breakers shall be provided with interchangeable trip elements, which can be replaced readily.
6. The trip rating of all circuit breakers shall not exceed 70% of frame rating.
7. Single pole circuit breakers for branch circuits shall have a frame size of no less than 100 Amperes, and shall be rated at 125 volt A.C. with a NEMA interrupting rating of 10,000 Amperes, unless a higher rating is specified in the Specific Requirements or indicated on the Contract Drawings.
8. INVERSE TIME ACTION - The circuit breakers shall be dual element type, one (1) element with time limit characteristics, so that tripping will be prevented on momentary overloads, but will occur before dangerous values are reached, the other with instantaneous trip action. Inverse time delay action shall be effective between a minimum tripping point of 125% of rating of breaker and an instantaneous tripping point between 600% and 700% of rated current.
9. CONSTANCY OF CALIBRATION - The tripping elements shall insure constant calibration and be capable of withstanding excessive short circuit conditions without injury.
10. CONTACTS shall be non-welding under operating conditions and of the silver to silver type.
11. TEMPERATURE RISE - Current carrying parts, except thermal elements shall not rise in temperature in excess of 30 degrees C. while carrying rated current at rated frequency.
12. NUMBERING - Each circuit breaker shall be distinctly numbered when installed in a group with other breakers. The calibration of trip element shall be indicated on each breaker.

B. SAFETY SWITCHES

NEMA TYPE HD - When safety switches are permitted to be used for service entrance, motor disconnecting means or to control other types of electrical equipment, they shall be of the type HD of a rating not less than 30 Amperes. Enclosures shall be provided with means for locking. For ratings above 60 Amperes terminals shall have double studs.

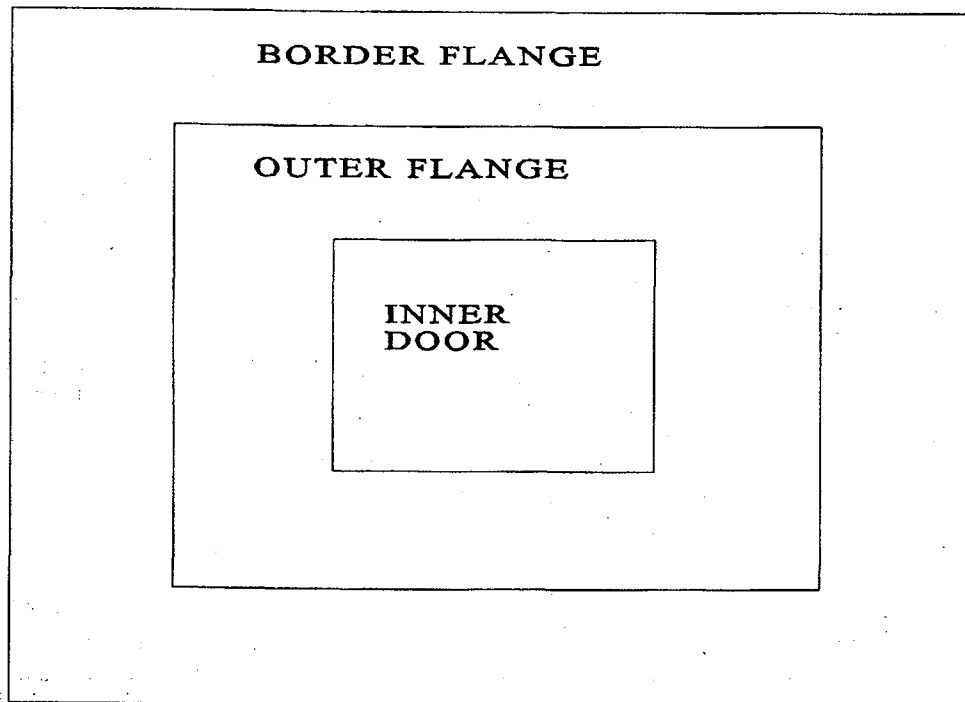
PART H - DISTRIBUTION CENTERS (REFER TO THE ADDENDUM TO THE GENERAL CONDITIONS FOR THE APPLICABILITY OF THIS ARTICLE)

SCOPE - This Section sets forth the construction and installation procedure for Switchboards, Panelboards and Cabinets.

- A. PANELBOARDS--GENERAL TYPE** - The panelboards shall be of the automatic circuit breaker type with individual breakers for each circuit, removable without disturbing the other units. Circuit breakers shall be in accordance with the requirements outlined under "Circuit Protective Devices."
- B. NUMBER AND RATING OF CIRCUIT BREAKERS** - The Contract Drawings show a layout of each panel, giving the number, frame, size and trip setting of circuit breakers and number of branch circuits and spare breakers. Each branch circuit shall be distinctly numbered.
- C. BUS-BAR CONSTRUCTION AND SUPPORT** - Panel Boards shall be of the deadfront type and shall have bus bars and branch circuits designed to suit the system and voltage. Current carrying parts, exclusive of circuit breakers shall be copper and based on a maximum density of 1,000 Amperes per square inch. Bus bars for the main switchboard shall be designed for the frame rating of the Service Breaker. Bus bars shall run up the center of the panel, unless otherwise indicated, and shall have connected thereto the various branch circuits. Unless otherwise specified, bus bars for each panelboard shall be equipped with main lugs only and capacity as required on Contract Drawings. Where main protection is required, automatic circuit breakers shall be used. A neutral bus of at least the same capacity as a live bus bar shall be provided for the connection of all neutral conductors. Each terminal shall be identified. All current carrying parts, exclusive of circuit breakers, shall be of copper with a minimum number of joints. The bus bar structure shall be a self supporting unit, firmly fastened to a 1/2 inch plastic board, extending the full length and width of assembly which shall serve to insulate the bus structure from the back of panel box. Other methods affording equally effective bus structure support and insulation will be given consideration. An insulating barrier shall separate neutral bus from other parts of panel.
- D. CIRCUIT BREAKER ASSEMBLY** - The entire circuit breaker and bus bar assembly shall be mounted on an adjustable metal base or pan and secured to the back of panel box. The panel shall have edges flanged for rigidity.
- E. PANEL MOUNTING** - The panel shall be centered in the panel box to line up with door openings and set level and plumb so that no live parts are exposed with the door open.
- F. PANEL CABINET CONSTRUCTION AND SUPPORT**
1. Panel boxes shall be fabricated from No. 12 USSG sheet steel of no more than three-piece construction, reinforced at the corners and with continuous welds. Boxes having a back whose area is larger than 16 square feet, shall be of No. 10 USSG sheet steel and reinforced to provide ample stiffness and to prevent buckling. Boxes shall be of sufficient size to afford a clear gutter space on all sides, of not less than six (6) inches.
 2. **PANEL CABINET INSTALLATION** - When installed surface, or in panel closets, they shall be mounted on Kindorf channel, supported from floor slab to ceiling slab.
 3. Where cabinets cannot be set entirely flush due to shallow walls or partitions or where cabinet is extra deep, the protruding sides of cabinet shall be trimmed with a metal or hardwood return

molding of approved design and fastened to cabinet so as to conceal the intersection between the wall and cabinet.

- G. **CABINET TRIM** - Trim for both lighting and power panelboards shall be door-in-door type installation as depicted in **DETAIL A TRIM FOR LIGHTING AND POWER PANELBOARDS**. Construction details are to be as described in the following paragraphs.



DETAIL A TRIM FOR LIGHTING AND POWER PANELBOARD

1. **CABINET TRIM** - The trim and doors for lighting and power panels shall be made of No. 12 USSG full finish sheet steel in one (1) piece. Cabinet trim larger than 16 square feet shall be made of No. 10 USSG. The inner door shall cover the circuit breaker section only and be provided with appropriate brass hinges. The outer door shall cover the entire gutter space and shall be attached to the border type flange with appropriate hinges. Both doors for power panels shall be provided with a New York City Lock No. 511S, with key change to No. 47 and two (2) keys. For lighting panels, the inner door shall be provided with a substantial catch. All hinges shall be of the concealed type. Locks shall be flush with trim. In addition, for panels requiring doors over 48 inches in height, furnish a vault handle and a 3-point catch arranged to fasten door at top, bottom and center.
2. The door shall close against a flange or rabbet to afford a dust tight fit. All space between the panel and the cabinet trim shall be closed by means of a sectional plate secured to the trim.
3. The border flange of the trim shall be fastened to the box with oval head screws finished to prevent corrosion or with approved trim clamps.
4. To facilitate installation of trim, a suitable angle iron shall be spot welded across the bottom of each trim to carry the weight of the trim while the holding screws are being put in place.

- H. **MOTOR CONTROL CENTERS** - Motor centers shall be furnished by the Contractor as indicated in the Specifications or Contract Drawings, but shall be installed by the Contractor for Electrical Work.

NAMEPLATES - Nameplates where required, shall be made of engraved Lamicoid sheet, or approved

equal. Letters and numbers shall be engraved white on a black background (except for Firehouse projects which shall have white letters on a red background) the Contractor shall submit an engraved sample for approval as to design and style of lettering before proceeding with the manufacture of the nameplate. Nameplates shall be of suitable size and shall also be provided at the top of the switchboard or section thereof and on the trim at the top of all lighting and power panels. Similar nameplates shall also be provided for each distribution circuit breaker giving the breaker number, the number of the feeder, and the name of the equipment fed.

- J. SHOP DRAWINGS - showing all details of boxes, panels, etc., shall be submitted for approval.
- K. DIRECTORIES - A directory shall be fastened with brass screws and consist of a noncorrosive metal frame with dimensions not less than five (5) inches x eight (8) inches and a transparent window of Plasticile, Plexiglass, Lucite or approved equal that is not less than 1/16 inch thick over cardboard or heavy paper. The directory shall be typewritten and show the number of each circuit, the name of circuit and lighting or equipment supplied. The size of riser feeder shall be as indicated on directory. The dimensions of directory shall be submitted for approval for each size of panel.
- L. CONSTRUCTION
 - 1. FINISH - Panel boxes, doors and trim for installation in dry locations, shall be zinc coated after fabrication by the hot-dip galvanizing or electroplate process on inside and outside surfaces. In damp locations, panelboards shall be enclosed and gasketed NEMA 3R type. Panelboards located outdoors or exposed to the weather shall be cast iron.
 - 2. PAINTING - Panel boxes, doors and trim shall receive a coat of approved priming paint and a second coat of approved paint in the field after installation. Paint shall be applied to the inside and outside of boxes and on both sides of trim. Panel trims and doors shall receive a third or finishing coat on the outside after installation. Approval as to texture and color must be obtained before the final coat is applied. All of the aforementioned painting is to be done by the Contractor who furnishes the boxes and trim. Where panel trims or boxes are installed on walls which are to be painted, the previously mentioned third or finishing coat of paint shall be included in the work of the Contractor who has the Contract for general interior painting.

PART I - MOTORS (REFER TO THE ADDENDUM TO THE GENERAL CONDITIONS FOR THE APPLICABILITY OF THIS ARTICLE)

SCOPE - This Section sets forth the general design, construction and performance requirements, which shall apply to all motors furnished in any of the Contracts.

- A. MOTOR DESIGN - All motors shall be designed to comply with the New York State Energy Code currently in effect. Motors shall have standard NEMA frames and shall have nameplate ratings adequate to meet the specified conditions of operation. Motor performance under variable conditions of voltage and frequency shall be within the limits set in NEMA standards, unless modified in present Specifications. Motors shall be expressly designed for the hazard duty load, voltage and frequency as specified in the Contract. All motor windings shall be copper. All motors intended to operate on a 208 volt system shall be designed and rated for 200 volts.
- B. MOTORS OF SAME MANUFACTURER - Unless expressly permitted otherwise by the Commissioner, all motors under the same Contract shall be manufactured by the same company. Exceptions may be granted in the case of motors of 1/4 horsepower rating and smaller, or for a motor that is an integral part of the equipment, with its housing especially built for this purpose.
- C. STANDARDS OF COMPARISON - In general, the best standard products of the leading motor manufacturers shall be considered as a standard for comparison. The requirements of the NEMA standards for motors and generators shall be deemed to contain the minimum requirements of performance and design.
- D. OBJECTIONABLE NOISES - Objectionable noises will not be tolerated and exceptionally quiet motors

may be required for certain specified locations. Noise control tests as per the Building Code of the City of New York may be performed as directed by the Commissioner. Such motors shall bear a nameplate lettered "Quiet Motor." Springs and slip rings shall be of approved non-ferrous material.

BEARINGS

1. Bearings, unless specified otherwise, shall be of the ball or roller type. Motors one (1) horsepower and larger that are equipped with ball roller bearings shall also have lubrication of the pressure-relief greasing type. Each Contractor who furnishes four (4) or more such motors shall also furnish, as part of its Contract, a pressure grease gun of rugged design, of approximately 10 ounce capacity, complete with necessary adapters. The Contractor shall also provide 10 pounds of approved gun grease.
2. For any particular unit where sleeve bearings are deemed desirable, permission for their use may be granted by the Commissioner. Motors one (1) horsepower and larger that are equipped with sleeve type bearings shall in addition to having protected accessible fittings for oiling be provided with visible means for determining normal oil level. Lubrication shall be positive, automatic and continuous.

F. **MOTOR TERMINALS AND BOXES** - Each motor shall be furnished with flexible leads of sufficient length to extend for a distance of not less than three (3) inches beyond the face of the conduit terminal box. This box shall be furnished of ample size to make and house motor connections. These requirements shall be met irrespective of any other standards or practices. Size of cable terminals and conduit terminal box holes shall be subject to approval. For motors five (5) horsepower or larger, each terminal shall come with two (2) cast or forged copper pressure type connectors with bolts, nuts and washers. For motors of smaller ratings, connectors of other acceptable types may be furnished. For installations exposed to the weather or moist locations, terminal boxes shall be of cast iron with threaded hubs and gasketed covers. Cover screws shall be of non-corrosive material.

G. **MOTOR TEMPERATURE RISES** - The motor nameplate temperature rises for the various types of motor enclosures shall be as listed below:

- | | |
|---|---------------|
| 1. Open Frame | 40 degrees C. |
| 2. Totally enclosed and enclosed fan cooled | 55 degrees C. |
| 3. Explosion proof and submersible | 55 degrees C. |
| 4. Partially enclosed and drip proof | 40 degrees C. |

The temperature of the various parts of a motor shall meet the requirements of NEMA standards for the size and type of the motors. Tests for heating shall be made by loading the motor to its rated horsepower and keeping it so loaded for the rated time interval or until the temperature becomes constant.

H. **SPECIAL CODE INSTALLATIONS** - Electrical installations covered by special publications of NBFU and by special City rulings and regulations shall comply in design and safety features with such applicable codes, regulations and rulings, and shall be furnished and installed complete with all accessories and safety devices as therein specified.

I. **MOTORS ON LIGHTING PANELS** - The largest A.C. motor permitted on branch circuits of lighting panels shall not exceed 1/4 horsepower.

J. **MOTORS RATED 1/2 horsepower and larger shall be polyphase.**

K. TESTS

1. **FACTORY INSPECTION** - Electrical equipment and devices (except portable) not covered by standard Specifications or tests herein prescribed shall be inspected and witnessed on test at the factory with the tested equipment being completely assembled and connected under conditions approved by the Commissioner as equivalent to the actual working conditions. Suitability and

ruggedness of the design for the specified purpose will be a condition for acceptance.

2. **SHOP TESTS** - to determine the load performance of motors shall be made in accordance with Standard C-50, of the ASA. Motors shall meet the requirements of C-50 for insulation resistance, dielectric strength, efficiency and temperature rise. Efficiency (and power factor for A.C. motors) shall be established for 50, 75 and 100 percent of rated horsepower but for motors of 100 horsepower or larger, the 125 percent loading shall be included.
3. **TEST REPORTS** - The result of shop tests shall be submitted to the Commissioner for approval and shall be on forms approved by the City. The evaluated test data shall include a signed statement confirming the fact that the equipment meets the requirements of the standards of performance.
4. **MANNER OF TEST** - For motors of 100 horsepower or smaller, check tests against complete tests of similar motors will be accepted. For motors larger than 100 horsepower, complete tests for each motor furnished shall be made, and certified test data sheets shall be submitted for approval, unless shop tests are required by the Detailed Specifications.
5. **PREFERRED METHODS** - The efficiency of fractional horsepower motors shall be determined by the input-output method; for larger motors up to and including 100 horsepower, the separate loss method as specified in ASA Standards C-50 will be accepted unless otherwise required in the Specifications.

L. **SPARE PARTS** - The Contractor who furnishes motors, including fractional horsepower, shall provide the following spare parts and accessories in connection therewith:

1. **BRUSHES** - One (1) additional set of brushes for each motor equipped with them.
2. **BEARINGS** - For each group of three (3) and fraction thereof, of each type and size of motor, the Contractor shall furnish one (1) set of extra bearing linings or ball or roller bearings. Where less than three (3) of any type of motor is involved, one (1) set of extra bearings shall be furnished.
3. **SPRINGS** - One (1) set of brush springs used in slip ring motor or universal type motors.
4. **WRAPPER MARKING** - All parts shall be delivered neatly and securely wrapped and boxed, plainly tagged and marked for identification and reordering.

PART J - MOTOR CONTROL EQUIPMENT (REFER TO THE ADDENDUM TO THE GENERAL CONDITIONS FOR THE APPLICABILITY OF THIS ARTICLE)

SCOPE - This Section sets forth the requirements for motor controllers and associated devices, which are applicable to all Contracts under which motor control equipment is furnished or installed.

- A. **MANUFACTURER** - All control equipment furnished under one (1) Contract shall be the product of a single manufacturer. Exceptions to this rule may be granted in the case of controllers for fractional horsepower motors driving special equipment, the various units of which have been engineered to obtain specific performance.
- B. **CONTROL ITEMS REQUIRED** - The Contractor who furnishes a motor shall also furnish therewith complete disconnecting, starting and control equipment as required by the detailed Specifications, the various code authorities and for the successful operation of the driven equipment. These items include circuit breaker, magnetic starter with overload protection and low voltage release or protection, push button stations, pilot lights and alarms, float, pressure, temperature and limit switches, load transfer switches, devices for manual operation and speed controllers, etc. The Contractor shall furnish as many of these items as are required for the successful operation of the driven unit.
 1. Where a motor is to be located out of sight of the controller, the Contractor who furnishes the motor shall furnish an approved disconnecting means to be mounted near motor.

C. TYPES OF STARTERS

1. SQUIRREL CAGE - A.C. motors of the squirrel cage type, rated from one (1) to 30 horsepower shall have magnetic across the line starters; motors rated above 30 horsepower shall be furnished with reduced voltage (autotransformer type) starter or part winding start with time delay to reduce inrush current. Size of starters shall be based on 200V. operation.
2. SLIP RING - A.C. Motors of the slip-ring type shall be furnished with primary across the line starters interlocked with secondary starting and regulating equipment. The interlocking feature shall prevent starting of the motor when the secondary controller is off the initial starting point.
3. MAGNETIC - For fractional horsepower motors, magnetic type starters are not required unless the particular method of controlling the driven equipment makes them necessary. Where individual single phase fractional horsepower motors or the sum of fractional horsepower motors controlled by an automatic device are $\frac{1}{2}$ horsepower or more, magnetic starters and circuit breakers shall be used. Single phase A.C. motors smaller than $\frac{1}{2}$ horsepower or three-phase A.C. motors smaller than one (1) horsepower where manual control is specified may be furnished with starters of toggle switch or push button type with inbuilt thermal protection. No additional disconnecting means is required to be furnished with this type of starter. This type of starter may also be used in series with automatic control devices such as thermostats, float and pressure switches, provided the individual motor or the sum of fractional horsepower motors is less than $\frac{1}{2}$ horsepower. Means for manual operation shall be provided.

D. DISCONNECTING BREAKER - All motor starters, unless otherwise specified shall be provided with a disconnecting means in the form of a circuit breaker of the type specified under "CIRCUIT PROTECTIVE DEVICES" of the General Conditions. This disconnecting means shall be contained in the same housing with the starter and shall be operable from outside. Means shall be provided for locking the handle of the circuit breaker in the "OFF" position if it is desired to take the equipment out of service and prevent unauthorized starting.

E. CONTROL CABINET - DRY LOCATIONS - all starters shall be furnished with general purpose, NEMA Type 1, sheet metal enclosures with hinged covers and baked enamel finish.

F. CONTROL CABINET - WATERTIGHT - In wet locations, cast iron watertight enclosures with threaded hubs, galvanized and gasketed hinged covers shall be provided.

G. 1. PANELS - Motor control devices and appliances shall be mounted on approved insulating slabs with all wiring and connections made on the back of the slabs.

2. WIRING AND TERMINALS - Wiring connections for currents of 100 Amperes or less may be made with copper wire or cable with special flameproof insulating coverings. Such wires shall be installed in a neat workmanlike manner, flat against the slab, and held in place by clips. Connections shall be made with pressure connectors for No. 8 AWG and larger wires, and with grommets for small stranded wires. Except for incoming and outgoing main leads, all connections shall terminate on approved connector blocks, which may be installed on the face of the slab. For small, across the line starters the above requirements may be modified if satisfactory connections are provided.

3. COPPER BUS - For currents exceeding 100 Amperes, copper bus shall be used in place of wires. The bus shall be constructed of copper rods, tubing or flat strap, bent and shaped properly and securely attached to the slab in a neat and workmanlike manner. The cross section of copper shall provide sufficient areas to keep current density at not more than 1,000 Amperes per square inch.

H. COOPERATION - The Contractors who furnish electrically operated equipment shall give to the Contractor for Electrical Work full information relative to sizes and locations of apparatus furnished by them which require electrical connections.

Equipment being installed by the Contractor for Electrical Work shall be delivered to the Contractor for Electrical Work by other Contractors in proper time and sequence so that the Contractor for Electrical Work shall be able to meet the Contractor for Electrical Work working schedule.

I. SPARE PARTS

1. **FURNISH** - Each Contractor shall furnish the following spare parts pertaining to equipment furnished by each Contractor.

One (1) set of contact fingers and springs and thermal elements for each three (3) (or fraction) of each size of magnetic contactor starter.

One (1) holding coil for each three (3) (or fraction) of each size of magnetic contactor starter.

2. **WRAPPER MARKING** - All parts shall be delivered to the Resident Engineer neatly wrapped and boxed and plainly tagged and marked for identification and reordering.

PART K - SCHEDULE OF ELECTRICAL EQUIPMENT

Schedule D requirements for electrical motor equipment may be included in one or more of the Specifications for the separate contracts for the Project. SCHEDULE D delineates the responsibilities of each separate contractor for electrical motor control equipment. SCHEDULE D is included in the Addendum to the General Conditions. In the event of any conflict between the Specifications and SCHEDULE D, SCHEDULE D shall take precedence; provided, however, in the event of an omission from SCHEDULE D (i.e., SCHEDULE D omits either a reference to or information concerning electrical motor equipment which is set forth in the Specifications), such omission from SCHEDULE D shall have no effect and the Contractor's obligation with respect to the electrical motor control equipment, as set forth in the Specifications, shall remain in full force and effect.

1.38 Safety

- A. Each Contractor shall provide and maintain all necessary temporary closures, guard rails, and barricades to adequately protect all workers and the public from possible injury. Any Contractor requiring removal of these items shall be responsible for the replacement of same.

1.39 Interruption of Services and of Project Facilities

- A. **EVENING AND WEEKEND WORK** - Where the work makes temporary shutdowns of the services unavoidable, they shall be made at night or on weekends or at such times that will cause no interferences with the established routines and operations of the projects in question.

1. Where weekend or evening work is required due to unavoidable service shutdowns, such work shall be performed at no extra cost to the City.

B. INTERRUPTION OF PROJECT FACILITIES

1. The Contractor shall not interrupt any of the services of the project nor interfere with these in any way without the permission of the Commissioner. Such interruption, or interferences, shall be made as brief as possible, and only at such time stated.
2. Under no circumstances will the Contractor, or its workers, be permitted to use any part of the project as a shop, without the permission of the Commissioner.
3. Unnecessary noise shall be avoided at all times and necessary noise shall be reduced to a minimum.
4. The facility operates 24 hours per day seven (7) days a week. Toilet facilities, water and electricity

must be operational at all times. No services of the project can be interrupted in any way without the permission of the Commissioner. Careful coordination of all work with the Resident Engineer must be done to maintain the operational level of the project personnel.

5. Contractors shall schedule their work to avoid noise interference that will affect the normal functions of the project. In particular, construction operations producing noises that are objectionable to the project functions will be scheduled at times of day or night, day of the week, or weekend, which will not interfere with the project personnel. Any additional cost resulting from this scheduling shall be borne by the specific Contractor.
6. The Contractor shall arrange to work continuously, including overtime, if required, to assure that services will be shut down only during the time actually required to make the necessary connections to the existing work.
7. The Contractor shall give ample written notice in advance to the Commissioner and project personnel of any required shutdown.

1.40 Separation of Work Between Trades (REFER TO THE ADDENDUM TO THE GENERAL CONDITIONS FOR THE APPLICABILITY OF THIS ARTICLE)

- A. SCHEDULE E – Requirements for various items of work are included in the Specifications for the separate contracts for the Project and in the General Conditions. Schedule E delineates the responsibilities of each separate contractor for various items of work, as well as the extent to which certain items involve coordination between trades. Schedule E is included in the Addendum to the General Conditions. The delineation set forth in Schedule E shall be taken as specific instruction to the Contractor that it is responsible for the listed items of work. Schedule E is not intended to limit the Contractor's responsibility for supervision and coordination as set forth in Paragraph B below. In the event of any conflict between the Specifications, the General Conditions and Schedule E, Schedule E shall take precedence; provided, however, in the event of an omission from Schedule E (i.e., Schedule E omits either a reference to or information concerning an item of work which is set forth in the Specifications or the General Conditions), such omission from Schedule E shall have no effect and the Contractor's obligation to perform the work, as set forth in the Specifications or the General Conditions, shall remain in full force and effect.
- B. SUPERVISION AND COORDINATION - Each Contractor is required to supply all necessary supervision and coordination information to any other trades who are to supply work to accommodate their installations.

1.41 Shop Drawing and Material Samples Schedule

- A. SCHEDULE F – Schedule F sets forth all submittal requirements for shop drawings and material samples. Schedule F is included in the Addendum to the General Conditions. At the kick-off meeting, each Contractor must review this Schedule with the Commissioner's Representative and the Consultant. Within 10 days after the kick-off meeting, the Contractor must complete information on Schedule F concerning the submission date, the required delivery date and the fabrication time. For all required submittals of shop drawings and material samples, the Schedule F provided by the Contractor must indicate a submission date which is at least 20 days prior to the date of the manufacture of the item or materials to be installed. In addition, if so directed by the Commissioner, the Schedule F provided by the Contractor must indicate a submission date for shop drawings and/or material samples of specified items or materials which is within 60 days after the kick-off meeting. In the event of any conflict between the Specifications and Schedule F, Schedule F shall take precedence; provided, however, in the event of an omission from Schedule F (i.e., Schedule F omits either a reference to or information concerning a submittal requirement which is set forth in the Specifications), such omission from Schedule F shall have no effect and the Contractor's submittal obligation, as set forth in the Specifications, shall remain in full force and effect.
- B. COORDINATION - The Resident Engineer for this project will coordinate and review the data submitted by various Contractors. Upon acceptance by the Resident Engineer, the Resident Engineer

will date and sign the schedule as approved and transmit it to the Consultant, Contractors and Project Manager within the Department of Design and Construction.

- C. ARTICLE 11 - Thereafter, this schedule will be subject to the provisions of Article 11 of the agreement and must be strictly adhered to by the Contractor.

1.42 Specific Requirements

- A. The work of this article shall be the responsibility of the Contractor for General Construction Work, unless otherwise indicated.

B. FIELD MEASUREMENTS

1. Each Contractor shall verify all dimensions and conditions on the job so that all work will properly join the existing work.
2. Each Contractor, before commencing work, shall examine all adjoining work on which each Contractor's work is in any way dependent on good workmanship in accordance to the intent of the Specification and Contract Drawings. The Contractor shall report to the Commissioner any condition that will prevent any Contractor from performing work that is below the required standard.

C. BORINGS (REFER TO THE ADDENDUM TO THE GENERAL CONDITIONS FOR THE APPLICABILITY OF THIS ARTICLE)

1. REFERENCE DRAWINGS - The Boring Drawings as listed on the title sheet are for information to the bidder and are to be used under the conditions as follows:
2. BORING LOGS - shown on the Boring Drawings, record information obtained under engineering supervision in the course of exploration carried out by or under the direction of forces of the Department of Design and Construction at the site.
3. SOIL AND ROCK SAMPLES - All inferences are drawn from the indications observed as made by engineering and scientific personnel. All such inferences and all records of the work including soil samples and rock cores, if any, are available to bidders for inspection.
4. CERTIFICATION OF SAMPLES - The City certifies that the work was carried out as stated, and that the soil samples and rock cores, if any were referred to, were actually taken from the site at the times, places and in the manner indicated. The samples are available for inspection in the Department of Design and Construction Subsurface Exploration Section.
5. BIDDER'S RESPONSIBILITY - The bidder, however, is responsible for any conclusions to be drawn from the work. If the bidder accepts those of the City, it must do so at its own risk. If the bidder prefers not to assume such risk, the bidder is under the obligation of employing its own experts to analyze the available information, and must be responsible for any consequences of acting on their conclusions.
6. CONTINUITY NOT GUARANTEE - The City does not guarantee continuity of conditions shown at actual boring locations over the entire site. Where possible, borings are located to avoid all obstructions and previous construction which can be found by inspection of the surface and the bidder is required to estimate the influence of such features from its own inspection of the site.

D. DEFERRED CONSTRUCTION

1. Where necessity for deferred construction is certified by the Commissioner, in order to permit the installation of any item or items of equipment required to be furnished and installed under any other Contract in effect concurrent with the time allowed for doing and completing the work of the Contract, the Contractor shall defer construction work limited to adequate areas as approved by

the Commissioner.

2. The Contractor shall confer with the affected Contractors and ascertain arrangements, time and facilities necessary to be made by the Contractor in order to execute the provisions specified herein.

E. WORK FENCE ENCLOSURE (REFER TO THE ADDENDUM TO THE GENERAL CONDITIONS FOR THE APPLICABILITY OF THIS ARTICLE)

1. The Contractor shall furnish and erect a wood fence to the extent shown on the drawings enclosing the entire project on all sides. All materials used shall be new. Any permit required for the installation and use of said fence shall be borne by the Contractor.
2. THE FENCE shall be 7'-0" high with framing construction of yellow pine, using 4" x 4" posts on not more than 6'-0" centers, with three (3) rails of at least 2" x 4" size to which shall be secured boards, 3/4" x 6" tongue and groove, laid solid and surface and double nailed to each bearing. Posts shall be firmly fixed in the ground at least 30" and thoroughly braced. Top edge of fence shall be trimmed with a rabbeted edge mould. Provide on the street traffic sides of fence, observation openings as directed. The Contractor has the option of using 1/2" exterior grade plywood in lieu of the 3/4" x 6" tongue and groove boards.
3. GATES - Provide an adequate number of double gates, complete with hardware, located as approved by the Resident Engineer. Double gates shall have a total clear opening of 14'-0" with two (2) 7'-0" hinged swinging sections. Hanging posts shall be 6" x 6" and shall extend high enough to receive and be provide with tension or sag rods for the swinging sections.
4. PAINTING - The fence and gates shall be entirely painted on the street and public sides with two (2) coats of approved lead and oil paint. The below-grade section of the posts shall be first creosoted or given a coat of tar base paint. Black stenciled signs reading "POST NO BILLS" shall be painted on fence with three (3) inch high letters on 25 foot spacings for the entire length of fence on street traffic sides. Signs shall be stenciled five (5) feet above the sidewalk.
5. It shall be the obligation of the Contractor to remove all posters, advertising signs, and markings, etc., immediately.
6. Where sidewalks are used for "drive over" purposes for Contractor vehicles, a suitable wood mat or pad shall be provided for protection of sidewalks.
7. Where required, make provision for fire hydrants, lampposts, etc.
8. REMOVAL - When directed by the Resident Engineer, the fence shall be removed.

F. PUMPING

1. Furnish and install all necessary automatically operated pumps of adequate capacity with all required piping to run-off agencies, so as to maintain the excavation, cellar floor, pits and exterior depressions and excavations free from accumulated water during the entire period of construction and up to the date of final acceptance of work of the Contract.
2. All pumps shall be maintained at all times in proper working order.

G. RESIDENT ENGINEER'S OFFICE

1. OFFICE SPACE IN EXISTING BUILDING (REFER TO THE ADDENDUM TO THE GENERAL CONDITIONS FOR THE APPLICABILITY OF THIS ARTICLE)
 - a. The Resident Engineer will arrange for office space for sole use in the building where work is in progress. The Contractor for General Construction Work shall provide and install a lockset

for the door to secure the equipment in the room. The Contractor for General Construction Work shall provide two (2) keys to the Resident Engineer. After completion of the project the Contractor for General Construction Work shall replace the original lockset on the door and ensure its proper operation.

- b. The Contractor for General Construction Work shall provide one (1) telephone, where directed, for the exclusive use of the Resident Engineer. The Contractor for General Construction Work shall pay all costs for telephone service for calls within New York City limits for the duration of the project. The telephone service shall continue for a period of 90 days following substantial completion.
- c. The Contractor for General Construction Work shall provide the following equipment:
 - (1) Two (2) single pedestal desks, 42" x 32"; two (2) swivel chairs with arms and three (3) side chairs without arms to match desk. Two (2) lockers, metal olive green or gray, single units, 15" x 18" x 78" overall including 6" legs. Lockers to have flat key locks with two (2) keys each, General Steel products or approved equal. Two (2) full ball bearing suspension four (4) drawer vertical legal filing cabinets with locks approximately 52"H x 28 1/2"D x 18"W in a grey finish by Art Steel No. 2904L or approved equal.
 - (2) One (1) 9000 B.T.U. air conditioner or as directed by Commissioner. Wiring for the air conditioner shall be minimum No. 12 AWG fed from individual circuits in the fuse box.
 - (3) Two (2) metal wastebaskets, 13 inches square 15 inches high with rubber feet and corners by Art Metal Company No. 168 or approved equal.
 - (4) One (1) fire extinguisher one (1) quart vaporizing liquid type, brass, wall mounted by Pyrene No. C21 or approved equal.
 - (5) One (1) Crystal Springs water cooler with bottled water, Model No. LP14058 or approved equal to be furnished for the duration of the Contract as required.

2. TRAILER OFFICE (REFER TO THE ADDENDUM TO THE GENERAL CONDITIONS FOR THE APPLICABILITY OF THIS ARTICLE)

- a. The Contractor for General Construction Work shall provide at its own cost and expense a trailer and install and connect all utility services to trailer within twenty (20) days of start of work. The trailer shall have equipment having the minimum requirements hereinafter specified. Any permit required for the installation and use of said trailer shall be borne by the Contractor.
- b. The trailer shall remain the property of the Contractor for General Construction Work except that the file cabinets herein specified, shall become the property of the City of New York.
- c. Trailer shall be office type trailer of the following general minimum dimensions:
 - 1. Length, overall: 35 feet.
 - 2. Length, inside: 32 feet.
 - 3. Width, overall: 8 feet.
 - 4. Width, inside: 7 feet, 5 inches.
- d. Trailer shall be manufactured by International Trailer Company, Model No. 1 MU-35-D or Atlantic Trailer Corporation, Model No. F-36 or approved equal.
- e. The exterior of the trailer and the wheels shall be given an approved coat of exterior enamel. The enamel finish coat shall be DUPONT orange lacquer or approved equal. The trailer shall be lettered with black block lettering of the following heights with white borders:

CITY OF NEW YORK	2-1/2"
DEPARTMENT OF DESIGN AND CONSTRUCTION	3-3/4"
DIVISION OF STRUCTURES	3-1/2"
RESIDENT ENGINEER'S OFFICE	2-1/2"

NOTE: In lieu of painting letters on trailer the Contractor for General Construction Work may substitute a sign constructed of a good quality lumber with the same type and size of lettering above.

- f. All windows and doors shall have insect aluminum screens and wire mesh protective screening.
- g. The interior shall be finished in 1/4 inch plywood. Plywood shall be finished in natural color, with two (2) coats of varnish or lacquer.
- h. The interior shall be divided by partitions into one (1) large room in front of trailer, and a private office approximately 6' x 7' at rear of trailer and a washroom located adjacent to the private office.
- i. The washroom shall be equipped with a flush toilet, wash basin with two (2) faucets, medicine cabinet, complete with supplies by Hospital Supply and Watters Labs., Inc., Model No. 1 or approved equal and a toilet roll tissue holder. Plumbing and fixtures shall be approved house type, with each appliance trapped and vented and a single discharge connection. Five (5) gallon capacity automatic electric heater for domestic hot water shall be furnished.
- j. The heating system shall consist of thermostatically controlled electric baseboard heaters capable of delivering not less than 30,000 BTU per hour and heaters shall be as manufactured by Chromalox or approved equal, sized per area with individual approved thermostats.
- k. The trailer shall be equipped with an approved two-circuit, 110-120 volt armored cable wiring system of adequate capacity complete with entrance connector with provision for grounding, enclosed fused service switch and branch circuit fuse box. The circuits for lighting, water heater, heater and convenience outlets, etc. shall be two-conductor, No. 12. The circuits for the space heaters shall be sized minimum No. 12 wire led from individual circuits in the branch circuit fuse box. Metal boxes shall be provided at all outlet points. All wiring shall conform to the requirements of the Electrical Code of the City of New York for armored cable wiring systems.
- l. Lighting to be furnished by a minimum of four (4) 48 inch, single tube, fluorescent fixtures for the large rooms and an incandescent fixture for the washroom. Lighting fixtures shall be provided with built-in pull-chain switches. A minimum of six (6) duplex convenience outlets shall be installed; four (4) in the larger room and two (2) in the smaller room. These outlets shall be in addition to connections for electric space heaters and heaters for domestic hot water.
- m. In addition to the washroom and private office, the following shall be built-in to the trailer:
 - 1. The drafting or reference table at least 60 inches long by 36 inches wide with cabinet below, head shelf at each end of the trailer, wall type plan rack at least 42 inches wide and wardrobe opposite washroom.
- n. The following movable equipment shall be furnished:
 - 1. Four (4) single pedestal desks, 42" x 32"; two (2) swivel chairs with arms and three (3) side chairs without arms to match desk. Four (4) lockers, metal olive green or gray, single units, 15" x 18" x 78" overall including 6" legs. Lockers to have flat key locks with two (2) keys each, General Steel products or approved equal. Two (2) full ball bearing suspension four (4) drawer vertical legal filing cabinets with locks approximately 52" H x 28 1/2" D x 18"W in a grey finish by Art Steel No. 2904L or approved equal.
 - 2. One (1) 6000 B.T.U. and one (1) 9000 B.T.U. air conditioner. Wiring for the air conditioners shall be minimum No. 12 AWG fed from individual circuits in the fuse box.

3. Two (2) metal wastebaskets, olive green or grey finish, 13 inches square 15 inches high with rubber feet and corners by Art Metal Company No. 168 or approved equal.
 4. One (1) fire extinguisher one (1) quart vaporizing liquid type, brass, wall mounted by Pyrene No. C21 or approved equal.
 5. One (1) Crystal Springs water cooler with bottled water, Model No. LP14058 or approved equal to be furnished for the duration of the Contract as required.
- o. TRAILER TEMPORARY SERVICE - Plumbing and electrical work required for the trailer will be furnished and maintained as below.
1. PLUMBING WORK - shall include all water supply and drainage piping required for a complete installation. Contractor to provide a temporary water service from the City's water main and extend in the trailer and properly connect up all fixtures requiring water supply. Provide all necessary soil, waste, vent and drainage piping.
 - a. Plumbing Contractor to frost-proof all water pipes to prevent freezing.
 - b. REPAIRS, MAINTENANCE - The Plumbing Contractor provide repairs when and as required for a period of thirty (30) days after the date of substantial completion acceptance.
 - c. DISPOSITION OF PLUMBING WORK - At the expiration of the time limit set forth in Subparagraph 3, the water drainage connections and piping to the office trailer shall be removed and shall be plugged at the mains. All piping shall become the property of the Contractor for Plumbing Work and shall be removed from the site, all as directed. All repair work due to these removals shall be the responsibility of the Contractor for General Construction Work.
 2. ELECTRICAL WORK - The Contractor for Electrical Work shall furnish, install and maintain a temporary electric feeder to the trailer to be used by the Resident Engineer immediately after it is placed at the job site.
 - a. The temporary electric feeder shall be at least three (3) No. 6RH wire and shall be protected by a 60 Ampere fused safety switch, complying with codes and utility requirements having jurisdiction.
 - b. Make all arrangements and pay all costs to provide electric service.
 - c. Pay all costs for current consumed and for maintenance of the system in operating condition, including the furnishing of the necessary bulb replacements lamps, etc., for a period of thirty (30) days after the date of substantial completion acceptance.
 - d. Disposition of Electric Work: At the expiration of the time limit set forth, the temporary feeder, safety switch, etc., shall be removed and disposed of as directed.
 - e. All repair work due to these removals shall be the responsibility of the Contractor.
- p. MAINTENANCE
1. The Contractor for General Construction Work shall provide and pay all costs for hot and cold water, heat and fuel and regular daily janitor service. Furnish toilet paper, cloth towels and soap and maintain the field office in first-class condition, including all repairs, until 30 days after the date of substantial completion acceptance.
 2. Provide fire, extended coverage and vandalism, malicious mischief and burglary and theft

insurance coverage for the Resident Engineer's field office equipment in the amount of \$10,000. All insurance coverage shall be provided by a company licensed and authorized to do business in the State of New York. Such coverage must, under the loss payable clause or by endorsement thereon, state the following: "loss, if any, payable to the City of New York."

3. At 30 days after the date of substantial completion acceptance, or sooner as directed by the Commissioner, the Contractor for General Construction Work shall have all services disconnected and capped to the satisfaction of the Resident Engineer.
- q. The Contractor for General Construction Work shall provide and pay all costs for the following telephone services for the Resident Engineer's trailer:
 1. Two (2) desk phones
 2. One (1) wall phone (with six (6) foot extension cord) at plan table.
 3. A remote bell located on outside of trailer
 4. The telephone service shall continue for a period of 90 days following substantial completion.
- r. Should it become necessary to relocate the trailer or move the field office from one (1) location to another, Contractor for General Construction Work shall be responsible for move or moves and of reconnecting all utilities described above at new location, and shall assume all costs incurred.
- s. PERMITS - The Contractor for General Construction Work shall make the necessary arrangements and obtain all permits required for this work.
- t. The Contractor for General Construction Work has the option of providing, at its cost and expense, rented office or store space in lieu of trailer. Said space shall be in the immediate area of the Project and have adequate plumbing, heating and electrical facilities. Space chosen by the Contractor for General Construction Work must be approved by the Commissioner before the area is rented. All insurance maintenance and equipment required for trailer field office shall also apply to rented spaces.

H. ADDITIONAL EQUIPMENT FOR THE RESIDENT ENGINEER (REFER TO THE ADDENDUM TO THE GENERAL CONDITIONS FOR THE APPLICABILITY OF THIS ARTICLE)

1. The Contractor for General Construction Work shall supply photo equipment not to exceed \$250. Said equipment to be specified by Resident Engineer. At the completion of the project, the equipment shall become the property of the City of New York.
2. The Contractor for General Construction Work shall provide a copy machine for paper sizes 8½ x 11 & 8½ x 14. Copier shall remain at job site 30 days beyond the Substantial Completion date.
3. The Contractor for General Construction Work shall furnish a fax machine and a telephone answering machine at commencement of the project. All materials shall be new, sealed in manufacturer's original packaging and shall have manufacturers' warranties. All items shall remain the property of the City of New York at the completion of the project.
4. Computer Workstation (Refer to the Addendum to the General Conditions for the number of Computer Workstations to be provided):

Computers shall be provided for all contracts that have a total duration of 180 Consecutive Calendar Days (CCDs) or more, as set forth in Schedule "A". Contracts that have a total duration of less than 180 CCDs shall not require computers. Computer workstations shall be provided for

the duration of the contract.

(1) Personal Computer(s) - Workstation Configuration.

- (a) Make and Model: Dell, Gateway, Toshiba, HP, IBM, or an approved equal. (Note: an approved equal requires written approval of the Assistant Commissioner of ITS.)
- (b) Processor: 3.0 GHz Pentium 4 or faster computer - Single Processor.
- (c) System RAM: Minimum of 1 GB (Gigabytes) of SDRAM or DDR.
- (d) Hard Disk Drive(s): 80 GB (Gigabytes) or larger.
- (e) CD-RW: Internal CD-RW, 48x Speed or faster.
- (f) 16xDVD+/RW: DVD Burner (with double layer write capability) 16x Speed or faster
- (g) I/O Ports: Must have at least one (1) Serial Port one, (1) Parallel Port, 2 USB Ports. Serial Ports must consist of UART 16550 Chip or better.
- (h) Video Display Card: PCI Interface with a minimum of 64 MB of RAM.
- (i) Monitor: 17" TFT LCD monitor.
- (j) Available Exp. Slots: System as configured above shall have at least two (2) full size PCI Slots available.
- (k) Fax/Modem: Internal Fax/Modem 56 Kbps speed, featuring 3COM or US Robotics Chipset and supporting a minimum of V.92 and MNP5 compliant. Integrated 10/100/1000 Ethernet.
- (l) Other Peripherals: Optical scroll Mouse, 101 Key Keyboard, Mouse Pad and all necessary cables.
- (m) Software Requirements: Microsoft Windows XP Professional, Microsoft Office 2003 Professional, Microsoft Project 2002 Professional, Adobe Acrobat reader, Anti-Virus software package with one year updates subscription, Win Zip and Auto Cad 2008 LT.

(2) All field offices requiring computers shall be provided with the following:

- (a) One (1) broad-band internet service account. This account will be active for the life of the project.
 - (b) One (1) 600 DPI HP Laser Jet Printer (twelve (12) pages per minute or faster) with one (1) Extra Paper Tray (Legal Size)
 - (c) All necessary Cabling
 - (d) Storage Boxes for and Blank CDs/DVDs
 - (e) Printer Table
 - (f) UPS/Surge Suppressor combo
- (3) All Computer Hardware shall come with a three (3) year warranty for on-site repair or replacement. Additionally, and notwithstanding any terms of the warranty to the contrary, the Contractor is responsible for rectifying all computer problems or equipment failures within one (1) business day.

- (4) An adequate supply of blank CD's/DVD's, and paper and toner cartridges for the printer shall be provided by the Contractor, and shall be replenished by the Contractor as required by the Engineer.
- (5) It is the Contractor's responsibility to ensure that electrical service and phone connections are also available at all times; that is, the Field Office Computer(s) is to be powered and turned on twenty four (24) hours each day.

Broadband connectivity is preferred at each field office location. Please take into consideration that an extra phone line dedicated to the modem must be ordered as part of the contract unless Internet broadband connectivity, via Cable or DSL, is available at the planned field office location. Any questions regarding this policy should be directed to Raul Canabal, Assistant Commissioner of Information Technology Services at 718-391-1668.

I. PUBLIC TELEPHONE (REFER TO THE ADDENDUM TO THE GENERAL CONDITIONS FOR THE APPLICABILITY OF THIS ARTICLE)

1. The Contractor shall provide a public telephone located on the site, where directed, for the duration of the Contract.

J. HEAD PROTECTION (HARD HATS)

1. The Contractor shall provide a minimum of 10 standard protective helmets for the exclusive use of Department of Design and Construction personnel and their visitors. Helmets shall be turned over to the Resident Engineer and kept in the office of the Resident Engineer.
2. Upon completion of the project, the helmets shall become the property of the Contractor.

K. RODENT AND INSECT CONTROL

1. **DESCRIPTION** - The General Contractor shall provide all labor, materials, plant and equipment, and incidentals required to survey and monitor rodent activity and to control any infestation or outbreak of rodents, rats, mice, water beetles, roaches and fleas within the project area. Special attention should be paid to the following conditions or areas:
 - a. Wet areas within the project area, including all temporary structures.
 - b. All exterior and interior temporary toilet structures within the project area.
 - c. All Field Offices and shanties within the project area of all Contractors and the Department of Design and Construction (DDC).
 - d. Wherever there is evidence of food waste and/or discarded food or drink containers, in quantity, that would cause breeding of rodents or the insects herein specified.
 - e. Any other portion of the premises requiring such special attention.
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, OSHA and the laws, ordinances and regulations of State and Federal agencies pertaining to such chemical and/or materials
3. **PERSONNEL:** All pest control personnel must be supervised by an exterminator licensed in categories 7A & 8.
4. **METHODS**

- a. Application and dosage of all materials shall be done in strict compliance with the manufacturer's recommendations.
- b. Under the Maintenance of Site item (section 1.42.L), any unsanitary conditions, such as uncollected garbage or debris, resulting from the General Contractor's activities which will provide food and shelter to the resident rodent population shall be corrected by the General Contractor immediately after notification of such condition by the Commissioner

5. RODENT CONTROL WORK

- a. 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 all streambanks. Live traps must be used in these seventy-five (75) foot buffer zone areas and within wetland and woodland areas.
- b. In areas outside the seventy-five (75) foot zone of protection adjacent to streams, and in areas outside wetlands and woodlands, tamper proof bait stations with poisoned bait shall be placed during the period of construction and any consumed or decomposed bait shall be replenished as directed.
- c. At least one month prior to initiation of the construction work, and periodically thereafter, live traps and/or rodenticide bait in tamper proof bait stations, as directed above, shall be placed at locations that are inaccessible to pets, human beings, children and other non-target species, particularly wildlife (for example-birds) in the project area.
- d. The General Contractor shall be responsible for collecting and disposing of all trapped and poisoned rodents found in live traps and tamper proof bait stations. The General Contractor shall also be responsible for posting and maintaining signs announcing the baiting of each particular location.

The General Contractor, under his/her Maintenance of Site operations, shall be responsible for the immediate collection and disposal of any visible rodent remains found on streets or sidewalks within the project area.

- e. It is anticipated that public complaints will be addressed to the Commissioner. The General Contractor, where directed by the Commissioner, shall take appropriate actions, like baiting, trapping, proofing, etc., to remedy the source of 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.
- f. Emergency service during the regular workday hours (Monday through Friday) shall be rendered within 24 hours, if requested by the Commissioner, at no additional cost to the City.

6. EDUCATION & TRAINING

- a. The General Contractor shall post notices on all Construction Bulletin Boards advising workers, employees, and residents to call the Engineer's Field Office to report any infestation or outbreak of rodents, rats, mice, water beetles, roaches and fleas within the project area. The General 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.
- b. Prior to application of any chemicals, the General Contractor shall furnish to the Commissioner copies or sample labels for each pesticide, antidote information, and Material Data Safety Sheets (MSDS) for each chemical used.

7. RECORDS AND REPORTS

- a. The General Contractor shall keep a record of all rodent and waterbug infestation surveys conducted by him/her and make available, upon request, to the Commissioner. The findings of each survey shall include, but not be limited to, recommended Integrated Pest Management (IPM) techniques, like baiting, trapping, proofing, etc., proposed for rodent and waterbug pest control.
- b. The General Contractor shall maintain records of all locations baited along with the type and quantity of rodenticide and insecticide bait used.

L. SITE SECURITY/PERIMETER SIGNAGE

1. In order to properly convey notice to persons entering upon a City construction site, the Contractor shall furnish and install a sign at the entrance (gates) as follows:

NO TRESPASSING

AUTHORIZED PERSONNEL ONLY

2. If no-construction fence exists at the site, this notice shall be conveyed by incorporating the above language into safety materials (barriers, tape, and signs).

M. MAINTENANCE OF SITE AND ADJOINING PROPERTY

1. Take over and maintain the site, after order to start work.
2. Until the work of the Contract is completed and accepted, the Contractor shall be responsible for the safety of the adjoining property, including sidewalks, paving, fences, sewers, water, gas, electric and other mains, pipes and conduits etc. The Contractor shall, at its own expense, except as otherwise specified, protect same and maintain them in least as good a condition as that in which the Contractor finds them.
3. All pavements, sidewalks, roads and approaches to fire hydrants shall be kept clear at all times, maintained and repaired to serviceable condition with materials to match existing.
4. Provide and keep in good repair all bridging and decking necessary to maintain vehicular and pedestrian traffic.
5. The Contractor shall also remove all snow and ice as it accumulates on the sidewalks within the Contract Limits Lines.

N. SAFETY PRECAUTIONS FOR CONTROL CIRCUITS

1. Control circuits, the failure of which will cause a hazard to life and property, shall comply with the New York City Dept. of Buildings, Bureau of Electrical Control requirements.

O. OBSTRUCTIONS IN DRAINAGE LINES

1. The Contractor shall be responsible for all obstructions occurring in all drainage lines, fittings and fixtures after the installations and cleaning of these drainage lines, fittings and fixtures as certified by the Resident Engineer. Roof drains shall be kept clear of any and all debris. Any stoppage shall be repaired immediately at the expense of the Contractor for General Construction Work.

P. MAINTENANCE OF PROJECT SITE

1. Take over and maintain all project areas, after order to start work.
2. Until the work of the Contract is completed and accepted, the Contractor shall be responsible for the safety of all project areas, including water, gas, electric and other mains and pipes and conduits and shall at the Contractor's own expense, except as otherwise specified, protect same and maintain them in at least as good condition as that in which the Contractor finds them.
3. All pavements, sidewalks, roads and approaches to fire hydrants shall be kept clear at all times, maintained, and if damaged, repaired to serviceable conditions with materials to match existing.
4. The Contractor shall keep the space for the Resident Engineer in a clean condition.

**Q. PROJECT SIGN AND RENDERING
PART A – PROJECT SIGN**

1. **Responsibility:** The Contractor shall produce and install one (1) project sign which shall be posted and maintained upon the site of the project at a point and in a position where directed by the Commissioner. The Contractor shall protect the sign from damage during the continuance of work under the Contract and shall do all patching of lettering, painting and bracing thereof necessary to maintain same in first class condition and in proper position. Prior to fabrication, contractor shall submit an 8-1/2" x 11" color match print proof from the sign manufacturer of completed sign for approval by the Commissioner.
2. **Sign Quality:** The Contractor shall provide all materials required for the production of the sign as specified herein. Workmanship shall be of the best quality, free from defects and shall be produced in a timely manner.
3. **Schedule:** Upon project mobilization, the Contractor shall commence production and installation of the sign.
4. **Removal:** At the completion of all work under the Contract, the Contractor shall remove and dispose of the project sign away from the site.
5. **Sign construction:**
 - a. **Frame:** The frame shall be from quality dressed 2"x2" pine, fire retardant, pressure treated lumber, that surrounds the inside back edge of the sign. The sign shall have one (1) intermediate vertical and two (2) diagonal supports, glued and screwed for rigidity. Frame shall be painted white with two (2) coats of exterior enamel paint, prior to mounting of sign panel.
 - b. **Edging:** U-shaped, 22 gauge aluminum edging, with a white enameled finish to match sign background, shall run around entire edging of sign panel and frame. Corners shall be mitered for a tight fit. Channel dimensions shall be 1" inch (overlap to sign panel face) x 1 3/4" (or as required across frame depth) x 1" (back overlap).
 - c. **Sign Panel:** 4' x 8' panel shall be constructed in one (1) piece of 14 gauge (.0785") 6061-T6 aluminum. This panel shall be prefinished both sides with a glossy white baked-on enamel finish and be flush with edge of 2" x 2" wood frame. Samples must be submitted for approval.
 - d. **Fastening:** Fasten sign panel to wood frame using cadmium plated no. 8 sheet metal screws at 1/2" below edge of panel and 8" on center. The U-shaped aluminum channel shall be applied over the wood frame edge and fastened with cadmium plated no. 8 sheet metal screws at 12" on center around the entire perimeter.
6. **Sign Graphics:**
 - a. All visual components of the sign are in an Adobe *.pdf file, which is provided by the

Commissioner's representative. The file is to be opened in Acrobat Professional or Acrobat Approval in order to be saved with project information. The Commissioner's representative shall insert the project name and names and titles of personnel (3 or more) and any other required information associated with the project. At no point in the update, saving or renaming of the file should it be locked by any user. The digital file shall be provided by DDC to the Contractor (on a CD or via E-mail) for printing.

- b. The DDC *.pdf file with names provided by the commissioner shall be reproduced at the Sign Panel size of 4' x 8' on 3M High Performance Vinyl or approved equal. The sign manufacturer is required to print from the Acrobat *.pdf provided, and must match the following colors specified by Pantone: 3025 C, 119 C, 131 C, 1805 C, 1817 C in their exact locations as indicated in the *.pdf file, and on the DDC website: www.nyc.gov/buildnyc.
- c. Color shall be created in a four-color process to reproduce Pantone Colors (per Pantone formula).
 1. Pantone color 3025 C (C-100, M-17, Y-0, K-51).
 2. Pantone color 119 C (C-0, M-12, Y-100, K-49).
 3. Pantone color 131 C (C-0, M-32, Y-100, K-23).
 4. Pantone color 1805 C (C-0, M-91, Y-100, K-23).
 5. Pantone color 1817 C (C-0, M-90, Y-100, K-66).

The typeface, Helvetica shall be used in all text-fields as is specified in the settings of the Acrobat *.pdf.

Note: 3M High Performance Vinyl or equivalent shall be guaranteed for nine (9) years. Guarantee must cover fading, peeling, chipping or cracking.

PART B – PROJECT RENDERING (REFER TO THE ADDENDUM TO THE GENERAL CONDITIONS FOR THE APPLICABILITY OF THIS ARTICLE)

1. **Responsibility:** In addition to the Project Sign, the Contractor shall furnish and install one (1) sign showing a rendering of the project. From an approved image file provided by the DDC, the Project Rendering is to be sized, printed, and mounted in an identical manner as described in Part A above for the Project Sign. Any area of the 4' X 8' panel area not filled by the rendering shall be printed in Pantone color 3025 (c-100, M-17, y-0, K-51). A color match print proof from the sign manufacturer of the Rendering Sign printed from the supplied file is to be submitted to DDC for approval before fabrication. The Rendering Sign is to be posted at the same height as the Project Sign. Where possible, the Rendering Sign shall be mounted with a perfect match of the short sides of the rectangle so that the Rendering Sign and the Project Sign together will create one long rectangle.
2. **Removal:** At the completion of all work under the Contract, the Contractor shall remove and dispose of the project rendering away from the site.

R. PLANT PEST CONTROL REQUIREMENTS and TREE PROTECTION REQUIREMENTS

1. **Plant Pest Control Requirements:** The Contractor for General Construction Work (the "Contractor") and its subcontractors, including the Certified Arborist described below, shall comply with all Federal and New York State laws and regulations concerning Asian Longhorned Beetle (ALB) management, including protocols for ALB eradication and containment promulgated by the New York State Department of Agriculture and Markets (NYSDAM). The Contractor is referred to: (1) Part 139 of Title 1 NYCRR, Agriculture and Markets Law, Sections 18, 164 and 167, as amended, and (2) State Administrative Procedure Act, Section 202, as amended.

- a. All tree work performed within the quarantine areas must be performed by New York State Department of Agriculture and Markets (NYSDAM) certified entities. Transportation of all host material, living, dead, cut or fallen, inclusive of nursery stock, logs, green lumber, stumps, roots, branches and debris of a half inch or more in diameter from the quarantine areas is prohibited unless the Contractor or its sub contractor performing tree work has entered into a compliance agreement with NYSDAM. The terms of said compliance agreement shall be strictly complied with. Any host material so removed shall be delivered to a facility approved by NYSDAM. For the purpose of this contract host material shall be ALL species of trees.
 - b. Any host material that is infested with the Asian Longhorned Beetle must be immediately reported to NYSDAM for inspection and subsequent removal by either State or City contracts, at no cost to the Contractor.
 - c. Prior to commencement of tree work, the Contractor shall submit to the Commissioner a copy of a valid Asian Longhorned Beetle compliance agreement entered into with NYSDAM and the Contractor or its sub contractor performing tree work. If any host material is transported from the quarantine area the Contractor shall immediately provide the Commissioner with a copy of the New York State 'Statement of Origin and Disposition' and a copy of the receipt issued by the NYSDAM approved facility to which the host materials are transported.
 - d. Quarantine areas, for the purpose of this contract shall be defined as all five boroughs of the City of New York. In addition, prior to the start of any tree work, the Contractor shall contact the NYC Department of Parks & Recreation's Director of Landscape Management at (718) 699-6724, to determine the limits of any additional quarantine areas that may be in effect at the time when tree work is to be performed. The quarantine area may be expanded by Federal and State authorities at any time and the Contractor is required to abide by any revisions to the quarantine legislation while working on this contract. For further information please contact: NYSDAM (631) 288-1751.
2. Tree Protection Requirements: The Contractor shall retain a Certified Arborist, as defined by New York City Department of Parks and Recreation (NYCDPR) regulations, to provide the services described below.
- a. Surveys and Reports: The Certified Arborist shall, at the times indicated below, conduct a survey and prepare a plant material assessment report which includes: (1) identification, by species and pertinent measurements, of all plant material located on the project site, or in proximity to the project site, as described below, including all trees, significant shrubs and/or planting masses; (2) identification and plan for the containment of plant pests and pathogens, including the ALB, as described above; (3) evaluation of the general health and condition of any infected plant material.
 - b. Frequency of Reports: The Certified Arborist shall conduct a survey and provide a plant material assessment report at two (2) points in time: (1) prior to the commencement of construction work; and (2) at the time of substantial completion. In addition, for projects exceeding 24 months in duration, the Certified Arborist shall conduct a survey and prepare a report at the midpoint of construction. Copies of each plant material assessment report shall be submitted to the Resident Engineer within two (2) weeks of the survey.
 - c. Proximity to Project Site: Off-site trees, significant shrubs and/or planting masses shall be considered to be located in proximity to the project site under the circumstances described below.
 1. The tree trunk, significant shrub, or primary cluster of stems in a planting mass is within 50 (fifty) feet of the project's Contract Limit Lines (CLLs) or Property Lines (PLs).
 2. Any part of the tree or shrub stands within 50 (fifty) feet of: (a) a path for site access for vehicles and/or construction equipment; or (b) scaffolding to be erected for construction

activity, including façade remediation projects.

3. The Certified Arborist determines that the critical root zone (CRZ) of an off-site tree, significant shrub, or primary cluster of stems in a planting mass extends into the project site, whether or not that plant material is located within the 50-foot inclusionary perimeter as outlined above.

- d. Tree Protection Plan: The Certified Arborist shall prepare, and the Contractor shall implement, a Tree Protection Plan, for all trees that may be affected by any construction work, excavation or demolition activities, including without limitation, (1) on-site trees, (2) street trees, as defined below, (3) trees under NYCDPR jurisdiction as determined by the Department of Transportation, and (4) all trees that are located in proximity to the project site, as defined above. The Tree Protection Plan shall comply with the NYC DPR rules, regulations and specifications. The Contractor is referred to Chapter 5 of Title 56 of the Official Compilation of the Rules of the City of New York. Copies of the Tree Protection Plan shall be submitted to the Resident Engineer prior to the commencement of construction. Implementation of the Tree Protection Plan for street trees and trees under NYCDPR jurisdiction shall be in addition to any tree protection requirements specified or required for the project site.

For the purpose of this article, a "street tree" means the following: (1) a tree that stands in a sidewalk, whether paved or unpaved, between the curb lines or lateral lines of a roadway and the adjacent property lines of the project site, or (2) a tree that stands in a sidewalk and is located within 50 feet of the intersection of the project's site's property line with the street frontage property line.

3. No Separate Payment. No separate payment shall be made for compliance with Plant Pest Control Requirements or Tree Protection Requirements. The cost of compliance with Plant Pest Control Requirements and Tree Protection Requirements shall be deemed included in the Contractor's bid for the Project.

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FMS ID: S216-421



**THE CITY OF NEW YORK
DEPARTMENT OF DESIGN AND CONSTRUCTION
DIVISION OF PUBLIC BUILDINGS**

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

Contract for Furnishing all Labor and Material Necessary and Required for:

CONTRACT NO. 1 GENERAL CONSTRUCTION WORK

South Bronx Marine Transfer Station Demolition

LOCATION: Terminus of Farragut Street
BOROUGH: Bronx, NY 10474
CITY OF NEW YORK

MPCC CORP

Contractor

Dated August 13, 2013

Approved as to Form
Certified as to Legal Authority

[Signature]

Acting Corporation Counsel

Dated April 11, 2013

Entered in the Comptroller's Office

First Assistant Bookkeeper

Dated _____, 20____

RF
4/11/13





PROJECT ID:

S216-421

**THE CITY OF NEW YORK
DEPARTMENT OF DESIGN AND CONSTRUCTION
DIVISION OF PUBLIC BUILDINGS**

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

AUDIT ENGINEER

VOLUME 3 OF 3

**ADDENDUM TO THE GENERAL
CONDITIONS**

SPECIFICATIONS

FOR FURNISHING ALL LABOR AND MATERIALS
NECESSARY AND REQUIRED FOR:

**South Bronx Marine Transfer Station
Demolition**

LOCATION:
BOROUGH:
CITY OF NEW YORK

Terminus of Farragut Street
Bronx, NY 10474

CONTRACT NO. 1

GENERAL CONSTRUCTION WORK

Department of Sanitation

Gereeley and Hansen

Date: February 21, 2013

W 3-027







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

May 13, 2013

ADDENDUM No. # 1

FOR FURNISHING ALL LABOR AND MATERIAL NECESSARY AND REQUIRED FOR:

S216-421

South Bronx Marine Transfer Station Demolition

This addendum is issued for the purpose of amending the requirements of the Bid and Contract Documents and is hereby made a part of said Bid and Contract Documents to the same extent as though it were originally included therein.

The bidder is advised that the items listed below apply to the project:

1. Questions from Bidders and Responses to Questions:

See Attachment A

3. Revisions to the Bid Booklet:

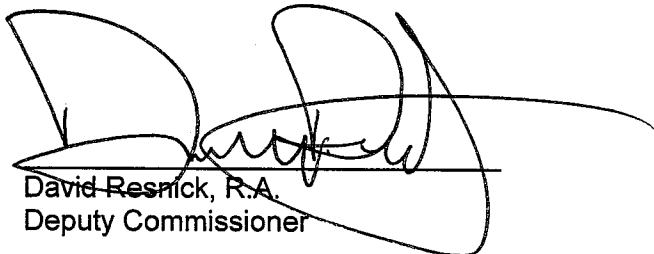
Delete page 2 of the Bid Booklet and replace with page 2R, included with this Addendum.

2. Revisions to the Addendum to the General Conditions:

See Attachment B

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

If additional information is required, please contact the Department of Design and Construction, Contract Section at (718) 391-2200, (718) 391-1727, or by fax at (718) 391-2615.



David Resnick, R.A.
Deputy Commissioner

Name of Bidder

By: _____



DDC PROJECT #: S216-421

PROJECT NAME: SOUTH BRONX MARINE TRANSFER STATION DEMOLITION

ATTACHMENT A - BIDDERS QUESTIONS AND DDC RESPONSES

No.	Bidders Questions	DDC Responses
1	During the site walkthrough on May 2, 2013 it was stated by NYC DDC staff that the Engineer's trailer is to remain the property of NYC DDC. Where in the specifications is this is stated? Section 1.42 of the General Conditions, page 70 states that it is to remain the property of the Contractor.	See Revisions to the Addendum to the General Conditions, Attachment B, included with this Addendum.

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

SPECIAL NOTICE TO BIDDERS

BID SUBMISSION REQUIREMENTS

**THE BID SHALL CONSIST OF ONE SEALED
ENVELOPE. THE DOCUMENTS THAT MUST BE COMPLETED AND
INCLUDED IN THE ENVELOPE ARE LISTED BELOW.**

BID ENVELOPE #1: Bid Envelope #1 shall contain the following items:

- Bid Form, including Affirmation
- Bid Security (if required, see page 22)
- MWBE Subcontractor Utilization Plan (if participation goals have been established)

**FAILURE TO SUBMIT THE THREE ITEMS LISTED ABOVE
WILL RESULT IN THE DISQUALIFICATION OF THE BID**

BID ENVELOPE #1: In addition to the items listed above, Bid Envelope #1 shall also contain the following items:

- Bid Breakdown (if required, see page 21)
- Safety Questionnaire
- Construction Employment Report (if bid is \$1,000,000 or more)
- Contract Certificate (if bid is less than \$1,000,000)
- Confirmation of Vendex Compliance
- Bidder's Certification of Compliance with Iran Divestment Act
- Special Experience Requirements Qualification Form (if required, see pages 3, 4)

**FAILURE TO SUBMIT THE SEVEN ITEMS LISTED ABOVE
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 additional information is required, please contact DDC at 718-391-2601.
 - (3) **VENDEX QUESTIONNAIRES:** 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.
 - (5) **SPECIAL EXPERIENCE REQUIREMENTS FOR ASBESTOS:** The Bidder is advised that this contract contains strict requirements regarding the prior experience and licensing of the subcontractor who will perform any required asbestos abatement work. These special experience requirements are set forth in the section of the specifications which describes any required asbestos abatement work.



ADC PROJECT #: S216-421

PROJECT NAME: SOUTH BRONX MARINE TRANSFER STATION DEMOLITION

ATTACHMENT B – REVISIONS TO THE ADDENDUM TO THE GENERAL CONDITIONS

Delete page 4 of the Addendum to the General Conditions and replace with page 4R, included with this Addendum.



AMENDED ARTICLES

The Contractor is advised that the amended Articles set forth below are included in the General Conditions and apply to the Project.

- Article 1.09 **Surveys** is amended with Section 01435 Monitoring Survey.
- Article 1.20 **Progress Photographs** is amended with Section 01435 Monitoring Survey.
- Article 1.26 **Security Guards/Fire Guards** on the Site is amended with Section 01561 Site Security.
- Article 1.34 **Temporary Services Part B** is amended with Section 16020 Temporary Electrical System.
- Article 1.37 **General Electrical Requirements Part B – Section A) Temporary Lighting** is amended with Section 01560 Temporary Barriers and Enclosures.
- Article 1.42 **Specific Requirements Section E) Work Fence Enclosure** is amended with Section 01560 Temporary Barriers and Enclosures.
- Article 1.42 **Specific Requirements Section H) Additional Equipment for Engineers:**
 - 4. **Computer Workstation, (1) Personal Computer(s) – Workstation Configuration:**
The Contractor shall provide one (1) HP Pavillion g6 (g6t-2000 HP series) personal laptop, or an approved equal, with features including, but not limited to, 4GB of memory, 15.6" diagonal HD screen, webcam with integrated digital microphone, WLAN and Bluetooth. Also provide a Targus Docking Station, or an approved equal, and a carrying case.
- Article 1.42 **Specific Requirements Section G) Resident Engineers Office:**
 - 2. **Trailer Office:**
Delete Section 2b and replace with the following text:
At the completion of all work, the trailer shall become the property of the City of New York. The Contractor shall disassemble, relocate and reassemble the trailer at a site within the City of New York as directed by the Resident Engineer. The site shall then be restored to its original condition. All costs associated with the field office trailer and controls including, but not be limited to, installation, maintenance, relocation, and removal shall be borne by the Contractor at no additional cost to the City.

VI. ADDITIONAL ARTICLES

Not Used

VII. SPECIAL EXPERIENCE REQUIREMENTS FOR THE PROJECT

- (1) **GENERAL:** Special Experience Requirements applicable to the contractor or subcontractor that will perform specific areas of work are set forth below.
- (2) **REVISION OF SPECIFICATIONS AND DRAWINGS:** In the event the Specifications and/or the Contract Drawings contain any Special Experience Requirement that is not set forth below, such Special Experience Requirement is deemed deleted, except as otherwise expressly provided in Section VIII of this Addendum.
- (3) **SPECIAL EXPERIENCE REQUIREMENTS FOR SPECIFIC AREAS OF WORK:** The special experience requirements set forth below apply to the contractor or subcontractor that will perform specific areas of work. Compliance with such experience requirements will be evaluated after an award of contract. Within two (2) weeks of such award, the contractor will be required to submit the qualifications of the contractor or subcontractor that will perform these specific areas of work. If the contractor intends to perform these specific areas of work with its own forces, it must demonstrate compliance with the special experience requirements. If the contractor intends to subcontract these specific areas of work, the proposed subcontractor(s) 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.
 - (a) **Special Experience Requirement #1:** The contractor or subcontractor performing the work of this section must, within the last seven (7) consecutive years prior to the bid opening, have successfully completed in a timely fashion at least three (3) projects similar in scope and type to the required work. This Special Experience Requirement applies to the contractor or subcontractor that will perform specific areas of work specified in the sections set forth below.

General Construction

 - Section 13282: Removal of Containerized Chemicals
 - Section 13283: PCB Management
 - Section 13285: Management of Universal and Other Miscellaneous Regulated Waste



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

ADDENDUM TO THE GENERAL CONDITIONS

The General Conditions are hereby amended in accordance
with the terms and conditions set forth in this Addendum.

I. PROJECT DESCRIPTION

FMS #: **S216-421**

PROJECT NAME: **South Bronx Marine Transfer Station Demolition**

PROJECT DESCRIPTION: The South Bronx Marine Transfer Station will be demolished leaving a pile field in the East River. The Marine Transfer Station ramps will be removed to grade and ramp supports to their pile caps. The South Bronx Marine Transfer Station is to be demolished as a requirement of the USACOE permit issued for construction of the East 91st Street Marine Transfer Station. The South Bronx MTS must be demolished by March 2014 to comply with the permit requirements.

PROJECT LOCATION: **Terminus of Farragut St.**
BOROUGH: **Bronx**
CITY OF NEW YORK
ZIP CODE: **10474**
COMMUNITY BOARD #: **Bronx Community Board Number 2**

PROJECT MANAGEMENT:

- DDC shall publicly bid and enter into a single Contract for the Project. DDC shall manage the Project using its own personnel.
- DDC shall publicly bid and enter into a single Contract for the Project. A Construction Management firm (the "CM") hired by DDC shall manage the Project. The Contractor is advised that the CM shall serve as the representative of the Commissioner at the site and shall, subject to review by the Commissioner, be responsible for the inspection, management, coordination and administration of the required construction work, as delineated in the article of the Standard Construction Contract (September 2008) entitled "The Resident Engineer".
- DDC has entered into CM/Build Contract for the Project. The CM/Build Contractor shall be responsible for conducting a competitive bid process and entering into the contract(s) for the Project.

II. CM / BUILD CONTRACT: REVISIONS TO THE GENERAL CONDITIONS

Not Used

III. CONTRACTS FOR THE PROJECT

The Project consists of a single contract, the Contract for General Construction Work. The Contractor for General Construction Work is responsible for the performance of all required work for the Project as set forth in the Contract Documents (General Conditions, Drawings and Specifications). All responsibilities and obligations in the Contract Documents assigned to separate Contractors for such subdivisions of the work are the responsibility of the Contractor for General Construction Work.

IV. SCHEDULES

The Contractor is advised that Schedules A through F are attached to, and incorporated as part of, this Addendum to the General Conditions. These schedules contain important information that is specific to this Project. The Contractor is advised to carefully review these schedules.

V. APPLICABILITY OF ARTICLES AND AMENDED ARTICLES

The Contractor is advised that various Articles in the General Conditions may not apply to this Project or may apply as amended. Such Articles advise the Contractor to "Refer to the Addendum to the General Conditions for the applicability of this Article." Such Articles are set forth below. A check mark indicates whether the Article (1) applies to the Project, (2) does not apply to the Project, or (3) applies to the Project as amended. If no box is checked, the Article, as set forth in the General Conditions, applies to the Project. Amended Articles, if any, are set forth following this list of Articles.

<u>Article No.</u>	<u>Article</u>	<u>Sub-Article or PART</u> (if applicable)	<u>Applies</u>	<u>Does not Apply</u>	<u>Applies Amend</u>
1.04	Contract Drawings	C) PRINTS	X		
1.05	Shop Drawings and Record Drawings	B) INTEGRATED DRAWINGS		X	
1.09	Surveys				X
1.13	Sleeves and Hangers			X	
1.15	Temporary Heat			X	
1.20	Progress Photographs				X
1.26	Security Guards/Fire Guards on the Site				X
1.29	Sleeve and Penetration Drawings			X	
1.30	Location of Partitions			X	
1.34	Temporary Services	PART A		X	
		PART B			X
1.35	Temporary Use, Operation and Maintenance of Elevators during Construction	PART A – For New Buildings Up to 15 Stories		X	

<u>Article No.</u>	<u>Article</u>	<u>Sub-Article or PART</u> (if applicable)	<u>Applies</u>	<u>Does not Apply</u>	<u>Applies as Amended</u>
		PART B – For New Buildings Over 15 Stories		X	
		PART C – Existing Buildings		X	
1.36	General Mechanical Requirements			X	
1.37	General Electrical Requirements	PART B – Section A) Temporary Lighting			X
		PART B – Section B) Site Security Lighting (New Construction)		X	
		PART D – Electrical Conduit System Including Boxes		X	
		PART E – Electrical Wiring Devices		X	
		PART F – Electrical Conductors and Terminators		X	
		PART G – Circuit Protective Devices		X	
		PART H – Distribution Centers		X	
		PART I – Motors		X	
		PART J – Motor Control Equipment		X	
1.40	Separation Between Trades			X	
1.42	Specific Requirements	C) BORINGS	X		
		E) WORK FENCE ENCLOSURE			X
		G) RESIDENT ENGINEER'S OFFICE			
		1. OFFICE SPACE IN EXISTING BUILDING		X	
		2. TRAILER OFFICE	X		
		H) ADDITIONAL EQUIPMENT FOR THE RESIDENT ENGINEER			X
		I) PUBLIC TELEPHONE		X	
		Q) PROJECT SIGN AND RENDERING			
		PART B – PROJECT RENDERING	X		

COMPUTER WORKSTATIONS

H) Number of Computer Workstations to be provided as outlined in Article 1.42 H, item 4: 2

AMENDED ARTICLES

The Contractor is advised that the amended Articles set forth below are included in the General Conditions and apply to the Project.

- Article 1.09 **Surveys** is amended with Section 01435 Monitoring Survey.
- Article 1.20 **Progress Photographs** is amended with Section 01435 Monitoring Survey.
- Article 1.26 **Security Guards/Fire Guards** on the Site is amended with Section 01561 Site Security.
- Article 1.34 **Temporary Services Part B** is amended with Section 16020 Temporary Electrical System.
- Article 1.37 **General Electrical Requirements Part B – Section A) Temporary Lighting** is amended with Section 01560 Temporary Barriers and Enclosures.
- Article 1.42 **Specific Requirements Section E) Work Fence Enclosure** is amended with Section 01560 Temporary Barriers and Enclosures.
- Article 1.42 **Specific Requirements Section E) Additional Equipment for Engineers:**
4. **Computer Workstation, (1) Personal Computer(s) – Workstation Configuration:**
The Contractor shall provide one (1) HP Pavillion g6 (g6t-2000 HP series) personal laptop, or an approved equal, with features including, but not limited to, 4GB of memory, 15.6" diagonal HD screen, webcam with integrated digital microphone, WLAN and Bluetooth. Also provide a Targus Docking Station, or an approved equal, and a carrying case.

VI. ADDITIONAL ARTICLES

Not Used

VII. SPECIAL EXPERIENCE REQUIREMENTS FOR THE PROJECT

- (1) **GENERAL:** Special Experience Requirements applicable to the contractor or subcontractor that will perform specific areas of work are set forth below.
- (2) **REVISION OF SPECIFICATIONS AND DRAWINGS:** In the event the Specifications and/or the Contract Drawings contain any Special Experience Requirement that is not set forth below, such Special Experience Requirement is deemed deleted, except as otherwise expressly provided in Section VIII of this Addendum.
- (3) **SPECIAL EXPERIENCE REQUIREMENTS FOR SPECIFIC AREAS OF WORK:** The special experience requirements set forth below apply to the contractor or subcontractor that will perform specific areas of work. Compliance with such experience requirements will be evaluated after an award of contract. Within two (2) weeks of such award, the contractor will be required to submit the qualifications of the contractor or subcontractor that will perform these specific areas of work. If the contractor intends to perform these specific areas of work with its own forces, it must demonstrate compliance with the special experience requirements. If the contractor intends to subcontract these specific areas of work, the proposed subcontractor(s) 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.
 - (a) **Special Experience Requirement #1:** The contractor or subcontractor performing the work of this section must, within the last seven (7) consecutive years prior to the bid opening, have successfully completed in a timely fashion at least three (3) projects similar in scope and type to the required work. This Special Experience Requirement applies to the contractor or subcontractor that will perform specific areas of work specified in the sections set forth below.

General Construction

 - Section 13282: Removal of Containerized Chemicals
 - Section 13283: PCB Management
 - Section 13285: Management of Universal and Other Miscellaneous Regulated Waste

VIII. REVISIONS: SPECIFICATIONS AND CONTRACT DRAWINGS

The Specifications and the Contract Drawings for the Project are revised in accordance with the provisions set forth below.

- (1) Owner: Wherever the term "Owner" is used in the Specifications and/or the Contract Drawings, such term shall mean the City of New York.
- (2) Other Entities: In the event any entity other than the City of New York is referred to or named as the "Owner" in the Specifications and/or the Contract Drawings, the name of such other entity is deemed deleted and replaced with the "City of New York".
- (3) Architect / Engineer: Wherever the words "Architect", "Engineer", "Architect / Engineer" or "Architect and/or Engineer" are used in the Specifications and/or the Contract Drawings, such words are deemed deleted and replaced with the word "Commissioner".
- (4) Products / Manufacturers: Wherever the Specifications and/or the Contract Drawings require the contractor to provide a particular product (i.e., material and/or equipment) from a designated manufacturer and/or vendor, the term "or approved equal" is deemed inserted, even if only one product and/or manufacturer is specified, except as otherwise provided below.
 - (a) Proprietary Items: If the Bid Booklet contains a Notice which identifies a particular product from a designated manufacturer as a "Proprietary Item", the Contractor shall be required to provide such specified product. In such case, no substitution or "approved equal" will be permitted.
- (5) Special Experience Requirements: Special Experience Requirements for the Project, if any, are set forth in the Bid Booklet. Special Experience Requirements may apply to contractors, subcontractors, installers, manufacturers and/or suppliers. If the Specifications and/or the Contract Drawings contain any Special Experience Requirement that is not set forth in the Bid Booklet, such Special Experience Requirement is deemed deleted, except as otherwise provided below.
 - (a) Any Special Experience Requirement that provides that the entity performing the work or supplying the material must have more than three (3) years of experience, is revised to provide that the entity performing the work or supplying the material must have three (3) years of experience, except as described in paragraph (b) below.
 - (b) Any Special Experience Requirement that pertains to the abatement of hazardous materials shall not be subject to the deletion and/or revision set forth above. Such Special Experience Requirement shall remain in full force and effect.
 - (c) Any Special Experience Requirement that provides that the entity performing the work must be licensed, authorized, certified, approved by or acceptable to the manufacturer, is deemed deleted and replaced with the requirement that such entity must be properly trained for the specified work.
 - (d) Any Special Experience Requirement that provides that the individual workers performing the work must be licensed, authorized, certified, approved by or acceptable to the manufacturer, is deemed deleted and replaced with the requirement that such individual workers must be properly trained for the specified work.
- (6) Alternate Bids: If the agency is requesting the submission of Alternate Bids, a Notice regarding such Alternate Bids is set forth in the Bid Booklet. In the event of any conflict or inconsistency between (1) the Notice regarding Alternate Bids set forth in the Bid Booklet and (2) a provision in the Specifications and/or the Contract Drawings regarding Alternate Bids, the Notice set forth in the Bid Booklet shall prevail. If the agency is not requesting the submission of Alternate Bids, as indicated by the absence of a Notice in the Bid Booklet, and the Specifications and/or the Contract Drawings contain any provision regarding Alternate Bids, such provision is deemed deleted.
- (7) Contractor Retained Engineer: If the Specifications and/or the Contract Drawings require the Contractor to retain an Engineer to provide engineering services for the Project, the following sentence is deemed inserted: "Such Engineer must be a Professional Engineer, licensed in the State of New York."

- (8) LEED Related Provisions: If the Specifications and/or the Contract Drawings require the Contractor to purchase FSC certified wood, rapidly renewable materials, or materials within 500 miles, such provisions are deemed deleted and replaced with the requirement that if the contractor has purchased FSC certified wood, rapidly renewable materials, or materials within 500 miles, the contractor shall submit such forms or documentation as may be required by the City in order for the USGBC to certify that the Project qualifies for the related LEED credit(s).
- (9) Guarantees: Requirements for Guarantees and Maintenance are set forth in Schedule B, which is included in the Addendum to the General Conditions. In the event of any conflict or inconsistency between (1) a guarantee and/or maintenance requirement set forth in the Specifications and/or the Contract Drawings and (2) a guarantee and/or maintenance requirement set forth in Schedule B, the guarantee and/or maintenance requirement set forth in Schedule B shall prevail.
- (10) Warranties: Requirements for Warranties are set forth in Schedule B, which is included in the Addendum to the General Conditions.
- (a) In the event of any conflict or inconsistency between (1) a warranty requirement set forth in the Specifications and/or the Contract Drawings and (2) a warranty requirement set forth in Schedule B, the warranty requirement set forth in Schedule B shall prevail.
- (b) In the event a warranty requirement set forth in the Specifications and/or the Contract Drawings is omitted from Schedule B, such omission from Schedule B shall have no effect and the Contractor's obligation to provide the manufacturer's warranty, as set forth in the Specifications and/or the Contract Drawings, shall remain in full force and effect.
- (c) In the event a warranty requirement for a particular item of material or equipment is omitted from Schedule B, as well as from the Specifications or the Contract Drawings, and the manufacturer of such item actually provides a warranty, the Contractor shall be obligated to obtain and deliver to the Commissioner the highest level of warranty actually provided by that manufacturer.
- (11) Exculpatory Provisions: In the event the Specifications and/or the Contract Drawings contain any provision whereby the consultant and/or any of its officers, employees or agents, including subconsultants, is absolved of responsibility for any act or omission, such provision is deemed deleted.
- (12) Insurance: Provisions regarding insurance coverage the Contractor is required to provide are set forth in Article 22 of the City of New York Standard Construction Contract and Schedule A, which is included in the Addendum to the General Conditions. In the event the Specifications and/or the Contract Drawings contain any provision regarding insurance requirements, such provision is deemed deleted.
- (13) Indemnification: Provisions regarding indemnification are set forth in Articles 7, 12, 22 and 57 of the City of New York Standard Construction Contract. In the event the Specifications and/or the Contract Drawings contain any provision regarding indemnification, such provision is deemed deleted.
- (14) Dispute Resolution: Provisions regarding dispute resolution are set forth in Article 27 of the City of New York Standard Construction Contract. In the event the Specifications and/or the Contract Drawings contain any provision regarding dispute resolution, such provision is deemed deleted.
- (15) Payment to Other Entities: In the event the Specifications and/or the Contract Drawings contain any provision which requires the Contractor to make payments to an entity other than a subcontractor and/or supplier providing services and/or material for the project, such provision is deemed deleted.
- (16) General Conditions: In the event of any conflict or inconsistency between (1) the Specifications and/or the Contract Drawings and (2) the General Conditions, the General Conditions shall prevail.
- (17) Standard Construction Contract: In the event of any conflict or inconsistency between (1) the Specifications and/or the Contract Drawings and (2) the City of New York Standard Construction Contract, the City of New York Standard Construction Contract shall prevail.

SCHEDULE A (FOR PUBLICLY BID PROJECTS)
Contract Requirements

Various Articles of the Contract refer to requirements which are set forth in Schedule A of the General Conditions. The Schedule set forth below specifies the following: (1) the referenced Articles of the Contract, and (2) the specific requirements applicable to the contract.

REFERENCE	ITEM	REQUIREMENTS	CONTRACT FOR GENERAL CONSTRUCTION
Article 14 Contract	Time of Completion	Consecutive Calendar Days	180 ccds
Article 15 Contract	Liquidated Damages completion	For each consecutive calendar day over time	\$600
Article 17 Contract	Sub- contracts	Not to exceed percent of Contract Price	60%
Article 21 Contract	Retainage	Percent of voucher	If 100% bonds are required 5% If 100% bonds are not required, and Contract Price is less than \$1,000,000 10% If 100% bonds are not required, and Contract Price is more than \$1,000,000 10%
Article 24 Contract	Maintenance & Guaranty	Percent of Contract Price	1%
Article 77 Contract	MWBE Program		See Subcontractor Utilization Plan in the Bid Booklet

SCHEDULE A (FOR PUBLICLY BID PROJECTS)

Relating to Article 22 - Insurance

PART I. Minimum Limits and Special Conditions

Insurance indicated by a blackened box (■) or by (X) in the 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>\$ 1,000,000 per occurrence \$ 2,000,000 aggregate (applicable separately to this Project)</p> <p>Additional Insureds: 1. City of New York, including its officials and employees, and 2. Greeley and Hansen, LLC 3. _____</p>
<p>■ Workers' Compensation Art. 22.1.2 ■ Disability Benefits Insurance Art. 22.1.2 ■ Employers' Liability Art. 22.1.3 <input type="checkbox"/> Jones Act Art. 22.1.4 <input type="checkbox"/> U.S. Longshoremen's and Harbor Workers Compensation Act Art. 22.1.4</p>	<p>Workers' Compensation: Statutory per New York State law without regard to jurisdiction</p> <p>Disability Benefits Insurance: Statutory per New York State law without regard to jurisdiction</p> <p>Employers' Liability: \$1,000,000 each accident</p>
<p>■ Builders' Risk Art. 22.1.5 <input type="checkbox"/> Installation Floater</p>	<p>Applicable to Builders' Risk or Installation Floater: _____ 100 _____ % of total value of Work</p> <p>City of New York and the Contractor named as Loss Payee for the Work in order of precedence, as their interests may appear.</p> <p><u>Note:</u> Article 22.1.5 is revised by deleting the following sentence: "Such policy shall name as insureds the City, the Contractor, and its Subcontractors". This deletion applies to Builders' Risk and Installation Floater.</p>

SCHEDULE A (FOR PUBLICLY BID PROJECTS)

Relating to Article 22 - Insurance

PART I. Minimum Limits and Special Conditions (Continued)

Insurance indicated by a blackened box (■) or by (X) in the 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>■ Comprehensive Business Auto Coverage Art. 22.1.6</p>	<p>\$ <u>1,000,000</u> per accident</p> <p>If vehicles are used for transporting hazardous materials, the Contractor shall provide pollution liability broadened coverage for covered autos (endorsement CA 99 48) as well as proof of MCS 90</p> <p>Additional Insured: 1. City of New York, including its officials and employees</p>
<p>■ Pollution/Environmental Liability Art. 22.1.7</p>	<p>\$ 1,000,000 per occurrence</p> <p>\$ 2,000,000 aggregate</p> <p>Additional Insureds: 1. City of New York, including its officials and employees, and 2. Greeley and Hansen, LLC 3. _____</p>
<p>■ Marine Protection and Indemnity Art. 22.1.8(a)</p>	<p>\$ 1,000,000 per occurrence</p> <p>\$ 2,000,000 aggregate</p> <p>Additional Insureds: 1. City of New York, including its officials and employees, and 2. Greeley and Hansen, LLC 3. _____</p>

SCHEDULE A (FOR PUBLICLY BID PROJECTS)

Relating to Article 22 - Insurance

PART I. Minimum Limits and Special Conditions (Continued)

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

<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 checked="" type="checkbox"/> Collision Liability/Towers Liability Art. 22.1.8(c)	\$ 2,000,000 per occurrence \$ 4,000,000 aggregate Additional Insureds: 1. City of New York, including its officials and employees, and 2. Greeley and Hansen, LLC 3. _____
<input checked="" type="checkbox"/> Marine Pollution Liability Art. 22.1.8(d)	\$ 1,000,000 each occurrence Additional Insureds: 1. City of New York, including its officials and employees, and 2. Greeley and Hansen, LLC 3. _____
[OTHER] Art. 22.1.9 <input type="checkbox"/> Railroad Protective Liability _____	\$ _____ per occurrence \$ _____ aggregate Additional Insureds: 1. City of New York, including its officials and employees, and 2. _____ 3. _____

SCHEDULE A (FOR PUBLICLY BID PROJECTS)

Relating to Article 22 - Insurance

PART I. Minimum Limits and Special Conditions (Continued)

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

<p>[OTHER] Art. 22.1.9</p> <p>■ Asbestos Liability</p>	<p>Only required of the Contractor or Subcontractor performing any required asbestos removal.</p> <p>\$1,000,000 each occurrence, \$2,000,000 aggregate (Combined Single Limit);</p> <p>Additional Insureds: 1. City of New York, including its officials and employees, and 2. Greeley and Hansen, LLC 3. _____</p>
<p>[OTHER] Art. 22.1.9</p> <p><input type="checkbox"/> Boiler Insurance</p>	<p>\$200,000</p>
<p>[OTHER] Art. 22.1.9</p> <p>■ Professional Liability</p> <p>In the event any section of the Specifications requires the Contractor to engage a Professional Engineer to provide design and/or engineering services, the Engineer engaged by the Contractor, as well as any sub consultant(s) performing professional services, shall provide Professional Liability Insurance.</p>	<p>\$1,000,000 per occurrence</p> <p>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 Agreement 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>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>

SCHEDULE A (FOR PUBLICLY BID PROJECTS)

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 _____, 201__

NOTARY PUBLIC

SCHEDULE A (FOR PUBLICLY BID PROJECTS)

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**.

ACCO's Office, Insurance Unit

30-30 Thomson Avenue, 4th Floor

Long Island City, New York 11101

SCHEDULE B

Guarantees and Warranties

(Reference: Article 1.22 of the General Conditions)

GUARANTY FROM CONTRACTOR

(1) **Contractor's Guaranty Obligation:** 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 the Contract), except for the areas of Work set forth below:

- Roofing, Waterproofing, and Joint Sealant Work. For these types of work, the guarantee period shall be (2) two years.
- Trees and/or Plant Material. For trees and/or plant material furnished and installed, the guarantee period shall be (2) two years. During the guarantee period, the Contractor shall provide all maintenance services set forth in the Specifications.

(2) **Guaranty Period:** The obligation of the Contractor, and its Surety under the Performance Bond, is limited to the period(s) of time specified above.

(3) **Other Provisions Deemed Deleted:** In the event the Specifications and/or the Contract Drawings contain any provisions regarding guaranty requirements, such provisions are deemed deleted and replaced with the guaranty requirements set forth in this Schedule B.

WARRANTY FROM MANUFACTURER

(1) **Contractor's Obligation to Provide Warranties:** The items of material and/or equipment for which manufacturer warranties are required are listed below. For each item of material and/or equipment listed below, the Contractor shall obtain a written warranty from the manufacturer. Such warranty shall provide that the material or equipment is free from defects for the period set forth below and will be replaced or repaired within such specified period. The Contractor shall deliver all required warranties to the Commissioner.

(2) **Required Warranties:**

Specification Number	Material or Equipment	Warranty Period
----------------------	-----------------------	-----------------

NA

(3) **Application:** The obligations under the warranty for the periods specified above shall apply only to the manufacturer of the material or equipment, and not to the Contractor or its Surety; provided, however, the Contractor retains responsibility for obtaining all required warranties from the manufacturers and delivering the same to the Commissioner.

(4) **Other Provisions:** The warranty requirements set forth in this Schedule B are also included in the Specifications.

(a) In the event of any conflict between a warranty requirement set forth in the Specifications and a warranty requirement set forth in Schedule B, the warranty requirement set forth in Schedule B shall take precedence.

- (b) In the event a warranty requirement set forth in the Specifications is omitted from Schedule B, such omission from Schedule B shall have no effect and the Contractor's obligation to provide the manufacturer's warranty, as set forth in the Specifications, shall remain in full force and effect.
- (c) In the event a warranty requirement for a particular item of material or equipment is omitted from both Schedule B and the Specifications, and the manufacturer of such item actually provides a warranty, the Contractor shall be obligated to obtain and deliver to the Commissioner the highest level of warranty actually provided by that manufacturer.
- (d) In the event a warranty requirement is provided for a particular item of material or equipment, and such requirement specifies a warranty period that is longer than that which is actually provided by any of the specified manufacturers, the Contractor shall be obligated to obtain and deliver to the Commissioner the highest level of warranty actually provided by any of the specified manufacturers, unless otherwise directed in writing by the Commissioner.

SCHEDULE C

Contract Drawings

(Reference: Article 1.04(A) of the General Conditions)

The Schedule set forth below lists all Contract Drawings for the Project.

Sheet No.	DWG. No.	DWG Title
-	G-001	Cover Sheet
1	C-001	Legend, General Notes and Abbreviations
2	C-002	Existing Bathymetry
3	C-003	Existing Site Grading, Paving, Landscaping and Demolition Plan
4	C-004	Existing Site Grading, Paving, Landscaping and Demolition Plan – Partial Plan
5	C-005	Final Site Grading, Paving and Landscaping Plan
6	C-006	Final Site Grading, Paving and Landscaping Plan – Partial Plan
7	C-007	Existing Utilities and Utility Demolition Plan
8	C-008	Existing Utilities and Utility Demolition Plan – Partial Plan
9	C-009	Site Work Details
10	D-001	Demolition – General Notes
11	D-201	Demolition – Architectural – Tipping Floor Plan
12	D-202	Demolition – Architectural – Roof Plan
13	D-203	Demolition – Architectural – North and South Elevations
14	D-204	Demolition – Architectural – East and West Elevations
15	D-205	Demolition – Architectural – Personnel Area Partial Plans
16	D-301	Demolition – Structural – Foundation Plan
17	D-302	Demolition – Structural – Pier Plan
18	D-303	Demolition – Structural – Pier Sections
19	D-304	Demolition – Structural – Tipping Floor Framing Plans
20	D-305	Demolition – Structural – Roof Framing Plan
21	D-306	Demolition – Structural – Exterior Wall North and South Elevations
22	D-307	Demolition – Structural – Exterior Wall East and West Elevations
23	D-308	Demolition – Structural – Transverse Section
24	D-309	Demolition – Structural – Roof Trusses – Sheet 1
25	D-310	Demolition – Structural – Roof Trusses – Sheet 2
26	D-311	Demolition – Structural – Stair Plans and Sections
27	D-312	Demolition – Structural – Ramp Foundation Plan
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SCHEDULE D

Electrical Motor Control Equipment

(Reference: Article 1.37, Part K of the General Conditions)

Not Used

SCHEDULE E

Separation of Trades

(Reference: Article 1.40 of the General Conditions)

Not Used

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End of Section

CONTRACT # 1
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Section 01120
CONTRACT SUMMARY

PART 1 GENERAL**1.01 SECTION INCLUDES**

- A. Location of work
- B. Description of Work
- C. Site Characterization Reports and Information

1.02 LOCATION OF WORK

- A. The work of this contract will be performed at South Bronx, Borough of Bronx, on the East River, south of Farragut Street.

1.03 DESCRIPTION OF WORK

- A. The following is a general description only, and shall not be construed as a complete description of the work to be performed.
- B. The principal items of work are:
 - 1. Environmental Remediation at the South Bronx MTS
 - 2. Demolition of the South Bronx MTS to piles and pile caps
 - 3. Demolition of the South Bronx MTS Ramp to grade
 - 4. Construction of new fencing as shown and specified
 - 5. Miscellaneous Site and grading work

1.04 SITE CONDITIONS AND SUBSURFACE CHARACTERIZATION REPORTS

- A. For the purposes of design, borings have been made, samples taken, and environmental investigations and topographical surveys have been made at the proposed Sites. The following documents are available for inspection by bidders.
 - 1. *South Bronx Marine Transfer Station Hazardous Materials Investigation, November 2012*
 - 2. *Geotechnical Report, June 2005*
 - 3. *Building Materials and Equipment Investigation, April 2003*
- B. Application for inspection of geotechnical data and other reports should be made to DSNY Bureau of Long Term Export, 7th Floor, 44 Beaver Street, NY, NY 10004. All such material and information relating to boring records and subsurface conditions are expressly excluded from and are not a part of this Contract and are

available for information purposes only. The DSNY does not warrant the accuracy of these documents.

PART 2 PRODUCTS (Not Used)

PART 3 EXECUTION (Not Used)

-END OF SECTION-

Section 01140
WORK RESTRICTIONS

PART 1 GENERAL**1.01 SECTION INCLUDES**

- A. Working hours

1.02 RELATED SPECIFICATIONS

- A. Section 01271 – Milestones and Liquidated Damages
- B. Section 01321 – Construction Progress Scheduling

1.03 WORKING HOURS

- A. The normal working hours for the project will be an 8-hour work day between the hours of 7:00 AM and 6:00 PM as directed by the Commissioner, Monday through Friday. However, due to the Construction Schedule, the Contractor is advised that he has the option to work a second shift and/or additional scheduled overtime, as needed, to complete all intermediate activities and to meet the date of substantial completion of the work as defined by Article 14 of the Standard Construction Contract and not later than the scheduled dates as defined in Sections 01271 - Milestones and Liquidated Damages, and 01321 – Construction Progress Scheduling, and the General Conditions.
- B. The Contractor shall have sufficient labor; permanent materials; equipment; tools and supervision available to support a second shift and/or scheduled overtime.
- C. The Contractor shall review the schedules to ensure his ability to comply therewith. The Contractor shall not be entitled to any extra compensation beyond the Contract price in order to meet the scheduled dates.
- D. The Contractor will be directed to take remedial actions as necessary to recover lost time as determined from the Construction CPM Schedules and in accordance with Section 01321 – Construction Process Scheduling. The Contractor shall make no claim for extra compensation solely because of additional costs to meet the scheduled dates or to recover slippage due to Contractor-caused delays.
- E. The Contractor must receive the Commissioner's approval in writing to perform work outside of normal working hours. Except in the case of emergency involving danger to persons or property, when work is scheduled to be performed beyond the normal hours, a second shift, at night or during weekends, the Contractor shall request approval for such work at least 5 days in advance of the beginning of such work. It is each Contractor's responsibility to adhere to any local laws or ordinances that may govern or restrict the performance of such work.

PART 2 PRODUCTS (Not Used)

PART 3 EXECUTION (Not Used)

-END OF SECTION-

**Section 01270
MEASUREMENT AND PAYMENT**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Description of all Bid Form Items to be included in the total bid. Payments shall be made as described in the following paragraphs of this Specification.

1.02 LUMP SUM BID ITEMS

- A. Lump Sum Bid Form Item A, will constitute all work under this Contract and described in the General Conditions, General Requirements, and Detailed Specifications and as shown on the drawings with the exception of Unit Price Bid Items and Allowances.

1.03 ALLOWANCES

- A. The following allowances shall be included in the total bid for the Contract. Descriptions of each allowance are included in the sections referenced. Any unexpended balances of allowances will be retained by the City of New York.
 - 1. Bid Form Item B: Incidental Asbestos Abatement work, in the amount shown on the Bid Form, as described in Section 02081 – General Asbestos Abatement Contractor Work Allowance for Incidental Asbestos Abatement.
 - 2. Bid Form Item C: Hazardous material remediation work, in the amount shown on the Bid Form, as described in Section 01355 – Regulated Materials Control.

1.04 UNIT PRICE BID ITEMS

A. Unit Price Schedule: Additional Earth Excavation.

- 1. Description
 - a. Under Unit Price Schedule Item 1, the Contractor shall perform all additional excavation which may be ordered in writing by the Commissioner.
 - b. The work shall be in accordance with Section 02316 – Excavation.
 - c. The work includes all clearing, temporary sheeting, bracing and shoring, removal of water, transportation and disposal of surplus excavated

material, and other work appurtenant to the additional excavation as ordered.

2. Measurement for Payment

- a. The quantity of additional excavation, in cubic yards, to be measured for payment under this Unit Price Schedule Item shall be the total earth excavated as ordered and approved by the Commissioner beyond and outside the lines and grades necessary to perform the work under Bid Form Item A measured in place before excavation.
- b. Unauthorized additional excavation will not be measured or paid for.
- c. Excavation made to permit placement of select fill materials or concrete cradle or encasement ordered in writing by the Commissioner and not shown on the Contract Drawings will be measured for payment under this Contract Item.

3. Payment for additional excavation, ordered in writing, will be made at the Contract unit price bid per cubic yard for Unit Price Schedule Item 1.

B. Unit Price Schedule Item 2: Additional Select Fill Material

a. Description

- (1) Under Unit Price Schedule Item 2, the Contractor shall furnish, transport and place additional select fill material where ordered in writing by the Commissioner.
- (2) The work shall be in accordance with Section 02317 - Backfilling.

b. Measurement for Payment: The quantity of additional select fill material, in cubic yards, to be measured for payment under this Unit Price Schedule Item will be the actual volume of material placed, measured in place within the appropriate limiting lines established by the Commissioner. Select fill materials used to fill voids resulting from unauthorized excavation will not be measured or paid for, even though their use is ordered by the Commissioner.

c. Payment for additional select fill material, ordered in writing, will be made at the Contract unit price bid per cubic yard for Unit Price Schedule Item 2.

C. Unit Price Schedule Item 3: Additional Common Fill Material

a. Description

- (1) Under Unit Price Schedule Item 3, the Contractor shall furnish, transport and place additional common fill material where ordered in writing by the Commissioner.
 - (2) The work shall be in accordance with Section 02317 - Backfilling.
- b. Measurement for Payment: The quantity of additional common fill material, in cubic yards, to be measured for payment under this Unit Price Schedule Item will be the actual volume of material placed, measured in place within the appropriate limiting lines established by the Commissioner. Common fill materials used to fill voids resulting from unauthorized excavation will not be measured or paid for, even though their use is ordered by the Commissioner.
 - c. Payment for additional common fill material, ordered in writing, will be made at the Contract unit price bid per cubic yard for Unit Price Schedule Item 3.

PART 2 PRODUCTS (Not Used)

PART 3 EXECUTION (Not Used)

-END OF SECTION-

NO TEXT ON THIS PAGE

Section 01310
PROJECT COORDINATION

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Contractor cooperation
- B. Daily work plans
- C. Project meetings
- D. Coordination drawings

1.02 RELATED SPECIFICATIONS

- A. Section 01321 - Construction Progress Scheduling

1.03 CONTRACTOR COOPERATION

- A. The Contractor shall allow the City of New York, the Commissioner and their agents, to enter upon the work for the purpose of constructing, operating, maintaining, removing, repairing, altering or replacing such pipes, sewers, conduits, manholes, wires, poles, or other structures and appliances which may be required to be installed at or in the work. The Contractor shall cooperate with all the aforesaid parties and shall allow reasonable provisions for the prosecution of any other work by the City of New York, or others, to be done in connection with its work, or in connection with normal use of the facilities.
- B. The Contractor shall cooperate fully with the City of New York, the Commissioner, and any other contractors employed on the work, to effect proper coordination and progress to complete the project on schedule and in proper sequence. Insofar as possible, decisions of all kinds required from the Commissioner shall be anticipated by the Contractor to provide ample time for inspection, or the preparation of instructions.

1.04 DAILY WORK PLANS

- A. The Contractor shall submit a Daily Work Plan to the Resident Engineer by 2:00 p.m. of the previous workday, stating the types and locations of the work to be performed the following day. The Daily Work Plan may be handwritten and faxed to his attention.

1.05 PROJECT MEETINGS

- A. General: Meetings will be held at the site as scheduled by the Resident Engineer, at which time the Contractor shall have representatives present to discuss all details relative to the execution of the work.
1. The Contractor shall provide ample office space, tables and chairs to accommodate all present at the meetings, and table space for Drawings.
 2. The Resident Engineer will preside over these meetings and will record the minutes thereof. Prior to each meeting the Resident Engineer will consult with the Contractor and prepare an agenda of items to be discussed. In general, after informal discussion of any item on the agenda, the Resident Engineer will summarize the discussion in a brief written statement and the Contractor shall then dictate a brief statement for the record. The Resident Engineer will distribute copies of the meeting minutes to all parties within 3 days of the meeting.
 3. Project meetings shall conform to the requirements of the General Conditions.
- B. Preconstruction conferences will be held prior to beginning certain items of work, as specified. Attendance and will be mandatory unless otherwise specified.
1. Attendees: Authorized representatives of the City of New York, the Commissioner; Contractor and its superintendent; major subcontractors; suppliers; and other concerned parties shall attend the conference. All participants at the conference shall be familiar with Project and authorized to conclude matters relating to the Work.
 2. Agenda: Discuss items of significance that could affect progress, including the following:
 - a. Tentative construction schedule
 - b. Phasing
 - c. Critical work sequencing and long-lead items
 - d. Designation of key personnel and their duties
 - e. Procedures for processing field decisions and Change Orders
 - f. Procedures for requests for interpretations (RFIs)
 - g. Procedures for testing and inspecting
 - h. Procedures for processing Applications for Payment
 - i. Distribution of the Contract Documents
 - j. Submittal procedures
 - k. Preparation of Record Documents
 - l. Use of the premises
 - m. Work restrictions
 - n. Responsibility for temporary facilities and controls
 - o. Construction waste management and recycling
 - p. Parking availability

- q. Office, work, and storage areas
 - r. Equipment deliveries and priorities
 - s. First aid
 - t. Security
 - u. Progress cleaning
 - v. Working hours
 - w. Procedures for required subcontractor approval requests
- C. Preinstallation conferences will be held at Project site before each construction activity that requires coordination with other construction. Preinstallation conferences will be held when required by the technical specifications and as directed by the Resident Engineer.
1. Attendees: Installer and representatives of manufacturers and fabricators involved in or affected by the installation and its coordination or integration with other materials and installations that have preceded or will follow, shall attend the meeting. Advise Resident Engineer of scheduled meeting dates.
 2. Agenda: Review progress of other construction activities and preparations for the particular activity under consideration, including requirements for the following:
 - a. The Contract Documents
 - b. Options
 - c. Related requests for interpretations (RFIs)
 - d. Related Change Orders
 - e. Purchases
 - f. Deliveries
 - g. Submittals
 - h. Review of mockups
 - i. Possible conflicts
 - j. Compatibility problems
 - k. Time schedules
 - l. Weather limitations
 - m. Manufacturer's written recommendations
 - n. Warranty requirements
 - o. Compatibility of materials
 - p. Acceptability of substrates
 - q. Temporary facilities and controls
 - r. Space and access limitations
 - s. Regulations of authorities having jurisdiction
 - t. Testing and inspecting requirements
 - u. Installation procedures
 - v. Coordination with other work
 - w. Required performance results
 - x. Protection of adjacent work
 - y. Protection of construction and personnel
 - z. Status of pending and anticipated future subcontractor approval requests

3. Resident Engineer will record significant conference discussions, agreements, and disagreements, including required corrective measures and actions.
 4. Do not proceed with installation if the conference cannot be successfully concluded. Initiate whatever actions are necessary to resolve impediments to performance of the Work and reconvene the conference at earliest feasible date.
- D. Progress meetings will be conducted at intervals as directed by the Resident Engineer. The progress meetings specified herein are in addition to the monthly progress meetings specified in Section 01321 – Construction Progress Scheduling.
1. Attendees: In addition to the City of New York and the Resident Engineer, each Contractor, subcontractor, supplier, and other entity concerned with current progress or involved in planning, coordination, or performance of future activities shall be represented at these meetings. All participants at the conference shall be familiar with Project and authorized to conclude matters relating to the Work.
 2. Agenda: Review and correct or approve minutes of previous progress meeting. Review other items of significance that could affect progress. Include topics for discussion as appropriate to status of Project.
 - a. Contractor's Construction Schedule: Review progress since the last meeting. Determine whether each activity is on time, ahead of schedule, or behind schedule, in relation to Contractor's Construction Schedule. Determine how construction behind schedule will be expedited; secure commitments from parties involved to do so. Discuss whether schedule revisions are required to ensure that current and subsequent activities will be completed within the Contract Time.
 - (1) Review schedule for next period.
 - b. Review present and future needs of each entity present, including the following:
 - (1) Interface requirements
 - (2) Sequence of operations
 - (3) Status of submittals
 - (4) Deliveries
 - (5) Off-site fabrication
 - (6) Access
 - (7) Site utilization
 - (8) Temporary facilities and controls
 - (9) Work hours
 - (10) Hazards and risks
 - (11) Progress cleaning
 - (12) Quality and work standards

- (13) Status of correction of deficient items
 - (14) Field observations
 - (15) Requests for interpretations (RFIs)
 - (16) Status of proposal requests
 - (17) Pending changes
 - (18) Status of Change Orders
 - (19) Pending claims and disputes
 - (20) Documentation of information for payment requests
 - (21) Subcontractor approval requests
3. Schedule Updating: Revise Contractor's Construction Schedule after each progress meeting where revisions to the schedule have been made or recognized. Issue revised schedule concurrently with the report of each meeting.
- E. Daily coordination meetings will be held as directed by the Resident Engineer. Project coordination meetings are in addition to specific meetings held for other purposes, such as progress meetings and pre-installation conferences.
1. Attendees: In addition to the City of New York and the Resident Engineer, each Contractor, subcontractor, supplier, and other entity concerned with current progress or involved in planning, coordination, or performance of future activities shall be represented at these meetings. All participants at the conference shall be familiar with Project and authorized to conclude matters relating to the Work.
 2. Agenda: Review and correct or approve minutes of the previous coordination meeting. Review other items of significance that could affect progress. Include topics for discussion as appropriate to status of Project.
 - a. Construction Schedule: Review progress since the last coordination meeting. Determine whether each contract is on time, ahead of schedule, or behind schedule, in relation to the Construction Schedule. Determine how construction behind schedule will be expedited; secure commitments from parties involved to do so. Discuss whether schedule revisions are required to ensure that current and subsequent activities will be completed within the Contract Time.
 - b. Schedule Updating: Revise the Construction Schedule after each coordination meeting where revisions to the schedule have been made or recognized. Issue revised schedule concurrently with report for each meeting.
 - c. Review present and future needs of each contractor present, including the following:
 - (1) Interface requirements
 - (2) Sequence of operations

- (3) Status of submittals
- (4) Deliveries
- (5) Off-site fabrication
- (6) Access
- (7) Site utilization
- (8) Temporary facilities and controls
- (9) Work hours
- (10) Hazards and risks
- (11) Progress cleaning
- (12) Quality and work standards
- (13) Change Orders
- (14) Subcontractor approvals

PART 2 PRODUCTS (Not Used)

PART 3 EXECUTION (Not Used)

-END OF SECTION-

**Section 01321
CONSTRUCTION PROGRESS SCHEDULING**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. General requirements for Critical Path Method (CPM) Schedule.
- B. Progress meeting and reports.
- C. Remedial measures.

1.02 PAYMENT

- A. The Contractor shall include the cost for furnishing the Construction Scheduling services as described herein in the lump sum price bid for Bid Item 1.
- B. The first Partial Payment will be based on the actual amount of Work completed in accordance with the approved payment breakdown. However, the second Partial Payment will not be made until the CPM Schedule has been finalized and the activity costs have been approved by the City of New York.
- C. The sum of all the activity costs must total the Contract price.

1.03 DEFINITIONS

- A. A work activity is defined as an activity which requires time and resources, (manpower, equipment, and/or material) to complete and must be performed before the Contract is considered complete.
- B. For the purpose of determining the Time for Completion, the construction start date will be the date indicated on the Notice to Proceed.
- C. Float or slack is defined as the amount of time between the early start date and the late start date, or the early finish date and the late finish date of any of the activities in the schedule. Float or slack is not for the exclusive use of or benefit of either the City of New York or the Contractor.

1.04 GENERAL REQUIREMENTS

- A. The Construction Manager will provide a CPM Consultant to assist the Contractor in the preparation of a detailed working plan and schedule, and in subsequent schedule updates.

- B. The CPM Consultant will furnish a copy of the updated network analysis and monthly summary to the Contractor.
- C. The Critical Path Method (CPM) shall be used to control the progress of the job. This system will be implemented by the CPM Consultant provided by the Commissioner.
 - 1. The Contractor shall cooperate fully with the CPM Consultant in the preparation and maintenance of the schedule. All costs incurred by the Contractor to correctly develop and implement the CPM Schedule shall be borne by the Contractor as part of the Contract. The Contractor shall be responsible for its own subcontractors and suppliers in implementing the CPM Schedule.
 - 2. The Contractor is deemed to have included in the bid prices sufficient monies to pay all expenses in connection with supplying the system with sufficient information to guarantee its successful operation and implementation.
- D. After the execution of the Construction Contract, the CPM Consultant will work with the Contractor to develop a comprehensive network diagram covering all portions of the Work and trades. The Contractor is obliged to supply information including work activity descriptions, sequence of Work, time estimates and dollar values for each activity to be included in the preparation of the network, all as requested by the CPM Consultant.
 - 1. Within one week after the execution of the Construction Contract, the Contractor shall submit the name, address and telephone number of the person designated by the Contractor as its lawful CPM Representative and schedule contact.
- E. Both the early and late finish dates for construction completion on the approved CPM Schedule shall be equal to the total Contract duration. The detailed CPM network for the entire Project shall be submitted to the Commissioner as soon as possible following the Notice to Proceed. The CPM network will be reviewed by the Commissioner.
- F. The Commissioner will be the final judge as to the proper functioning of the CPM network and is empowered under the terms of the Contract to call upon the Contractor to remedy the functioning of the systems whenever deficiencies of whatever nature occur during the course of the Work. Refusal by the Contractor to maintain the progress of the Work consistent with the CPM schedule shall be interpreted as a delay of Contract.
 - 1. Activities that have posted progress without predecessors being completed (Out-of-Sequence Progress) will not be allowed except on a case-by-case basis with the approval of the Commissioner. A written explanation of each

shall be included in the monthly submittal. The Commissioner may direct that changes in schedule logic be made to correct any or all out-of-sequence work.

PART 2 PRODUCTS

2.01 PROJECT PLAN AND CPM SCHEDULE

- A. Within seven working days after the Notice to Proceed of this Contract the CPM Consultant shall meet with the Contractor to develop a comprehensive and detailed working plan and schedule for all procurement items and all Work required to complete this Project.
- B. Network Diagram
 - 1. A diagram representing all the Work for this Project will be prepared by the CPM Consultant showing the priority and interdependence of activities and the sequence in which the Work is to be accomplished as planned by the Contractor. Each segment will be analyzed in sufficient detail by the Contractor, the CPM Consultant, and the Commissioner to insure reasonably accurate time durations. Time units shall be in working days and one day will be the smallest time unit shown. When completed, the network diagram shall represent the Contractor's own plan for the Project, consistent with the contract schedule.
 - a. It shall be the Contractor's responsibility to ensure that all of the Work is described by the network diagram to its satisfaction and that the diagram correctly represents the sequence, means, methods, techniques and procedures by which it plans to perform the Work. The CPM Consultant will assist the Contractor in this review only to the extent to make the Contractor's information compatible with the CPM Consultant's format. Upon completion of the diagram, the CPM Consultant will prepare a computer printout reflecting the schedule.
 - b. Network activities shown on a detailed or sub-network diagram shall include, in addition to construction activities, the submittal and approval of Samples, Shop Drawings, etc.; the procurement of materials and equipment; manufacture and/or fabrication of special material and major equipment, their shop inspection, testing and storage or delivery to the jobsite; installation; preliminary, final and performance testing. All activities and dates for completion of all or part of the Work will be shown. The selection and number of activities shall be subject to the CPM Consultant's review and Commissioner's approval.
 - 2. The Contractor shall prepare and make available to the CPM Consultant all information required within thirty days of the Notice to Proceed. During this

time the Contractor shall meet with the CPM Consultant as often as necessary to supply the required information.

3. The following information shall be shown on the diagrams for each activity: preceding and following event number, description of activity, cost and activity duration. In calculating activity durations, Saturdays, Sundays, Holidays, and normal inclement weather should be considered.
4. Summary Network: A summary network diagram consisting of a minimum of fifty activities and a maximum of one hundred activities shall be prepared. The summary network shall be based on and supported by detailed diagrams. Related activities shall be grouped on the network.
5. Mathematical Analysis: On completion of the network diagram, the CPM Consultant will have computer input data prepared. A computer run will then be made to generate a schedule for the Project based on the information supplied. In the event that the schedule produced exceeds the contractual date of the Contract or interim specified milestone dates, the CPM Consultant and the Contractor will revise the working plan until a schedule is established that meets the Contract completion date.
 - a. Upon receipt of the Contractor's information, the final working plan and schedule will be completed and submitted to the Contractor and Commissioner for approval. Approval of the final working plan and schedule by the Contractor shall be given within seven calendar days, and no requisition for payment by the Contractor will be processed until approval of the schedule the Contractor is received by the Commissioner.
 - b. The following information will be furnished for each activity:
 - (1) Preceding and following event number
 - (2) Activity description
 - (3) Responsibility for activity (Contractor, Commissioner, etc.)
 - (4) Estimated duration of activity
 - (5) Earliest start date (by calendar date)
 - (6) Earliest finish date (by calendar date)
 - (7) Latest start date (by calendar date)
 - (8) Latest finish date (by calendar date)
 - (9) Slack or float (in calendar days)
 - (10) Monetary value of activity
 - (11) Percentage of activity completed
 - (12) Contractor's remaining cost on portion of activity completed, and original cost

- c. The analysis shall also list the activities in sorts or groups as follows:
 - (1) By activity number, from lowest to highest.
 - (2) By the amount of float (slack).
 - (3) By earliest allowable start date, with a three month cutoff.

- d. The formal computation shall also include the following information, if required of /or by the Contractor:
 - (1) Identification of activities which are planned to be expedited by use of overtime or double shifts to be worked including Saturdays, Sundays and Holidays

2.02 SCHEDULE REVIEW AND UPDATING

- A. To maintain and aid in the implementation of the schedule, the CPM Consultant will review with the Contractor and the Commissioner the working plan and schedule periodically, at least monthly or more often, as required by the Commissioner for the duration of construction. These meetings are separate and apart from job meetings and coordination meetings. If necessary, the Contractor will take part in a field inspection prior to each update.

- B. All submissions, approvals, fabrication status, as well as Work completed in the preceding month, all Work in progress, and all Work scheduled to be performed during the upcoming months shall be reviewed.

- C. All Change Orders or other information which may affect the Project Schedule shall be checked against the original plan and schedule, and worked into the plan along with delays in any other critical areas as noted. A new computer run will be made to determine the effect, if any, of changes or delays made on the Contract completion date.

- D. Problems having a direct or indirect effect upon the schedule shall be discussed and responsibility for resolution documented.

- E. If the latest completion time for any significant job does not come within the time allowed by the Contract, the sequence of jobs and/or performance of that job shall be revised by the Contractor (with the assistance of the CPM Consultant as required on the format) through concurrent operations, additional manpower, additional shifts, overtime, etc., until the schedule produced indicates that all significant Contract completion and occupancy times will be met. No additional cost will be allowed the Contractor for overtime, additional manpower, equipment, additional shifts, etc. (except as provided elsewhere in the Contract Documents), if such expediting procedures are necessary.

- F. If the Contractor thereafter desires to make changes in the method of operating and scheduling, it shall notify the Commissioner, in writing, stating the reasons for the change.

2.03 MONTHLY SUMMARY REPORT

- A. In addition to the updated network and analysis as described, the CPM Consultant will also submit a narrative report with the updated analysis which will include, but not be limited to, a description of the problem areas, current and anticipated, delaying factors and their impact, and an explanation of corrective actions taken or proposed by the Contractor based on information gathered at the update meetings.
- B. The monthly summary will reflect a cost summary of payments and percent completions for the Contract based on the CPM schedule used as the Contractor's periodic request for payment. The report will state the amount of Work actually completed and the schedule as of the report date and the progress along the critical path in terms of days ahead or behind the allowable dates. If the Project is behind schedule, progress along other paths with negative slack shall also be reported.

PART 3 EXECUTION

3.01 BI-WEEKLY PROGRESS MEETING AND REPORTS

- A. Once every two weeks on a date established by the Commissioner, a job-site progress meeting will be held at which time the schedule will be reviewed. The meeting shall be attended by the Commissioner, the Contractor and the CPM Consultant. The Contractor's representative(s) at the meetings shall have the competence and authority to make any necessary decisions and their statement shall commit the Contractor to the agreed procedures, sequence of operations and time schedules.
- B. Prior to the meeting, the CPM Consultant will obtain through any required means, including site meetings, the necessary information to update the CPM Schedule to reflect progress to date and to update the plan of the work for the balance of the project. The updated Schedule will be available at the meeting for review. To update the CPM Schedule, the Contractor shall:
 1. Enter actual start and completion dates, work days, number of shifts, crew size, and equipment used for those activities started and/or completed during the previous reporting period.
 2. For activities in progress, indicate the percentage complete to date. Review and revise as necessary the network logic for the balance of the work from the update to the estimated completion date.

3. For activities not yet started, review and revise as necessary, the necessary logic for the durations and the estimated start and completion dates.
4. Enter for each applicable activity, actual installed quantities information and corresponding cost information.
5. Add authorized contract modifications.
6. Annotate updated status information on the CPM Schedule in such a manner that the CPM Schedule shall graphically depict the current status of the Work.

3.02 REMEDIAL MEASURES

- A. If at any time during the project, the Contractor fails to complete any activity by its latest completion date, it will be required, within 7 days, to submit to the Commissioner a written statement as to how and when it plans to reorganize its work force to return to the current CPM Schedule.
- B. The Commissioner may require any Contractor to add to its equipment or construction forces, as well as increase the working hours, if operations fall behind the Contractor's baseline schedule at any time during the construction period.
- C. Under no circumstances will the addition of equipment or construction forces, increasing the working hours or any other method, manner or procedure to return to the CPM Schedule be considered justification for contract modification or extra work.

-END OF SECTION-

NO TEXT ON THIS PAGE

**Section 01330
SHOP DRAWINGS**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Definition of Shop Drawings
- B. General requirements for submittals
- C. Letter of transmittal
- D. Approval of Suppliers
- E. Shop Drawings submittal
- F. Contractor responsibilities
- G. Approval of Shop Drawings not a waiver
- H. Record-Keeping

1.02 DEFINITION OF SHOP DRAWINGS

- A. Shop Drawings shall mean drawings, prints, descriptive literature, test reports, calculations, schedules, materials lists and information such as special drawings, schedules, calculations and curves.

1.03 GENERAL REQUIREMENTS FOR SUBMITTALS

- A. The submittal of Shop Drawings and inquiries pertaining to engineering features or specification and Contract Drawing interpretations shall conform to procedures described in the General Conditions and as detailed or modified in this Section.
- B. Shop Drawings shall be provided when specifically required in the Specifications. Performance curves and detailed information on materials shall be provided when requested by the Commissioner.
- C. Samples shall be submitted as described in the General Conditions.
- D. Submittal shall be made to the Commissioner. All submittals and drawings shall be in the English Language and US Customary Units.

1.04 LETTER OF TRANSMITTAL

A. A letter of transmittal shall accompany all Shop Drawing submittals. A single letter of transmittal may accompany multiple Shop Drawing submittals, including those Shop Drawing submittals that are for different Sections of the Specifications, provided that they pertain to the same item of work. The letter of transmittal shall include the following information for each submittal: Specification Section number, submittal number, review cycle, title/description of the submittal, Shop Drawing source company name (Contractor, Subcontractor, supplier, or manufacturer), and Shop Drawing reference number if applicable. Insofar as possible, letters of inquiry concerning certain phases of the Contract shall also deal with only one Section of the Specifications.

B. All letters of transmittal shall be sent to the Commissioner in triplicate.

C. At the beginning of each letter of transmittal and each letter of inquiry, provide a reference heading indicating the following:

OWNER'S Name: NYC Department of Sanitation
Project Name: _____
Contract Number: _____
Transmittal Number: _____

D. If submittals show variation from the requirements of the Contract, the Contractor shall make specific mention of such variation in his letter of transmittal.

1.05 APPROVAL OF SUPPLIERS

A. The Contractor shall submit the following information in triplicate to the Commissioner within 15 days from the date of Notice to Proceed issued by the Department, and prior to entering into any subcontract for the manufacture or supply of equipment and products:

1. The names and addresses of equipment and product manufacturers and locations of the shops at which the hardware and other items will be manufactured or fabricated.
2. General descriptions and specifications of the fabricated items.
3. A statement as to whether the item is already designed or in production.
4. Any additional information that the Commissioner may deem necessary in order to determine the ability of the manufacturer to produce the equipment as called for by the Contract Documents.

B. The Contractor shall not enter into any subcontracts or purchase agreements for the furnishing of any equipment and products until he has received the Commissioner's

approval in writing for the acceptance by the Department of the proposed manufacturers.

1.06 SHOP DRAWINGS SUBMITTAL

- A. All Shop Drawings and other data submitted for approval shall have an identifying title.
- B. All Shop Drawings and other data submitted shall bear the stamp of approval and signature of the Contractor as evidence that they have been reviewed and approved by the Contractor and that they conform to the requirements of the Contract Documents. Shop Drawing submittals without this stamp of approval will not be reviewed by the Commissioner and will be returned to the Contractor. The stamp shall contain the following minimum information completed in ink:

Project Name: _____
 Contract No.: _____
 Contractor's Name: _____
 Date: _____
 Item: _____
 Specifications: _____
 Section: _____
 Page No.: _____
 Para. No.: _____
 Contract Drawing No.: _____ of _____
 Location: _____
 Submittal No.: _____ Review Cycle No.: _____
 Shop Drawing Reference No.: _____
 Source company name: _____
 Approved By: _____

- C. Shop Drawing Submittal Numbering and Identification: In order to identify and track all Shop Drawing submittals as separate and unique items, the Contractor shall utilize a Shop Drawing submittal identification numbering system as follows:
 - 1. Submittal Number: The Submittal Number shall be a separate and unique number correlating to each individual Shop Drawing that needs to be tracked as a separate and unique item. The Submittal Number shall be a two part, eight character, alpha/numeric number assigned by the Contractor in the following manner:
 - a. The first part of the Submittal Number shall consist of five characters that pertain to the applicable Specification Section number.
 - b. The second part of the Submittal Number shall consist of three digits (the numbers 001 to 999) to number each separate and unique Shop Drawing submitted under each Specification Section.

- c. A dash shall separate the two parts of the Submittal Number.
 - d. As an example, the Submittal Number for the third Shop Drawing submitted under Section 09900 would be 09900-003.
2. Review Cycle: The Review Cycle shall be a three-digit number indicating the initial submission or resubmission of the same Shop Drawing submittal. For example:

001 = first (initial) submission
 002 = second submission (first resubmission)
 003 = third submission (second resubmission)

3. As an example, the Shop Drawing submittal identification numbers for the first submission of the third Shop Drawing submitted under Section 09900 is:

<u>Submittal Number</u>	<u>Review Cycle</u>
09900-003	001

As a second example, the Shop Drawing submittal identification numbers for the second submission of the third Shop Drawing submitted under Section 09900 is:

<u>Submittal Number</u>	<u>Review Cycle</u>
09900-03	002

- D. The Contractor shall initially submit to the Commissioner a minimum of 5 copies of all submittals.
- E. Partial, incomplete, or illegible submissions will be returned to the Contractor without review, for resubmission.
 - 1. After the Commissioner completes its review, the Shop Drawings will be stamped as described in the General Conditions
 - 2. Shop Drawings or other submittals not bearing the Commissioner's "Approved" or "Approved - Subject to Corrections Marked" notation shall not be issued to sub- contractors nor utilized for construction purposes. No work shall be performed or equipment installed without an "Approved" or "Approved - Subject to Corrections Marked" drawing or submittal.
- F. In the event the Contractor obtains the Commissioner's approval for the use of equipment other than that which is shown or specified, the Contractor shall, at its own expense and using methods approved by the Commissioner, make all changes to the Work, including structures, piping, and electrical equipment and controls that may be necessary to accommodate this equipment.

- G. Shop Drawings shall be submitted well in advance of the need for the material or equipment for construction and with ample allowance for time required to make delivery of material or equipment after data covering such is approved. The Contractor shall assume the risk for all materials or equipment which are fabricated or delivered prior to the approval of Shop Drawings. No materials or equipment will be permitted to be incorporated into the Work nor will such be included in monthly payment estimates until approval thereof has been obtained in the specified manner.
- H. The Commissioner will review and process all submittals promptly, but a reasonable time should be allowed for this, for the drawings being examined and returned for correction, and for time required to return the approved drawings to the Contractor.

1.07 CONTRACTOR RESPONSIBILITIES

- A. It is the responsibility of the Contractor to review submittals made by its suppliers and subcontractors before transmitting them to the Commissioner to assure proper coordination of the Work and to determine that each submittal is in accordance with its desires and that there is sufficient information about materials and equipment for the Commissioner to determine compliance with the drawings and specifications. Incomplete or inadequate submittals will be returned for revision without review.
- B. Approval of Shop Drawings shall not relieve the Contractor from the responsibility of furnishing materials and equipment of proper dimension, size, quality, quantity, and all performance characteristics to efficiently perform the requirements and intent of the Contract Documents. Approval shall not relieve the Contractor from responsibility for errors of any sort on the Shop Drawings. Approval is intended only to determine conformance with the information given in the Contract Documents. The Contractor is also responsible for information that pertains solely to the fabrication processes or to the technique of construction and for the coordination of the Work of all trades.

1.08 APPROVAL OF SHOP DRAWINGS NOT A WAIVER

- A. The approval of Shop Drawings submitted by the Contractor shall not constitute a waiver of any of the requirements of this Contract nor shall the City be compelled to accept any structure or apparatus unless it passes all the tests and requirements of the Contract Documents.
- B. All deviations made during construction from final Shop Drawings previously annotated by the Commissioner as "Approved", shall be corrected on the Shop Drawings, and resubmitted to the Commissioner showing conditions as constructed.

1.09 RECORD-KEEPING

- A. Records shall be kept of any changes or adjustments made during manufacture, construction, installation and testing. All affected drawings and material lists shall then be revised by the Contractor, marked, "As-Built Drawing," and be delivered to the Department prior to acceptance of the work by the Department.
- B. The Contractor shall keep one record copy of all Specifications, Plans, Addenda, Supplementary Drawings, Contract Drawings, Shop Drawings, Change Orders and any other clarifications at the site in good order. These documents shall be annotated to show all changes made during the construction process, shall be available to the Commissioner and shall be delivered to the Department of Sanitation upon completion of the work.

PART 2 PRODUCTS (Not Used)

PART 3 EXECUTION (Not Used)

-END OF SECTION-

Section 01355
HAZARDOUS MATERIALS CONTROL

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Hazardous Materials
- B. Unforeseen Hazardous Materials
- C. Air Monitoring
- D. Temporary Services
- E. Decontamination
- F. Submittals

1.02 RELATED SPECIFICATIONS

- A. Section 02223 – Lead Management
- B. Section 02082 – Asbestos Abatement
- C. Section 13210 – Closure of Aboveground Petroleum Storage Tanks
- D. Section 13283 – PCB Management
- E. Section 13285 – Management of Universal and Other Miscellaneous Regulated Waste
- F. Section 13286 – Management of Bird Excrement

1.03 PAYMENT

- A. The costs for handling, disposition, and remediation of known hazardous materials described in Article 1.04 shall be included in the lump sum bid for Bid Form Item A. Known hazardous materials shall include hazardous materials described, listed, referenced or otherwise referred to in the Contract Documents or other documents available for inspection by the Contractor including, but not limited to, the South Bronx Marine Transfer Station Hazardous Materials Investigation Report prepared by Bidwell Environmental (December 2012) and summarized herein.
- B. The costs for further investigation of additional suspect hazardous materials described in Article 1.05, shall be included in the lump sum bid for Bid Form Item A.
- C. Payment for unforeseen hazardous materials as described in Article 1.06 shall be paid out of the Hazardous Materials Remediation allowance. The allowance shall be included by the Contractor in his total bid as shown on the bid form.
 - 1. The allowance shall pay for additional investigation of unforeseen hazardous materials as described in Article 1.06.
 - 2. The allowance shall provide for any extra expenses incurred by the Contractor associated with the handling of hazardous materials confirmed by the

investigation of additional suspect materials as described in Article 1.05. This includes costs the management of hazardous materials as well as additional health and safety precautions to protect site workers.

3. The Contract allowance may be used to pay for development and implementation of remediation plans to address the presence of unforeseen and additionally identified hazardous materials discovered at the project site, as described in Articles 1.05 and 1.06.
4. All costs associated with amending the site-specific Health and Safety Plan (HASP) to account for the presence of unforeseen and additionally identified hazardous materials as described in Articles 1.05 and 1.06 shall be paid under the Contract allowance.
5. Payment for transportation and disposal of unforeseen and additionally identified hazardous materials as described in Articles 1.05 and 1.06, will not be made until executed copies of waste disposal documentation (with complete chain of custody) are submitted to the Commissioner .
6. Payment for allowance items described above will be made in accordance with the provisions of the Standard Construction Contract. The balance of the allowance not expended will be retained by the City of New York of New York.
7. This Contract allowance is intended for addressing the presence of unforeseen and additionally identified hazardous materials and for payment of the hazardous waste tax as described in Article 1.12. The Contract allowance will not be used to cover the cost of remediation of known hazardous materials.
8. The allowance shall not pay for any further investigation of those items identified in the Hazardous Materials Investigation Report unless specifically required in Article 1.05.

1.04 KNOWN HAZARDOUS MATERIALS

- A. There are materials present at the South Bronx Marine Transfer Station site that will require special handling in order to protect site workers from potential chemical exposure, prevent environmental impacts from contract work and ensure proper disposal of waste. Known hazardous materials identified during pre-demolition surveys include lead and PCB containing paints, asbestos, universal and other miscellaneous regulated wastes, regulated PCBs-containing equipment, fuels and lubricating oils. The results of the pre-demolition surveys are identified in Tables 1 – 8 below. Additional details associated with known hazardous materials can be found in the South Bronx Marine Transfer Station Hazardous Materials Investigation Report (HMIR) prepared by Bidwell Environmental (December 2012), H drawings and Asbestos Abatement specification included in the contract

documents. The HMIR is provided for informational purposes only and is not part of the Contract.

- B. All lead-containing materials shall be managed in accordance with Section 02223 – Lead Management.
- C. The closure of aboveground petroleum tanks shall be performed in accordance with Section 13210 – Closure of Aboveground Petroleum Storage Tank.
- D. The removal of PCB-regulated materials shall be performed in accordance with Section 13283 – PCB Management.
- E. All Asbestos-Containing Materials (ACM) shall be managed in accordance with Section 02082 – Asbestos Abatement.
- F. Universal and other miscellaneous regulated waste shall be managed in accordance with Section 13285 – Management of Universal and Other Miscellaneous Regulated Waste.
- G. Bird excrement shall be managed in accordance with 13286 – Removal of Bird Excrement.
- H. The Contractor shall note that the South Bronx Marine Transfer Station is in disrepair and the structural integrity is suspect. The Contractor shall verify site conditions in order to develop an understanding of the conditions that may be encountered during performance of the work. Failure by the Contractor to verify existing site conditions shall not result in additional costs to the City of New York of New York.

1.05 ADDITIONAL SUSPECT MATERIALS

- A. Due to limited accessibility in certain areas of the site, the possibility exists that there are other hazardous materials that remain to be identified at the site. A summary of additional suspect materials that could not be confirmed prior to the performance of the work and that will require further investigation is provided in Tables 9 below.
- B. The Contractor shall retain the services of appropriately certified Environmental Professional(s) to perform further investigation of those areas identified in Table 9.
- C. The Contractor's Environmental Professional shall submit a detailed Hazardous Materials Investigation Plan as described in Article 1.11.
- D. The Contractor's Environmental Professional shall not initiate the field investigation until the Hazardous Materials Investigation Plan is approved by the Engineer.

- E. Additionally identified hazardous materials shall be managed in accordance with Sections 02223 – Lead Management, 13210 – Closure of Aboveground Petroleum Storage Tanks, 13283 – PCB Management, 02082 – Asbestos Abatement, 13285 – Management of Universal and Other Miscellaneous Regulated Waste, and 13286 – Management of Bird Excrement..
- F. As applicable, the Contractor may be requested to develop remediation plans for the additionally identified hazardous materials. Alternatively, remediation plans may be developed by the Engineer.

1.06 UNFORESEEN HAZARDOUS MATERIALS

- A. The Contractor shall also be responsible for identifying additional suspect hazardous materials as they are encountered (if any). If additional suspect hazardous materials are encountered, this information shall be immediately reported by the Contractor to the Commissioner. If warranted, the Commissioner will conduct further investigation activities and develop a remediation plan, as applicable. If requested by the Commissioner, the Contractor shall assist the Commissioner in performance of the investigation and shall participate in the development of the remediation plan.

1.07 REMEDIATION OF UNFORSEEN AND ADDITIONALLY IDENTIFIED HAZARDOUS MATERIALS

- A. Where remediation is required, the scope of the remedial action for addressing additional and unforeseen hazardous materials, the Contractor will be requested to provide a remediation cost proposal. The Contractor shall submit the cost proposal to the Commissioner within 10 calendar days from the date the Contractor receives such directive. Remediation work shall not commence until the Contractor receives written notice from the City of New York to proceed with the work.
- B. Some of the remediation work may be critical to maintaining construction schedules. When this occurs (as determined by the Commissioner), the Commissioner will establish a time of completion.
- C. In the event that previously uncharacterized hazardous materials are encountered, the Contractor shall be responsible for waste characterization (as necessary), obtaining permits, profiling, manifesting, segregating, handling, containerizing, loading, transporting, and disposing offsite all additional regulated/hazardous materials encountered. The work shall be performed by the Contractor in accordance with applicable regulations and requirements presented elsewhere in the Contract Documents, as applicable.
- D. Payment for remediation of unforeseen regulated materials will be made from the allowance described above in Paragraph 1.03C.

1.08 AIR MONITORING

- A. Air monitoring during activities affected by hazardous materials shall be conducted in accordance with the Contractor's site-specific Health and Safety Plan, task-specific addenda for unanticipated or additionally identified hazardous materials, and task-specific requirements described in Sections 02223 – Lead Management, 13210 – Closure of Aboveground Petroleum Storage Tanks, 13283 – PCB Management, 02082 – Asbestos Abatement, and 13285 – Management of Universal and Other Miscellaneous Regulated Waste, and shall abide by all applicable regulations and provisions specified elsewhere in the Contract Documents

1.09 TEMPORARY SERVICES

- A. The Contractor shall be responsible for acquiring all applicable permits (including fees) and providing all applicable notifications (e.g., local, state, federal) necessary to complete the environmental remediation work specified in the Contract Documents.
- B. The Contractor shall be responsible for coordinating the deactivation of utilities with the utility company(ies), as necessary, to perform the work.

1.10 DECONTAMINATION

- A. All Contractor's (and their subcontractor's) equipment mobilized to the site shall be thoroughly cleaned prior to mobilization to the site. Based upon review by the Commissioner, equipment that is not visibly clean upon site mobilization shall be taken offsite and cleaned by the Contractor prior to remobilization at no additional cost to the City of New York.
- B. The Contractor shall make provisions to mitigate any offsite tracking of materials (e.g., onto public roadways), as necessary. At a minimum, vehicle decontamination shall be as specified in Section 02371 – Dust, Soil Erosion and Sedimentation Control.
- C. The Contractor shall also be responsible for task-specific decontamination protocol as required by Sections 02223 – Lead Management, 13210 – Closure of Aboveground Petroleum Storage Tanks, 13283 – PCB Management, 02082 – Asbestos Abatement, 13285 – Management of Universal and Other Miscellaneous Regulated Waste, and 13286 – Management of Bird Excrement.
- D. All non-disposable equipment that has been used during implementation of the project and has come in contact with hazardous materials shall be decontaminated before being removed from the site. Equipment decontamination shall be performed in a designated area (to be proposed by the Contractor and reviewed by the Commissioner). Unless otherwise addressed in Sections 02223 – Lead Management, 13210 – Closure of Aboveground Petroleum Storage Tanks, 13283 – PCB Management, 02082 – Asbestos Abatement, 13285 – Management of Universal and Other Miscellaneous Regulated Waste, and 13286 – Management of

Bird Excrement, decontamination of non-disposable equipment shall be deemed complete based on a visual observation by the Commissioner. Equipment that does not meet the "visibly clean" objective, as determined by the Commissioner, shall be re-cleaned by the Contractor at no additional cost to the City of New York. Decontamination of such non-disposable equipment shall be conducted using a minimum of appropriate and industry-recognized non-toxic decontamination materials. Decontamination shall take place in a separately constructed decontamination area suitable for the size of the equipment to be decontaminated and using materials appropriate for the collection of the decontamination wastes. The Contractor shall be responsible for the collection, containerization, characterization, profiling, transportation, and disposal of the decontamination wastes in accordance with all applicable laws, rules, and regulations and these Contract Documents.

1.11 SUBMITTALS

- A. At least 30 calendar days prior to the commencement of the environmental remediation work, the Contractor shall submit the following items for review:
1. Hazardous Materials Investigation Plan. The Contractor shall retain the services of an Environmental Professional to develop and implement additional inspection and sampling in areas that were previously inaccessible as described in Article 1.05. The Plan shall detail protocol for the collection and analysis of representative samples of those items identified in Table 9 below. The Hazardous Materials Investigation Plan shall include at a minimum:
 - a. Credentials of the Environmental Professional and contract-specific investigation team, including relevant experience, licenses or certifications. At a minimum, all personnel involved in the performance of the hazardous materials investigation shall have a minimum of two (2) years' experience conducting similar investigations, have current (within the last year) HAZWOPER training and shall carry current certifications for conducting investigations, as applicable.
 - b. Credentials of the laboratory(ies) providing sample analyses. The credentials shall include current certification by the New York State Department of Health (ELAP certification).
 - c. Inspection and sample collection protocol, and analytical test methods for the all items identified in Table 9 below.
 - d. Health and safety protocol for all investigation activities including exposure monitoring, engineering controls, personal protective equipment and decontamination.

- e. Details of the Sampling and Analysis Report, including a sampling narrative, summary of findings and recommendations for remedial action, as applicable.
2. Site Management Plan. The purpose of the Site Management Plan is to summarize the materials, procedures, and controls that the Contractor intends to utilize during the performance of site work affecting hazardous materials. . The Site Management Plan shall address pertinent project and site management issues, items, and topics and shall be of sufficient detail to allow the Commissioner to fully understand the Contractor's proposed approach for completing all environmental remediation work required under the Contract. The plan shall include, but shall not be limited to, the following:
 - a. Copies of all applicable permits necessary to complete the environmental remediation work specified in the Contract.
 - b. A Project Management Chart presenting the names, titles, office locations, and office and cell phone numbers of individuals responsible for conducting the environmental remediation work activities. At a minimum, the chart shall include the Contractor's responsible corporate officer, the office project manager, the site project manager(s)/superintendent(s), and the HASP author.
 - c. A bar-graph-type schedule presenting the Contractor-proposed sequence for implementing work affecting hazardous materials and the time required to complete each work activity from the award of the Contract. The schedule shall reflect the priority for addressing damaged ACM and asbestos containing debris identified on the Tipping Floor, Access Ramp, Ramp A and Ramp B and other potential areas within the Marine Transfer Station, such that hazards posed by asbestos can be eliminated or controlled during all other aspects of the contract work. The schedule shall be prepared and revised as specified in the Standard Construction Contract, Articles 9 and 11, and coordinated with the CPM schedule described in Section 01321 – Construction Progress Scheduling.
 - d. Provisions for the safety, security, and protection of all adjacent properties.
 - e. The plan for controlling vehicular and pedestrian traffic at the entrance to the site during work activities.
 - f. A plan for the protection of Contractor-supplied materials and equipment,
 - g. Plans for noise control
 - h. A plan for general dust control measures.

- i. Plans and sections depicting locations, sizes, and materials of construction for the Contractor-proposed staging areas, onsite storage areas, and decontamination areas.
 - j. Methods and materials to be used to mitigate offsite tracking of site-related materials.
 3. Contingency Plan. The Contractor shall prepare, submit, and implement a Contingency Plan that includes, at a minimum, the following items:
 - a. A Spill Prevention Control and Countermeasures Plan for all materials brought to the site and for any liquids that may potentially be encountered or handled during the work affected by hazardous materials (including liquids requiring removal and liquids that remain/may be present at the site). Such liquids shall include, but not be limited to, oils within ballasts, residual liquid in piping, tanks, and tank systems and oil in equipment reservoirs, and liquids associated with universal and other miscellaneous regulated wastes.
 - b. Emergency vehicular access/egress.
 - c. Evacuation procedures of personnel from the work site.
 - d. A list of all contact personnel with mobile and office phone numbers, including the project personnel, the Contractor, fire officials, ambulance service, local and state police, and local hospitals, including routes to local hospitals and procedures for notifying each. During the first day of work at the site, the Contractor shall drive the route to the hospital. Each of the Contractor's subcontractors shall drive the route to the hospital during their first day of work at the site.
 - e. Identification of responsible personnel who will be in a position at all times to receive incoming phone calls and to dispatch Contractor personnel and equipment in the event of an emergency situation.
 4. Water Protection Plan. The Contractor shall prepare, submit, and implement a Water Protection Plan. The Water Protection Plan shall include a description of engineering controls (e.g., physical barriers) that the Contractor proposes to install and maintain to mitigate the release of any materials or debris into adjacent water bodies (either directly or indirectly) during implementation of the environmental remediation work and demolition. In the event of a release, the Contractor shall provide labor, equipment, and materials to perform emergency measures to contain releases, and to remove regulated materials for offsite disposal at no additional cost to the City of New York. The Water Protection Plan shall include a description of emergency measures the Contractor proposes to implement in the event of a release.

5. Submittals required in the following Sections :
 - a. Section 02223 – Lead Management
 - b. Section 13210 – Closure of Aboveground Petroleum Storage Tanks
 - c. Section 13283 – PCB Management
 - d. Section 02082 – Asbestos Abatement
 - e. Section 13285 – Management of Universal and Other Miscellaneous Regulated Waste
 - f. Section 13286 – Management of Bird Excrement
- B. Submittals shall be submitted for review in accordance with the submittal procedures for shop drawings specified in Section 01330 – Shop Drawings.
- C. The Commissioner will review the submittals to determine general compliance with the Contract conditions. The Commissioner's review shall in no way be construed as permitting any departure from the Contract, except where the Contractor has previously requested and received written approval from the Commissioner for such departure. The Commissioner's review does not relieve the Contractor of any responsibility to comply with applicable laws, rules, and regulations. The Contractor will not be permitted to undertake any activity that is directly or indirectly related to the item covered by the submittal until such time that the Commissioner provides notification to the Contractor.
- D. Submittals will be reviewed and marked by the Commissioner as specified in Section 01330 – Shop Drawings.

1.12 HAZARDOUS WASTE TAX

- A. The Contractor may be directed to pay the City of New York's New York State Hazardous Waste Tax assessment from the Hazardous Material Remediation allowance. When directed by the Commissioner, the Contractor shall pay the amount indicated to the New York State Department of Taxation and Finance within 48 hours of notification. The Contractor will be reimbursed for the amount paid (if any), with no provision for overhead and profit, from the Hazardous Material Remediation allowance. If the Contractor is not directed to pay the City of New York's New York State Hazardous Waste Tax, then the Contractor shall supply all necessary documentation (e.g., completed manifests as per Section 13287 – Environmental Waste Transportation and Disposition) to the Commissioner.

PART 2 PRODUCTS (Not Used)

PART 3 EXECUTION (Not Used)

-END OF SECTION-

Table 1
Summary of PCB Paint Chip Analysis
Hazardous Materials Investigation
South Bronx Marine Transfer Station

Sample ID	Location	Sample Description	Color	Substrate	Condition	PCB (mg/kg)
SBMTS PC-1	Meter Room, Tipping Floor	Window Frame	Green	Metal	Poor	ND
SBMTS PC-2	Meter Room, Tipping Floor	Discarded Control Box Door	White	Metal	Poor	ND
SBMTS PC-3	Meter Room, Tipping Floor	Fire Alarm Control Box	Red, Factory Applied	Metal	Poor	ND
SBMTS PC-4	Meter Room, Tipping Floor	Ceiling	White	Concrete	Poor	ND
SBMTS PC-5	Switchboard Room, Tipping Floor	Electrical Box	Grey Over Green	Metal	Poor	ND
SBMTS PC-6	Switchboard Room, Tipping Floor	Switchboard	Black	Metal	Poor	4.98
SBMTS PC-7	Switchboard Room, Tipping Floor	Electrical Box	Grey, Factory Applied	Metal	Fair	ND
SBMTS PC-8	Storage Room, Tipping Floor	Wall	White	Concrete	Poor	ND
SBMTS PC-9	Storage Room, Tipping Floor	Vertical Pipe	Silver	Metal	Poor	ND
SBMTS PC-10	Storage Room, Tipping Floor	Wheel on Pipe	Orange	Metal	Fair	ND
SBMTS PC-11	Storage Room, Tipping Floor	Vertical Pipe	Silver	Metal	Fair	ND
SBMTS PC-12	Storage Room, Tipping Floor	Horizontal Pipe	Rust	Metal	Poor	ND
SBMTS PC-13	Storage Room, Tipping Floor	Hood	Green	Metal	Fair	ND
SBMTS PC-14	Lunch Room, Tipping Floor	Wall	Beige	Concrete	Poor	ND
SBMTS PC-15	Lunch Room, Tipping Floor	Window AC Unit Cover	Beige	Metal	Fair	ND
SBMTS PC-16	Lunch Room, Tipping Floor	Radiator	Silver	Metal	Poor	ND
SBMTS PC-17	Lunch Room, Tipping Floor	Wall Mounted Fan	White, Factory Applied	Metal	Good	ND
SBMTS PC-18	Lunch Room, Tipping Floor	Door	White	Metal	Poor	ND
SBMTS PC-19	Open Area, Tipping Floor	Corner Wall Support	Yellow	Metal	Poor	ND
SBMTS PC-20	Open Area, Tipping Floor	Pipe From Storage Room	Green, Spray Paint	Metal	Fair	ND
SBMTS PC-21	Open Area, Tipping Floor	Hopper	White Over Yellow	Metal	Poor	ND
SBMTS PC-22	Open Area, Tipping Floor	Hopper	Green	Metal	Poor	ND
SBMTS PC-23	Fan Room No. 2, Tipping Floor	Vertical I-beam	Yellow	Metal	Fair	ND
SBMTS PC-24	Fan Room No. 2, Tipping Floor	Vertical I-beam	Black	Metal	Fair	ND
SBMTS PC-25	Flat Roof Above Switchboard Room, Meter Room, Storage Room and Lunch Room	Roofing Tar	Silver	Tar	Fair	ND
SBMTS PC-26	Fan Room No. 2, Tipping Floor	Hopper Wall	Green Over Red	Metal	Poor	ND
SBMTS PC-27	Fan Room No. 1, Tipping Floor	Light Casing	Brown	Metal	Fair	ND
SBMTS PC-28	Weigh Booth, Access Ramp	Wall and Window Frames	Light Green Over Green	Metal	Poor	ND
SBMTS PC-29	Foreman's Office, Tipping Floor	Closet Door	Green Over Green	Metal	Poor	ND

Table 1

**Summary of PCB Paint Chip Analysis
Hazardous Materials Investigation
South Bronx Marine Transfer Station**

Sample ID	Location	Sample Description	Color	Substrate	Condition	PCB (mg/kg)
SBMTS PC-30	Foreman's Office, Tipping Floor	Electrical Box	Grey, Factory Applied	Metal	Fair	ND
SBMTS PC-31	Foreman's Office, Tipping Floor	Electrical Box Interior	White, Factory Applied	Metal	Fair	ND
SBMTS PC-32	Foreman's Office, Tipping Floor	Fire Alarm Annunciator	Beige	Metal	Poor	ND
SBMTS PC-33	Foreman's Office, Tipping Floor	Ventilation Unit	Brown	Metal	Fair	ND
SBMTS PC-34	Foreman's Office, Tipping Floor	Electrical Box	Grey/rust	Metal	Fair	ND
SBMTS PC-35	Foreman's Office, Tipping Floor	Electrical Box	Grey	Metal	Fair	ND
SBMTS PC-36	Foreman's Office, Tipping Floor	Ceiling and Wall	Grey	Concrete	Poor	ND
SBMTS PC-37	Foreman's Office, Tipping Floor	Ceiling and Wall	White	Concrete	Poor	ND
SBMTS PC-38	Foreman's Office, Tipping Floor	Door	Green Over Beige	Metal	Poor	ND
SBMTS PC-39	Open Area, Tipping Floor	Trash Receptacle	White	Wood	Poor	ND
SBMTS PC-40	Open Area, Tipping Floor	Support Beam	Orange, Spray Paint	Concrete	Fair	ND
SBMTS PC-41	Open Area, Tipping Floor	Corner Support for Beam	Beige	Metal	Fair	ND
SBMTS PC-42	Foreman's Office, Tipping Floor	Door	Grey	Metal	Poor	ND
SBMTS PC-43	Men's Toilet, Tipping Floor	Refrigerator	White	Plastic	Fair	ND
SBMTS PC-44	Men's Locker, Tipping Floor	Locker	Grey	Metal	Poor	ND
SBMTS PC-45	Men's Locker, Tipping Floor	Locker Interior	Dark Grey	Metal	Poor	ND
SBMTS PC-46	Men's Locker, Tipping Floor	Large Locker	Green	Metal	Poor	ND
SBMTS PC-47	Men's Locker, Tipping Floor	Locker	Beige	Metal	Poor	ND
SBMTS PC-48	Men's Locker, Tipping Floor	Locker	Silver	Metal	Poor	ND
SBMTS PC-49	Men's Locker, Tipping Floor	Locker	Dark Grey	Metal	Poor	ND
SBMTS PC-50	Men's Locker, Tipping Floor	Locker	White	Metal	Poor	ND
SBMTS PC-51	Ramp B	Wall	Green	Concrete	Fair	ND
SBMTS PC-52	Staircase No. 2 Connecting Tipping Floor and Pier Level	Staircase and Railings	Black Over White	Metal	Fair	ND
SBMTS PC-53	Foreman's Office, Tipping Floor	5x12 Inch Tile Glaze	Brown	Ceramic	Fair	ND

Notes:

(1) Samples collected by Bidwell Environmental on November 14-17, 2012

(2) The regulatory limit for defining TSCA-regulated PCBs is 50 mg/kg. However, any detected concentration of PCBs in paint has the potential to affect worker health and safety during certain construction activities and shall be addressed in the Contractor's health and safety protocol for the affected work

ND  Detected

Table 2
Summary of Lead Paint Chip Analysis
Hazardous Materials Investigation
South Bronx Marine Transfer Station

Sample ID	Location	Sample Description	Color	Substrate	Condition	Lead (mg/kg)
01*	Upper Level Inside, Wall #3	Vertical I-beam	Green	Metal	Fair	103,000
02*	Upper Level Inside, Wall #4	Horizontal I-beam	Green	Metal	Poor	74,300
03*	Upper Level Inside, Wall #3	Window Sill	Green	Metal	Fair	2,460
04*	Lower Level Inside, Wall #2	Cleat	Green	Metal	Poor	6,620
05*	Lower Level Inside, Inside Dock	Vertical I-beam	White	Metal	Poor	33
06*	Lower Level Inside, by the Dock	Horizontal I-beam	Brown	Metal	Fair	40
SBMTS PC-2	Meter Room, Tipping Floor	Discarded Control Box Door	White	Metal	Poor	103
SBMTS PC-3	Meter Room, Tipping Floor	Fire Alarm Control Box	Red, Factory Applied	Metal	Poor	383
SBMTS PC-4	Meter Room, Tipping Floor	Ceiling	White	Concrete	Poor	171
SBMTS PC-5	Switchboard Room, Tipping Floor	Electrical Box	Grey Over Green	Metal	Poor	42,000
SBMTS PC-6	Switchboard Room, Tipping Floor	Switchboard	Black	Metal	Poor	88
SBMTS PC-7	Switchboard Room, Tipping Floor	Electrical Box	Grey, Factory Applied	Metal	Fair	46
SBMTS PC-8	Storage Room, Tipping Floor	Wall	White	Concrete	Poor	99
SBMTS PC-9	Storage Room, Tipping Floor	Vertical Pipe	Silver	Metal	Poor	70
SBMTS PC-10	Storage Room, Tipping Floor	Wheel on Pipe	Orange	Metal	Fair	100,000
SBMTS PC-11	Storage Room, Tipping Floor	Vertical Pipe	Silver	Metal	Fair	6,130
SBMTS PC-12	Storage Room, Tipping Floor	Horizontal Pipe	Rust	Metal	Poor	1,750
SBMTS PC-13	Storage Room, Tipping Floor	Hood	Green	Metal	Fair	705
SBMTS PC-14	Lunch Room, Tipping Floor	Wall	Beige	Concrete	Poor	183
SBMTS PC-15	Lunch Room, Tipping Floor	Window AC Unit Cover	Beige	Metal	Fair	9,300
SBMTS PC-16	Lunch Room, Tipping Floor	Radiator	Silver	Metal	Poor	4,720
SBMTS PC-17	Lunch Room, Tipping Floor	Wall Mounted Fan	White, Factory Applied	Metal	Good	264
SBMTS PC-18	Lunch Room, Tipping Floor	Door	White	Metal	Poor	68
SBMTS PC-19	Open Area, Tipping Floor	Corner Wall Support	Yellow	Metal	Poor	122,000

Table 2
Summary of Lead Paint Chip Analysis
Hazardous Materials Investigation
South Bronx Marine Transfer Station

Sample ID	Location	Sample Description	Color	Substrate	Condition	Lead (mg/kg)
SBMTS PC-20	Open Area, Tipping Floor	Pipe From Storage Room	Green, Spray Painted	Metal	Fair	2,240
SBMTS PC-21	Open Area, Tipping Floor	Hopper	White Over Yellow	Metal	Poor	11,300
SBMTS PC-22	Open Area, Tipping Floor	Hopper	Green	Metal	Poor	247,000
SBMTS PC-23	Fan Room No. 2, Tipping Floor	Vertical I-beam	Yellow	Metal	Fair	125,000
SBMTS PC-24	Fan Room No. 2, Tipping Floor	Vertical I-beam	Black	Metal	Fair	107
SBMTS PC-25	Flat Roof Above Switchboard Room, Meter Room, Storage Room and Lunch Room	Roofing Tar	Silver	Tar	Fair	18
SBMTS PC-26	Fan Room No. 2, Tipping Floor	Hopper Wall	Green Over Red	Metal	Poor	333,000
SBMTS PC-27	Fan Room No. 1, Tipping Floor	Light Casing	Brown	Metal	Fair	31,000
SBMTS PC-28	Weigh Booth, Access Ramp	Wall and Window Frames	Light Green Over Green	Metal	Poor	33,800
SBMTS PC-30	Foreman's Office, Tipping Floor	Electrical Box	Grey, Factory Applied	Metal	Fair	77
SBMTS PC-31	Foreman's Office, Tipping Floor	Electrical Box Interior	White, Factory Applied	Metal	Fair	47
SBMTS PC-32	Foreman's Office, Tipping Floor	Fire Alarm Annunciator	Beige	Metal	Poor	57
SBMTS PC-33	Foreman's Office, Tipping Floor	Ventilation Unit	Brown	Metal	Fair	20
SBMTS PC-34	Foreman's Office, Tipping Floor	Electrical Box	Grey/rust	Metal	Fair	46
SBMTS PC-35	Foreman's Office, Tipping Floor	Electrical Box	Grey	Metal	Fair	14
SBMTS PC-39	Open Area, Tipping Floor	Trash Receptacle	White	Wood	Poor	152
SBMTS PC-40	Open Area, Tipping Floor	Support Beam	Orange, Spray Painted	Concrete	Fair	61,000
SBMTS PC-41	Open Area, Tipping Floor	Corner Support for Beam	Beige	Metal	Fair	125,000
SBMTS PC-42	Foreman's Office, Tipping Floor	Door	Grey	Metal	Poor	721
SBMTS PC-43	Men's Toilet, Tipping Floor	Refrigerator	White	Plastic	Fair	170

Table 2
Summary of Lead Paint Chip Analysis
Hazardous Materials Investigation
South Bronx Marine Transfer Station

<i>Sample ID</i>	<i>Location</i>	<i>Sample Description</i>	<i>Color</i>	<i>Substrate</i>	<i>Condition</i>	<i>Lead (mg/kg)</i>
SBMTS PC-44	Men's Locker, Tipping Floor	Locker	Grey	Metal	Poor	264
SBMTS PC-45	Men's Locker, Tipping Floor	Locker Interior	Dark Grey	Metal	Poor	33
SBMTS PC-46	Men's Locker, Tipping Floor	Large Locker	Green	Metal	Poor	16,100
SBMTS PC-47	Men's Locker, Tipping Floor	Locker	Beige	Metal	Poor	163
SBMTS PC-48	Men's Locker, Tipping Floor	Locker	Silver	Metal	Poor	183
SBMTS PC-49	Men's Locker, Tipping Floor	Locker	Dark Grey	Metal	Poor	100
SBMTS PC-50	Men's Locker, Tipping Floor	Locker	White	Metal	Poor	74
SBMTS PC-51	Ramp B	Wall	Green	Concrete	Fair	80

Notes:

- (1) The HUD action level used to define lead based paints is 1 mg/cm² (XRF data) or 5000 mg/kg (paint chip data). However, any detected concentration of lead in paint has the potential to affect worker health and safety during certain construction activities and shall be addressed in the Contractor's health and safety protocol for the affected work
 - (2) Samples collected by Bidwell Environmental on November 14-17th, 2012
 - (3) Samples SBMTS PC-1, 29, 36, 37, 38, 52 and 53 were not analyzed for lead as they had previously been analyzed by XRF. The corresponding sample numbers from Table 3 are given below:
 - SBMTS PC-1 = 5
 - SBMTS PC-29 = 7
 - SBMTS PC-36 = 12
 - SBMTS PC-37 = 10
 - SBMTS PC-38 = 13
 - SBMTS PC-52 = 73
 - SBMTS PC-53 = 15
 - (4) Upper Level and Lower Level referred to in the BBL Investigation are the Tipping Floor and Pier Level, respectively
- * - Samples collected by ATC Associates Inc. in March, 2003 as part of BBL's Building Materials and Equipment Investigation

Table 3
Summary of Lead XRF Analysis
Hazardous Materials Investigation
South Bronx Marine Transfer Station

Sample ID	Location	Wall	Component	Substrate	Condition	Color	Result (mg/cm ²)
4*	Office Building Security Room	1	Door Case	Metal	Fair	Green	1
5*	Office Building Security Room	1	Window Sash	Metal	Fair	Green	-0
6*	Office Building Security Room	2	Radiator	Metal	Fair	Green	0.2
7*	Office Building Security Room	3	Door	Metal	Fair	Green	-0.1
8*	Office Building Security Room	1	Wall	Concrete	Fair	Beige	-0.3
9*	Office Building Security Room	2	Wall	Concrete	Fair	Beige	0.1
10*	Office Building Security Room	3	Wall	Concrete	Fair	White	0.3
11*	Office Building Security Room	4	Wall	Concrete	Fair	White	0.2
12*	Office Building Security Room	5	Ceiling	Concrete	Fair	Beige	-0
13*	Hallway	1	Door	Metal	Fair	Green	0.2
14*	Hallway	1	Door Case	Metal	Fair	Green	0.2
15*	Hallway	1	Wall	Concrete	Fair	Beige	0.1
16*	Hallway	2	Wall	Concrete	Fair	Beige	-0
17*	Hallway	3	Wall	Concrete	Fair	Beige	0.3
18*	Hallway	4	Wall	Concrete	Fair	Beige	0.2
19*	Hallway	5	Ceiling	Concrete	Fair	Beige	0.1
20*	Bathroom	1	Door Case	Metal	Fair	Green	0.4
21*	Bathroom	1	Wall	Concrete	Fair	Beige	0.3
22*	Bathroom	2	Wall	Concrete	Fair	Beige	-0.2
23*	Bathroom	3	Wall	Concrete	Fair	Beige	0.3
24*	Bathroom	4	Wall	Concrete	Fair	Beige	0.4
25*	Bathroom	5	Ceiling	Concrete	Poor	Beige	0.3
26*	Bathroom	3	Window Sill	Metal	Poor	Green	79.9
27*	Bathroom	3	Window Case	Metal	Poor	Green	79.9
28*	Bathroom	3	Window Sash	Metal	Poor	Green	8.4
29*	Bathroom	3	Radiator	Metal	Poor	Green	0.6
30*	Locker Room	1	Door Case	Metal	Fair	Green	-0.3
31*	Locker Room	1	Wall	Concrete	Fair	Green	0.2
32*	Locker Room	2	Wall	Concrete	Fair	Beige	0.1

Table 3
Summary of Lead XRF Analysis
Hazardous Materials Investigation
South Bronx Marine Transfer Station

Sample ID	Location	Wall	Component	Substrate	Condition	Color	Result (mg/cm ²)
33*	Locker Room	3	Wall	Concrete	Fair	Beige	0.3
34*	Locker Room	4	Wall	Concrete	Fair	Beige	0.2
35*	Locker Room	5	Ceiling	Concrete	Fair	Beige	-0
36*	Locker Room	3	Window Sill	Metal	Poor	Green	8.6
37*	Locker Room	3	Window Case	Metal	Poor	Green	3.7
38*	Locker Room	3	Window Sash	Metal	Fair	Green	79.9
39*	Locker Room	3	Radiator	Metal	Poor	Green	0.6
40*	Upper Level Inside	4	Support Beam Vertical	Metal	Poor	Rusted	0.7
41*	Upper Level Inside	4	Support Beam Horizontal	Metal	Poor	Rusted	0.4
42*	Upper Level Inside	3	Window Sill	Metal	Poor	Rusted	-0
43*	Upper Level Inside	1	Window Case	Metal	Poor	Rusted	0.3
44*	Upper Level Inside	3	Support Beam Vertical	Metal	Poor	Rusted	0.7
45*	Upper Level Inside	3	Support Beam Horizontal	Metal	Poor	Rusted	0.5
46*	Upper Level Inside	3	Parapet Wall	Metal	Poor	Rusted	8
47*	Upper Level Inside	2	Support I Beam Vertical	Metal	Fair	Green	79.9
48*	Upper Level Inside	2	Support I Beam Horizontal	Metal	Fair	Green	79.9
49*	Upper Level Inside	2	Support I Beam Vertical	Metal	Fair	Yellow	6
50*	Upper Level Inside	2	Door Case	Metal	Poor	Green	-0.1
51*	Machine Room #1	1	Door	Metal	Poor	Rusted	0.3
52*	Machine Room #1	1	Door Case	Metal	Poor	Green	-0
53*	Lower Level Inside	1	Door Case	Metal	Poor	Rusted	0.3
54*	Lower Level Inside	1	Railing	Metal	Poor	Rusted	0.6
55*	Lower Level Inside	1	Railing	Metal	Poor	Rusted	-0.1
56*	Pump Room #2	1	Door	Metal	Poor	Green	-0.1
57*	Pump Room #2	1	Door Case	Metal	Poor	Green	0.3
58*	Pump Room #2	1	Equipment (Motor)	Metal	Poor	Green	-0.2
59*	Lower Level Inside	2	Door	Metal	Fair	Black	0
60*	Lower Level Inside	2	Door Case	Metal	Fair	Black	-0.1
61*	Lower Level Inside	2	Railing	Metal	Poor	Rusted	0.6

Table 3
Summary of Lead XRF Analysis
Hazardous Materials Investigation
South Bronx Marine Transfer Station

Sample ID	Location	Wall	Component	Substrate	Condition	Color	Result (mg/cm ²)
62*	Lower Level Inside	2	Support I Beam Vertical	Metal	Poor	White	0
63*	Lower Level Inside	2	Support I Beam Horizontal	Metal	Fair	Black	-0.1
64*	Lower Level Inside	2	Parapet	Wood	Poor	Brown	0
65*	Lower Level Inside	2	Cleat	Wood	Poor	Rusted	-0.2
66*	Lower Level Inside	4	Support Column I	Metal	Poor	White	-0.1
67*	Lower Level Inside	4	Railing	Metal	Poor	Rusted	0.5
68*	Lower Level Inside	3	Support I Beam Vertical	Metal	Poor	Rusted	0.4
69*	Lower Level Inside	3	Support I Beam Horizontal	Metal	Poor	Rusted	0.6
70*	Exterior Lower Level	1	Wall	Concrete	Poor	White	-0.4
71*	Exterior Lower Level	1	Door	Metal	Poor	Rusted	-0.3
72*	Exterior Lower Level	1	Door Case	Metal	Poor	Rusted	0.2
73*	Exterior Lower Level	1	Handrail	Metal	Fair	Black	0.3
74*	Exterior Lower Level	12	Stringer	Metal	Fair	Black	0.7
75*	Exterior Lower Level	2	Wall	Concrete	Poor	White	0.1
76*	Exterior Lower Level	2	Cleat	Metal	Poor	Green	7.7
77*	Exterior Lower Level	2	Anchor Bell	Metal	Poor	Green	-0.3
78*	Exterior Lower Level	2	Handrail	Metal	Fair	Black	0.1
79*	Exterior Lower Level	2	Stringer	Metal	Fair	Black	0
80*	Exterior Lower Level	1	Door	Metal	Fair	Green	-0.2
81*	Exterior Lower Level	1	Door Case	Metal	Fair	Green	-0
82*	Exterior Lower Level	1	Anchor Bell	Metal	Poor	Green	0.7
83*	Exterior Lower Level	1	Cleat	Metal	Poor	Green	0.7

Notes:

(1) The HUD action level used to define lead based paints is 1 mg/cm² (XRF data) or 5000 mg/kg (paint chip data). However, any detected concentration of lead in paint has the potential to affect worker health and safety during certain construction activities and shall be addressed in the Contractor's health and safety protocol for the affected work

(2) Upper Level, Lower Level and Office Building Security Room referred to in the BBL Investigation are the Tipping Floor, Pier Level and Foreman's Office, respectively

* - Samples collected by ATC Associates Inc. in March, 2003 as part of BBL's Building Materials and Equipment Investigation

Table 4
Summary of Cadmium Paint Chip Analysis
Hazardous Materials Investigation
South Bronx Marine Transfer Station

<i>Sample ID</i>	<i>Location</i>	<i>Sample Description</i>	<i>Color</i>	<i>Substrate</i>	<i>Condition</i>	<i>Cadmium (mg/kg)</i>
01*	Upper Level Inside, Wall #3	Vertical I-beam	Green	Metal	Fair	8.66
02*	Upper Level Inside, Wall #4	Horizontal I-beam	Green	Metal	Poor	8.72
03*	Upper Level Inside, Wall #3	Window Sill	Green	Metal	Fair	7.47
04*	Lower Level Inside, Wall #2	Cleat	Green	Metal	Poor	3.59
05*	Lower Level Inside, Inside Dock	Vertical I-beam	White	Metal	Poor	1.44
06*	Lower Level Inside, by the Dock	Horizontal I-beam	Brown	Metal	Fair	2.01

Notes:

- (1) Upper Level and Lower Level referred to in the BBL Investigation are the Tipping Floor and Pier Level, respectively
 * - Samples collected by ATC Associates Inc. in March, 2003 as part of BBL's Building Materials and Equipment Investigation

Table 5
Summary of Asbestos Analysis
Hazardous Materials Investigation
South Bronx Marine Transfer Station

Sample ID	Area	Sample Location	Material Description	PJM	Analytical Results (%)	TEM
Sample #1*	Upper Level Perimeter	Southwest Storage	Gray Corrugated Transite Panels	18		NA
Sample #2*	Upper Level Perimeter	Southwest Storage	Gray Corrugated Transite Panels	NA**		NA
Sample #3*	Upper Level Perimeter	Southwest Storage	Gray Corrugated Transite Panels	NA**		NA
Sample #4*	Upper Level Perimeter		Gray Flat Transite Panels	19		NA
Sample #5*	Upper Level Perimeter		Gray Flat Transite Panels	NA**		NA
Sample #6*	Upper Level Perimeter		Gray Flat Transite Panels	NA**		NA
Sample #7*	Lower Level Perimeter		Gray Flat Transite Panel Caulking	<1		9
Sample #8*	Lower Level Perimeter		Gray Flat Transite Panel Caulking	Trace		NA
Sample #9*	Lower Level Perimeter		Gray Flat Transite Panel Caulking	ND		NA
Sample #10*	Upper Level Perimeter		Green Corrugated panels	Trace		Trace
Sample #11*	Upper Level Perimeter		Green Corrugated panels	Trace		Trace
Sample #12*	Upper Level Perimeter		Green Corrugated panels	Trace		Trace
Sample #13*	Upper Level, Pump Room	Electrical Room	Brown Horse Hair	ND		NA
Sample #14*	Upper Level, Pump Room	Electrical Room	Brown Horse Hair	ND		NA
Sample #15*	Upper Level, Pump Room	Electrical Room	Brown Horse Hair	ND		NA
Sample #16*	Upper Level, Pump Room	Electrical Room	Black Wrapping Paper of Horse	Trace		Trace
Sample #17*	Upper Level, Pump Room	Electrical Room	Hair Insulation			
Sample #18*	Upper Level, Pump Room	Electrical Room	Black Wrapping Paper of Horse	Trace		Trace
Sample #18*	Upper Level, Pump Room	Electrical Room	Hair Insulation			
Sample #18*	Upper Level, Pump Room	Electrical Room	Black Wrapping Paper of Horse	Trace		Trace
Sample #19*	Upper Level, Pump Room	Electrical Room	Hair Insulation			
Sample #19*	Upper Level, Pump Room	Electrical Room	Tan Fiberglass Elbows	ND		NA
Sample #20*	Upper Level, Pump Room	Electrical Room	Tan Fiberglass Elbows	ND		NA
Sample #21*	Upper Level, Pump Room	Electrical Room	Tan Fiberglass Elbows	ND		NA
Sample #22*	Upper Level, Pump Room	Electrical Room	Yellow/White/Gray Fiberglass	ND		NA
Sample #22*	Upper Level, Pump Room	Electrical Room	Insulation Wrapping Paper			
Sample #23*	Upper Level, Pump Room	Electrical Room	Yellow/White/Gray Fiberglass	ND		NA
Sample #23*	Upper Level, Pump Room	Electrical Room	Insulation Wrapping Paper			

**Table 5
 Summary Asbestos Analysis
 Hazardous Materials Investigation
 South Bronx Marine Transfer Station**

Sample ID	Area	Sample Location	Material Description	Analytical Results (%)	
				P/M	T/M
Sample #24*	Upper Level, Pump Room	Electrical Room	Yellow/White/Gray Fiberglass	ND	NA
Sample #25*	Lower Level, Pump Room		Insulation Wrapping Paper		
Sample #26*	Lower Level, Pump Room		Off White Door Window Putty	0.1	0.1
Sample #27*	Lower Level, Pump Room		Off White Door Window Putty	0.1	0.1
Sample #28*	Upper Level, Main Office		Off White Door Window Putty	0.1	0.1
Sample #29*	Upper Level, Main Office		Tan Ceramic Tile Mortar	ND	NA
Sample #30*	Upper Level, Main Office		Tan Ceramic Tile Mortar	ND	NA
Sample #31*	Upper Level, Main Office		Tan Ceramic Tile Mortar	ND	NA
Sample #32*	Upper Level, Main Office		White Window Putty	0.3	0.3
Sample #33*	Upper Level, Main Office		White Window Putty	ND	NA
Sample #34*	Upper Level, Main Office		White Window Putty	ND	NA
Sample #35*	Upper Level, Main Office		White Window Putty	ND	NA
Sample #36*	Upper Level, Main Office		12' x 12' Brown Floor Tile	Trace	Trace
Sample #37*	Upper Level, Main Office		12' x 12' Brown Floor Tile	Trace	Trace
Sample #38*	Upper Level, Main Office		12' x 12' Brown Floor Tile	Trace	Trace
Sample #39*	Upper Level, Main Office		Black Mastic Under 12' x 12'	Trace	Trace
SBMTS ASB-1	Ramp B	Eastern Wall, Lower Pipe Elbow	Brown Floor Tile		
SBMTS ASB-2	Ramp B	Eastern Wall, Lower Pipe Elbow	Black Mastic Under 12' x 12'	0.1	0.1
SBMTS ASB-3	Ramp B	Eastern Wall, Lower Pipe	Brown Floor Tile		
SBMTS ASB-4	Ramp B	Eastern Wall, Lower Pipe	Black Mastic Under 12' x 12'	Trace	Trace
SBMTS ASB-5	Ramp B	Eastern Wall, Lower Pipe	Brown Floor Tile		
SBMTS ASB-6	Ramp B	Eastern Wall, Lower Pipe	Black Mastic Under 12' x 12'	Trace	Trace
SBMTS ASB-7	Ramp B	Eastern Wall, Lower Pipe	Brown Floor Tile		
SBMTS ASB-8	Ramp B	Eastern Wall, Lower Pipe	Black Mastic Under 12' x 12'	Trace	Trace

Table 5
Summary of Asbestos Analysis
Hazardous Materials Investigation
South Bronx Marine Transfer Station

Sample ID	Area	Sample Location	Material Description	Analytical Results (%)	
				PLM	TEM
SBMTS ASB-9	Ramp B	Eastern Wall, Lower Pipe	Black Pipe Insulation Wrapping	NA	ND
SBMTS ASB-10	Ramp B	Eastern Wall, Lower Pipe	Black Pipe Insulation Wrapping	NA	ND
SBMTS ASB-11	Ramp B	Eastern Wall, Upper Pipe	Orange 8 Inch Gasket	NA	ND
SBMTS ASB-12	Ramp B	Eastern Wall, Upper Pipe	Orange 8 Inch Gasket	NA	ND
SBMTS ASB-13	Ramp B	Eastern Wall, Upper Pipe	Orange Pipe Sealant	NA	ND
SBMTS ASB-14	Ramp B	Eastern Wall, Upper Pipe	Orange Pipe Sealant	NA	ND
SBMTS ASB-15	Ramp B	Eastern Wall, Upper Pipe	White String Sealant	ND	NA
SBMTS ASB-16	Ramp B	Eastern Wall, Upper Pipe	White String Sealant	ND	NA
SBMTS ASB-17	Ramp B	Eastern Wall, Electrical Panel	Orange and Black Wire Jacket	NA	ND
SBMTS ASB-18	Ramp B	Eastern Wall, Electrical Panel	Orange and Black Wire Jacket	NA	ND
SBMTS ASB-19	Access Ramp	Western Wall, Top of Ramp Electrical Panel	White Rope Gasket	100	NA
SBMTS ASB-20	Access Ramp	Western Wall, Top of Ramp Electrical Panel	White Rope Gasket	100	NA
SBMTS ASB-21	Ramp B	Western Wall, Electrical Panel	Black Wire Jacket	NA	ND
SBMTS ASB-22	Ramp B	Western Wall, Electrical Panel	Black Wire Jacket	NA	ND
SBMTS ASB-23	Ramp B	Western Wall, Electrical Panel	White Braided Wire Jacket	19.1	NA
SBMTS ASB-24	Ramp B	Western Wall, Electrical Panel	White Braided Wire Jacket	22.2	NA
SBMTS ASB-25	Ramp B	Eastern Wall on Lower Portion of the Ramp	Black Tar	NA	ND
SBMTS ASB-26	Ramp B	Eastern Wall on Lower Portion of the Ramp	Black Tar	NA	ND
SBMTS ASB-27	Ramp B	Eastern Wall	Black Expansion Sealant	ND	NA
SBMTS ASB-28	Ramp B	Eastern Wall	Black Expansion Sealant	ND	NA
SBMTS ASB-29	Ramp B	Floor	White Expansion Sealant	NA	ND
SBMTS ASB-30	Ramp B	Floor	White Expansion Sealant	NA	ND
SBMTS ASB-31	Access Ramp	Floor	Black Tar	NA	ND
SBMTS ASB-32	Access Ramp	Floor	Black Tar	NA	ND

**Table 5
 Summary Asbestos Analysis
 Hazardous Materials Investigation
 South Bronx Marine Transfer Station**

Sample ID	Area	Sample Location	Material Description	Analytical Results (%)	
				PJM	TEM
SBMTS ASB-33	Access Ramp	Eastern Wall	Black Tar Over Joint	NA	3.3
SBMTS ASB-34	Access Ramp	Eastern Wall	Black Tar Over Joint	NA	3.5
SBMTS ASB-35	Access Ramp	Western Wall, Electrical Panel	White Caulk	NA	1.7
SBMTS ASB-36	Access Ramp	Western Wall, Electrical Panel	White Caulk	NA	1.3
SBMTS ASB-37	Access Ramp	Weigh Booth	Window Caulk	NA	Trace
SBMTS ASB-38	Access Ramp	Weigh Booth	Window Caulk	NA	Trace
SBMTS ASB-39	Access Ramp	Weigh Booth	White Window Glazing	NA	Trace
SBMTS ASB-40	Access Ramp	Weigh Booth	White Window Glazing	NA	Trace
SBMTS ASB-41	Access Ramp	Weigh Booth Wall Interior	Insulation	ND	NA
SBMTS ASB-42	Access Ramp	Weigh Booth Wall Interior	Insulation	ND	NA
SBMTS ASB-43	Foreman's Office, Tipping Floor	East Wall Window	White Glazing	NA	Trace
SBMTS ASB-44	Foreman's Office, Tipping Floor	East Wall Window	White Glazing	NA	Trace
SBMTS ASB-45	Foreman's Office, Tipping Floor	East Wall Window	White Glazing	NA	Trace
SBMTS ASB-46	Foreman's Office, Tipping Floor	East Wall Window	White Glazing	NA	Trace
SBMTS ASB-47	Foreman's Office, Tipping Floor	East Wall	Mortar	ND	NA
SBMTS ASB-48	Foreman's Office, Tipping Floor	East Wall	Mortar	ND	NA
SBMTS ASB-49	Meter Room, Tipping Floor	West Wall	5 x 12 inch Ceramic Wall Tile	ND	NA
SBMTS ASB-50	Meter Room, Tipping Floor	West Wall	5 x 12 inch Ceramic Wall Tile	ND	NA
SBMTS ASB-51	Open Area, Tipping Floor	South of Foreman's Office, Secured by Pillar	Brown Fire Hose	ND	NA
SBMTS ASB-52	Open Area, Tipping Floor	South of Foreman's Office, Secured by Pillar	Brown Fire Hose	ND	NA
SBMTS ASB-53	Storage Room, Tipping Floor	Wall Between Storage and Lunch Rooms	Sheet Rock	ND	NA
SBMTS ASB-54	Storage Room, Tipping Floor	Wall Between Storage and Lunch Rooms	Sheet Rock	ND	NA
SBMTS ASB-55	Fan Room No. 1, Tipping Floor	Door Frame	Black Caulk	NA	3.9
SBMTS ASB-56	Fan Room No. 1, Tipping Floor	Door Frame	Black Caulk	NA	3.9

Table 5
Summary of Asbestos Analysis
Hazardous Materials Investigation
South Bronx Marine Transfer Station

Sample ID	Area	Sample Location	Material Description	Analytical Results (%)	
				PLM	TFM
SBMTS ASB-57	Ramp A	Western Wall, Electrical Pipe Access Panel	Grey Caulk	NA	ND
SBMTS ASB-58	Ramp A	Western Wall, Electrical Pipe Access Panel	Grey Caulk	NA	ND
SBMTS ASB-59	Foreman's Office, Tipping Floor	East Wall	Caulking Under Window Frame	NA	2.2
SBMTS ASB-60	Foreman's Office, Tipping Floor	East Wall	Caulking Under Window Frame	NA	2.5
SBMTS ASB-61	Storage Room, Tipping Floor	Wall Between Storage and Lunch Rooms	Paper Covering Sheet Rock	ND	NA
SBMTS ASB-62	Storage Room, Tipping Floor	Wall Between Storage and Lunch Rooms	Paper Covering Sheet Rock	ND	NA
SBMTS ASB-63	Storage Room, Tipping Floor	Floor	Discarded Gasket	ND	NA
SBMTS ASB-64	Storage Room, Tipping Floor	Floor	Discarded Gasket	ND	NA
SBMTS ASB-65	Storage Room, Tipping Floor	North West Corner of Room, Going Through the Meter Room Wall	White Braided Wire Jacket	ND	NA
SBMTS ASB-66	Storage Room, Tipping Floor	North West Corner of Room, Going Through the Meter Room Wall	White Braided Wire Jacket	ND	NA
SBMTS ASB-67	Meter Room, Tipping Floor	Discarded Transformers	Black Insulation Paper	ND	NA
SBMTS ASB-68	Meter Room, Tipping Floor	Discarded Transformers	Black Insulation Paper	ND	NA
SBMTS ASB-69	Switchboard Room, Tipping Floor	West Side of Control Panel	Black Insulation Block	12.1	NA
SBMTS ASB-70	Switchboard Room, Tipping Floor	West Side of Control Panel	Black Insulation Block	14.3	NA
SBMTS ASB-71	Switchboard Room, Tipping Floor	Control Panel of Capstan No. 1	Black Insulation Block	ND	NA
SBMTS ASB-72	Switchboard Room, Tipping Floor	Control Panel of Capstan No. 1	Black Insulation Block	ND	NA
SBMTS ASB-73	Switchboard Room, Tipping Floor	Main Feed into Circuit Breaker	Black Wire Jacket	NA	ND
SBMTS ASB-74	Switchboard Room, Tipping Floor	Main Feed into Circuit Breaker	Black Wire Jacket	NA	ND
SBMTS ASB-75	Switchboard Room, Tipping Floor	Air Compressor Switchboard	Black Wire Jacket	NA	ND
SBMTS ASB-76	Switchboard Room, Tipping Floor	Air Compressor Switchboard	Black Wire Jacket	NA	ND
SBMTS ASB-77	Fan Room No. 1, Tipping Floor	Air Fan	Black Vibration Damper	ND	NA
SBMTS ASB-78	Fan Room No. 1, Tipping Floor	Air Fan	Black Vibration Damper	ND	NA

Table 5
Summary Asbestos Analysis
Hazardous Materials Investigation
South Bronx Marine Transfer Station

Sample ID	Area	Sample Location	Material Description	Analytical Results (%)	
				PUM	TEM
SBMTS ASB-79	Fan Room No. 1, Tipping Floor	Air Fan	White Vibration Damper	80	NA
SBMTS ASB-80	Fan Room No. 1, Tipping Floor	Air Fan	White Vibration Damper	80	NA
SBMTS ASB-81	Foreman's Office, Tipping Floor	Switchboard on Wall in North East Corner	Orange Insulation Board	ND	NA
SBMTS ASB-82	Foreman's Office, Tipping Floor	Switchboard on Wall in North East Corner	Orange Insulation Board	ND	NA
SBMTS ASB-83	Foreman's Office, Tipping Floor	Electrical Panel on West Wall	White Wire Jacket	NA	ND
SBMTS ASB-84	Foreman's Office, Tipping Floor	Electrical Panel on West Wall	White Wire Jacket	NA	ND
SBMTS ASB-85	Hallway, Tipping Floor	Electrical Panel in Wall	White Braided Wire Jacket	ND	NA
SBMTS ASB-86	Hallway, Tipping Floor	Electrical Panel in Wall	White Braided Wire Jacket	ND	NA
SBMTS ASB-87	Men's Toilet, Tipping Floor	Floor	Damaged, Discarded Pipe Insulation	9.9	NA
SBMTS ASB-88	Women's Toilet, Tipping Floor	Floor	Damaged, Discarded Pipe Insulation	Trace	NA
SBMTS ASB-89	Shower, Tipping Floor	Inside Wall	Damaged, Discarded Pipe Insulation	50	NA
SBMTS ASB-90	Flat Roof	Roof Above Switchboard Room	Black Tar Above Samples SBMTS ASB-92,93	NA	ND
SBMTS ASB-91	Flat Roof	Roof Above Switchboard Room	Black Tar Above Samples SBMTS ASB-92,93	NA	ND
SBMTS ASB-92	Flat Roof	Roof Above Switchboard Room	Black Tar Paper, Above Samples SBMTS ASB-94,95	NA	ND
SBMTS ASB-93	Flat Roof	Roof Above Switchboard Room	Black Tar Paper, Above Samples SBMTS ASB-94,95	NA	ND
SBMTS ASB-94	Flat Roof	Roof Above Switchboard Room	Black Tar, Bottom Layer of Roofing Material	NA	ND
SBMTS ASB-95	Flat Roof	Roof Above Switchboard Room	Black Tar, Bottom Layer of Roofing Material	NA	ND

Table 5
Summary of Asbestos Analysis
Hazardous Materials Investigation
South Bronx Marine Transfer Station

Sample ID	Area	Sample Location	Material Description	Analytical Results (%)	
				PLM	TEM
SBMTS ASB-96	Flat Roof	Roof Above Switchboard Room	Rollled Roofing Above SBMTS ASB-96,97	ASB- NA	ND
SBMTS ASB-97	Flat Roof	Roof Above Switchboard Room	Rollled Roofing Above SBMTS ASB-96,97	ASB- NA	ND
SBMTS ASB-98	Flat Roof	Roof Above Switchboard Room	Black Tar Above Samples SBMTS ASB-96,97	NA	ND
SBMTS ASB-99	Flat Roof	Roof Above Switchboard Room	Black Tar Above Samples SBMTS ASB-96,97	NA	ND
SBMTS ASB-100	Flat Roof	Roof Above Switchboard Room	Top Layer of Rolled Roofing Above SBMTS ASB-98,98	NA	ND
SBMTS ASB-101	Flat Roof	Roof Above Switchboard Room	Top Layer of Rolled Roofing Above SBMTS ASB-98,98	NA	ND
SBMTS ASB-102	Flat Roof	Roof Above Storage Room	Black Fabric Below Flashing	NA	ND
SBMTS ASB-103	Flat Roof	Roof Above Storage Room	Black Fabric Below Flashing	NA	ND
SBMTS ASB-104	Flat Roof	Roof Above Storage Room	Black Tar Above Flashing	NA	3.3
SBMTS ASB-105	Flat Roof	Roof Above Storage Room	Black Tar Above Flashing	NA	3.3
SBMTS ASB-106	Open Area, Tipping Floor	Lighting Conduit on Wall	Red Wire Jacket	NA	ND
SBMTS ASB-107	Open Area, Tipping Floor	Lighting Conduit on Wall	Red Wire Jacket	NA	ND

Notes:

- (1) Materials containing 1% asbestos or more are considered asbestos containing materials
 - (2) Samples collected by Bidwell Environmental on November 15-17th, 2012
 - (3) Upper Level and Lower Level referred to in the BBL Investigation are the Tipping Floor and Pier Level, respectively
- * - Samples collected by ATC Associates Inc. in March, 2003 as part of BBL's Building Materials and Equipment Investigation
- ** - Sample not analyzed due to previous sample of the same homogenous area testing positive as asbestos containing material

ND - No Asbestos Detected

NA - Not Analyzed

Table 5a
Estimated Quantities and Condition of Asbestos Containing Materials
Hazardous Materials Investigation
South Bronx Marine Transfer Station

<i>Material Description</i>	<i>Location</i>	<i>Estimated Quantity (ft² *)</i>	<i>Condition**</i>
Corrugated Transite Panels***	Upper Level Perimeter	41,000	Minor Damage
Flat Transite Panels***	Upper Level Perimeter	15,000	Minor Damage
Flat Transite Panel Caulking***	Upper Level Perimeter	500 linear feet	Minor Damage
White Pipe Gasket	Lower Pipe, Eastern Wall, Ramp B	2	Minor Damage
White Rope Gasket	Electrical Panel, Western Wall, Access Ramp	20 linear feet ¹	Minor Damage
White Braided Wire Jacket	Electrical Panel, Western Wall, Ramp B	5 linear feet ²	Minor Damage
Black Tar Over Joint	Eastern Wall, Access Ramp	10	Good
White Caulk	Electrical Panel, Western Wall, Access Ramp	5 linear feet ³	Significant damage
Black Caulk	Door Frame, Fan Room No. 1 and 2, Tipping Floor	60 linear feet	Good
Caulking Under Window Frame	East Wall of Foreman's Office, Tipping Floor	60 linear feet ⁴	Significant damage
Black Insulation Block	West Side of Control Panel, Switchboard Room, Tipping Floor	10	Good
White Vibration Damper	Air Fan, Fan Room No. 2, Tipping Floor	50 ⁵	Minor Damage
Pipe Insulation	Men's and Women's Toilet Floor, Inside of the Wall, Tipping Floor	30 ⁶	Significant damage
Black Tar Above Flashing	Flat Roof Above Storage Room	40 ⁷	Minor Damage

Notes:

(1) Upper Level referred to in the BBL Investigation is the Tipping Floor.

* - Values in ft², unless otherwise noted.

** - Condition observed at time of survey.

*** - Samples collected by ATC Associates Inc. in March, 2003 as part of BBL's Building Materials and Equipment Investigation

¹ - Gasket observed within a number of electrical panels and discarded on the floor of Ramp A, Ramp B and Access Ramp (estimated affected area of approximately 30 ft²). Should material sustain additional damage, size of area affected may increase.

Table 5a
Estimated Quantities and Condition of Asbestos Containing Materials
Hazardous Materials Investigation
South Bronx Marine Transfer Station

- 2 - Wire observed in a number of electrical panels in the wall of Ramp A, Ramp B and Access Ramp.
- 3 - Material is discarded on parts of the Access Ramp (estimated affected area of approximately 30 ft²). Should material sustain additional damage, size of area affected may increase.
- 4 - Caulk debris observed on floor under Foreman's Office exterior window. Should material sustain additional damage, area affected may increase.
- 5 - Vibration damper located on fans within Fan Room No. 1 and Fan Room No. 2.
- 6 - Pipe debris observed on floor of the Men's and Women's Toilet, Men's Locker Room, Foreman's Office, Hallway and by Stair No.1 in the Open Area. (estimated affected area of approximately 1500 ft²). Should material sustain additional damage, size of area affected may increase.
- 7 - Tar may be present on the flat roof over the Foreman's Office/Men's Toilet/Men's Locker Room Area.

Table 6
Inventory of Universal Waste and Other Miscellaneous Regulated Materials
Hazardous Materials Investigation
South Bronx Marine Transfer Station

<i>Location/Item</i>	<i>Description</i>	<i>Waste Classification</i>
Tipping Floor Level		
HID Lighting	Mercury-containing bulbs (11 bulbs)	Universal waste. HID lighting must be recycled at an appropriately permitted facility
Fluorescent Lighting	Mercury-containing bulbs (6 bulbs)	Universal waste. Fluorescent lighting must be recycled at an appropriately permitted facility
HID and Fluorescent Lighting Ballasts	PCB containing (or otherwise regulated) (14 ballasts)	Non-hazardous TSCA regulated waste (if PCBs). Non-hazardous regulated waste (if no PCBs). Ballasts must be disposed of at an appropriately permitted facility
Refrigerator	Refrigerators potentially containing CFCs or other potentially regulated refrigerants, PCB capacitors and mercury containing components (1 refrigerator)	Non-hazardous regulated waste. The refrigerator should be inspected for CFCs or other potentially regulated refrigerants, PCB capacitors and mercury containing components prior to disposal and recycled in accordance with local regulations, which may require the evacuation of refrigerants by a technician licensed in accordance with 40 CFR 82.161.
55 Gallon Damaged Drum	Drum in the open area by Stair No. 1 contains soil, concrete debris, ash, glass and plastic. The base of the drum is entirely corroded and will spill debris if moved.	Pending inspection and waste classification sampling
55 Gallon Damaged Drum	The drum in Fan Room No. 1 contains rock salt (1/4 full*)	Non-hazardous regulated solid waste. Rock salt should be used or disposed of at an appropriately permitted solid waste landfill.
Sangamo Electric EMC Transformer Discarded in Meter Room	Typically not fluid cooled, but should be inspected to confirm the absence of fluids prior to disposal. Fluid if present may contain PCBs (3 transformers)	Non-regulated waste if non-fluid containing. If fluid containing, pending verification of the absence of PCBs in fluid.

Table 6
Inventory of Universal Waste and Other Miscellaneous Regulated Materials
Hazardous Materials Investigation
South Bronx Marine Transfer Station

<i>Location/Item</i>	<i>Description</i>	<i>Waste Classification</i>
Tiping Floor Level		
Behr Premium Plus No. 558 Ultra Ceiling Paint	2 gallon container (1 container). MSDS is provided in Attachment E of Bidwell Environmental's South Bronx Marine Transfer Station Hazardous Materials Investigation report.	Non-hazardous regulated waste. This container and its contents must be disposed of in a appropriately permitted solid waste landfill.
Flitz Metal Polish	1 gallon container (1 container). MSDS is provided in Attachment E of Bidwell Environmental's South Bronx Marine Transfer Station Hazardous Materials Investigation report.	Non-hazardous regulated waste. This container and its contents must be disposed of at an appropriately permitted solid waste landfill.
Americas Finest Latex Semi-Gloss HM1403 Off White Enamel	5 gallon container (1 container). MSDS is provided in Attachment E of Bidwell Environmental's South Bronx Marine Transfer Station Hazardous Materials Investigation report.	Non-hazardous regulated waste. This container and its contents must be disposed of at an appropriately permitted solid waste landfill.
Tire	3 ft. diameter tire (2 tires).	Non-hazardous regulated waste. Tires should be recycled in accordance with local regulations.
Batteries	Lead Acid (3 batteries)	Universal waste. Batteries must be recycled at an appropriately permitted facility.
Lead Jointed Pipe	Two pipe systems (drain pipe in the south east corner of the Storage Room and water pipes within the southern wall of the Men's Toilet).	Scrap metal exempt from hazardous waste regulations. Pipe removal should be considered lead work and shall be performed in accordance with Section 02223. Removed piping should be recycled in accordance with NYSDEC regulations.
Gasoline	5 gallon container (1 container, 25% full*).	Hazardous waste. Gasoline must be recycled or disposed of at an appropriately permitted facility.

Table 6
Inventory of Universal Waste and Other Miscellaneous Regulated Materials
Hazardous Materials Investigation
South Bronx Marine Transfer Station

<i>Location/Item</i>	<i>Description</i>	<i>Waste Classification</i>
Heating Unit Thermostats	Potential mercury containing (2 Units)	Non-regulated waste if no mercury containing thermostats. Universal waste if mercury containing. Mercury containing thermostats must be recycled at an appropriately permitted facility.
Tippling Floor Level		
Thermostat	Mercury containing (2)	Universal waste. Thermostats must be recycled at an appropriately permitted facility.
Circuit Board	Electronic waste (1 circuit board)	Hazardous waste. Electronic waste must be recycled at a registered electronic waste recycling facility.
Rock Salt	A pile of rock salt (approximately 4.5 cubic yards)	Non-hazardous regulated solid waste. Rock salt should be used or disposed of at an appropriately permitted solid waste landfill.
Miscellaneous Municipal Waste	The interior of the eastern and western hoppers contains presumed municipal waste including, plastics, glass, metal and paper	Regulated solid waste pending the absence of hazardous materials. Waste should be disposed of at an appropriately permitted facility.
Bird Excrement	Observed on both floors and select structural components. Not regulated, but may cause health hazards during construction **	Non-hazardous regulated solid waste. If removed prior to demolition activities, bird excrement should be disposed of at an appropriately permitted solid waste landfill.
Pier Level		
Misc. Oil and Grease	Contents of fuel oil storage tank**, boiler, oil/water separator and miscellaneous capstans. pumps, motors and tanks	Pending inspection and waste classification. Disposal method shall depend on whether the material is hazardous or non-hazardous.

Table 6
Inventory of Universal Waste and Other Miscellaneous Regulated Materials
Hazardous Materials Investigation
South Bronx Marine Transfer Station

<i>Location/Item</i>	<i>Description</i>	<i>Waste Classification</i>
Items Identified by BBL Survey But Not Observed During the 2012 Investigation		
Misc. Tanks in Mechanical Equipment Room	Tanks are unlabeled. May contain sanitary wastes.	Pending inspection. Disposal method shall depend on whether the material is confirmed sanitary waste or potential hazardous material.
HID Lighting	Mercury-containing bulbs (118 bulbs**)	Universal waste. HID lighting must be disposed of at an appropriately permitted facility.
Fluorescent Lighting	Mercury-containing bulbs (2 bulbs**)	Universal waste. Fluorescent lighting must be disposed of at an appropriately permitted facility.
HID and Fluorescent Lighting Ballast	PCB containing (or otherwise regulated) ballasts (119 ballasts**)	Non-hazardous TSCA regulated waste (if PCBs). Non-hazardous regulated waste (if no PCBs). Ballasts must be disposed of at an appropriately permitted facility.
Drinking Water Fountain	Fountain potentially containing CFCs or other potentially regulated refrigerants (1 fountain**)	Non-hazardous regulated waste. The refrigerator should be inspected for CFCs or other potentially regulated refrigerants prior to disposal and recycled in accordance with local regulations, which may require the evacuation of refrigerants by a technician licensed in accordance with 40 CFR 82.161.
Refrigerator	Refrigerators potentially containing CFCs or other potentially regulated refrigerants, PCB capacitors and mercury containing components (3 refrigerators**)	Non-hazardous regulated waste. The refrigerator should be inspected for CFCs or other potentially regulated refrigerants, PCB capacitors and

Table 6
Inventory of Universal Waste and Other Miscellaneous Regulated Materials
Hazardous Materials Investigation
South Bronx Marine Transfer Station

<i>Location/Item</i>	<i>Description</i>	<i>Waste Classification</i>
Items Identified by BBL Survey But Not Observed During the 2012 Investigation		mercury containing components prior to disposal and recycled in accordance with local regulations, which may require the evacuation of refrigerants by a technician licensed in accordance with 40 CFR 82.161.
Fire Extinguisher	1 fire extinguisher**	Requires special handling and shall be disposed of by a local fire extinguisher retailer
Wall Paint	5 gallon container (1 container, 50% full)**	Pending inspection and waste classification. Disposal method shall depend on whether the material is hazardous or non-hazardous.
Unlabeled Solid****	5 gallon container (1 container)**	Pending inspection and waste classification. Disposal method shall depend on whether the material is hazardous or non-hazardous.
Paint	1 quart container (3 containers)**	Pending inspection and waste classification. Disposal method shall depend on whether the material is hazardous or non-hazardous.
Oil-like Liquid	1 gallon open container (1 container)**	Pending inspection and waste classification. Disposal method shall depend on whether the material is hazardous or non-hazardous.

Notes:

(1) Empty containers are not listed

* - The approximate quantity of material remaining within each container (expressed as a percentage of the total container's capacity) was estimated based on visual observation and/or lifting/tilting each container.

** - Identified by Blasland, Bouck & Lee, Inc. in February, 2003 as part of BBL's Building Materials and Equipment Investigation

*** - Identified by Blasland, Bouck & Lee, Inc. in February, 2003 as part of BBL's Building Materials and Equipment Investigation to have an estimated capacity of 2,750 gallons, and according to petrometer reading, contained approximately 7 inches (120 gallons) of product.

**** - Manufactured by "National Starch and Chemical Company"

Table 7
Summary of PCB Analysis
Hazardous Materials Investigation
South Bronx Marine Transfer Station

<i>Sample ID</i>	<i>Location</i>	<i>Sample Description</i>	<i>Substrate</i>	<i>PCB (mg/kg)</i>
SBRONX-SLIP-C1*	Barge Slip Level	Catwalk	Wood	ND
SBRONX-SLIP-C2*	Barge Slip Level	Catwalk	Wood	ND
SBRONX-SLIP-C3*	Barge Slip Level	Deck	Wood	ND
SBRONX-SLIP-C6*	Mechanical Equipment Room, Barge Slip Level	Floor	Concrete	ND
SBRONX-SLIP-OIL-1*	Barge Slip Level	Capstan	Oil	ND
SBRONX-SLIP-OIL-2*	East Pump Room (Pump Room No. 2), Barge Slip Level	Inactive Water Pump	Oil	387
SBRONX-TIP-C1*	Tipping Floor	Floor	Concrete	ND
SBRONX-TIP-C2*	Tipping Floor	Floor	Concrete	ND
SBRONX-TIP-A1*	Tipping Floor	Wall	Transite	ND
SBRONX-TIP-A2*	Tipping Floor	Wall	Transite	ND
SBMTS CON-1	Ramp A, Ramp B, Access Ramp	Floor	Concrete	ND
SBMTS CON-2	Pump Room No. 1, Pier Level	Floor	Concrete	ND
SBMTS WD-1	Ramp A	Utility Pole	Wood	ND
SBMTS CLK-1	Eastern Wall, Ramp B	Lower Pipe Elbow Covering	Tar	ND
SBMTS CLK-2	Eastern Wall, Ramp B	Black Lower Pipe Wrapping	Paper Wrapping	ND
SBMTS CLK-3	Eastern Wall, Ramp B	Black Lower Pipe Insulation Wrapping	Pipe Insulation Wrapping	ND
SBMTS CLK-4	Eastern Wall, Ramp B	Orange Upper Pipe Sealant	Caulk	ND
SBMTS CLK-6	Eastern Wall, Ramp B	Black Tar	Tar	ND
SBMTS CLK-7	Eastern Wall, Ramp B	Black Expansion Sealant	Caulk	0.918
SBMTS CLK-8	Floor, Ramp B	White Expansion Sealant	Caulk	ND
SBMTS CLK-9	Floor, Access Ramp	Black Tar	Tar	ND
SBMTS CLK-10	Eastern Wall, Access Ramp	Black Tar Over Joint	Tar	ND
SBMTS CLK-11	Western Wall, Access Ramp	Electrical Panel	Caulk	ND
SBMTS CLK-12	Weigh Booth, Access Ramp	Window Caulk	Caulk	ND
SBMTS CLK-13	Weigh Booth, Access Ramp	Window Glaze	Glaze	ND
SBMTS CLK-14	Foreman's Office Eastern Wall, Tipping Floor	East Wall Window Glaze	Glaze	ND
SBMTS CLK-15	Foreman's Office Eastern Wall, Tipping Floor	East Wall Window Glaze	Glaze	ND
SBMTS CLK-16	Fan Room No. 1, Tipping Floor	Door Frame Black Sealant	Caulk	ND

Table 7
Summary PCB Analysis
Hazardous Materials Investigation
South Bronx Marine Transfer Station

<i>Sample ID</i>	<i>Location</i>	<i>Sample Description</i>	<i>Substrate</i>	<i>PCB (mg/kg)</i>
SBMTS CLK-17	Western Wall, Ramp A	Electrical Pipe Access Panel	Caulk	ND
SBMTS CLK-18	Foreman's Office Eastern Wall, Tipping Floor	Caulk Under Window Frame	Caulk	ND

Notes:

- (1) The regulatory limit for defining TSCA-regulated PCBs is 50 mg/kg. The water pump is therefore considered a PCB Article.
- (2) Samples collected by Bidwell Environmental on November 14-17th, 2012
- (3) SBMTS CLK-5 was not analyzed as it was not a suspected PCB containing material
- (4) Barge Slip Level referred to in the BBL Investigation is the Pier Level

* - Samples collected by ATC Associates Inc. in March, 2003 as part of BBL's Building Materials and Equipment Investigation

** - There is a similar Water Pump in Barge Slip Level West Pump Room (Pump Room No. 1) that is presumed to also contain TSCA-regulated PCBs.

ND - Not Detected

Table 8
Summary of RCRA Hazardous Waste Analysis
Hazardous Materials Investigation
South Bronx Marine Transfer Station

Sample ID	Location	Component	Substrate	Results
SBRONX-SLIP-C4*	Barge Slip Level	**	**	Non-hazardous
SBRONX-SLIP-C5*	Barge Slip Level	**	**	Non-hazardous
SBRONX-SLIP-C7*	Barge Slip Level	**	**	Non-hazardous
SBRONX-TIP-C3*	Tipping Floor Level	Floor	Concrete	Non-hazardous
SBMTS CON-1	Ramp A, Ramp B, Access Ramp	Floor	Concrete	Non-hazardous ¹
SBMTS CON-2	Pump Room No. 1, Pier Level	Floor	Concrete	Non-hazardous
SBMTS WD-1	Ramp A	Utility Pole	Wood	Non-hazardous ²
SBMTS BULK-1	Tipping Floor Interior	Wall	Masonry	Non-hazardous
SBMTS BULK-2	Building Exterior	Wall	Masonry	Non-hazardous

Notes:

(1) Samples collected by Bidwell Environmental on November 14th and 16th, 2012

(2) Barge Slip Level referred to in the BBL Investigation is the Pier Level

* - Samples collected by Blasland, Bouck & Lee, Inc. in March, 2003 as part of BBL's Building Materials and Equipment Investigation

** - Samples are detailed within the report, but it is not specified which sample corresponds to which description. The 3 samples are:

- concrete floor
- masonry wall
- wooden catwalk

¹ Non-hazardous classification is based on TCLP concentrations (Metals) below the regulatory limit for defining hazardous waste and the absence of detectable concentrations of other contaminants of concern (SVOCs).

² Non-hazardous classification is based on TCLP concentrations (Metals and SVOCs) below the regulatory limit for defining hazardous waste. No other contaminants of concern (Pesticides, Herbicides and VOCs) were detected at concentrations exceeding 20 times the EPA limit for characteristic hazardous waste.

Table 9
Areas Requiring Further Investigation
Hazardous Materials Investigation
South Bronx Marine Transfer Station

<i>Location</i>	<i>Material Description</i>	<i>Sampling Requirements</i>
Pier Level	Painted Surfaces	Lead and PCBs in paint if not previously tested (see Tables 1 through 3).
	Concrete Floors - Pump Room No. 2	If staining is observed on the concrete floor of Pump Room No. 2, one grab sample of each stain should be analyzed for PCBs in accordance with USEPA's Draft Standard operating Procedure For Sampling Concrete in the Field. If there is no observable staining, one composite sample of 5 grab samples of the concrete floor of Pump Room No. 2 should be analyzed for PCBs.
	Masonry and Painted Walls	One composite full core sample of the painted masonry shall be collected and analyzed for TCLP metals.
	Wood	<ul style="list-style-type: none"> • One bulk composite sample of the wooden piles for analysis of TCLP metals, TCLP semi-volatiles, TCLP pesticides, TCLP herbicides and total PCBs. • One composite full core sample of the wooden barge slip/bulkhead fenders for analysis of TCLP metals, TCLP semi-volatiles, TCLP pesticides, TCLP herbicides and total PCBs. • One bulk sample of the green painted wooden barge slip for analysis of TCLP metals, TCLP semi-volatiles, TCLP pesticides, TCLP herbicides and total PCBs.
	Suspect Asbestos Containing Materials	Additional asbestos inspection required. All suspect asbestos containing materials not previously sampled (see Table 5) shall be sampled.
	Caulks and Mastics	In addition to asbestos, all caulks and mastics shall be sampled for total PCBs.
	Universal and Other Misc. Regulated Waste	<ul style="list-style-type: none"> • Miscellaneous oils and grease in pumps/motor shall be tested for total PCBs and TCLP metals. • Inventory contents of fuel oil in storage tank and sample for total PCBs and TCLP metals.

Table 9
Areas Requiring Further Investigation
Hazardous Materials Investigation
South Bronx Marine Transfer Station

Location	Material Description	Sampling Requirements
Pier Level		<ul style="list-style-type: none"> • Inventory contents of oil/water separator and sample for total PCBs and full RCRA characteristics (ignitability, reactivity, corrosivity and full TCLP). • Inventory contents of boiler and sample for total PCBs and full RCRA characteristics (ignitability, reactivity, corrosivity and full TCLP) • Inventory contents of tanks in Mechanical Room and sample for total PCBs and full RCRA characteristics (ignitability, reactivity, corrosivity and full TCLP) • One composite sample of miscellaneous oils in Capstans shall be collected and analyzed for total PCBs and TCLP metals • One oil sample from Water Pump in Pump Room No. 1 for total PCBs and TCLP metals • One sample from Water pump in Pump Room No. 2 for TCLP metals • Tanks should be inspected for evidence of hazardous materials. If hazardous materials are suspected, sample for total PCBs and full RCRA characteristics (ignitability, reactivity, corrosivity and full TCLP) . If sanitary waste is confirmed and there is no evidence of hazardous materials, waste should be disposed of at a publicly owned treatment works. • Conduct universal waste survey and other miscellaneous regulated materials throughout. • Piping shall be inspected for lead joints.

Table 9
Areas Requiring Further Investigation
Hazardous Materials Investigation
South Bronx Marine Transfer Station

<i>Location</i>	<i>Material Description</i>	<i>Sampling Requirements</i>
Tipping Floor		
Concrete Platforms (Eastern, Western and Southern Tipping Floor)	Painted Surfaces	Lead and PCBs in paint if not previously tested (see Tables 1 through 3).
	Suspect Asbestos Containing Materials	Additional asbestos inspection required. All suspect asbestos containing materials not previously sampled (see Table 5) shall be sampled.
	Caulks and Mastics	In addition to asbestos, all caulks and mastics shall be sampled for total PCBs.
	Universal and Other Misc. Regulated Material	Conduct universal waste and other potentially regulated materials survey throughout.
South west corner of Fan Room No. 2 and south east corner of Fan Room No. 1	Wall Mounted Heaters (2)	Heaters should be investigated for mercury containing thermostats prior to disposal
Meter Room	Discarded Sangamo Electric EMC Transformers (3)	While typically not fluid cooled, the absence of PCB containing fluids should be confirmed prior to disposal to determine the correct disposal method.
Open Area by Stair No.1	One 55-Gal Drum of soil, concrete debris, ash, glass and plastic	The contents of the drum shall be sampled for TCLP VOCs, TCLP SVOCs, TCLP metals, TCLP herbicides, TCLP pesticides, total PCBs and asbestos to classify the waste for disposal purposes.
Men's Toilet	Refrigerator	Non-hazardous regulated waste. The refrigerator should be inspected for CFCs or other potentially regulated refrigerants, PCB capacitors and mercury containing components prior to disposal and recycled in accordance with local regulations, which may require the evacuation of refrigerants by a technician licensed in accordance with 40 CFR 82.161.

Table 9
Areas Requiring Further Investigation
Hazardous Materials Investigation
South Bronx Marine Transfer Station

Location	Material Description	Sampling Requirements
Tipping Floor		
Interior of Hoppers	Municipal Waste	The contents of the hoppers should be investigated to ensure that the material is municipal waste. If suspect hazardous materials are identified, sampling shall be performed to determine the proper disposal methods.
Exterior		
Roof	Universal Waste and Other Miscellaneous Regulated Waste	Drain pipe on Tipping Level contained lead joints and should be further investigated on roof level.
Underside of Ramp A	Pipe Coating (paint)	Where present, paint shall be sampled for lead and total PCBs.
	Pipe Coating (mastic, caulking)	Where present, suspect asbestos containing pipe coating shall be sampled for asbestos and total PCBs
	Pipe Interior (suspect ACM)	Inspect contents of pipe and sample suspect ACM for asbestos
Along Ramp A and Underground (as per drawings)	"Electric Line"	If confirmed, wires and carrier pipe should be investigated for possible asbestos and PCB containing materials prior to demolition.
Entire Facility	Items Previously Identified by the BBL 2003 Survey	The facility in its entirety should be inspected for the presence of materials that were identified during the BBL survey but were not observed during the 2012 investigation. The materials are listed in Table 6.
	Exit Signs, Fire Extinguishers and Smoke Detectors	The facility in its entirety should be inspected for the presence of exit signs, fire extinguishers and smoke detectors. Disposal shall be performed in accordance with Section 13285.

Section 01410
REGULATORY REQUIREMENTS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Inspection by City of New York, State and Federal Government
- B. Work permits
- C. Bureau of Electrical Control
- D. Existing utilities
- E. Existing flows
- F. Disposal of water
- G. Conformance to Industrial Code
- H. Conformance to other codes and standards

1.02 INSPECTION BY THE CITY OF NEW YORK, STATE AND FEDERAL GOVERNMENT

- A. The Contractor shall provide proper facilities for inspection and access to the work at all times, whenever it is in preparation and progress, for authorized representatives of the City of New York, State and Federal Governments, the latter two in the presence of the Commissioner.

1.03 WORK PERMITS

- A. All New York City permits required for work under this Contract shall be obtained by the Contractor within one (1) month of Contract Notice to Proceed. Contractors shall be responsible for all costs associated with the resubmission of Building Permits applications if they fail to obtain permits within one (1) month of Contract Notice to Proceed.
- B. The Contractor shall obtain, maintain and pay for all necessary local, state and federal permits, licenses, certificates of inspection, city water connection permits and shall give all notices and pay all legal fees to City Departments in connection with the work of his Contract. The Contractor shall also be responsible for renewing these permits as often as necessary until the completion of the work and shall be responsible for the associated cost.

- C. All work performed under the Contract shall conform to the rules and regulations of the Bureau of Electrical Control, Department of Buildings; New York City Construction Codes, the New York City Plumbing Code, regulations of the Department of Air Resources, and all other City of New York, State and Federal Departments having jurisdiction.
- D. Upon completion of the various stages of construction, the Contractor shall schedule inspections and obtain certificates of approval and/or acceptance from the various agencies and Departments having jurisdiction and shall deliver these certificates to the Commissioner.

1.04 EXISTING UTILITIES

- A. All subsurface utility and structure information shown on the Contract Drawings was obtained from various plans, maps and field investigations; however they are not guaranteed to be complete or accurate. It shall be the Contractor's responsibility to locate all such necessary utilities or structures by the digging of test pits prior to the start of construction. No separate payment will be made for test pits.
- B. During the progress of the work, the Contractor shall protect from damage any existing utilities or services within the work areas until, they have been re-routed, disconnected or capped off.

1.05 EXISTING FLOWS

- A. The Contractor shall, as approved by the Commissioner, provide and construct flumes, temporary sewers, dams and all incidental and related facilities necessary to divert or otherwise take care of groundwater and surface drainage, and to prevent any sediments from being conveyed into the existing storm sewer inlets or water courses.

1.06 DISPOSAL OF WATER

- A. Water from open cut and/or sheeted excavations, manholes, structures, trenches, or from whatever source, shall be disposed of strictly in accordance with methods approved by the Commissioner.
- B. The Contractor shall submit proposed dewatering methods to the New York State Department of Environmental Conservation for the required permits. If a well point dewatering system is proposed, the Contractor shall utilize a licensed well driller. Contractor shall contact NYSDEC a minimum of 2 weeks in advance of dewatering system startup. All dewatering shall be in accordance with Section 15-1525 of the Environmental Conservation Law.

- C. When required by the Commissioner, such water shall be passed through a settling basin of acceptable size and shape and equipped with an overflow. Each settling basin shall be cleaned as required and as ordered by the Commissioner.
- D. Sufficient water to flush all sewers and drains shall be provided by the Contractor when necessary. If any sewer, drain, catch basin, inlet or gutter, that receives dirty water attributable to the Contractor's operations, should become filled or partially filled with sediment or debris, the Contractor shall promptly and satisfactorily remove such deposits.

1.07 CONFORMANCE TO OTHER CODES AND STANDARDS

- A. All devices, materials and installations shall conform to the current applicable requirements of the Administrative Code of the City of New York, the National Electrical Code (NFPA-70), ANSI, ASTM, IEEE, NEMA, OSHA, UL, the Contract Documents and the documents specified elsewhere in the specifications.
- B. The City of New York codes shall be followed in case of conflict. Latest edition of all codes shall apply.

PART 2 PRODUCTS (Not Used)

PART 3 EXECUTION (Not Used)

-END OF SECTION-

NO TEXT ON THIS PAGE

**Section 01435
MONITORING SURVEY**

PART 1 GENERAL**1.01 SECTION INCLUDES**

- A. The work specified in this Section consists of furnishing all labor, equipment, material and services required to perform the work specified herein. The work includes but is not limited to:
1. Condition Survey: This work shall consist of performing structure condition survey(s) and preparing permanent records prior to the commencement of work, after completion of work, and at locations and times during construction as directed by the Commissioner. At a minimum, unless otherwise indicated in the contract documents, include all permanent structures within 25 feet of the construction limit line.
 2. Locating and establishing remote survey benchmarks to be used in the work.

1.02 SUBMITTALS

- A. Submit the following in accordance with the General Conditions and Section 01330 - Shop Drawings:
1. Shop drawings showing monitoring point and benchmark locations and details.
 2. Names and credentials of surveyors performing the work.
 3. Survey records of each monitoring point reading no later than one day after readings are taken. Records shall include list of monitoring points with initial and interim coordinates and elevations, and cumulative movement, both vertical and horizontal for each point surveyed.
 4. Pre-Demolition Condition Survey detailing structures affected by the work, existing field conditions, photographs of existing structures, and drawings detailing actual dimensions.
 5. Monitoring Scope
 - a. The location of all structures to be monitored in proximity to the construction operation.
 - b. The location of any underground or underwater utilities in proximity to the construction operation.

1.03 PROJECT CONDITIONS

- A. Survey readings shall be made by a licensed Professional Land Surveyor registered in the State of New York.
- B. All readings shall be made in coordination with ongoing construction activities.
- C. Refer readings to the project coordinate system and datum.
- D. Comply with regulations and directives of the New York City Department of Buildings with regard to new foundation work in close proximity to existing foundations.

1.04 MOVEMENT CLASSIFICATION

- A. Maximum permitted movement of any structure shall not exceed 0.5 inches, unless otherwise defined in the Contract Documents.

1.05 STRUCTURE EXAMINATION

- A. Prior to starting work, the Contractor, the Client and the Commissioner shall make a joint inspection of the existing structures to examine and document their present conditions.
- B. Photographs shall be taken by the Contractor to record any exterior or interior conditions of a structure that may become the subject of damage claims.
- C. Prepare a Condition Report for each structure documenting all pre-existing conditions, verified by photographs, and signed by the personnel of the Contractor, the City of New York and the Commissioner participating in the investigation.

PART 2 PRODUCTS

2.01 CONDITION SURVEY EQUIPMENT

- A. Provide general photography and video equipment, analog or digital, capable of illuminating, zooming in, focusing on damage with scale bar indicators as necessary and superimposing the date and time on all images.

PART 3 EXECUTION

3.01 PREPARATION

- A. Engage the services of a firm capable of furnishing a New York State licensed Professional Engineer to conduct a condition survey of the existing structure(s).
- B. For position monitoring, establish and maintain at least two (2) remote permanent benchmarks and other reference points at approved locations, as required.

- C. Position monitoring points shall be located on the site at 50 feet on center at above ground structures and underground utilities. The monitoring points shall consist of a suitable mark, not anticipated to be subject to fading, damage or removal. Monitoring points for underground structures and utilities shall consist of a suitable mark or fixture at ground surface not easily removed or damaged. Provide a suitable numbering scheme, giving each point a unique identification number.

3.02 CONDITION SURVEY

- A. Provide, as a minimum, the following information:
 - 1. Photographic and video documentation of the interior and exterior condition of the structure(s) within the limits specified or as directed by the Commissioner.
 - 2. Extent and location of existing signs of potential structural distress such as cracks, spalling, loss of section, signs of settlement, flooding, leaking, etc.
 - 3. Descriptions and locations of crack monitors installed.
- B. The Commissioner may accompany the Contractor on each condition survey for verification of the data recorded. Provide two copies of all documentation of each condition survey to the Commissioner.

3.03 MOVEMENT MONITORING

- A. During construction work that may affect the existing structures, monitor position monitoring points within 100 feet of the work area at a minimum frequency of once daily. When no active work is in progress, monitor the affected points at a minimum frequency of once per week.
- B. All position monitoring point readings shall consist of both coordinates and elevations. Notify the Commissioner when observed movements from position monitoring points reach levels shown in Table 1 below.

Table 1 - Action Plan For Protecting Adjacent Structures

MAXIMUM OBSERVED MOVEMENT	MONITORING LEVEL	NOTIFY	ACTION
50% of Permitted Value	Working	None	None
100% of Permitted Value	Working	Commissioner	Modify Activities
Exceeds Permitted Value	Action	Commissioner	Stop Work & Stabilize Foundations

- C. Reference all readings to one benchmark. Periodically check remote benchmarks to confirm that reference benchmark has not moved
- D. Survey the coordinates and elevations to a precision of ± 0.005 foot.
- E. Submit readings as specified. Keep all survey records and make available to the Commissioner upon request.

-END OF SECTION-

Section 01513
TEMPORARY POWER FACILITIES

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Under this section, the Contractor shall provide the following services:
 - 1. Furnish, install, connect, operate and maintain the construction power system and all appurtenances required.
 - 2. Make arrangements with Con Edison immediately after notice to commence work to furnish the service supplies required for construction light and power.
 - 3. Provide all material and labor to distribute power from a Con Edison service entry point for electrical power service to the construction site and to the Commissioner's Field Office. The service shall be extended by the Contractor and distributed as 120/208V, 3-phase, 4-wire service. The Contractor shall furnish, install, connect, and maintain all circuit breakers, poles, power cables, metering center, fuses, panelboards, wiring, and accessories as specified herein and as required by Con Edison.
 - 4. Furnish material and labor for the maintenance of the construction light and power for the duration of the Contract work.
 - 5. Provide temporary lighting as described in the General Conditions.
- B. Contractor shall provide his own temporary electrical system from the service point and pay for his own energy usage.

1.02 RELATED SPECIFICATIONS

- A. Section 16020 – Temporary Electrical System

1.03 GENERAL REQUIREMENTS

- A. The temporary light and power facilities shall be provided, energized, maintained and de-energized in accordance with Section 16020 – Temporary Electrical System and as specified herein.
- B. The Contractor shall provide an electrical service point to the Commissioner's Field Office.

1.04 SERVICE PERIOD

- A. Temporary power shall be furnished 24 hours per day, 7 days per week for the duration of the Work and shall conform to Section 16020 – Temporary Electrical System.

PART 2 PRODUCTS

2.01 PORTABLE GENERATOR

- A. The Contractor shall provide a portable on-site power generator for his use in the event of power outages. The generator shall be a 250 kW, 0.8 power factor, 208/120 V, 3-phase, 4-wire generator. The Contractor shall obtain any necessary approvals for use of the generator from Con Edison.

2.02 TEMPORARY HEATING SYSTEM FEEDER

- A. The Contractor shall furnish, install, connect and maintain all electrical connections required for the temporary heating system as described in the General Conditions.

PART 3 EXECUTION

3.01 OPERATION AND MAINTENANCE

- A. The Contractor shall provide all material and labor to install, maintain, energize and de-energize the light and power system.
- B. The Contractor shall have one electrician available 24 hours per day for incidental modifications as directed by the Commissioner and to maintain the electrical equipment and power distribution systems at the site for the duration of the Contract.
- C. The Contractor shall remove all portions of the temporary light and power system when so directed by the Commissioner.

-END OF SECTION-

Section 01520
TEMPORARY CONSTRUCTION FACILITIES

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Contractor's Field Office
- B. Land for Contractor's Use

1.02 CONTRACTOR'S FIELD OFFICE

- A. Contractor shall furnish and maintain a field office in accordance with the General Conditions. Field Office shall be located at the site within the space shown on the Contract Drawings. Off-street parking shall be provided by the Contractor for its field office.
- B. Contractors' field offices shall present a clean and neat exterior appearance and shall be in a state of good repair. Trailers which, in the opinion of the Commissioner, require exterior painting or maintenance shall be repaired or replaced at the Commissioner's direction.

1.03 LAND FOR CONTRACTOR'S USE

- A. Contractor shall confine its construction activities to City of New York-owned property and to the actual area where he is performing work within the Limits of Construction as shown on the Contract Drawings. Personal vehicles of the Contractor's employees will not be permitted on the Site.
- B. The available area must be shared with the other Contractors. Should the Contractor require additional space, he shall provide the space off-site and all such costs and arrangements shall be at its expense.
- C. The City of New York reserves the option to require the Contractor to vacate its assigned areas within sixty (60) days after notice by the City of New York. No additional compensation or extension of contract time will be allowed for any such relocation.
- D. Following the completion of the Contract or as indicated on the Contract Documents or directed by the Commissioner, the Contractor shall remove its facilities, shanties, materials, equipment, etc., from the allocated site and restore the site to its original condition, satisfactory to the Commissioner.

PART 2 PRODUCTS (Not Used)

PART 3 EXECUTION (Not Used)

-END OF SECTION-

Section 01550
VEHICULAR ACCESS AND PARKING

PART 1 GENERAL**1.01 SECTION INCLUDES**

- A. Maintenance of traffic
- B. Site Access
- C. Truck routes
- D. Construction staff parking area

1.02 MAINTENANCE OF TRAFFIC

- A. During working hours, the Contractor shall be responsible for maintenance and control of traffic in and out of the site at all points of vehicular ingress and egress and shall provide flagmen to warn vehicles on the City of New York streets of vehicles approaching from the site. Flagmen shall be properly attired and equipped according to the regulations of the City of New York. A minimum of one lane of traffic in each direction shall be maintained on City of New York streets at all times.
- B. Modifications to existing streets and traffic patterns shall be approved by and in accordance with the requirements of the Office of Construction Coordination (OCC). Each Contractor shall be responsible for obtaining and paying for this approval whenever his construction operations require modifications to the existing streets or traffic patterns. Traffic safety devices shall be placed as per the Manual of Uniform Traffic Control Devices (MUTCD).
- C. When equipment delivered under this Contract is transported as an "oversized load" the responsible Contractor shall maintain traffic in accordance with the requirements of the various City of New York agencies having jurisdiction.
- D. During the progress of the work, the Contractor shall provide all temporary construction roads and walkways as required, and shall make ample provisions to prevent interference with the continued maintenance of vehicular traffic on roadways and shall indemnify and save harmless the City of New York and the Commissioner from any expense whatsoever due to his operations over said roadways. Any roadways damaged by the Contractor or his subcontractors or materialmen shall be restored to their original condition upon notification by the Commissioner that such repairs are required and such restoration of the roadway shall be at the responsible Contractor's expense. Temporary construction roads and walkways shall be removed, at the Contractor's expense, prior to acceptance of the Contract.

PART 2 PRODUCTS (Not Used)

PART 3 EXECUTION

3.01 SITE ACCESS

- A. The Contractor shall provide and maintain the temporary access to the site of the work during the life of this Contract.
- B. The Contractor shall provide each of his employees an identification badge which shall display the employee's name, photograph, and trade, the Contractor's name and the Contract. Every employee shall wear this identification badge, prominently displayed on his person to obtain access to the site and at all times while present on the site.

3.02 TRUCK ROUTES

- A. During the progress of construction, trucks entering or leaving the site shall utilize only NYCDOT-designated and DDC-directed or -approved truck routes. The Contractor shall assure that its crew members, and its subcontractors and materialmen and their crew members are fully advised of the designated and directed or approved routes.
- B. NYCDOT truck routes are identified on maps available from the NYCDOT. Copies of these maps can be obtained from the New York City Department of Transportation (NYCDOT) Office of Planning and Urban Mobility, Room 928, 40 Worth Street, New York, NY or from the NYCDOT website (www.nyc.gov/html/dot/html/motorist/trucks.shtml).

3.03 CONSTRUCTION STAFF PARKING AREA

- A. The parking area identified on the Contract Drawings is limited in extent. The area shall be utilized solely by the Construction Management staff and visitors to the Construction Management Office.
- B. The Contractor shall take appropriate actions to ensure that no personal vehicles of its employees, or employees of its subcontractors or materialmen will be permitted on the work site.

-END OF SECTION-

Section 01560
TEMPORARY BARRIERS AND ENCLOSURES

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Barricades
- B. Fencing
- C. Protection of work, personnel and materials
- D. Tree and plant protection

1.02 RELATED SPECIFICATIONS

- A. Section 01570 - Temporary Controls
- B. Section 02821 - Metal Fence

1.03 BARRICADES

A. Roads, Parking Areas and Sidewalks

1. Contractor shall provide, erect and maintain as necessary for his work, strong and suitable barricades, danger signs and warning lights along all roads, parking areas and sidewalks, accessible to the public or City of New York personnel.
2. All barricades and obstructions shall be illuminated at night and all lights for this purpose shall be kept burning from sunset to sunrise.
3. Sufficient barricades shall be erected to keep vehicles from being driven on or into work under construction.

B. Excavations

1. All open excavations shall be adequately safeguarded by providing temporary barricades, caution signs, lights and other means to prevent accidents to persons, and damage to property.
2. Contractor shall, at his own expense, provide suitable and safe bridges and other crossings for accommodating travel by pedestrians and workmen. Bridges provided for access during construction shall be removed when no longer required.

3. The length or size of excavation will be controlled by the particular surrounding conditions, but shall always be confined to the limits prescribed by the Commissioner. If the excavation becomes a hazard, or if it excessively restricts traffic at any point, the City of New York may require special construction procedures such as limiting the length of the open trench, prohibiting stacking excavated material in the street, and requiring that the trench shall not remain open overnight.
 4. The Contractor shall take precautions to prevent injury to the public or City of New York personnel due to open trenches. All trenches, excavated material, equipment, or other obstacles which could be dangerous to the public or City of New York personnel shall be well lighted from sunset to sunrise.
- C. Contractor's responsibility for the maintenance of barricades, signs and lights shall continue until the Project is accepted by the City of New York. Contractor shall provide and maintain such other warning signs and barricades in other areas and around their respective work as may be required for the safety of all those employed in the work, plant operating personnel, or those visiting the site.

1.04 FENCING

A. Construction Fencing

1. At the start of the work, the Structures and Equipment Contractor shall provide and erect construction fencing to completely enclose the construction sites of this Project in accordance with the Contract Documents. Any damage to the construction fencing shall be immediately repaired by the Contractor to the satisfaction of the Commissioner.
2. Chain link fence shall be 10 feet high unless shown otherwise on the Contract Drawings and shall conform to the requirements of Section 02821 – Metal Fence. The Contractor shall also provide the size and number of gates for ingress and egress in accordance with the Contract Documents.

B. Safety Fencing

1. Contractor shall provide and erect, when required or directed by the Commissioner, temporary project safety fencing at the work site.
2. The safety fencing shall be a high visibility, orange colored, high density polyethylene grid or approved equal, a minimum of 42 inches high, supported and tightly secured to steel posts located on maximum 10 foot centers.

- C. Fencing shall be maintained by the Contractors during the life of the Contract and, upon completion and acceptance of the work, shall become the property of the Contractor and shall be removed from the work site.

1.05 PROTECTION OF WORK, PERSONNEL AND MATERIALS

- A. Until permanent walls, railings, stairs, hatches, etc., are in place, the Structures and Equipment Contractor shall be responsible for the installation and maintenance of temporary barricades and temporary railings around openings, stairwells, on temporary or permanent stairs, around the perimeter of elevated floors, landings, permanent ramps, etc. The installation shall be in accordance with the requirements of OSHA and the codes and regulations of authorities having jurisdiction.
- B. During the progress of the work and up to the date of final payment, Contractor shall be solely responsible for the care and protection of all work, personnel, and materials covered by the Contract.
- C. In order to prevent damage, injury or loss, actions taken by Contractor shall include, but not be limited to, the following:
 - 1. Store apparatus, materials, supplies, and equipment in an orderly, safe manner that will not interfere with the progress of the work or the work of any other Contractor or utility service company.
 - 2. Provide suitable storage facilities for all materials which are subject to injury by exposure to weather, theft or breakage.
 - 3. Place upon the work or any part thereof only such loads as are consistent with the safety of that portion of the work.
 - 4. Clean up frequently all refuse, rubbish, scrap materials, and debris caused by his operations, to the end that at all times the site of the work shall present a safe, orderly and workmanlike appearance.
- D. Contractor shall protect the existing work and material from damage by his workmen and shall be responsible for repairing any such damage at no additional cost to the City of New York.

1.06 TREE AND PLANT PROTECTION

- A. Contractor shall protect trees, shrubbery and other natural features from being cut, trimmed or injured in his area of work. Trees adjacent to the site of work shall be protected and temporary supports provided for long branches. Stored materials and equipment shall be in cleared spaces, away from all trees and shrubs, and confined to areas as directed by the Commissioner.
- B. Temporary fences or barricades shall be installed to protect trees and plants in areas subject to traffic.

- C. Within the limits of the work, water trees and plants that are to remain, in order to maintain their health during construction operations.
- D. Cover all exposed roots temporarily with burlap that shall be kept continuously wet. Exposed roots shall be covered with earth as soon as possible. Protect root systems from mechanical damage and damage by erosion, flooding, runoff or noxious materials in solution.
- E. If branches or trunks are damaged, prune branches immediately and protect the cut or damaged areas with emulsified asphalt compounded specifically for horticultural use in a manner approved by the Commissioner.
- F. All damaged trees and plants that die or suffer permanent injury shall be removed when ordered by the Commissioner and replaced by a specimen of equal or better quality at the Contractor's expense.

PART 2 PRODUCTS (Not Used)

PART 3 EXECUTION (Not Used)

-END OF SECTION-

**Section 01561
SITE SECURITY**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Work site security requirements.

1.02 SECURITY GUARD AND FIRE GUARDS

- A. Security guards and fire guards will be required as described in the General Conditions.

1.03 ADDITIONAL SECURITY

- A. Contractor shall provide his own site security as he deems necessary. The additional cost of such approved protection shall be paid by the Contractor. Any security services furnished by the Contractor must meet the requirements of the New York State Security Guard Act of 1992.
- B. Nothing contained herein shall diminish in any way the responsibility of the Contractor for safeguarding and protecting his own work, materials, tools and equipment.

PART 2 PRODUCTS (Not Used)

PART 3 EXECUTION (Not Used)

-END OF SECTION-

NO TEXT ON THIS PAGE

Section 01570
TEMPORARY CONTROLS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Prohibited construction procedures
- B. Pollution Control
- C. Dust, soil erosion and sedimentation control
- D. Noise Control

1.02 RELATED SPECIFICATIONS

- A. Section 02371 - Dust, Soil Erosion and Sedimentation Control

1.03 GENERAL REQUIREMENTS

- A. Contractor shall furnish all labor, materials, equipment and incidentals required to assure adequate environmental protection including implementation of all control measures as directed by the Commissioner and specified herein.
- B. Contractor shall comply with all applicable Federal, State and Local laws and regulations concerning environmental protection, restoration and erosion and sediment control.

1.04 SUBMITTALS

- A. Submit Environmental Plan describing proposed methods, schedules and materials for implementing the environmental protection requirements.

1.05 PROHIBITED CONSTRUCTION PROCEDURES

- A. The following construction procedures are prohibited:
 - 1. Dumping or wasting of spoil material into any stream corridor, any surface waters or at unspecified locations adjacent to the work area or at locations not approved by the Commissioner.
 - 2. Indiscriminate, arbitrary or capricious operation of equipment in any stream corridor or surface waters.
 - 3. Dumping of silt-laden water directly into any stream corridor or surface waters without provision for treatment as noted herein.

4. Damaging vegetation adjacent to or outside of access roads or limited rights-of-way for the work. All construction operations must be confined within the Contractor's work limits as shown and/or specified.
5. Disposal of trees, bush and other debris into any stream corridor, any wetlands or at unspecified locations.
6. Open burning of materials.

PART 2 PRODUCTS (Not Used)

PART 3 EXECUTION

3.01 POLLUTION CONTROL

- A. Contractor shall provide the methods, means and facilities required to prevent contamination of soil, water or atmosphere by the discharge of noxious substances from construction operations.
- B. Equipment and personnel shall be provided by Contractor to perform emergency measures required to contain any spillages, and to remove contaminated soils or liquids for off-site disposal.
- C. Special measures shall be taken by Contractor to prevent harmful substances from entering public waters, and to prevent disposal of wastes, effluents, chemicals, or other such substances to adjacent waterways or to sanitary or storm sewers.
- D. Contractors shall provide systems for control of atmospheric pollutants to prevent toxic concentrations of chemicals and to prevent harmful dispersal of pollutants into the atmosphere.
- E. All chemicals used during project construction or furnished for project operation, whether herbicide, pesticide, disinfectant, polymer, or reactant of other classification, must show approval of the EPA and other recognized certifying agencies. Use of all such chemicals and disposal of residues shall be in strict conformance with regulatory requirements.
- F. All Contractors' equipment used during construction shall conform to all current federal, state and local laws and regulations.

3.02 DUST, SOIL EROSION AND SEDIMENTATION CONTROL

- A. All Contractors shall comply with the requirements of Section 02371 - Dust, Soil Erosion and Sedimentation Control.

3.03 NOISE CONTROL

- A. Noise control during construction activities shall be performed in accordance with §24-219 of the New York City Noise Code.
1. Other than impulsive sound, sound from construction devices and exhausts should not exceed 85 dBA at 50 feet at a point outside the property line or in the public right-of-way. If the aggregate sound levels from a construction site exceed the allowable construction decibel level limits, compliance with the specific equipment decibel limits above does validate site compliance.
 2. Impulsive sound should not exceed 15 dBA or more above ambient at a receiving property or at a distance of 15 feet or more in a public right-of-way. Impulsive sound should be measured with the noise meter set to a "fast" response. Ambient sound should be measured with the noise meter set to a "slow" response.
 3. Sound from the transport or movement of containers and construction material shall not exceed the following noise limits:
 - a. 7 dBA above ambient between 10pm and 7am;
 - b. 10 dBA above ambient between 7am and 10pm; and
 4. Pneumatic discharge muffler must have a dynamic insertion loss of 5 dBA of the sound released from the air discharge of the paving breaker. Maximum sound levels emanating from the paving breaker should not exceed 95 dBA at 1 meter (75 dBA at 50 feet).
- B. Contractor shall complete a Construction Noise Mitigation Plan (CNMP) as specified in the New York City Noise Code.
1. Contractor may be required to file the CNMP with the Department of Environmental Protection (DEP) if requested, although typically not.
 2. Contractor shall provide as part of CNMP noise mitigation strategies for construction equipment such as pile drivers, bulldozers, cranes, derricks, air compressors, generators, tunneling machines, etc at construction sites. Noise mitigation strategies may include:
 - a. Site perimeter fences with acoustical blankets;
 - b. Portable barriers with acoustical blankets;
 - c. Acoustical blankets; and
 - d. Exhaust muffler testing and certification

3. Contractor shall provide the CNMP prior to construction. For emergency activities, the CNMP must be adopted within 3 days after the start of activities.
 4. Contractor shall keep CNMP on-site and available for inspection.
 5. Contractor shall amend CNMP to accommodate changes/additions to construction activities and equipment.
- C. Contractor's vehicles and equipment shall be operated and maintained so as to minimize noise to the greatest degree practicable. Noise levels shall conform to the latest regulatory standards and in no case will noise levels be permitted which interfere with the work of the on-site personnel.
1. All construction equipment powered by an internal combustion engine shall be equipped with a properly maintained muffler.
 2. Air-powered equipment shall be fitted with pneumatic exhaust silencers.

3.04 NOTIFICATION OF NON-COMPLIANCE

- A. The Commissioner will notify the Contractor in writing of any non-compliance with the provisions of this Section and the action to be taken. The Contractor shall, after receipt of such notice, immediately take corrective action. Such notice, when delivered to the Contractor or his authorized representative at the site of the work, shall be deemed sufficient for the purpose.
1. If the Contractor fails or refuses to comply promptly, an order stopping all or part of the work may be issued by the City of New York until satisfactory corrective action has been taken.
 2. No part of the time lost due to any such stop orders shall be made the subject of a claim for extension of time or for excess costs or damages by the Contractor, unless it is later determined that the Contractor was in compliance with the provisions of this Section.
- B. Compliance with the provisions of this Section by subcontractors shall be the responsibility of the Contractor.

-END OF SECTION-

Section 01721
PROTECTION AND RESTORATION OF STRUCTURES

PART 1 GENERAL**1.01 SECTION INCLUDES**

- A. Protection of existing structures and utilities
- B. Underground structures
- C. Surface structures
- D. Notice to utility companies to remove structures
- E. Notice to utility companies to support, protect, temporarily remove and replace structures within limits of work
- F. Restoration of structures and pavements

1.02 GENERAL REQUIREMENTS

- A. The Contractor shall execute the Work to prevent damage or injury to existing facilities and adjacent private properties and occupants thereof, which might result from work or other causes.
- B. The Contractor shall erect and maintain barriers, lights, fences, and other required protective devices in accordance with the Contract Documents and the NYC Construction Codes and the requirements of the NYC Department of Transportation.
- C. The Contractor shall be responsible for taking all precautions, providing all programs, and taking all actions necessary to protect the Work and all public and private property and facilities from damage, injury, loss or vandalism.
- D. The Contractor shall assume full responsibility for the preservation of all public and private property or facility on or adjacent to the site. If any direct or indirect damage is caused by or on account of any act, omission, neglect or misconduct in the execution of the Work by the Contractor, it shall be restored by the Contractor, at its expense, to a condition equal to that existing before the damage was done. Where necessary to protect the Work or materials from damage, the Contractor shall, at its expense, provide suitable drainage and erect such temporary structures as are necessary to protect the Work or materials from damage. The suspension of the Work or the granting of an extension of time from any cause whatever shall not relieve the Contractor of its responsibility for the Work and materials.

- E. Whenever any notice is required to be given by the City of New York or the Contractor to any adjacent or adjoining landowner or other party before commencement of any Work, such notice shall be given by the Contractor within the time limitations required for such notices.
- F. All structures, appurtenances, pavement and landscaping shall be adequately supported and safeguarded against all damage or injury in performance of work under this Contract. The Contractor will be held responsible for any such damage or injury resulting from its operations and shall repair such damage immediately and to the satisfaction of the Commissioner.
- G. The Contractor shall ascertain the location of underground pipelines, conduits and other subsurface structures in those locations where the operation of its heavy construction equipment might damage such structures. The Contractor shall either avoid such locations or provide the necessary safeguards and repair any damage quickly at its own expense.
- H. The Contractor shall comply promptly with such safety regulations as may be prescribed by the Commissioner or the local authorities having jurisdiction and shall, when so directed, properly correct any unsafe conditions created by, or unsafe practices on the part of its employees. In the event of the Contractor's failure to comply, the Commissioner may take the necessary measures to correct the conditions or practices complained of, and all costs thereof will be deducted from any monies due the Contractor. Failure of the Commissioner to direct the correction of unsafe conditions or practices shall not relieve the Contractor of its responsibility hereunder.
- I. In the event of any claims for damage or alleged damage to property as a result of work under this Contract, the Contractor shall be responsible for all costs in connection with the settlement of or defense against such claims. Prior to commencement of work in the vicinity of property adjacent to the work site, the Contractor, at its own expense, shall take such surveys as may be necessary to establish the existing condition of the property. Before final payment can be made, the Contractor shall furnish satisfactory evidence that all claims for damage have been legally settled or sufficient funds to cover such claims have been placed in escrow, or that an adequate bond to cover such claims has been obtained.

1.03 PROTECTION OF EXISTING STRUCTURES AND UTILITIES

- A. The term existing utilities shall be deemed to refer to both publicly-owned and privately-owned utilities such as electric power and lighting, telephone, cable television, water, gas, storm drains, process lines, sanitary sewers and all appurtenant structures.
- B. Where existing utilities and structures are indicated on the Drawings, it shall be understood that all of the existing utilities and structures affecting the work may not

be shown and that the locations of those shown are approximate only. It shall be the responsibility of the Contractor to ascertain the actual extent and exact location of existing utilities and structures. In every instance, the Contractor shall notify the proper authority having jurisdiction and obtain all necessary directions and approvals before performing any work in the vicinity of existing utilities.

- C. The work shall be carried out in a manner to prevent disruption of existing services and to avoid damage to the existing utilities. Temporary connections shall be provided, as required, to insure uninterrupted of existing services. Any damage resulting from the work of this Contract shall be promptly repaired by the Contractor at its own expense in a manner approved by the Commissioner and further subject to the requirements of any authority having jurisdiction. Where it is required by the authority having jurisdiction that they perform their own repairs or have them done by others, the Contractor shall be responsible for all costs thereof.
- D. Where excavations by the Contractor require any utility lines or appurtenant structures to be temporarily supported and otherwise protected during the construction work, the Contractor shall provide such support and protection. All such work shall be performed in a manner satisfactory to the Commissioner and the respective authority having jurisdiction over such work. In the event the Contractor fails to provide proper support or protection to any existing utility, the Commissioner may, at this discretion, have the respective authority provide such support or protection as may be necessary to ensure the safety of such utility, and the costs of such measures shall be paid by the Contractor.
- E. During the progress of the Work, the Contractor shall protect from injury any existing utilities or services within the work area until, if required, they have been re-routed, disconnected or capped off. Protection and re-routing shall conform to standards established by the utilities, agencies and governing codes.

1.04 UNDERGROUND STRUCTURES

- A. *Underground structures* are defined to include, but not be limited to, all sewer, water, gas, and other piping, and manholes, chambers, electrical and signal conduits, tunnels and other existing subsurface work located within or adjacent to the limits of the Work.
- B. All underground structures known to the Commissioner are shown for the assistance of the Contractor in accordance with the best information available, but are not guaranteed to be correct or complete.
- C. The Contractor shall explore ahead of its trenching and excavation Work and shall uncover all obstructing underground structures sufficiently to determine their location, to prevent damage to them and to prevent interruption to the services which such structures provide. If the Contractor damages an underground structure, it shall restore it to original condition at its expense.

- D. Necessary changes in the location of the work may be made by the Commissioner, to avoid unanticipated underground structures.
- E. If the Contractor discovers utility facilities not identified in the Contract Documents or in a position different from that shown in the Contract Documents, it shall immediately notify in writing the Commissioner and the owner of the utility facility.

1.05 SURFACE STRUCTURES

- A. Surface structures are defined as all existing buildings, structures and other facilities above the ground surface. Included with such structures are their foundations or any extension below the surface.
- B. Surface structures include, but are not limited to, buildings, tanks, walls, bridges, roads, dams, channels, open drainage, piping, poles, wires, posts, signs, markers, curbs, walks and all other facilities that are visible above the ground surface.

1.06 PROTECTION OF UNDERGROUND AND SURFACE STRUCTURES

- A. The Contractor shall sustain in their places and protect from direct or indirect injury all underground and surface structures located within or adjacent to the limits of the Work. Such sustaining and supporting shall be performed carefully and as required by the party owning or controlling such structure. Before proceeding with the Work of sustaining and supporting such structure, the Contractor shall satisfy the Commissioner that the methods and procedures to be used have been approved by the party owning same.
- B. The Contractor shall assume all risks attending the presence or proximity of all underground and surface structures within or adjacent to the limits of the Work. The Contractor shall be responsible for all damage and expense for direct or indirect injury caused by its Work to any structure. The Contractor shall repair immediately all damage caused by its Work, to the satisfaction of the owner of the damaged structure.
- C. The fact that any structure or facility is not shown on the Drawings shall not relieve the Contractor of his responsibility of protecting and preserving the structure or facility.
- D. All other existing surface facilities, including but not limited to, guard rails, posts, guard cables signs, poles, markers, and curbs which are temporarily removed to facilitate installation of the Work shall be replaced and restored to their original condition at the Contractor's expense.

1.07 RESTORATION OF STRUCTURES AND PAVEMENTS

- A. Restoration of hydrants and hydrant connections and all other City of New York structures shall be in conformity with the requirements of the Contract Documents and the specifications of the respective departments having jurisdiction thereof, Bureau of Water Supply, Bureau of Electrical Control, and Fire Department.
- B. Restoration of pavements shall be made in conformity with the requirements of the NYC Department of Transportation Standard Highway Specifications, latest edition. These specifications may be examined at the Office of the Department of Transportation, Bureau of Highway Operations, 40 Worth Street, New York, New York. The Bidder shall acquaint itself with such requirements before submitting its bid. The Contractor shall give the Department of Highways four weeks written advance notice before proceeding with final restoration of pavements, walks and curbs.

PART 2 PRODUCTS (Not Used)

PART 3 EXECUTION (Not Used)

-END OF SECTION-

NO TEXT ON THIS PAGE

Section 01733
CONSTRUCTION WASTE MANAGEMENT

PART 1 GENERAL**1.01 SECTION INCLUDES**

- A. Requirements for construction waste management.

1.02 SUBMITTALS

- A. The Contractor shall prepare and submit a Construction Waste Management Plan for review and approval by the Commissioner within 15 days after receipt of Notice to Proceed and prior to the removal of any construction waste or demolition materials from the Project site.

- B. The Construction Waste Management Plan shall contain the following:

1. Analysis of the proposed job site waste to be generated during the full construction period, including types and anticipated quantities of each as well as anticipated number and type of containers to be utilized to transport each waste stream. The list of construction waste materials shall include, as a minimum but not limited to, the following materials:

- a. Cardboard
- b. Clean dimensional wood
- c. Concrete
- d. Bricks
- e. Concrete masonry units (CMU)
- f. Asphalt
- g. Metals from rebar, sheetrock studs, framing, etc.
- h. Steel sheet piling
- i. Steel pipe piles
- j. Structural steel
- k. Paints, solvents, and other hazardous fluids
- l. Glass
- m. Roofing
- n. Wood pallets
- o. Fencing materials, etc.
- p. Arsenic impacted wood

2. Materials Handling Procedures: A description of the means by which any waste materials identified in Paragraph 1.02B.1 above will be protected from contamination and a description of the means to be employed in recycling the above materials consistent with requirements of the New York City Department of Sanitation.

3. Transportation: A description of the means of transportation of the recyclable materials (whether materials will be site-separated and self-hauled to designated centers, or whether mixed materials will be collected by a waste hauler and removed from the site) and destination of such materials.
 4. Hazardous wastes: The Construction Waste Management Plan shall specifically note the proper method of disposal for anticipated hazardous wastes or potentially hazardous wastes such as oily rags, asphalt, greases, resins, epoxies, waterproofing agents, form oil, expended 55 gallon drums, concrete curing compounds, etc.
 5. The plan shall include the method of recycling office materials such as clean white paper, mixed paper, toner cartridges for laser printers, copiers and fax machines. Each item shall be recycled in accordance with the manufacturer's instructions.
 6. The plan shall specify a list of transporters, transfer stations and recyclers with addresses and phone numbers which the Contractor intends to utilize during the construction period for the purpose of complying with the Waste Management Plan. Each waste transporter or transfer station shall list the materials that they recycle and the percent of each material received which is recycled by their operations. All transporters must possess a valid transporter permit for handling the waste(s) as applicable. All disposal/reclamation/recycling facilities must be permitted in accordance with applicable regulations.
- C. Contractor shall submit to the Commissioner a record of each material recycled, reused, or salvaged and each construction waste dumpster removed from the Project on a monthly basis. The record shall include the amount of the material removed (in tons or cubic yards), the date on which it was removed, the receiving party and the cost of transportation and disposal of the material. This record shall include copies of manifests, weight tickets, receipts, or invoices for each item disposed.
- D. The Contractor shall submit executed copies of the waste manifests, bills of lading, and verification of disposal/recycling/reclamation to the City of New York to assure proper project close-out and final payment. Copies must be submitted within one week of disposal/recycling/reclamation. Final payment will not be made if the copies of manifests, bills of lading, and certificates of disposal/recycling/reclamation are not received by the City of New York and the Commissioner for all wastes transported offsite.

PART 2 PRODUCTS

2.01 CONTAINERS

- A. The Contractor shall provide United States Department of Transportation (USDOT)-approved containers for containerization of all waste materials generated as a result of the work under the Contract. If the containers are to be disposed of together with the waste they contain, the Contractor shall include costs for such containers in its lump sum bid.

PART 3 EXECUTION

3.01 GENERAL

- A. All waste streams shall be transported to approved disposal/reclamation/ recycling facilities that are permitted to accept such types of waste. The disposal/recycling/reclamation facilities shall be proposed by the Contractor and reviewed by the Commissioner. Review by the Commissioner will not release the Contractor from its obligation to comply with all applicable laws, rules, and regulations and shall not constitute a relief from the requirements of the Contract.

3.02 CONSTRUCTION WASTE MANAGEMENT

- A. The Contractor shall utilize construction and demolition methods and processes that ensure the generation of as little waste as possible due to error, poor planning, breakage, mishandling, contamination, or other factors. Where economically feasible, as many of the materials from the generated waste shall be reused, salvaged, or recycled.
- B. When encountered as part of his work, the Contractor shall dispose of construction and demolition waste by recycling methods in accordance with Local Law 19/1989, Local Law 87/1992, and the Department of Sanitation "Rules Establishing Recycling Requirements for Private Carter Collected Waste" (latest version). In addition, the Contractor shall also arrange for disposal by recycling of untreated wood (scrap wood, pallets, etc.), green wood (stumps and tree parts), asphalt, brick and unpainted concrete block. All material to be recycled shall be separated from normal refuse, per Department of Sanitation (DSNY) Rules. Normal refuse and material not required to be recycled shall be disposed of by the Contractor as specified and in accordance with all State and Local codes and laws.

3.03 DISPOSITION OF MATERIALS

- A. Demolition debris with adhered paint shall not be disposed of at an unlined municipal solid waste landfill.

- B. Arsenic-impacted wood (i.e., wood that failed Toxicity Characteristic Leaching Procedure [TCLP] test for arsenic) shall be disposed of as a hazardous waste at a permitted Subtitle C (hazardous) waste disposal facility.

3.04 RECORD KEEPING

- A. The Contractor shall be responsible for waste characterization and profiling. All disposal-associated documentation shall be submitted to the Commissioner for review prior to submittal to the disposition facility.
- B. The Contractor shall prepare the waste manifests and bills of lading for the transport and offsite disposal/reclamation of all waste materials. The Commissioner will review the waste manifests and bills of lading prior to offsite transport of waste materials. The following address shall be specified as a "Waste Generator" on the manifests and bills of lading:

New York City Department of Sanitation
Bureau of Long Term Export – Engineering Unit
44 Beaver Street, 7th Floor
New York, New York 10004
Telephone: (212) 437-5560

- C. Modifications to waste profiles, manifests, bills of lading, or any other associated documentation shall be made by the Contractor at the request of the Commissioner and/or the City of New York at no additional cost to the City of New York.
- D. The Contractor shall coordinate with disposal/recycling/reclamation facilities for a timely receipt of executed copies of hazardous waste manifests, nonhazardous waste manifests, bills of lading, and certificates of disposal/recycling/reclamation and shall provide original copies of these documents to the City of New York to the address specified in Paragraph 3.05B above for all wastes transported offsite. In addition, the Contractor shall submit copies of the above-referenced documents to the Commissioner within one week of disposal/recycling/reclamation.

-END OF SECTION-

**Section 01781
PROJECT CLOSEOUT**

PART 1 GENERAL**1.01 SECTION INCLUDES**

- A. Items to be completed
- B. Final copies - Contract drawings and record drawings
- C. Maintenance and guaranty

1.02 ITEMS TO BE COMPLETED

- A. As the project enters the final stages of completion, the Contractor shall, in concert with accomplishing the requirements set forth in the Contract Documents, attend to or have already completed the following items:
 - 1. Correcting or replacing defective work, including completion of items previously overlooked or work which remains incomplete, all as evidenced by the Commissioner's "Punch" Lists.
 - 2. Attend to any other items listed herein or brought to the Contractor's attention by the Commissioner.
- B. Before the Certificate of Substantial Completion will be issued, the Contractor shall accomplish site cleaning and final site work as shown and specified.
- C. In addition, and before the Certificate of Substantial Completion will be issued, the Contractor shall submit to the Commissioner certain records, certifications, etc., which are specified elsewhere in the Contract Documents. A partial list of such items appears below, but it shall be the Contractor's responsibility to submit all items which are required by the Contract Documents:
 - 1. Test results
 - 2. Certification or materials in compliance with Contract Documents
 - 3. One set of neatly marked-up record drawings showing as-built changes and additions to the work under his Contract
 - 4. Any special guarantees or bonds

- D. The Contractor's attention is directed to the fact that required certificates and information under Paragraph 1.02C, above, must actually be submitted earlier in accordance with other Sections of the Specifications.

1.03 MAINTENANCE AND GUARANTY

- A. The Contractor must promptly repair, replace, restore or rebuild, as the Commissioner may determine, any work provided under this Contract in which defects of materials or workmanship may appear or to which damage may occur because of such defects, during the one-year maintenance and guaranty period subsequent to the date of final acceptance, except where longer periods of maintenance and guaranty are provided for in the Specifications.
- B. The Contractor shall provide the manufacturer's standard warranty for all materials furnished under this Contract unless otherwise specified. The warranty period shall begin at the time of Substantial Completion and shall extend for the manufacturer's normal warranty period, unless a longer warranty period is defined in the specifications. Under no circumstances shall a warranty period be less than one year.

PART 2 PRODUCTS (Not Used)

PART 3 EXECUTION (Not Used)

-END OF SECTION-

SECTION 02081 – GENERAL CONTRACTOR WORK
ALLOWANCE FOR INCIDENTAL ASBESTOS ABATEMENT

1.01 SCOPE FOR ASBESTOS ABATEMENT WORK

- A. The "General Conditions" apply to the work of this Section.
- B. The Asbestos abatement contractor shall remove asbestos containing materials as needed to perform the other work of this Contract when discovered during the course of work. When required, the Asbestos abatement contractor shall replace the ACM with non-asbestos containing materials. An allowance of **\$30,000.00** for the **General Contractor** is herein established for this incidental work when so ordered and authorized by the Commissioner.
- C. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE APPLICABLE PROVISIONS OF THE RULES AND REGULATIONS OF THE ASBESTOS CONTROL PROGRAM AS PROMULGATED BY TITLE 15 CHAPTER 1 OF RCNY AND NEW YORK STATE DEPARTMENT OF LABOR INDUSTRIAL CODE RULE 56 CITED AS 12 NYCRR, PART 56 WHICHEVER IS MORE STRINGENT AS PER LATEST AMENDMENTS TO THESE LAWS AND AS MODIFIED HEREIN BY THESE SPECIFICATIONS.
- D. ALL DISPOSAL OF ASBESTOS CONTAMINATED MATERIAL SHALL BE PER LOCAL LAW 70/85.
- E. THE ASBESTOS ABATEMENT CONTRACTOR'S ATTENTION IS DIRECTED TO THE FACT THAT CERTAIN METHODS OF ASBESTOS ABATEMENT ARE PROTECTED BY PATENTS. TO DATE, PATENTS HAVE BEEN ISSUED WITH RESPECT TO "NEGATIVE PRESSURE ENCLOSURE" OR "NEGATIVE-AIR" OR "REDUCED PRESSURE" AND "GLOVE BAG".
- F. THE ASBESTOS ABATEMENT CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR AND SHALL HOLD THE DEPARTMENT OF DESIGN AND CONSTRUCTION AND THE CITY HARMLESS FROM ANY AND ALL DAMAGES, LOSSES AND EXPENSES RESULTING FROM ANY INFRINGEMENT BY THE ASBESTOS ABATEMENT CONTRACTOR OF ANY PATENT, INCLUDING BUT NOT LIMITED TO THE PATENTS DESCRIBED ABOVE, USED BY THE ASBESTOS ABATEMENT CONTRACTOR DURING PERFORMANCE OF THIS AGREEMENT.
- G. "Asbestos" shall mean any hydrated mineral silicate separable into commercially usable fibers, including but not limited to chrysotile (serpentine), amosite (cumingtonite-grunerite), crocidolite (riebeckite), tremolite, anthrophyllite and actinolite.

- H. Prior to starting, the Asbestos abatement contractor must notify the Commissioner of the Department of Design and Construction if he/she anticipates any difficulty in performing the Work as required by these Specifications. The Asbestos abatement contractor is responsible to prepare and submit all filings, notifications, etc. required by all City, State and Federal regulatory agencies having jurisdiction.

The Asbestos abatement contractor is responsible for submitting the Asbestos Project Notification Form (ACP-7 Form) to the Department of Environmental Protection, Asbestos Control Program, as per Title 15, Chapter I of RCNY and to the NYSDOL as per Industrial Code Rule 56.

The Asbestos abatement contractor is responsible for preparing, and submitting Asbestos Variance Application (ACP-9). If a Variance is required, the Asbestos abatement contractor is responsible to retain a NYSDOL Asbestos Project Designer, as defined in Title 15, Chapter 1 of the RCNY to prepare and submit the required variance.

The Asbestos abatement contractor is responsible for preparing and submitting an Asbestos Abatement Permit and/or Work Place Safety Plans (WSP) that may be required for the completion of the Contract or incidental work. If such plans are required, the Asbestos abatement contractor is responsible to retain a NYSDOL Licensed Design Professional as defined in Title 15, Chapter 1 of the RCNY to prepare and submit the required plans.

The Asbestos abatement contractor is responsible for the submission of all required documents to the NYCDEP to acquire the appropriate Asbestos Project Conditional Closeout (ACP-20) and/or Asbestos Project Completion Forms (ACP-21) on a timely basis for the completion of the incidental work encountered under this contract.

The Asbestos abatement contractor will be required to attend an on-site job meeting with the Construction Project Manager prior to the start of work to examine conditions and plan the sequence of operations, etc.

The Asbestos abatement contractor shall have a NYSDOL/NYCDEP Asbestos Supervisor onsite to oversee the work and conduct a final visual inspection as required by both Title 15, Chapter 1 of the RCNY and NYSDOL Industrial Code Rule 56.

- I. All work shall be done during regular working hours unless the Asbestos abatement contractor requests authorization to work in other than regular working hours and such authorization is granted by the Commissioner. (Regular work hours are those hours during which any given facility, in which work is to be done, is customarily open and functioning, normally between the hours of 8:00 A.M. and 4:00 P.M. Monday - Friday.) If such work schedule is authorized by the Commissioner, the work shall be done at no additional cost to the City.

- J. The Commissioner may order that work be done in other than regular working hours as herein by defined and this order may require the Asbestos abatement contractor to pay premium or overtime wages to complete the work. If the Commissioner orders work in other than regular working hours, the Asbestos abatement contractor shall multiply the unit price for that portion of the work requiring premium wages by 1.50 when computing payment in accordance with Paragraph 1.09. All requests for premium payment must be supported by certified payroll sheets and field sheets approved by the Construction Project Manager.

1.02 QUALIFICATIONS OF ASBESTOS ABATEMENT CONTRACTOR

- A. Requirements: The asbestos abatement contractor must demonstrate compliance with the special experience requirements set forth in subparagraphs (1) through (5) below. The asbestos abatement contractor must, submit documentation demonstrating compliance with all listed requirements. Such documentation shall include without limitation, all required licenses, certificates, and documentation.
1. The asbestos abatement contractor must, whether an individual, corporation, partnership, joint venture or other legal entity, must demonstrate for the three year period prior to the work, that it has been licensed by the New York State Department of Labor, as an "Asbestos abatement contractor".
 2. The asbestos abatement contractor must, for the three year period prior to the work, have been in the business of providing asbestos abatement services as a routine part of its daily operations.
 3. The asbestos abatement contractor proposing to do asbestos abatement work must be thoroughly experienced in such work and must provide evidence of having successfully performed and completed in a timely fashion at least five (5) asbestos abatement projects of similar size and complexity. The aggregate cost of these projects must be at least \$250,000.00 in each of the three years.
 4. For each project submitted to meet the experience requirements set forth above, the asbestos abatement contractor must submit the following information for the project; name and location of the project; name title and telephone number of the owner or the owner's representative who is familiar with the asbestos abatement contractor's work, brief description of the work completed as a prime or sub-asbestos abatement contractor; amount of contract or subcontract and the date of completion.
 5. The asbestos abatement contractor must demonstrate that it has the financial resources, supervisory personnel and equipment necessary to carry out the work and to comply with the required performance schedule, taking into consideration other business commitments. The asbestos

abatement contractor must submit such documentation as may be required by the Department of Design and Construction to demonstrate that it has the requisite capacity to perform the required services of this contract.

- B. Insurance Requirements: The asbestos abatement contractor must provide asbestos liability insurance in the following amount: 1 million dollars per occurrence, 2 million dollars aggregate (combined single limit). The City of New York shall be named as an additional insured on such insurance policy.
- C. Throughout the specifications, reference is made to codes and standards which establish qualities and types of workmanship and materials, and which establish methods for testing and reporting on the pertinent characteristics thereof.

1.03 ASBESTOS ABATEMENT CONTRACTOR RESPONSIBILITIES

The Asbestos abatement contractor will visit the subject location within one (1) working day of notification to ascertain actual work required. If the project is identified as being "urgent", then work shall commence no later than 48 hours from the time of notification. In this event, the asbestos abatement contractor shall immediately notify when applicable EPA NESHAPS Coordinator, NYSDOL Asbestos Control Bureau and NYCDEP Asbestos Control Program of start of the work and file the necessary Asbestos Notifications and any applicable Variance Applications with the regulatory agencies cited above.

In the event that the project is not classified as "urgent" the Asbestos abatement contractor shall notify the EPA NESHAPS Coordinator, NYSDOL and NYCDEP by submitting the requisite asbestos project notification forms, postmarked 10 days before activity begins if 260 linear feet or more and/or 160 square feet or more of asbestos containing material will be disturbed.

The following information must be included in the notification:

- A. Name and address of building City or operator;
- B. Project description:
 - 1. Size - square feet, number of linear feet, etc;
 - 2. Age - date of construction and renovations (if known);
 - 3. Use - i.e., office, school, industrial, etc.
 - 4. Scope - repair, demolition, cleaning, etc.
- C. Amount of asbestos involved in work and an explanation of techniques used to determine the amount;

- D. Building location/address, including Block and Lot numbers;
- E. Work schedule including the starting and completion dates;
- F. Abatement methods to be employed;
- G. Procedures for removal of asbestos-containing material;
- H. Name, title and authority of governmental representative sponsoring project.

1.04 WORK INCLUDED IN UNIT PRICE

The Asbestos abatement contractor will be paid a basic unit price of **\$25.00** per square feet for the removal and disposal of asbestos containing material and replacement of the same with non-asbestos containing materials.

Unit price shall include all costs necessary to do the work of this Contract, including but not limited to: labor, materials, equipment, utilities, disposal, insurance, overhead and profit.

1.05 AIR MONITORING – ASBESTOS ABATEMENT CONTRACTOR

- A. "Air Sampling" shall mean the process of measuring the fiber content of a known volume of air collected during a specific period of time. The procedure utilized for asbestos follows the NIOSH Standard Analytical Method 7400 or the provisional transmission electron microscopy methods developed by the USEPA and/or National Institute of Standard and Technology which are utilized for lower detectability and specific fiber identification.
- B. Air monitoring of Asbestos abatement contractor's personnel will be performed in conformance with OSHA requirements, (All costs associated with this work are deemed included in the unit price.).
- C. Qualifications of Testing Laboratory:

The industrial hygiene laboratory shall be a current proficient participant in the American Industrial Hygiene Association (AIHA) PAT Program. The laboratory identification number shall be submitted and approved by the City. The laboratory shall be accredited by the AIHA and New York State Department of Health Environmental Laboratory Approval Program (ELAP).

Note: Work area air testing and analysis before, during and upon completion of work (clearance testing) will be performed by a Third Party Air Monitor under separate Contract with the City.

1.06 THIRD PARTY MONITORING AND LABORATORY

- A. The NYCDDC, at its own expense, will employ the services of an independent Third Party Air Monitoring Firm and Laboratory. The Third Party Air Monitor will perform air sampling activities and project monitoring at the Work Site.
- B. The Laboratory will perform analysis of air samples utilizing Phase Contrast Microscopy (PCM) and/or Transmission Electron Microscopy (TEM).
- C. The Third Party Air Monitoring Firm and the designated Project Monitor shall have access to all areas of the asbestos removal project at all times and shall continuously inspect and monitor the performance of the Asbestos abatement contractor to verify that said performance complies with this Specification. The Third-Party Air Monitor shall be on site throughout the entire abatement operation.
- D. The NYCDDC will be responsible for costs incurred with the Third Party Air Monitoring Firm and laboratory work. Any subsequent additional testing required due to limits exceeded during initial testing shall be paid for by the Asbestos abatement contractor.

1.07 PAYMENT REQUEST DOCUMENTATION

- B. The following information shall be included for each payment request:
 - 1. Description of work performed.
 - 2. Linear footage and pipe sizes involved.
 - 3. Square footage for boiler & breaching insulation removed.
 - 4. Square footage of non pipe and boiler areas removed, patched, enclosed, sealed, or painted.
 - 5. Square footage of encapsulation, sealing, patching, and painting involved.
 - 6. Total cost associated with compliance with the assigned task.
 - 7. Architectural, Electrical, HVAC, Plumbing, etc. work incidental to the Asbestos Abatement Work.
 - 8. A certified copy (in form 4312-39) to the Comptroller or Financial Officer of the New York City to the effect that the financial statement is true.
 - 9. A signed copy (in form 6506q-6) of certificate of compliance with non-discriminatory provisions of the Contract.

10. Attach a copy of valid workmen compensation insurance.
 11. Valid asbestos insurance per occurrence.
 12. General liability insurance when required.
- C. Each payment request shall include a grand total for all work completed that billing period, the landfill waste manifests and a copy of waste transporter permit. The Department of Design and Construction will inspect the work performed, review the cost and approve or disapprove requests for payment.
- D. EXPOSURE LOG: With this final payment, the Asbestos abatement contractor shall submit a listing of the names and social security numbers of all employees actively engaged in the abatement work of this Contract. This list shall include a summary showing each part of the abatement work in which the employee was engaged and the dates thereof.

1.08 QUANTITY CALCULATIONS

In order to determine the square footage involved for the various pipe sizes of pipe insulation that might be encountered, the following table is to be used.

PIPE INSULATION SIZE O.D.	PIPE SIZE O.D.	SQUARE FOOTAGE PER LINEAR FOOT
2-1/2"	1/2"	0.65
2-3/4"	3/4"	0.72
3"	1"	0.79
3-1/4"	1-1/4"	0.85
3-1/2"	1-1/2"	0.92
4"	2"	1.05
4-1/2"	2-1/2"	1.18
5"	3"	1.31
6"	3-1/4"	1.57
7"	3-1/2"	1.83
8"	4"	2.09
9"	5"	2.36
10"	6"	2.62
12"	8"	3.14
14"	10"	3.67
16"	12"	4.19
18"	14"	4.71

1.09 METHOD OF PAYMENT

Payment shall be made in accordance with Items A through R below. Payment shall be calculated based on the actual quantity of the item performed by the asbestos abatement contractor, times the unit price specified below. Credits may apply to certain times, as specified below.

- A. **REMOVAL, DISPOSAL AND REPLACEMENT OF ASBESTOS CONTAINING PIPE INSULATION:** Actual linear footage, multiplied by the square footage factor listed for the respective pipe size in Section 1.09, multiplied by the unit price in Section 1.05.

EXAMPLE: 100 lin.ft. of 1/2" pipe and 100 lin.ft. of 6" pipe, including elbows, tees. Flanges, etc.

$$100 \times 0.65 = 65 \text{ sq.ft.} \quad 65 \times \text{unit price} = \text{Payment}$$

$$100 \times 2.62 = 262 \text{ sq.ft.} \quad 262 \times \text{unit price} = \text{Payment}$$

- B. **REMOVAL, DISPOSAL AND REPLACEMENT OF BOILER INSULATION:** (all types including Silicate Block and including the removal/replacement of metal jacketing) Payment shall be made at 1.5 times the unit price per square foot.

EXAMPLE: Item B. removal and replacement of 1000 S.F. of boiler insulation (incl. Silicate block)

$$1000 \text{ S.F.} \times (1.5) \times \text{the Unit Price} = \text{Payment}$$

- C. **REMOVAL, DISPOSAL AND REPLACEMENT OF TANK INSULATION:** (all types including removal/replacement of metal jacketing) Payment shall be made at 1.5 times the unit price per square foot.

- D. **REMOVAL, DISPOSAL AND REPLACEMENT OF BOILER UPTAKE, & BREACHING INSULATION:** (all types including stiffening angles and wire lath) Payment shall be made at 2.0 times the unit price per square foot.

- E. **REMOVAL, DISPOSAL AND REPLACEMENT OF DUCT INSULATION:** Payment shall be made at 1.0 times the unit price per square foot.

- F. **REMOVAL, DISPOSAL AND REPLACEMENT OF SOFT ASBESTOS CONTAINING MATERIAL:** (Including sprayed-on fire proofing and sound proofing) Payment shall be made at 1.0 times the unit price per square foot of surface area. Area of irregular surfaces must be calculated and confirmed with DDC representative.

- G. **ACOUSTIC PLASTER REPAIR AND/OR ENCAPSULATION:** Payment shall be made at 0.5 times the unit price per square foot.

- H. **PATCHING OR REPAIR** of items listed in A through F will be paid at 0.33 times the unit price per square foot.
- I. **REMOVAL, DISPOSAL AND REPLACEMENT OF WATERPROOFING ASBESTOS CONTAINING MATERIAL:** (including friable and non-friable waterproofing material from interior and exterior walls, floors, foundations, penetrations, louvers, vents and openings other than windows, doors and skylights) Payment shall be made at 0.5 times the unit price per square foot.
- J. **REMOVAL, DISPOSAL AND REPLACEMENT OF ASBESTOS CONTAINING ELECTRICAL WIRING INSULATION:** (including friable and non-friable wiring insulation) Payment shall be made at 0.33 times the unit price per square foot.
- K. **PAINTING:** Payment shall be made at 0.05 times the unit price per square foot.
- L. **REMOVAL AND DISPOSAL OF ASBESTOS-CONTAINING PLASTER:** from ceilings and walls, including any wire lath and disposal as asbestos containing waste. Payment shall be made at 0.80 times the unit price per square foot.
- M. **REMOVAL AND DISPOSAL OF ASBESTOS-CONTAINING FLOOR TILES, CEILING TILES, TRANSITE PANELS:** (including any adhesive, glue, mastic and/or underlayment) and disposal as asbestos containing waste. Payment shall be made at 0.40 times the unit price per square foot. If multiple layers are discovered, each additional layer shall be paid at 0.20 times the unit price per square foot.
- N. **ADDITIONAL CLEAN UP/HOUSEKEEPING OF WORK AREA:** (excluding pre-cleaning of work area required by regulations) HEPA vacuuming and wet cleaning of asbestos contaminated surface. Payment shall be made at 0.20 times the unit price per square foot. When GLOVE BAG is employed to remove ACM, cost of HEPA vacuuming and wet cleaning of floor area up to 3 feet on each side of glove-bag shall be included in unit price and no extra payment will be made.
- O. **REMOVAL, DISPOSAL OF ASBESTOS-CONTAINING ROOFING MATERIAL:** including mastic, flashing and sealant compound and provide temporary asbestos-free roof covering consisting of one layer of rolled roofing paper sealed with asphaltic roofing compound. Payment shall be made at 0.8 times the unit price per square foot. Credit at a rate of 0.33 times the unit price will be taken for each square foot of temporary roof covering which the Asbestos abatement contractor is directed not to install.
- P. **PICK-UP AND DISPOSAL OF GROSS DEBRIS:** (excluding any waste generated from abatement under Item A-R) at a rate of \$150 per cubic yard for asbestos contaminated waste and \$75 per cubic yard for non-asbestos.

contaminated waste. This cost includes all labor and material cost associated with work.

- Q. **REMOVAL OF ASBESTOS-CONTAINING BRICK, BLOCK, MORTAR, CEMENT OR CONCRETE:** along with all surfacing materials including wire lath and/or other supporting structures and disposal as ACM waste. Payment shall be made at a rate of \$25.00 per cubic foot of material removed.
- R. **REMOVAL AND DISPOSAL OF ASBESTOS CONTAINING WINDOW/DOOR CAULKING:** including friable and non-friable caulking, weather-stripping, glazing, sealants or other waterproofing materials applied to windows, doors, skylights, etc. Payment shall be made at the rate of \$400.00 per opening regardless of size or configuration. This cost includes labor, consumable materials, set-up/breakdown, removal and disposal, as required.

Note 1: CREDIT: For items listed in A through F, a credit at a rate of 0.33 times the unit price, times the respective multiplier (for each item) will be taken for each square foot of insulation which the asbestos abatement contractor is not directed to reapply.

Note 2: MINIMUM PAYMENT: The minimum payment per call at any individual job sites or various job sites during the same day will be eight hundred dollars (\$800.00).

Note 3: All payments shall be made as described in paragraph 1.09 herein.

Note 4: WORKING HIGHER THAN 12 FEET ABOVE FLOOR LEVEL OR WORK REQUIRING COMPLEX SCAFFOLDING OR CONSTRUCTION WORK PLATFORMS: Provisions are made in this Contract to compensate the Asbestos abatement contractor for work performed in locations that are difficult to access due to work at elevations that are significantly higher than the normal work level. The unit price for these items will be paid at 1.20 times the unit price described in Paragraphs 1.09, A through R for those portions of the work that are more than twelve (12) feet above the grade for that would be judged as the normal working level.

1.10 GUARANTEE

- A. Work performed in compliance with each task shall be guaranteed for a period of one year from the date the completed work is accepted by the Department of Design and Construction.
- B. The Commissioner of The Department of Design and Construction will notify the Asbestos abatement contractor in writing regarding defects in work under the guarantee.

1.11 OCCUPANCY OF SITE NOT EXCLUSIVE

Attention is specifically drawn to the fact that contractors, performing the work of other Contracts, may be brought upon any of the work sites of this Contract. Therefore, the

Asbestos abatement contractor shall not have exclusive rights to any site of his work and shall fully cooperate and coordinate his work with the work of other contractors who may be brought upon any site of the work of this Contract. This paragraph applies to those areas outside the regulated Work Area as defined by Title 15, Chapter I of RCNY.

1.12 SUBMITTALS

A. Pre-Construction Submittals:

1. Attend a pre-construction meeting scheduled by the City of New York Department of Design and Construction. This meeting shall also be attended by a designated representative of the City of New York third party air monitoring firm, facility manager and the Construction Project Manager. At this meeting, the Asbestos abatement contractor shall present three copies of the following items:
 - a. Asbestos abatement contractor's scope of work, work plan and schedule.
 - b. Asbestos project notifications, approved variances and plans to Government Agencies.
 - c. Copies of Permits, clearance and licenses if required.
 - d. Schedules: the Asbestos abatement contractor shall provide to the Construction Project Manager a copy of the following schedules for approval. Once approved, schedules shall be maintained and updated as received. Asbestos abatement contractor shall post a copy of all schedules at the site:
 - (1) A construction schedule stating critical dates of the project including, but not limited to, mobilization, Work Area preparation, demolition, gross removal, fine cleaning, encapsulation, inspections, clearance monitoring, and phase of refinishing and final inspections. The schedule shall be updated biweekly, at a minimum.
 - (2) A schedule of staffing stating number of workers per shift per activity, name and number of supervisor(s) per shift, shifts per day, and total days to be worked.
 - (3) Submit all changes in schedule or staffing to the Construction Project Manager prior to implementation.

- e. Written description of emergency procedures to be followed in case of injury or fire. This section must include evacuation procedures, source of medical assistance (name and telephone number to nearest hospital) and procedures to be used for access by medical personnel (examples: first aid squad and physician). NOTE: Necessary Emergency Procedures Shall Take Priority Over All Other Requirements of These Specifications.
- f. Material Safety Data Sheets (MSDS) for encapsulants, sealants, firestopping foam, cleaners/disinfectants, spray adhesive and any and all potentially hazardous materials that may be employed on the project. No work involving the aforementioned will be allowed to proceed until MSDS are reviewed.
- g. Worker Training and Medical Surveillance: The Asbestos abatement contractor shall submit a list of the persons who will be employed by him /her to perform the removal work. Present evidence that workers have received proper training required by the regulations and the medical examinations required by OSHA 29 CFR 1926.1101.
- h. Logs: Specimen copies of daily progress log, visitor's log, and disposal log.
 - (1) The Asbestos abatement contractor shall provide a permanently bound log book of minimum 8-1/2" x 11" size at the entrance to the Worker and Waste Decontamination enclosure system as hereinafter specified. Log book shall contain on title page the project name, name, address and phone number of the Asbestos abatement contractor; name, address and phone number of Asbestos abatement contractor and City's third party air monitoring firm; emergency numbers including, but not limited to local Fire/Rescue Department. Log book shall contain a list of personnel approved for entry into the Work Area.
 - (2) All entries into the log shall be made in non-washable, permanent ink and such pen shall be strung to or otherwise attached to the log to prevent removal from the log-in area. Under no circumstances shall pencil entries be permitted. Any significant events occurring during the abatement project shall be entered into the log. Upon completion of the job, the Asbestos abatement contractor shall submit the logbook containing a day-to-day record of personnel log entries countersigned by the Construction Project Manager every day.

GENERAL CONTRACTOR WORK ALLOWANCE FOR INCIDENTAL ASBESTOS ABATEMENT

- i. Worker's Acknowledgments: Submit statements signed by each employee that the employee has received training in the proper handling of ACM, understands the health implications and risks involved; and understands the use and limitations of the respiratory equipment to be used.

B. During Construction Submittals:

1. Security and safety logs showing names of person entering workspace, date and time of entry and exit, record of any accident, emergency evacuation, and any other safety and/or health incident.
2. Progress logs showing the number of workers, supervisors, hours of work and tasks completed shall be submitted daily to the Construction Project Manager.
3. Floor plans indicating Asbestos abatement contractor's current work progress shall be submitted for review by the Construction Project Manager.
4. All Asbestos abatement contractors' air monitoring and inspection results.

C. Project Closeout Submittals:

Upon completion of the project and as a condition of acceptance, the Asbestos abatement contractor shall present two copies of the following items, bound and indexed:

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

8. Project Record: The Asbestos abatement contractor shall maintain a project record for all small and large asbestos projects. During the project, the project record shall be kept on site at all times. Upon completion of the project, the project record shall be maintained by the building owner. The project record shall be submitted to DDC as part of the close out documents. The project record shall consist of:
 - a. Copies of licenses of all asbestos abatement contractors involved in the project;
 - b. Copies of NYCDEP and NYSDOL supervisor and handler certificates for all workers engaged in the project;
 - c. Copies of all project notifications and reports filed with NYCDEP, NYSDOL and USEPA for the project, with any amendments or variances;
 - d. Copies of all asbestos abatement permits, including associated approved plans and work place safety plan;
 - e. A copy of the air sampling log and all air sampling results;
 - f. A copy of the abatement asbestos abatement contractor's daily log book;
 - g. Copies of all asbestos waste manifests;
 - h. A copy of all Project Monitor's Reports (ACP-15).
 - i. A copy of each ATR-1 Form completed for the asbestos project (if required).
 - j. A copy of each Asbestos Project Conditional Closeout Report (ACP-20) if required.
 - k. A copy of the Asbestos Project Completion Form (ACP-21).

1.13 PROTECTION OF FURNITURE AND EQUIPMENT

Cover all furniture and equipment that cannot be removed from Work Areas. Movable furniture and equipment will be removed from Work Areas by the Asbestos abatement contractor prior to start of work. At the conclusion of the work (after final air testing), the Asbestos abatement contractor will remove all plastic covering on walls, floors, furniture, equipment and reinstall furniture and equipment. He shall remove and store all sheaths, curtains and drapes, and reinstall same following final clean up.

1.14 UTILITIES

A. General:

All temporary facilities shall be subject to the approval of the Commissioner. Prior to starting work at any site, locations and/or sketches (if required) of temporary facilities must be submitted to the Construction Project Manager for the required approval.

B. Water:

The Department of Design and Construction will furnish all water needed for construction, at no cost to the Asbestos abatement contractor in buildings under their jurisdiction. However, it is the responsibility of the Asbestos abatement contractor to ensure that hot water is provided for showering in the decontamination unit. The Asbestos abatement contractor shall furnish, install and maintain any needed equipment to meet these requirements at his own expense.

C. Electricity:

The Department of Design and Construction will furnish all electricity needed for construction, at no cost to the Asbestos abatement contractor in a building, under their jurisdiction. The Asbestos abatement contractor is responsible for routing the electric power to the abatement Work Area.

All temporary lighting and temporary electrical service for Work Area shall be in weatherproof enclosures and be ground fault protected.

- D. In leased spaces, arrangements for water supplies and electricity must be made with the landlord. However, all such arrangements must be made through and are subject to approval of the Department of Design and Construction. Utilities will be provided at no cost to the Asbestos abatement contractor. However, it is the Asbestos abatement contractor's (or the General contractor's) responsibility to furnish and install a suitable distribution system to the Work Area. This system will be provided at no cost to the City.

1.15 FEES

The Asbestos abatement contractor shall be responsible for any and all fees or charges imposed by Local, State or Federal Law, Rule and Regulation applicable to the work specified herein, including fees or charges which may be imposed subsequent to the date of the Bid opening.

END OF SECTION

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SECTION 02082

ASBESTOS ABATEMENT

PART 1 – GENERAL

1.01 DESCRIPTION

- A. The Contract Documents are as defined in the “Agreement”. The General Conditions shall apply to all Work of this Section.
- B. Work specified herein shall be the removal and disposal of Asbestos-Containing Materials (ACM) and asbestos-contaminated materials from designated areas of the South Bronx Marine Transfer Station located at Farragut Street, Bronx, New York 10474.
- C. The following documents were reviewed and utilized to generate this abatement design specification which serves to locate and quantify the amount of ACM, and asbestos contaminated material, to be abated in support of this project.
 - 1. Set of drawings titled “Marine Transfer Station Conversion Program”, dated January 2013, prepared by Greeley and Hansen;
 - 2. Asbestos Survey Reports performed by Bidwell Environmental LLC dated 12/14/12 and Blasland, Bouck & Lee Inc. dated 4/18/03.
 - 3. Limited Asbestos Survey Letter report by Louis Berger and Assoc. P.C. (LBA) dated 03/04/13
- D. The phasing and scheduling of work for this project shall be coordinated with and approved by the Construction Project Manager and Facility Manager. The Construction Project Manager and Facility Manager will make the final determination on all issues under this Contract covered by this Specification.

1.02 SCOPE OF WORK

- A. The asbestos abatement contractor is to provide all labor, materials, equipment, services, testing, appurtenances, permits and agreements necessary to perform the work required for the abatement of ACM as required by these contract documents. All work shall be performed in accordance with this Specification, EPA regulations, OSHA regulations, New York City Local Law 70, Title 15, Chapter 1 RCNY, New York State Industrial Code 56, NIOSH recommendations, and any other applicable federal, state or local government regulations. Whenever there is a conflict or overlap of the above references, the most stringent provisions are applicable.
- B. The intent of this Specification section is to ensure that the asbestos abatement contractor is responsible for the following:

ASBESTOS ABATEMENT

1. Abatement of all ACM.
 2. Cleaning and decontamination of the entire affected area.
 3. Demolition that may be required to access ACM in each area, Asbestos abatement contractor shall dispose of all debris associated with demolition activities as ACM waste.
 4. Removal and disposal of all ACM found within these areas such as white pipe gasket, black tar over joint, electrical panel white rope gasket, electrical panel white caulk, gray corrugated transite panels, gray flat panel transite panels, caulking associated with gray flat transite panels, caulking under window frame, door frame caulk, pipe insulation & debris, control panel black insulation block, air fan white vibration damper, black tar above flashing, etc.
 5. Provide all scaffolding, platform installation, equipment, tools, transportation and any other equipment required and/or necessary to complete all work described in the Contract Documents.
 6. The Asbestos abatement contractor shall be responsible for and shall include any and all fees or changes imposed by Local, State or Federal Law, Rule or Regulation applicable to the work specified herein, including fees or charges which may be imposed subsequent to the work.
 7. Prior to destructive demolition activities, the DDC may elect to collect bulk samples of assumed asbestos-containing materials and analyze the bulk samples for asbestos content.
- C. The Asbestos abatement contractor shall perform the following work as described below and indicated on the drawings. The drawings are only a diagrammatic representation of the Work Areas and do not constitute the actual quantities of material. Asbestos abatement contractor is responsible for the confirmation of the actual total quantities of the Work.
1. **Drawing H-002: Ramp Floor Plan**
 - a. Remove and dispose of asbestos-containing white pipe gasket within **Work Area 1**. Work Area 1 shall be removed utilizing NYCDEP Title 15, Chapter 1, § 1-106 Tent Containment Procedures.
 - b. Remove and dispose of asbestos-containing black tar over joint within **Work Area 2**. Work Area 1 shall be removed utilizing NYCDEP Title 15, Chapter 1, § 1-106 Tent Containment Procedures.
 - c. Remove and dispose of asbestos-containing electrical panel white rope gasket and white caulk within **Work Area 3**. Work Area 1 shall

ASBESTOS ABATEMENT

be removed utilizing NYCDEP Title 15, Chapter 1, § 1-106 Tent Containment Procedures.

Work Area	Removal Procedure	Approximate Square Feet (Sq. Ft.)	Approximate Linear Feet (Ln. Ft.)
1	NYCDEP Section § 1-106 Tent Containment Procedures	2 Sq. Ft. of White Pipe Gasket	-
2		10 Sq. Ft. of Black Tar over Joint	
3		2 Sq. Ft. (20 Ln. Ft.) of Electrical Panel White Rope Gasket	
		1 Sq. Ft (5 Ln. Ft.) of Electrical Panel White Caulk	

2. Drawing H-003: Pier Level Floor Plan

- a. Remove and dispose of asbestos-containing gray corrugated transite panels, gray flat transite panels and associated gray caulking, within **Work Area 4** utilizing NYCDEP Title 15, Chapter 1 § 1-109 Abatement from Vertical Exterior Surfaces.

Work Area	Removal Procedure	Approximate Square Feet (Sq. Ft.)	Approximate Linear Feet (Ln. Ft.)
4	NYCDEP Section § 1-109 Abatement from Vertical Exterior Surfaces	1,000 Sq. Ft. of Gray Corrugated Transite Panels	-
		5,000 Sq. Ft. of Gray Flat Transite Panels, 75 Sq. Ft. (1,500 Ln. Ft.) of Associated Gray Caulking	-

3. Drawing H-004: Tipping Floor Plan

- a. Remove and dispose of asbestos-containing gray corrugated transite panels, gray flat transite panels & associated gray caulking, caulking under window frame, door frame caulk, pipe insulation and debris, control panel black insulation block and air fan white vibration damper within **Work Area 5**. Asbestos-containing transite panels, flat transite panels, flat transite panel caulking, caulking under window frame and door frame caulk shall be removed utilizing NYCDEP Title 15, Chapter 1 § 1-109 Abatement from Vertical Exterior Surfaces. Asbestos-containing pipe insulation and debris, control panel black insulation block and air fan white vibration damper shall be removed utilizing NYCDEP Title 15, Chapter 1, § 1-106 Tent Containment Procedures.

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Work Area	Removal Procedure	Approximate Square Feet (Sq. Ft.)	Approximate Linear Feet (Ln. Ft.)
5	NYC DEP Section § 1-109 Abatement from Vertical Exterior Surfaces	18,000 Sq. Ft. of Gray Corrugated Transite Panels	-
		10,000 Sq. Ft. of Gray Flat Transite Panels 25 Sq. Ft. (500 Ln. Ft.) Associated Gray Caulking	-
		5 Sq. Ft. (60 Ln. Ft.) of Caulking under Window Frame	-
		5 Sq. Ft. (60 Ln. Ft.) of Door Frame Caulk	-
	NYCDEP Section § 1-106 Tent Containment Procedures	30 Sq. Ft. of Pipe Insulation and Debris	-
		10 Sq. Ft. of Control Panel Black Insulation Block	-
		50 Sq. Ft. of Air Fan White Vibration Damper	-

4. Drawing H-005: Roof Plan

- a. Remove and dispose of asbestos-containing gray corrugated transite roofing panels within **Work Area 6** utilizing NYCDEP Title 15, Chapter 1 § 1-109 Abatement from Vertical Exterior Surfaces.
- b. Remove and dispose of asbestos-containing black tar above flashing within **Work Area 7**. Asbestos-containing black tar above flashing shall be removed utilizing NYCDEP Title 15, Chapter 1 § 1-107 Foam Procedure for Roof Removal. The asbestos abatement contractor shall be responsible for the removal and disposal of all roofing components, including but not limited to roof membrane and roof flashing down to the substrate/deck.

Work Area	Removal Procedure	Approximate Square Feet (Sq. Ft.)	Approximate Linear Feet (Ln. Ft.)
6	NYC DEP Section § 1-109 Abatement from Vertical Exterior Surfaces	22,000 Sq. Ft. of Gray Corrugated Transite Roofing Panels	-
7	NYCDEP Section § 1-107 Foam Procedure for Roof Removal	40 Sq. Ft. of Black Tar above Flashing	-

ASBESTOS ABATEMENT

- D. The facility is under the jurisdiction of the New York City Department of Sanitation. The asbestos abatement contractor shall perform the work of this contract in a manner that will be least disruptive to the normal use of the building.
- E. Asbestos abatement contractor's attention is directed to the fact that patents cover certain methods of asbestos abatement indicated in the specifications. To date, patents have been issued with regard to negative pressure enclosures or negative or reduced pressure and glove-bag.
- F. Asbestos abatement contractor shall be solely responsible for and shall hold the City of New York Department of Design and Construction and the City harmless from, any and all damages, losses and expenses resulting from any infringement by Asbestos abatement contractor of any patent, including but not limited to the patents described above, used by Asbestos abatement contractor during performance of this agreement.
- G. Prior to starting, the asbestos abatement contractor must notify the Commissioner of the City of New York Department of Design and Construction if he anticipates any difficulty in performing the work as directed and required by these Specifications. Asbestos abatement contractor shall be required to attend an on-site job meeting with the Construction Project Manager prior to start of work to examine conditions of the site for removal and plan the sequence for removal operations.
- H. The asbestos abatement contractor shall retain a certified Project Designer for the preparation of an Asbestos Variance Application (ACP-9), if required.
- I. The asbestos abatement contractor shall be responsible for preparing and submitting all filings, notifications, amendments and variances, etc. required by all City, State and Federal regulatory agencies having jurisdiction, at no additional cost to the NYC DDC.
- J. The asbestos abatement contractor shall retain a Registered Design Professional (person licensed and registered to practice the professions of architecture or engineering under the Education Law of the State of New York) to prepare a Work Place Safety Plan (WPSP), if required.
- K. The asbestos abatement contractor shall retain a Registered Design Professional (person licensed and registered to practice the professions of architecture or engineering under the Education Law of the State of New York) to perform final inspections required pursuant to Title 28 of the Administrative Code, including but not limited to special inspections required under Chapter 17 of the Building Code. Such special inspections and A-TR1 forms shall be completed by the Registered Design professional.
- L. For coordination with other Asbestos abatement contractors, see the General Conditions governing all Contracts.

ASBESTOS ABATEMENT

M. Related Asbestos Removal Work Under Other Contracts:

1. Each asbestos abatement contractor shall be responsible for the removal of incidental asbestos not identified in this section and found prior to or during the Work.
2. Incidental asbestos is defined as ACM that is discovered during the course of their work that must be abated to enable them to perform the work of their Contract.

N. Work Hours:

1. The asbestos abatement contractor shall establish his work schedule in a way that avoids interference or conflict with the normal functioning of the facility. Work in the evenings shall be done at no additional cost to the City.
2. All work shall be done during regular working hours unless the Asbestos abatement contractor requests authorization to work other than regular working hours and such authorization are granted by the Commissioner (Regular working hours are those during which any given facility in which work is to be done is customarily open and functioning). If such work schedule is authorized by the Commissioner the work shall be done at no additional cost to the City.
3. The order of phases and start dates associated with each will be determined by the Construction Project Manager.
4. Asbestos abatement contractor shall be required to schedule waste transfer during evening hours, when activity within the facility is at a minimum. Evening hours are defined as 6:00 p.m. to 6:00 a.m. Waste transfer must be approved by the Construction Project Manager and Facility Manager.

O. The following conditions shall apply to all temporary shutdowns of existing services:

1. All temporary lighting and temporary electrical services for use in the Work Area shall be in weather proof enclosures and be ground fault protected and:
2. Shall be performed at no additional charge to the City.
3. Shall be performed at times not interfering with the other activities in the building.
4. Shall be performed only with written consent from the Commissioner and the Facility Manager.

ASBESTOS ABATEMENT

5. Shall be made through written request to the Commissioner at least 10 days in advance with complete written description of the work to be performed.

P. Stages of Asbestos Removal Work:

- a. The asbestos abatement contractor will be required to perform the work and it is the intent of this Specification to remove all asbestos containing and asbestos contaminated materials from the Work Area. The asbestos abatement contractor is responsible for verifying all quantities of materials listed.

- Q. Certain equipment in the Work Area may need to remain operational during removal. Therefore, the removal of ACM from this equipment shall be performed as the last removal activities within the Work Area. The Asbestos abatement contractor shall coordinate the scheduling for the removal of ACM on functioning equipment with the Construction Project Manager.

1.03 QUALIFICATIONS OF ASBESTOS ABATEMENT CONTRACTOR

- A. Requirements: The asbestos abatement contractor must demonstrate compliance with the special experience requirements set forth in subparagraphs (1) through (5) below. The asbestos abatement contractor must submit documentation demonstrating compliance with all listed requirements. Such documentation shall include without limitation, all required licenses, certificates, and documentation.

1. The asbestos abatement contractor must, whether an individual, corporation, partnership, joint venture or other legal entity, demonstrate for the three year period prior to the work, that it has been licensed by the New York State Department of Labor, as an "Asbestos Abatement Contractor".
2. The asbestos abatement contractor must, for the three year period prior to the work, have been in the business of providing asbestos abatement services as a routine part of its daily operations.
3. The asbestos abatement contractor proposing to do asbestos abatement work must be thoroughly experienced in such work and must provide evidence of having successfully performed and completed in a timely fashion at least five (5) asbestos abatement projects of similar size and complexity. The aggregate cost of these projects must be at least \$1,000,000 in each of the three years.
4. For each project submitted to meet the experience requirements set forth above, the asbestos abatement contractor must submit the following information for the project; name and location of the project; name title and telephone number of the owner or the owner's representative who is

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familiar with the asbestos abatement contractor's work; brief description of the work completed as a prime or sub-asbestos abatement contractor; amount of contract or subcontract and the date of completion.

5. The asbestos abatement contractor must demonstrate that it has the financial resources, supervisory personnel and equipment necessary to carry out the work and to comply with the required performance schedule, taking into consideration other business commitments. The asbestos abatement contractor must submit such documentation as may be required by the Department of Design and Construction to demonstrate that it has the requisite capacity to perform the required services of this contract.
- B. Throughout the specifications, reference is made to codes and standards which establish qualities and types of workmanship and materials, and which establish methods for testing and reporting on the pertinent characteristics thereof. Provide materials or workmanship that meet or exceed the specifically named codes or standards where required by these specifications.
- C. Site Investigation: Asbestos abatement contractor shall inspect all the specifications and related drawings, and will investigate and confirm the site conditions affecting the work, including, but not limited to:
1. Physical considerations and conditions of both the material and structure. These considerations include any obstacles or obstructions encountered in accessing or removing the material.
 2. Handling, storage, transportation and disposal of the material.
 3. Availability of qualified and skilled labor.
 4. Availability of utilities.
 5. Exact quantities of all materials to be disturbed and/or removed.

1.04 WORK BY OTHERS

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

1.05 DEFINITIONS

- A. General Explanation: Certain terms used in this Specification Section are defined below. Definitions and explanations of this Specification Section are not necessarily complete or exclusive, but are general for the Work to the extent they are not stated more explicitly in another element of the Contract Documents.

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B. Definitions in General Use:

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

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8. Third-Party Air Monitor: The term "Third-Party Air Monitor" is defined as an entity engaged by City and Construction Project Manager to perform specific inspections or tests of the work, either at Project site or elsewhere; and to report and (if required) interpret results of those inspections or tests.

C. Definitions Relative to Asbestos Abatement:

1. Abatement: Any and all procedures physically taken to control fiber release from asbestos-containing materials. This includes removal, encapsulation, enclosure, cleanup and repair.
2. Adequately Wet: The complete penetration of a material with amended water to prevent the release of particulates. If visible emissions are observed coming from asbestos-containing material, then the material has not been adequately wetted. However, the absence of visible emissions is not evidence of being adequately wet. ACM must be fully penetrated with the wetting agent in order to be considered adequately wet. If the ACM being abated is resistant to amended water penetration, wetting agent shall be applied to the material prior to and during removal as necessary to minimize fiber release.
3. Aggressive Sampling: Method of sampling in which the individual collecting the air sample creates activity by the use of mechanical equipment during the sampling period to stir up settled dust and simulate activity in that area of the building.
4. AHERA: Asbestos Hazard Emergency Response Act of 1986
5. AIHA: American Industrial Hygiene Association.
6. Airlock: System for permitting entrance and exit while restricting air movement between a contaminated area and an uncontaminated area. It consists of two curtained doorways separated by a distance of at least three feet such that one passes through one doorway into the airlock, allowing the doorway sheeting to overlap and close off the opening before proceeding through the second doorway, thereby preventing flow-through contamination.
7. Air Sampling: Process of measuring the fiber content of a known volume of air collected during a specific period. The procedure utilized for asbestos follows the NIOSH Standard Analytical Method 7400, or the provisional transmission electron microscopy methods developed by the US EPA which is utilized for lower detection levels and specific fiber identification.
8. Ambient Air Monitoring: "Ambient air monitoring" shall mean measurement or determination of airborne asbestos fiber concentrations outside but in the general vicinity of the worksite.

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9. Amended Water: Water to which a surfactant has been added.
10. ANSI: American National Standards Institute
11. Area Air Sampling: Any form of air sampling or monitoring where the sampling device is placed at some stationary location.
12. Asbestos: Any hydrated mineral silicate separable into commercially usable fibers, including but not limited to chrysotile (serpentine), amosite (cumingtonite-grunerite), crocidolite (riebeckite), tremolite, anthophyllite and actinolite.
13. Asbestos-Containing Material (ACM): Asbestos or any material containing more than one-percent asbestos.
14. Asbestos-Containing Waste Material: ACM, asbestos-contaminated objects or debris associated with asbestos abatement requiring disposal.
15. Asbestos-Contaminated Objects: Any objects which have been contaminated by asbestos or asbestos-containing material.
16. Asbestos Assessment Report: "Asbestos Assessment Report" shall mean the "Form ACP-5" form, as approved by NYCDEP, by which a NYCDEP-certified asbestos investigator certifies that a building or structure (or portion thereof) is free of ACM or the amount of ACM to be abated constitutes a minor project.
17. Asbestos Handler: Individual who disturbs, removes, repairs, or encloses asbestos material. This individual shall have completed approved training course(s) and be in possession of certification issued by NYCDEP and NYSDOL.
18. Asbestos Handler Supervisor: Individual who supervises the handlers during an asbestos project and ensures that proper asbestos abatement procedures as well as individual safety procedures are being adhered to. This individual shall have completed approved training course(s) and be in possession of certification issued by NYCDEP and NYSDOL.
19. Asbestos Investigator: An individual certified by NYCDEP as having successfully demonstrated his or her ability to identify the presence of and evaluate the condition of asbestos in a building or structure.
20. Asbestos Project: Any form of work performed in a building or structure which will disturb (e.g., remove, enclose, encapsulate) more than 25 linear feet or more than 10 square feet of asbestos-containing material.

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21. ASTM: American Society for Testing and Materials.
22. Asbestos Project Notification: The "Form ACP-7" asbestos project notification form as approved by DEP.
23. Authorized Visitor: Authorized visitor shall mean the building owner and his/her representative, and any representative of a regulatory or other agency having jurisdiction over the project.
24. Building Owner: Person in whom legal title to the premises is vested unless the premises are held in land trust, in which instance Building Owner means the person in whom beneficial title is vested.
25. Building Materials: Any and all manmade materials, including but not limited to interior and exterior finishes, equipment, bricks, mortar, concrete, plaster, roofing, flooring, caulking, sealants, tiles, insulation, and outdoor paving such as sidewalks, paving tiles and asphalt.
26. Certified Industrial Hygienist (CIH): Individual with a minimum of five years experience as an industrial hygienist and who has successfully completed both levels of the examination administered by the American Board of Industrial Hygiene and who is currently certified by that board.
27. Certified Safety Professional (CSP): Individual having a bachelor's degree from an accredited college or university and a minimum of four years experience as a safety professional and who has successfully completed both levels of the examination administered by the Board of Certified Safety Professionals and who is currently certified by that board.
28. Chain of Custody: "Chain of Custody" shall mean the form or set of forms that document the collection and transfer of a sample.
29. City: City of New York
30. Clean Room: An uncontaminated area or room that is part of worker decontamination enclosure system with provisions for storage of workers' street clothes and protective equipment.
31. Clearance Air Monitoring: Employment of aggressive sampling techniques with a volume of air collected to determine the airborne concentration of residual fibers and shall be performed as the final abatement activity.
32. Commissioner: shall mean the head of the Agency that has entered into this contract or his/her duly authorized representative.
33. Competent Person: Shall mean the designated person as defined by OSHA in 29 CFR1926.1101.

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34. Curtained Doorway: Device that consists of at least three overlapping sheets of fire retardant plastic over an existing or temporarily framed doorway. One sheet shall be secured at the top and left side, the second sheet at the top and right side, and the third sheet at the top and left side. All sheets shall have weights attached to the bottom to ensure that the sheets hang straight and maintain a seal over the doorway when not in use.
35. Decontamination Enclosure System: Series of connected rooms, separated from the Work Area and from each other by air locks, for the decontamination of workers, materials, waste containers, and equipment.
36. Demolition: The dismantling or razing of a building, including all operations incidental thereto (except for asbestos abatement activities), for which a demolition permit from the New York City Department of Buildings is required.
37. NYCDEP or DEP: The New York City Department of Environmental Protection.
38. Disturb: Any action taken which may alter, change, or stir, such as but not limited to the removal, encapsulation, enclosure or repair of asbestos-containing material.
39. DOB: The New York City Department of Buildings.
40. Egress: A continuous and unobstructed path of vertical and horizontal egress travel from any occupied portion of a building or structure to a public way. A means of egress consists of three separate and distinct parts: the exit access, the exit and the exit discharge.
41. ELAP: Environmental Laboratory Approval Program administered by the New York State Department of Health.
42. Encapsulant (sealant) or Encapsulating Agent: Liquid material which can be applied to ACM and which temporarily controls the possible release of asbestos fibers from the material either by creating a membrane over the surface (bridging encapsulant) or by penetrating into the material and binding its components together (penetrating encapsulant). A thin coat of lockdown encapsulant shall be applied to all surfaces in the work area which were not the subject of removal or abatement, including the cleaned layer of the surface barriers, but excepting sprinklers, standpipes, and other active elements of the fire suppression system.
43. Encapsulation: The coating or spraying of asbestos-containing material encapsulant. A thin coat of lockdown encapsulant shall be applied to all surfaces in the work area which were not the subject of removal or

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abatement, including the cleaned layer of the surface barriers, but excepting sprinklers, standpipes, and other active elements of the fire suppression system.

44. Enclosure: Construction of airtight walls and/or ceilings between ACM and the facility environment, or around surfaces coated with ACM, or any other appropriate procedure as determined by the NYCDEP which prevents the release of asbestos fibers.
45. EPA or USEPA: United States Environmental Protection Agency.
46. Equipment Room: Contaminated area or room that is part of the worker decontamination enclosure system with provisions for the storage of contaminated clothing and equipment.
47. Exit: That portion of a means of egress system which is separated from other interior spaces of a building or structure by fire-resistance-rated construction to provide a protected path of egress travel between the exit access and the exit discharge.
48. FDNY: The Fire Department of the City of New York.
49. Fiber: An acicular single crystal or a similarity elongated polycrystalline aggregate which displays some resemblance to organic fibers by having such properties as flexibility, high aspect ratio, silky luster, axial lineation, and others, and which has attained its shape primarily through growth rather than cleavage.
50. Fixed Object: A unit of equipment, furniture, or other item in the work area which cannot be removed from the work area. Fixed objects shall include equipment, furniture, or other items that are attached, in whole or in part, to a floor, ceiling, wall, or other building structure or system or to another fixed object and cannot be reasonably removed from the work area. Fixed objects shall also include pipes and other equipment inside the work area which are not the subject of the asbestos project. Active fire suppression system components shall not be considered fixed objects.
51. Glovebag technique: shall mean a method for removing asbestos-containing material from heating, ventilation and air conditioning (HVAC) ducts, short piping runs, valves, joints, elbows, and other nonplanar surfaces. The glovebag assembly is a manufactured device consisting of a large bag (constructed of at least 6-mil transparent plastic), two inward-projecting long sleeve gloves, one inward-projecting water wand sleeve, an internal tool pouch, and an attached, labeled receptacle for asbestos waste. The glovebag is constructed and installed in such a manner that it surrounds the object or area to be decontaminated and contains all asbestos fibers released during the removal process.

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52. HEPA-Filter: High efficiency particulate air filter capable of trapping and retaining 99.97 percent of particles (asbestos fibers) greater than 0.3 micrometers mass median aerodynamic equivalent diameter.
53. HEPA vacuum equipment: "HEPA vacuum equipment" shall mean vacuuming equipment with a HEPA filter.
54. Holding Area: Chamber in the equipment decontamination enclosure located between the washroom and an uncontaminated area.
55. Homogeneous Work Area: Portion of the Work Area that contains one type of ACM and/or where one type of abatement is used.
56. Industrial Hygiene: Science and art devoted to the recognition, evaluation, and control of those environmental factors or stresses, arising in or from the work place, which may cause sickness, impaired health and well being, or significant discomfort and inefficiency among worker or among the citizens of the community.
57. Industrial Hygienist: Individual having a college or university degree or degrees in Engineering, Chemistry, Physics or Medicine, or related Biological Sciences who, by virtue of special studies and training, has acquired competence in industrial hygiene. Such special studies and training must have been sufficient in all of the above cognate sciences to provide the abilities:
 - a. To recognize the environmental factors and to understand their effect on people and their well being; and
 - b. To evaluate, on the basis of experience and with the aid of quantitative measurement techniques, the magnitude of these stresses in terms of ability to impair people's health and well being; and
 - c. To prescribe methods to eliminate, control, or reduce such stresses when necessary to alleviate their efforts.
58. Isolation Barrier: The construction of partitions, the placement of solid materials, and the plasticizing of apertures to seal off the work place from surrounding areas and to contain asbestos fibers in the work area.
59. Large Asbestos Project: Asbestos project involving the disturbances (e.g., removal, enclosure, encapsulation) of 260 linear feet or more of ACM or 160 square feet or more of ACM.
60. Log: An official record of all activities that occurred during the project. At a minimum, the log shall identify the building owner, agent, asbestos

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abatement contractor, and workers, and other pertinent information including daily activities, cleanings and waste transfers, names and certificate numbers of asbestos handler supervisors and asbestos handlers; results of inspections of decontamination systems, barriers, and negative pressure ventilation equipment; summary of corrective actions and repairs; work stoppages with reason for stoppage; manometer readings at least twice per work shift; daily checks of emergency and fire exits and any unusual events.

61. Minor Project: A project involving the disturbance (e.g., removal, enclosure, encapsulation, repair) of 25 linear feet or less of asbestos containing material or 10 square feet or less of asbestos containing material.
62. Movable Object: Unit of equipment or furniture in the Work Area that can be removed from the Work Area.
63. Negative Air Pressure Equipment: Portable local exhaust system equipped with HEPA filtration. The system shall be capable of creating a negative pressure differential between the outside and inside of the Work Area.
64. NESHAPS: National Emission Standards for Hazardous Air Pollutants.
65. NFPA: The National Fire Protection Association.
66. NIOSH: National Institute for Occupational Safety and Health.
67. DEP or NYCDEP: New York City Department of Environmental Protection
68. NYSDOL: New York State Department of Labor.
69. NYSDOL ICR 56: "NYSDOL ICR 56" shall mean Part 56 of the Official Compilation of Codes, Rules and Regulations of the State of New York or 12 NYCRR Part 56.
70. NYSDOH: The New York State Department of Health.
71. Obstruction: The blocking of a means of egress with any temporary structure or barrier. A double layer of fire-retardant 6-mil polyethylene sheeting shall not be considered an obstruction when it is prominently marked as an exit with photo luminescent signage or paint and cutting tools (knife, razor) are attached to the work area side of the sheeting for use in the event that the sheeting must be cut to permit egress. A corridor shall not be considered obstructed when there is a clear path measuring at least three (3) feet wide.

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72. Occupied Area: Area of the work site where abatement is not taking place and where personnel or occupants normally function or where workers are not required to use personal protective equipment.
73. OSHA: Occupational Safety and Health Administration.
74. Outside air: "Outside air" shall mean the air outside the work place.
75. Person: Individual, partnership, company, corporation, association, firm, organization, governmental agency, administration, or department, or any other group of individuals, or any officer or employee thereof.
76. Personal Air Monitoring: Method used to determine employees' exposure to airborne asbestos fibers. The sample is collected outside the respirator in the worker's breathing zone.
77. Personal Protective Equipment (PPE): Appropriate protective clothing, gloves, eye protection, footwear, and head gear.
78. Phase Contrast Microscopy (PCM): The measurement protocol for the assessment of the fiber content of air. (NIOSH Method 7400).
79. Physician: Person licensed or otherwise authorized under Article 131 Section 65.22 of the New York State Education Law.
80. Plasticize: To cover floors and walls with fire retardant plastic sheeting as herein specified or by using spray plastics as acceptable to the Department.
81. Polarized Light Microscopy (PLM): The measurement protocol for the assessment of the asbestos content of bulk materials. (Interim Method for the Determination of Asbestiform Materials in Bulk Insulation Samples- 40 CFR Part 763, Subpart F, Appendix A as amended on September 1, 1982)
82. Project Designer: A person who holds a valid Project Designer Certificate issued by the New York State Department of Labor.
83. Project Monitor: A person who holds a valid Project Monitor Certificate issued by the New York State Department of Labor.
84. Qualitative Fit Test: Individual test subject's responding (either voluntarily or involuntarily) to a chemical challenge outside the respirator face-piece. Acceptable methods include irritant smoke test, odorous vapor test, and taste test.
85. Quantitative Fit Test: Exposing the respiratory wearer to a test atmosphere containing an easily detectable, nontoxic aerosol, vapor or gas as the test agent. Instrumentation, which samples the test atmosphere and the air inside

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the face-piece of the respirator, is used to measure quantitatively the leakage into the respirator. There are a number of test atmospheres, test agents, and exercises to perform during the test.

86. Registered Design Professional: A person licensed and registered to practice the professions of architecture or engineering under the Education Law of the State of New York.
87. Removal: Stripping of any asbestos- containing materials from surfaces or components of a facility or taking out structural components in accordance with 40 CFR 61 Subparts A and M.
88. Renovation: An addition or alteration or change or modification of a building or the service equipment thereof, that is not classified as an ordinary repair as defined in §27-125 of the Administrative Code of the City of New York.
89. Repair: Corrective action using specified work practices (e.g., glovebag, plastic tent procedures, etc.) to minimize the likelihood of fiber release from minimally damaged areas of ACM.
90. Replacement material: Any material used to replace ACM that contains less than .01 percent asbestos.
91. Shift: A worker's, or simultaneous group of workers', complete daily term of work.
92. Shower Room: Room between the clean room and the equipment room in the worker decontamination enclosure with hot and cold running water controllable at the tap and arranged for complete showering during decontamination.
93. Small Asbestos Project: Asbestos project involving the disturbance (e.g., removal, enclosure, encapsulation) of more than 25 and less than 260 linear feet of ACM or more than ten and less than 160 square feet of ACM.
94. Staging Area: Work Area near the waste transfer airlock where containerized asbestos waste has been placed prior to removal from the Work Area.
95. Strip: To remove asbestos materials from any part of the facility.
96. Structural Member: Load-supporting member of a facility, such as beams and load-supporting walls, or any non-load-supporting member, such as ceiling and non-load-supporting walls.

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97. Surface barriers: The plasticizing of walls, floors, and fixed objects within the work area to prevent contamination from subsequent work.
98. Surfactant: Chemical wetting agent added to water to improve penetration.
99. Transmission Electron Microscopy (TEM): The measurement protocol for the assessment of the asbestos fiber content of air. Interim Transmission Electron Microscopy Analytical Methods-40 CFR Part 763, Subpart E, Appendix A.
100. Visible Emissions: Emissions containing particulate material that are visually detectable without the aid of instruments.
101. Washroom: Room between the Work Area and the holding area in the equipment decontamination enclosure system where equipment and waste containers are wet cleaned and/or HEPA-vacuumed prior to disposal.
102. Waste decontamination enclosure system: "Waste decontamination enclosure system" shall mean the decontamination enclosure system designated for the controlled transfer of materials and equipment, consisting of a washroom and a holding area.
103. Wet Cleaning: "Wet cleaning" shall mean the removal of asbestos fibers from building surfaces and objects by using cloths, mops, or other cleaning tools which have been dampened with water.
104. Wet methods: "Wet methods" shall mean the use of amended water or removal encapsulants to minimize the generation of fibers during ACM disturbance.
105. Work Area: Designated rooms, spaces, or areas of the building or structure where asbestos abatement activities take(s) place.
106. Worker Decontamination Enclosure System: Portion of a decontamination enclosure system designed for controlled passage of workers and authorized visitors, consisting of a clean room, a shower room, and an equipment room separated from each other and from the Work Area by airlocks and curtained doorways.
107. Work Place: The work area and the decontamination enclosure system(s).
108. Work Place Safety Plan: Construction documents prepared by a registered design professional and submitted for review by DEP in order to obtain an asbestos abatement permit. Such plan shall include, but not be limited to, plans, sections, and details of the work area clearly showing the extent, sequence, and means and methods by which the work is to be performed.

109. Work Site: Premises where abatement activity is being performed. May be composed of one or more Work Areas.

1.06 STANDARD OPERATING PROCEDURES

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

The asbestos abatement contractor or his authorized representative shall, at all times during the normal workday or during periods of overtime work under this Contract, carry a digital telephone paging device ("Beeper") and/or cellular telephones which can be activated by a telephone number in the 212 or 646 or 718 or 917 or 929 area code. He shall supply the Department of Design and Construction with the activation number for the device and he is liable to respond back to the calls from DDC within the next one (1) hour period after he receives calls from DDC. The cost to the asbestos abatement contractor for this device and all charges accruing thereto is deemed included in the work.

- C. The standard operating procedure shall ensure:
1. Tight security from unauthorized entry into the workspace.
 2. Restriction of asbestos abatement contractor's personnel to the immediate Work Area and access/egress routes.
 3. Donning of proper protective clothing and respiratory protection prior to entering the Work Area.
 4. Safe work practices in the work place, including provisions for inter-room communications, exclusion of eating, drinking, smoking, or in any way breaking the respiratory protection.
 5. Proper exit practices from the work space to the outside through the showering and decontamination facilities.
 6. Removing asbestos in a way that minimizes release of fibers.
 7. Packing, labeling, loading, transporting, and disposing of contaminated material in a way that minimizes exposure and contamination.
 8. Emergency evacuation procedures, for medical or safety situations, to minimize the potential exposure to airborne asbestos fibers for emergency personnel, building occupants, and building environment.

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9. Safety from accidents in the workspace, especially from electrical shocks, fall hazards associated with scaffolding, slippery surfaces, and entanglements in loose hoses and equipment.
 10. Provisions for effective supervision, air monitoring and personnel monitoring for exposure during the work.
 11. Engineering controls that minimize exposure to fibers within the workspace.
 12. The asbestos abatement contractor shall provide a 24-hour fire watch throughout the entire term of the project, to protect against fire and unauthorized entry into the workspace. Fire watch shall be performed by an individual who is a certified asbestos worker capable of entering the Work Area for regular inspections.
- D. Provide an Asbestos Handler Supervisor to provide continuous supervision of all work, and to be responsible for the following:
1. Ensure that individuals are using proper personal protective equipment, are trained in its use and hold valid NYCDEP and NYSDOL Asbestos Handler certificates
 2. Maintain entry log records and ensure that they are recorded in accordance with the provisions of Title 15, Chapter 1 of RCNY and NYSDOL ICR 56.
 3. Surveillance of the Work Areas at a minimum of once per work shift or as required by Title 15, Chapter 1 of RCNY and NYSDOL ICR 56 -7.3, to ensure the integrity of work place isolation, negative pressure equipment and workers personal protective equipment is not torn or ripped and that respiratory protection is worn at all times.
 4. Ensure that sufficient personal protective equipment is stored in the clean room.
 5. Take precautions to prevent heat stress. Precautions include, but are not limited to, selecting lightweight protective clothing, reducing the work rate, and providing adequate fluid breaks.
 6. Perform work area inspection with project monitor prior to the commencement of final clearance air monitoring.
 7. The asbestos abatement contractor shall retain the asbestos handler supervisor to perform a visual inspection prior to the post-abatement clearance air monitoring to confirm that all containerized waste has been removed from work and holding areas and there is no visible ACM debris or residue on or about all abated surfaces.

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E. ENGINEERING CONTROLS

1. The 8-hour time weighted average airborne concentration of fibers to which any passerby may be exposed shall not exceed 0.01 fibers per cubic centimeter of air when fibers have a physical dimension longer than 5 micrometers as determined by the method prescribed in these Specifications.
2. All asbestos projects shall utilize negative pressure ventilation equipment.
 - a. The asbestos abatement contractor shall use a manometer to document the pressure differential. The asbestos abatement contractor shall install and make the manometer operational once the negative pressure has been established in the work area. Magnahelic manometers shall be calibrated at least every six months and a copy of the current calibration certification shall be available at the work site.
3. Negative pressure ventilation equipment shall be installed and operated to provide at least one air change in the work area every 15 minutes. Where there are no floor or wall barriers because floor or wall material is being abated, there shall be at least one air change in the work area every ten minutes.
4. The negative pressure ventilation equipment shall operate continuously, 24 hours a day, from the establishment of isolation barriers through successful clearance air monitoring. If such equipment shuts off, adjacent areas shall be monitored for asbestos fibers.
5. A static negative air pressure of 0.02 inches (minimum) water column shall be maintained at all times in the work place during abatement to ensure that contaminated air in the Work Area does not filter back to uncontaminated areas.
6. If the contaminated area of an asbestos project covers the entire floor of the affected building, or an area greater than 15,000 square feet on any given floor, the installation of a negative air cut off switch or switches shall be required at a single location outside the work place, such as inside a stairwell, or at a secured location in the ground floor lobby when conditions warrant. The required switch or switches shall be installed by a licensed electrician pursuant to a permit issued by the Department of Buildings. If negative pressure ventilation equipment is used on multiple floors, the cut off switch shall be able to turn off the equipment on all floors.
7. On loss of negative pressure or electric power to the negative pressure ventilating units, abatement shall stop immediately and shall not resume until power is restored and negative pressure ventilation equipment is operating again.

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8. Negative pressure ventilation equipment shall be exhausted to the outside of the building away from occupied areas.
 - a. All openings (including but not limited to operable windows, doors, vents, air intakes or exhausts of any mechanical devices) less than 15 feet from the exterior exhaust duct termination location shall be plasticized with two layers of fire retardant 6-mil polyethylene sheeting, or a second negative pressure ventilation unit with the primary unit's capacity shall be connected in series prior to exhausting to the outside.
 - b. Negative pressure ventilation equipment shall exhaust away from areas accessible to the public.
 - c. All ducting shall be sealed and braced or supported to maintain airtight joints. Ducts shall be reinforced and shall be installed so as to prevent breakage. Damage to ducts must be repaired immediately.
9. Where ducting to the outside is not possible, a second negative pressure ventilation unit compatible with the primary unit's capacity shall be connected in series. The area receiving the exhaust shall have sufficient, non-recycling exhaust capacity to the outside of the structure.
10. In the event that there is a failure of the containment system or a breach in the Isolation Barriers, all abatement work will cease and the asbestos abatement contractor will immediately correct the condition. Abatement work will not resume until the Work Area has been smoke tested by the third party laboratory and approved by the Construction Project Manager.

F. LOCKDOWN ENCAPSULATION PROCEDURES

1. The following procedures shall be followed to seal in non-visible residue while conducting lockdown encapsulation on all surfaces from which ACM has not been removed:
 - a. Only encapsulants rated as acceptable or marginally acceptable on the basis of Battelle Columbus Laboratory test procedures and rating requirements developed under the 1978 USEPA Contract shall be used for lockdown encapsulation.
 - b. The encapsulant solvent or vehicle shall not contain a volatile hydrocarbon unless reviewed and approved by DEP.
 - c. Latex paint with solids content greater than 15 percent shall be considered a lockdown sealant for coating all non-metallic surfaces.

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- d. Encapsulants shall be applied using airless spray equipment. Spraying is to occur at the lowest pressure range possible to minimize fiber release from encapsulant impact at the surface. It shall be applied with a consistent horizontal or vertical motion.
- e. The cleaned layer of the surface barriers shall be removed from walls and floors.

The isolation barriers shall remain in place throughout cleanup. Decontamination enclosure systems shall remain in place and be utilized. A thin coat of lockdown encapsulant shall be applied to all surfaces in the work area which were not the subject of removal or abatement, including the cleaned layer of the surface barriers, but excepting sprinklers, standpipes, and other active elements of the fire suppression system.

1.07 NOTIFICATIONS, PERMITS, WARNING SIGNS, LABELS, AND POSTERS

- A. The asbestos abatement contractor shall submit an Asbestos Project Notification (ACP-7) to the NYCDEP listing each work area within the building separately one week in advance of the start of work.
- B. The asbestos abatement contractor shall obtain an asbestos abatement permit authorizing the performance of construction work as required for asbestos projects involving one or more of the following activities:
 - 1. Obstruction of an exit door leading to an exit stair or the exterior of the building;
 - 2. Obstruction of an exterior fire escape or access to that fire escape;
 - 3. Obstruction of a fire-rated corridor leading to an exit door;
 - 4. Removal of handrails in an exit stair or ramp;
 - 5. Removal or dismantling of any fire alarm system component including any fire alarm-initiating device (e.g., smoke detectors, manual pull station);
 - 6. Removal or dismantling of any exit sign or any component of the exit lighting system, including photo luminescent exit path markings;
 - 7. Removal or dismantling of any part of a sprinkler system including piping or sprinkler heads;
 - 8. Removal or dismantling of any part of a standpipe system including fire pumps or valves;

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9. Removal of any non-load bearing / non-fire-rated wall (greater than 45 square feet or 50 percent of a given wall);
 10. Any plumbing work other than the repair or replacement of plumbing fixtures;
 11. Removal of any fire-resistance rated portions of a wall, ceiling, floor, door, corridor, partition, or structural element enclosure including spray-on fire resistance rated materials;
 12. Removal of any fire damper, smoke damper, fire stopping material, fire blocking, or draft stopping within fire-resistance rated assemblies or within concealed spaces;
 13. Any work that otherwise requires a permit from the DOB (full demolitions, alterations, renovations, modifications or plumbing work).
- C. The asbestos abatement contractor shall provide a floor plan showing the areas of the building under abatement and the location of all fire exits in said areas. It shall be prominently posted in the building lobby or comparable location, along with a notice stating the location within the building of the negative air cutoff switch, if applicable.
- D. The asbestos abatement contractor shall submit, as required, an asbestos abatement permit due to one or more of the activities listed in 1.07 (B) (1-8) and (B) (13) of this specification. The asbestos abatement contractor is responsible for submitting, with an asbestos project notification, a work place safety plan (WPSP) and any other applicable construction documents. These documents must be prepared by a registered design professional.
- E. A WPSP is not required for projects requiring an asbestos abatement permit due to one or more of the activities listed in 1.07 (B) (9-12) of this specification. The asbestos abatement contractor shall submit, together with the asbestos project notification, all applicable asbestos abatement permit construction documents.
- F. The asbestos abatement contractor shall retain a Registered Design Professional to perform the inspections required pursuant to Title 28 of the Administrative Code, including but not limited to special inspections required by Chapter 17 of the Building Code, as follows:
1. A final inspection shall be performed by a registered design professional retained by the asbestos abatement contractor after all work authorized by the asbestos abatement permit is completed. The person performing the inspection shall note all failures to comply with the provisions of the Building Code or approved asbestos abatement permit and shall promptly notify the owner in writing. All defects noted in such inspection shall be corrected. The final inspection report shall either:

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a. Confirm:

- (1) That the construction work is complete, including the reinstallation or reactivation of any building fire safety or life safety component.
- (2) That any defects previously noted have been corrected.
- (3) That all required inspections were performed.
- (4) That the work is in substantial compliance with the approved asbestos abatement permit construction documents, the Building Code, and other applicable laws and rules.

b. Confirm:

- (1) That the construction work does not return the building (or portion thereof) affected by the abatement project to a condition compliant with the building code and other applicable laws and rules, but that the registered design professional has reviewed an application for asbestos abatement permit construction documents approval that has been approved by the department of buildings, and the subsequent scope of work as approved will, upon completion, render all areas affected by the asbestos project in full compliance with the building code and all applicable laws and rules.
- (2) That any defects previously noted that are not addressed by the subsequent scope of work as approved by the department of buildings, have been corrected.
- (3) That all required inspections that are not addressed by the subsequent scope of work as approved by the department of buildings were performed.
- (4) That all completed work pursuant to an asbestos abatement permit is in substantial compliance with the approved asbestos abatement permit construction documents.

G. The asbestos abatement contractor shall provide the final inspection reports to be filed with DEP on A-TR1 form. Records of final inspections made by registered design professionals shall be submitted to DDC as part of the close out document package.

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

1.08 EMERGENCY PRECAUTIONS

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

1.09 SUBMITTALS

A. Pre-Construction Submittals:

1. Attend a pre-construction meeting scheduled by the City of New York Department of Design and Construction. This meeting shall also be attended by a designated representative of the City of New York third party air monitoring firm, facility manager and the Construction Project Manager. At this meeting, the asbestos abatement contractor shall present three copies of the following items, bound and indexed. The detailed plan of action must be submitted at least five (5) days prior to the pre-construction meeting.
 - a. Asbestos abatement contractor's scope of work, work plan and schedule.
 - b. Asbestos project notifications, approved variances and plans to Government Agencies.
 - c. Copies of Permits, clearance and licenses if required.
 - d. Schedules: the asbestos abatement contractor shall provide to the Construction Project Manager a copy of the following schedules for approval: Once approved, schedules shall be maintained and updated as received. Asbestos abatement contractor shall post a copy of all schedules at the site:
 - (1) A construction schedule stating critical dates of the project including, but not limited to, mobilization, Work Area preparation, demolition, gross removal, fine cleaning, encapsulation, inspections, clearance monitoring, and phase of refinishing and final inspections. The schedule shall be updated biweekly, at a minimum.
 - (2) A schedule of staffing stating number of workers per shift per activity, name and number of supervisor(s) per shift, shifts per day, and total days to be worked.
 - (3) Submit all changes in schedule or staffing to the Construction Project Manager prior to implementation.
 - (4) A schedule of equipment to be used including numbers and types of all major equipment such as HEPA Air Filtration Units, HEPA-vacuums, airless sprayers, Water Atomizing Devices and Type "C" compressors.
 - e. A written plan and shop drawings for preparation of work site and decontamination chamber.

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- f. Description of protective clothing and approved respirator to be used, make, model, NIOSH approval numbers.
- g. Delineation of responsibility of work site supervision, including competent person, with names, resumes, and home telephone numbers.
- h. Explanation of decontamination sequence and isolation techniques.
- i. Description of specific equipment to be utilized, including make and model number of air filtration devices, vacuums, sprayers, etc.
- j. Description of any prepared methods, procedures, techniques, or equipment other than those specified in the Contract Documents.
- k. Explanation of the handling of asbestos contaminated wastes including EPA and NYCDEP identification numbers of Waste Hauler.
- l. Description of the final clean-up procedures to be used.
- m. Name and qualifications of asbestos abatement contractor's Air Monitor including AIHA accreditation, and proof of NIOSH PAT and NIST/NVLAP Bulk Quality Assurance Proficiency of OSHA samples for approval by the City of New York Department of Design and Construction.
- n. Written description of emergency procedures to be followed in case of injury or fire. This section must include evacuation procedures, source of medical assistance (name and telephone number) and procedures to be used for access by medical personnel (examples: first aid squad and physician). NOTE: Necessary Emergency Procedures Shall Take Priority Over All Other Requirements of These Specifications.
- o. Material Safety Data Sheets (MSDS) for encapsulants, sealants, firestopping foam, cleaners/disinfectants, spray adhesive and any and all potentially hazardous materials that may be employed on the project. No work involving the aforementioned will be allowed to proceed until MSDS are reviewed.
- p. Worker Training and Medical Surveillance: Asbestos abatement contractor shall submit a list of the persons who will be employed by him in the removal work. Present evidence that workers have received proper training required by the regulations and the medical examinations required by OSHA 29 CFR 1926.1101.

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q. Logs: Specimen copies of daily progress log, visitor's log, and disposal log.

(1) The asbestos abatement contractor shall provide a permanently bound log book of minimum 8-1/2" x 11" size at the entrance to the Worker and Waste Decontamination enclosure system as hereinafter specified. Log book shall contain on title page the project name, name, address and phone number of Environmental Control Representative; name, address and phone number of asbestos abatement contractor; name, address and phone number of asbestos abatement contractor and City's air testing entity; emergency numbers including, but not limited to local Fire/Rescue Department. Log book shall contain a list of personnel approved by the laboratory for entry into the Work Area.

(2) All entries into the log shall be made in non-washable, permanent ink and such pen shall be strung to or otherwise attached to the log to prevent removal from the log-in area. Under no circumstances shall pencil entries be permitted. Any significant events occurring during the abatement project shall be entered into the log. Upon completion of the job, the Asbestos abatement contractor shall submit a copy of the logbook containing a day-to-day record of personnel log entries countersigned by the Construction Project Manager every day.

r. Worker's Acknowledgments: Submit statements signed by each employee that the employee has received training in the proper handling of ACM, understands the health implications and risks involved; and understands the use and limitations of the respiratory equipment to be used.

B. Submit copies of the following items to the Construction Project Manager during the work:

1. Security and safety logs showing names of person entering workspace, date and time of entry and exit, record of any accident, emergency evacuation, and any other safety and/or health incident.
2. Progress logs showing the number of workers, supervisors, hours of work and tasks completed shall be submitted daily to the Construction Project Manager.
3. Floor plans indicating asbestos abatement asbestos abatement contractor's current work progress shall be submitted for review by the Construction Project Manager at weekly progress meetings.

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4. All asbestos abatement contractors' air monitoring and inspection results.

C. Project Closeout Submittals:

Upon completion of the project and as a condition of acceptance, the asbestos abatement contractor shall present two copies of the following items, bound and indexed:

1. Lien Waivers from asbestos abatement contractor, Sub-asbestos abatement contractors and Suppliers,
2. Daily OSHA air monitoring results,
3. All Waste Manifests (Asbestos and Construction Debris), seals and disposal logs,
4. Field Sign-In/Sign-Out Logs for every shift,
5. Copies of all Building Department Forms and Permits,
6. A Letter of Compliance stating that all the work on this project was performed in accordance with the Specifications and all applicable Federal, State and Local regulations,
7. All Warranties as stated in the Specifications,
 - a. Fully executed disposal certificates and transportation manifest.
8. Project Record: The asbestos abatement contractor shall maintain a project record for all small and large asbestos projects. During the project, the project record shall be kept on site at all times. Upon completion of the project, the project record shall be maintained by the building owner. The project record shall be submitted to DDC as part of the close out documents. The project record shall consist of:
 - a. Copies of licenses of all asbestos abatement contractors involved in the project;
 - b. Copies of DEP and NYSDOL supervisor and handler certificates for all workers engaged in the project;
 - c. Copies of all project notifications and reports filed with DEP and NYSDOL for the project, with any amendments or variances;
 - d. Copies of all asbestos abatement permits, including associated approved plans and work place safety plan;

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- e. A copy of the air sampling log and all air sampling results;
 - f. A copy of the abatement asbestos abatement contractor's daily log book;
 - g. All data related to bulk sampling including the results of any asbestos surveys performed by an asbestos investigator;
 - h. Copies of all asbestos waste manifests;
 - i. A copy of all Project Monitor's Reports (ACP-15).
 - j. A copy of each ATR-1 Form completed for the asbestos project (if required).
 - k. A copy of each Asbestos Project Conditional Closeout Report (ACP-20).
 - l. A copy of the Asbestos Project Completion Form (ACP-21).
9. The asbestos abatement contractor shall submit one of the following certifications to the DOB, with a copy provided to DDC:
- a. Asbestos Project Completion Form. If an asbestos project has been performed, a copy of the asbestos project completion form issued by DEP shall be submitted to DOB, with a copy being provided to DDC, prior to the issuance of a DOB permit and to any amendment of the underlying construction document approval which increases the scope of the project to include (a) work area(s) not previously covered.
 - b. An Asbestos Project Conditional Close-out Form. If an asbestos project has been performed a copy of the asbestos project conditional close-out form issued by DEP shall be submitted to DOB, with a copy being provided to DDC, prior to the issuance of a DOB permit and to any amendment of the underlying construction document approval which increases the scope of the project to include (a) work area(s) not previously covered.

1.10 QUALITY ASSURANCE

- A. All work required for the completion of this project or called for in this Specification must be executed in a workmanlike manner by using the appropriate methods established by regulatory requirements and/or industrial standards. All workmanship or work methods are subject to review and acceptance by the Construction Project Manager. Throughout the Specification, reference is made to

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codes and standards which establish qualities, levels or types of workmanship which will be considered acceptable. It is the asbestos abatement contractor's responsibility to comply with these codes and standards during the execution of this work.

- B. All materials and equipment required or consumed during the work of this Contract must meet the minimum acceptable criteria established by codes and standards referenced elsewhere in this Specification. Materials and equipment must be submitted for prior approval as part of the asbestos abatement contractor's "Shop Drawings".
- C. It is the asbestos abatement contractor's responsibility, when so required by the Specification or upon written request from the Commissioner or his representative to furnish all required proof that workmanship, materials and/or equipment meet or exceed the codes and standards referenced. Such proof shall be in the form requested, typically a certified report or test conducted by a testing entity approved for that purpose by DDC.
- D. The asbestos abatement contractor shall furnish proof that employees working under his supervision have had instruction on the dangers of asbestos exposure, on respirator use, decontamination, and OSHA regulations. This proof shall be in the form of a notarized affidavit to the effect that the above requirements have been satisfied.
- E. The asbestos abatement contractor will have at all times in his possession and in view at the job site the OSHA regulations 29 CFR 1910.1001, and 1926.1101 Asbestos, and Environmental Protection Agency 40 CFR, Part 61, subpart B: National Emission Standard for asbestos, asbestos stripping, work practices and disposal of asbestos waste. He shall also have one copy of NYC Title 15, Chapter 1 of RCNY and NYS DOL ICR 56 at the job site at all times.
- F. Familiarity with Pertinent Codes and Standards: In procuring all items used in this work, it is the asbestos abatement contractor's responsibility to verify the detailed requirements of the specifically named codes and standards and to verify that the items procured for use in this work meet or exceed the specified requirements, and are suitable for their intended use.
- G. Rejection of Non Complying Items: The Commissioner reserves the right to reject items incorporated into the work that fail to meet the specified minimum requirements. The Commissioner further reserves the right, and without prejudice to other recourse that maybe taken, to accept non-complying items subject to an adjustment in the Contract amount as approved by the City.
- H. Applicable Regulations, Codes and Standards: Applicable standards listed in these Specifications include, but are not necessarily limited to, standards promulgated by the following agencies and organizations:

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1. American National Standards Institute (ANSI)
(Successor to USASI and ASA)
25 West 43rd Street (between 5th and 6th Avenue) 4th Floor
New York, NY 10036
212-642-4900
2. American Society for Testing and Materials (ASTM)
100 Bar Harbor Drive
West Conshohocken, PA 19428-2959
610-832-9500
3. National Institute for Occupational Safety and Health (NIOSH)
Robert A. Taft Laboratory
4676 Columbia Pkwy
Mailstop R12 Cincinnati, Ohio 45226
513-841-4428
4. National Electrical Code (NEC)
See NFPA
5. National Fire Protection Association (NFPA)
1 Batterymarch Park
Quincy, Massachusetts 02169-7471
617-770-3000
6. New York City Fire Department (FDNY)
9 Metrotech Center
Brooklyn, NY 11201-5431
718-999-2117
7. New York City Department of Buildings (NYC DOB)
Enforcement Division
280 Broadway, New York, New York 10007
212- 566-2850
8. New York City Department of Environmental Protection (NYCDEP)
Bureau of Environmental Compliance
Asbestos Control Program
59-17 Junction Boulevard, 8th Floor
Corona, New York 11368
718-595-3682
9. New York City Department of Health and Mental Hygiene (NYC DOHMH)
Environmental Investigation
125 Worth Street
New York, New York 10013
212-442-3372

10. New York State Department of Labor (NYSDOL)
Division of Safety and Health
Engineering Services Unit
State Office Building Campus
Albany, New York 12240-0010
 11. New York City Department of Sanitation
125 Worth Street, Room 714
New York, New York 10013
212-566-1066
 12. Occupational Safety and Health Administration (OSHA)
Region II - Regional Office
201 Varick Street, Room 908
New York, New York 10014
212-337-2378
 13. United States Environmental Protection Agency (EPA or USEPA)
Region II
Asbestos NESHAPS Contact
Air and Waste Management Division
(Air Compliance Branch) – USEPA
290 Broadway, 21st Floor
New York, New York 10007-1866
212-637-3660
- I. Post all applicable regulations in a conspicuous place at the job site. Assure that the regulations are not altered, defaced or covered by other materials. One copy of each regulation must also be kept at the Asbestos abatement contractor's office.

1.11 CITY/ASBESTOS ABATEMENT CONTRACTOR RESPONSIBILITIES

- A. The normal occupants of the Work Areas will be relocated by the City prior to the performance of the abatement work and returned there to at the conclusion of the abatement work, at no cost to the asbestos abatement contractor. However, the asbestos abatement contractor shall protect all furniture and equipment in the Work Areas in a manner as hereinafter specified. In addition, the asbestos abatement contractor shall perform the work of this Contract in a manner that will be least disruptive to the normal use of the non-Work Areas in the building.
- B. Asbestos abatement contractor shall be responsible for cleaning all portable items not specifically addressed by the Facility, in the Work Areas, or dispose of same as asbestos contaminated waste.
- C. Facility to provide asbestos abatement contractor with a list of items that cannot be removed and need special attention.

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- D. Facility to stop all deliveries that may be scheduled to the Work Area while work is in progress.
- E. Facilities to have authorized personnel on site at all times or supply the asbestos abatement contractor with means of contacting such personnel without unreasonable delay. Such personnel shall have access to all areas, have knowledge of electrical, and air handling equipment. Such personnel shall assist the asbestos abatement contractor in case of any power failure or breakdown to shut down air supply systems, to reset and control all protective systems such as alarms, sprinklers, locks, etc. The Facility shall ensure no active air handling systems are operating within the Work Area.
- F. City will not occupy the portions of the building, in which work is being performed during the entire asbestos removal operation, including completion of clean up.
- G. Asbestos abatement contractor shall provide a plan for 24 hour job security both for prevention of theft and for barring entry of curious but unprotected personnel into Work Areas.
- H. Asbestos abatement contractor shall provide surveillance by a fire watch and set forth procedures to be taken for the safety of building occupants in the event of an emergency, in accordance with the WPSP.
- I. Should the failure of any utility occur, the City will not be responsible to the asbestos abatement contractor for loss of time or any other expense incurred.
- J. Facility will be responsible to notify the asbestos abatement contractor of any planned electrical power shutdowns in order to ensure that there are no power interruptions in the negative air pressure systems.
- K. Asbestos abatement contractor shall remove all flammable materials from the work area and all sources of ignition (including but not limited to pilot lights) shall be extinguished.
- L. Asbestos abatement contractor shall require a competent person (as defined in OSHA 1926.1101) to perform the following functions and to be on-site continuously for the duration of the project:
 - 1. Monitor the set up of the Work Area enclosure and ensure its integrity.
 - 2. Control entry and exit into the work enclosure.
 - 3. Ensure that employees are adequately trained in the use of engineering controls, proper work practices, proper personal protective equipment and in decontamination procedures.

4. Insure that employees use proper engineering controls, proper work practices, proper personal protective equipment and proper decontamination procedures.
5. The competent person (as defined in OSHA1926.1101) shall check for rips and tears in work suits, and ensure that they are mended immediately or replaced.

1.12 USE OF BUILDING FACILITIES

- A. City shall make available to the asbestos abatement contractor, from existing outlets and supplies, all reasonably required amounts of water and electric power at no charge.
- B. Electric power to all Work Areas shall be shut down and locked out except for electrical equipment that must remain in service. Safe temporary power and lighting shall be provided by asbestos abatement contractor in accordance with applicable codes. All power to Work Areas shall be brought in from outside the area through ground-fault interrupter circuits installed at the source. Stationary electrical equipment within the Work Area, which must remain in service, shall be adequately protected, enclosed and ventilated. The Facility will identify all electric lines that must remain in service. Asbestos abatement contractor shall protect all lines.
- C. Asbestos abatement contractor shall provide, at his own expense, all electrical, water, and waste connections, tie-ins, extensions, and construction materials, supplies, etc. All water tie-ins shall be hard piped with polyethylene or copper piping. At the end of each shift, asbestos abatement contractor shall disconnect all hoses within the work zone and place in equipment room of the worker decontamination unit. Asbestos abatement contractor shall ensure positive shutoff of all water to Work Area during non-working hours.
- D. Utilities:
 1. General:

All temporary facilities required to be installed, shall be subject to the approval of the Commissioner. Prior to starting the work at any site; specify clearly the temporary locations of facilities preferably with sketches and submit the same to the Construction Project Manager for approval.
 2. Water:

The Department of Design and Construction will furnish all water needed for construction, at no cost to the asbestos abatement contractor in buildings under their jurisdiction. All temporary plumbing or adaptations to supply the needs of the Work Area shall be installed and removed by the asbestos abatement contractor and the cost thereof included in the Lump Sum price

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for abatement work. Shower water for the decontamination unit shall be provided hot. Heating of water, if necessary, shall be provided by the asbestos abatement contractor.

3. Electricity:

The Department of Design and Construction will furnish all electricity needed for construction, at no cost to the asbestos abatement contractor in buildings under their jurisdiction. All temporary electrical work or adaptations to supply the needs of the Work Area shall be installed and removed by the asbestos abatement contractor and the cost thereof included in the Lump Sum price for abatement work.

In leased spaces, arrangements for water supplies and electricity must be made with the landlord. However, all such arrangements must be made through and are subject to approval of the Department of Design and Construction. Utilities will be provided at no cost to the Asbestos abatement contractor. However, it is the asbestos abatement contractor's (or the General contractor's) responsibility to furnish and install a suitable distribution system to the Work Area. This system will be provided at no cost to the City.

A dedicated power supply for the negative pressure ventilating units shall be utilized. The negative air equipment shall be on a ground fault circuit interrupter (GFCI) protected circuit separate from the remainder of the work area temporary power circuits.

E. Asbestos abatement contractor shall shut down and lock out all electric power to all work areas except for electrical equipment that must remain in service. Safe temporary power and lighting shall be provided in accordance with all applicable codes. Existing light sources (e.g., house lights) shall not be utilized. All power to work areas shall be brought in from outside the area through ground-fault circuit interrupter at the source.

1. If electrical circuits, machinery, and other electrical systems in or passing through the work area must stay in operation due to health and safety requirements, the following precautions must be taken:

a. All unprotected cables, except low-voltage (less than 24 volts) communication and control system cables, panel boxes of cables and joints in live conduit that run through the work area shall be covered with three (3) independent layers of six (6) mil fire retardant polyethylene. Each layer shall be individually duct taped and sealed. All three (3) layers of polyethylene sheeting shall be left in place until satisfactory clearance air sampling results have been obtained.

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- b. Any energized circuits remaining in the work area shall be posted with a minimum two (2) inch high lettering warning sign which reads: DANGER LIVE ELECTRICAL - KEEP CLEAR. A sign shall be placed on all live covered barriers at a maximum of ten (10) foot intervals. These signs shall be posted in sufficient numbers to warn all persons authorized to enter the work area of the existence of the energized circuits.
 2. Any source of emergency lighting which is temporarily blocked as a result of work place preparation shall be replaced for the duration of the project by battery operated or temporary exit signs, exit lights, or photo luminescent path markings.
- F. Asbestos abatement contractor shall provide a separate temporary electric panel board to power asbestos abatement contractor's equipment. The Facility will designate an existing electrical source in proximity to the Work Area. Asbestos abatement contractor's licensed electrician shall provide temporary tie-in via cable, outlet boxes, junction boxes, receptacles and lights, all with ground fault interruption. At no time shall extension cords greater than 50-feet in length be allowed. All temporary electrical installation shall be in accordance with OSHA regulations. The electric shut down for power panel tie-in will be on off-hours and must be coordinated with the Facility. Asbestos abatement contractor shall provide to the City a specification and drawing outlining his power requirements at the pre-construction meeting.
- G. Additional electrical equipment (i.e., transformers, etc.), which is necessary due to the lack of existing power on the floor, shall be at the asbestos abatement contractor's expense.
- H. Asbestos abatement contractor shall provide fire protection in accordance with all State and Local fire codes.
- I. Sprinklers, standpipes, and other fire suppression systems shall remain in service and shall not be plasticized.
- J. When temporary service lines are no longer required, they shall be removed by the asbestos abatement asbestos abatement contractor. Any parts of the permanent service lines, grounds and buildings, disturbed or damaged by the installation and/or removal of the temporary service lines, shall be restored to their original condition by the asbestos abatement asbestos abatement contractor. Senior Stationary Engineer will inspect and test all switches, controls, gauges, etc. and shall submit a list to the Construction Project Manager of any equipment damaged by the asbestos abatement asbestos abatement contractor.
- K. Asbestos abatement contractor shall supply hot shower water necessary for use in the decontamination unit.

1.13 USE OF THE PREMISES

- A. Asbestos abatement contractor shall confine his apparatus, the storage of materials, and supplies, and the operation of his workmen to limits established by law, ordinances, and the directions of the Construction Project Manager and the Facility. All flammable or combustible materials shall be properly stored to obviate fire and in areas approved by the Facility.
- B. Asbestos abatement contractor shall assure that no exits from the building are obstructed, that appropriate safety barriers are established to prevent access, and that Work Areas are kept neat, clean, and safe.
- C. Asbestos abatement contractor shall maintain exits from the work area or alternative exits shall be established, in accordance with section 1027 of the New York City Fire Code. Exits shall be checked at the beginning and end of each work shift against blockage or impediments to exiting.
- D. If the openings of temporary structural partitions related to abatement work areas block egress, the partition shall consist of two sheets of fire retardant 6-mil plastic, prominently marked as an exit with photo luminescent paint or signage. Cutting tools (e.g., knife, razor) shall be attached to the work area side of the sheeting for use in the event that the barrier must be cut open to allow egress.
- E. All surrounding work, fixtures, soil lines, drains, water lines, gas pipes, electrical conduit, wires, utilities, duct work railings, shrubbery, landscaping, etc. which are to remain in place shall be carefully protected and, if disturbed or damaged, shall be repaired or replaced as directed by the City, at no additional cost.
- F. All routes through the building to be used by the asbestos abatement contractor shall first be approved by the Construction Project Manager and the Facility.
- G. Attention is specifically drawn to the fact that other asbestos abatement contractors, performing the work of other Contracts, may be (or are) brought upon any of the work sites of this Contract. Therefore, the asbestos abatement contractor shall not have exclusive rights to any site of his work and shall fully cooperate and coordinate his work with the work of other asbestos abatement contractors who may be on (or are on) any site of the work of this Contract. Regulated area exempted.
- H. Temporary toilet facilities must be provided by the asbestos abatement contractor on the site. Coordinate location of facilities with Construction Project Manager. No toilet facilities will be allowed in the Work Area.

1.14 PROTECTION AND DAMAGE

- A. The asbestos abatement contractor is responsible to cover all furniture and equipment that cannot be removed from Work Areas. Moveable furniture and equipment will be removed from Work Areas by asbestos abatement contractor prior to start of work and returned upon successful completion of the final air testing. At the conclusion of the work (after clearance level of air testing reaches the acceptable limit), the asbestos abatement contractor will remove all plastic covering from the walls, floors, furniture, equipment and reinstall furniture and equipment in the cleaned Work Area. The asbestos abatement contractor shall remove all shades, curtains and drapes from the Work Area, and reinstall the same following the final clean up.
- B. Prior to plasticizing, the proposed work areas shall be pre-cleaned using HEPA filtered vacuum equipment and/or wet cleaning methods. Methods that raise dust, such as sweeping or vacuuming with equipment not equipped with HEPA filters, are prohibited.
- C. Use rubber tired vehicles that use non-volatile fuels for conveying material inside building and provide temporary covering, as necessary, to protect floors.
- D. No materials or debris shall be thrown from windows or doors of the building. Building waste system shall NOT be used to remove refuse.
- E. Debris shall be removed from the work site daily. Premises shall be left neat and clean after each work shift, so that work may proceed the next regular workday without interruption. Limited bag storage may take place within the Work Area when approved by the Construction Project Manager.
- F. Protect floors and walls along removal routes from damage, wear and staining with contamination control flooring. All finished surfaces to be protected with Masonite or other rigid sheathing material.
- G. A preliminary inspection for pre-existing damage shall be conducted by asbestos abatement contractor and representative of the City before commencement of the project.

1.15 RESPIRATORY PROTECTION REQUIREMENTS

- A. Respiratory protection shall be worn by all individuals who may be exposed to asbestos fibers from the initiation of the asbestos project until all areas have successfully passed clearance air monitoring in accordance with Regulations and these Specifications.
- B. Asbestos abatement contractor shall develop and implement a written respiratory protection program with required site-specific procedures and elements. The program shall be administered by a properly trained individual. The written

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respiratory protection program shall include the requirements set forth in OSHA Standard 29 CFR 1910.134, at a minimum.

- C. The Asbestos abatement contractor shall provide workers with individually issued and marked respiratory equipment. Respiratory equipment shall be suitable for the asbestos exposure level(s) in the Work Area(s), as specified in OSHA Standards 26 CFR 1910.134 and 29 CFR 1926.1101, NIOSH Standard 42 CFR 84, or as more stringently specified otherwise, herein.
- D. Where respirators with disposable filter parts are employed, the asbestos abatement contractor will provide sufficient filter parts for replacement as necessary or as required by the applicable regulation.
- E. All respiratory protection shall be NIOSH approved. All respiratory protection shall be provided by asbestos abatement contractor, and used by workers in conjunction with the written respiratory protection program.
- F. Asbestos abatement contractor shall provide respirators selected by an Industrial Hygienist that meet the following requirements:

Table 1. -- Assigned Protection Factors

Type of Respirator	Half mask	Full facepiece	Helmet/hood
1. Air-Purifying Respirator	³ 10	50
2. Powered Air-Purifying Respirator (PAPR)	50	1,000	⁴ 25/1,000
3. Supplied-Air Respirator (SAR) or Airline Respirator			
• Demand mode	10	50
• Continuous flow mode	50	1,000	⁴ 25/1,000
• Pressure-demand or other positive-pressure mode	50	1,000
4. Self-Contained Breathing Apparatus (SCBA)			
• Demand mode	10	50	50
• Pressure-demand or other positive-pressure mode (e.g., open/closed circuit)	10,000	10,000

Notes:

¹Employers may select respirators assigned for use in higher workplace concentrations of a hazardous substance for use at lower concentrations of that substance, or when required respirator use is independent of concentration.

²The assigned protection factors in Table 1 are only effective when the employer implements a continuing, effective respirator program as required by this section (29 CFR 1910.134), including training, fit testing, maintenance, and use requirements.

³This APF category includes filtering facepieces, and half masks with elastomeric facepieces.

⁴The employer must have evidence provided by the respirator manufacturer that testing of these respirators demonstrates performance at a level of protection of 1,000 or greater to receive an APF of 1,000. This level of performance can best be demonstrated by performing a WPF or SWPF study or equivalent testing. Absent such testing, all other PAPRs and SARs with helmets/hoods are to be treated as loose-fitting facepiece respirators, and receive an APF of 25.

⁵These APFs do not apply to respirators used solely for escape. For escape respirators used in association with specific substances covered by 29 CFR 1910 subpart Z, employers must refer to the appropriate substance-specific standards in that subpart. Escape respirators for other IDLH atmospheres are specified by 29 CFR 1910.134 (d)(2)(ii).

G. Selection of high efficiency filters:

1. All high efficiency filters shall have a nominal efficiency rating of 100 (99.97-percent effective) when tested against 0.3-micrometer monodisperse diethyl-hexyl phthalate (DOP) particles.
2. Choose N-, R-, or P-series filters based upon the presence or absence of oil particles.
 - a. N-series filters shall only be used for non-oil solid and water based aerosols or fumes.
 - b. R- and P-series filters shall be used when oil aerosols or fumes (i.e., lubricants, cutting fluids, glycerin, etc.) are present. The R-series filters are oil resistant and the P-series filters are oil proof.
 - c. Follow filter manufacture recommendations.
3. If a vapor hazard exists, use an organic vapor cartridge in combination with the high efficiency filter.

H. Historical airborne fiber level data may serve as the basis for selection of the level of respiratory protection to be used for an abatement task. Historical data provided by the asbestos abatement contractor shall be based on personal air monitoring performed during work operations closely resembling the processes, type of material, control methods, work practices, and environmental conditions present at the site. Documentation of aforementioned results may be requested by the City and/or Third-Party Air Monitor for review. This will not relieve the asbestos abatement contractor from providing personal air monitoring to determine the

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time-weighted average (TWA) for the work under contract. The TWA shall be determined in accordance with 29 CFR 1926.1101.

- I. At no time during actual removal operations shall half-mask air purifying respirators be allowed unless a full 8-hour TWA and excursion limit have been conducted, and reviewed by the Construction Project Manager. If the TWA and excursion limit have not been conducted, a Supplied-Air Respirator (SAR) or Airline Respirator or Self-Contained Breathing Apparatus (SCBA) must be used. Use of single use dust respirators is prohibited for the above respiratory protection.
- J. Workers shall be provided with personally issued and individually marked respirators. Respirators shall not be marked with any equipment that will alter the fit of the respirator in any way. Only waterproof identification markers shall be used.
- K. Asbestos abatement contractor shall ensure that the workers are qualitatively or quantitatively fit tested by an Industrial Hygienist initially and every 12 months thereafter with the type of respirator he/she will be using.
- L. Whenever the respirator design permits, workers shall perform the positive and negative air pressure fit test each time a respirator is worn. Powered air-purifying respirators shall be tested for adequate flow as specified by the manufacturer.
- M. No facial hairs (beards) shall be permitted to be worn when wearing respiratory protection that requires a mask-to-face seal.
- N. If a worker wears glasses, a spectacle kit to fit their respirator shall be provided by the asbestos abatement contractor at the asbestos abatement contractor's expense.
- O. Respiratory protection maintenance and decontamination procedures shall meet the following requirements:
 - 1. Respiratory protection shall be inspected and decontaminated on a daily basis in accordance with OSHA 29 CFR 1910.134 (b); and
 - 2. High efficiency filters for negative pressure respirators shall be changed after each shower; and
 - 3. Respiratory protection shall be the last piece of worker protection equipment to be removed. Workers must wear respirators in the shower when going through decontamination procedures as stated in Section 3.03 and/or 3.04.
 - 4. Airline respirators with high efficiency filtered disconnect shall be disconnected in the equipment room and worn into the shower. Powered air-purifying respirator face pieces shall be worn into the shower. Filtered/power pack assemblies shall be decontaminated in accordance with manufacturers recommendations; and

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

1.16 PROTECTIVE CLOTHING

- A. Provide worker protection as required by the most stringent OSHA and/or EPA standards applicable to the work. Provide to all workers, foremen, superintendents, authorized visitors and inspectors, protective disposable clothing consisting of full body coveralls, head covers, gloves and 18-inch high boot type covers or reusable footwear.
- B. In addition to personal protective equipment for workers, the asbestos abatement contractor shall make available at each worksite at least four (4) additional uniforms and required respiratory equipment each day for personnel who are authorized to inspect the work site. He/she shall also provide, for the duration of the work at any site involving a decontamination unit for worksite access, a lockable storage locker for use by the Construction Project Manager. In addition to respiratory masks for workers, the asbestos abatement contractor must have on hand at the beginning of each work day, at least four (4) masks each with two sets of fresh filters, for use by personnel who are authorized to inspect the worksite. The asbestos abatement contractor shall check for proper fit of the respirators of all City personnel authorized to enter the Work Area.
- C. Asbestos handlers involved in tent procedures shall wear two (2) disposable suits, including gloves, hood and footwear, and appropriate respiratory equipment. All street clothes shall be removed and stored in a clean room within the work site. The double layer personal protective equipment shall be used for installation of the tent and throughout the procedure, if a decontamination unit (with shower and clean room) is contiguous to the Work Area, only one (1) layer of disposable personal protective equipment shall be required; in this case, prior to exiting the tent the worker shall HEPA vacuum and wet clean the disposable suit.
- D. The outer disposable suit (if 2 suits are worn) shall be removed and remain in the tent upon exiting. Following the tent disposal and work site clean up the workers shall immediately proceed to a shower at the work site. The inner disposal unit and respirator shall be removed in the shower after appropriate wetting. The disposal clothing shall be disposed of as asbestos-containing waste material. The workers shall then fully and vigorously shower with supplied liquid bath soap, shampoo, and clean dry towels.

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- E. Coveralls: provide disposable full-body coveralls and disposable head covers. Require that they be worn by all workers in the Work Area. Provide a sufficient number for all required changes for all workers in the Work Area.
- F. Boots: provide work boots with non-skid soles, and where required by OSHA, foot protection, for all workers. Provide boots at no cost to workers. Paint uppers of all boots yellow with waterproof enamel. Do not allow boots to be removed from the Work Area for any reason after being contaminated with ACM and/or dust.
- G. Hard Hats: provide hard hats as required by OSHA for all workers, and provide a minimum of four spares for Inspectors, visitors, etc. Label all hats with same warning label as used on disposal bags. Require hard hats to be worn at all times that work is in progress that may cause potential head injury. Provide hard hats of the type with polyethylene strap suspension. Require hats to remain in the Work Area throughout the work. Thoroughly clean and decontaminate and bag hard hats prior to removing them from the Work Area at the end of the work.
- H. Goggles: provide eye protection (goggles) as required by OSHA for all workers involved in any activity that may potentially cause eye injury. Require them to be worn at all times during these activities. Thoroughly clean and decontaminate goggles before removing them from the Work Area.
- I. Gloves: provide work gloves to all workers, of the type dictated by the Work and OSHA Standards. Do not remove gloves from the Work Area. Dispose of as asbestos-asbestos contaminated waste at the end of the work. Gloves shall be worn at all times, except during Work Area Preparation activities that do not disturb ACM.
- J. Reusable footwear, hard hats and eye protection devices shall be left in the contaminated Equipment Room until the end of the Asbestos Abatement Work.
- K. Disposable protective clothing shall be discarded and disposed of as asbestos waste every time the wearer exits from the workspace to the outside through the decontamination facility.
- L. Respirators, disposable coveralls, head covers and foot covers shall be provided by the asbestos abatement contractor for the Facilities Representative, Construction Project Manager and any other authorized representative who may inspect the Work Area. Provide two respirators and six respirator filter changes per day.

1.17 AIR MONITORING - ASBESTOS ABATEMENT CONTRACTOR

- A. Asbestos abatement contractor shall employ a qualified industrial hygiene laboratory to analyze air samples in accordance with OSHA Regulations, 1926.1101 (Asbestos Standards for Construction) and New York City regulations.

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- B. The industrial hygiene laboratory shall be a current proficient participant in the American Industrial Hygiene Association (AIHA) PAT Program. The laboratory identification number shall be submitted and approved by the City. The laboratory shall be accredited by the AIHA and New York State Department of Health Environmental Laboratory Approval Program (ELAP).
- C. Industrial hygiene laboratory shall also be a current proficient participant in the NIST/NVLAP Quality Assurance Program for the identification of bulk samples. Laboratory identification number shall be submitted to and approved by the City.
- D. Air monitoring responsibilities for the asbestos abatement contractor's employees, shall be performed by a representative of the industrial hygiene laboratory retained by the asbestos abatement contractor.
- E. Asbestos abatement contractor shall submit to the City all credentials of the designated (as defined in OSHA 1926.1101) and industrial hygiene laboratory representative for approval.
- F. Air monitoring and inspection shall be conducted by the Asbestos abatement contractor's competent person (as defined in OSHA 1926.1101).
- G. Continuous (daily or per shift) monitoring and inspection will include Work Area samples, personnel samples from the breathing zone of a worker to accurately determine the employees' 8-hour TWA (unless Type C respirators are used) and decontamination unit clean room samples.
- H. Work Area samples and employee personnel samples shall be taken using pumps whose flow rates can be determined to an accuracy of +5-percent, at a minimum of two liters per minute. This must be demonstrated at the job site.
- I. Sampling and analysis methods shall be per NIOSH 7400A.
- J. Test Reports:
 - 1. Promptly process and distribute one copy of the test results, to the Commissioner.
 - 2. Prompt reports are necessary so that if required, modifications to work methods and/or practices may be implemented as soon as possible.
 - 3. Asbestos abatement contractor shall by facsimile notify the Commissioner within 24 hours of the results of each test, followed by written notification within three days.

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- K. Competent person shall conduct inspections and provide written reports daily. Inspections will include checking the standard operating procedures, engineering control systems, respiratory protection and decontamination systems, packaging and disposal of asbestos waste, and any other aspects of the project which may affect the health and safety of the people and environment.
- L. All costs for required air monitoring by the asbestos abatement contractor's competent person shall be borne by the asbestos abatement contractor.
- M. The City reserves the right to conduct air and surface dust sampling in conjunction with and separate from the Third-Party Air Monitor for the purposes of Quality Assurance.
- N. All samples shall be accompanied by a Chain of Custody Record that shall be submitted to the Construction Project Manager upon completion of analysis.

1.18 THIRD PARTY MONITORING AND LABORATORY

- A. The NYCDDC, at its own expense, will employ the services of an independent Third Party Air Monitoring Firm and Laboratory. The Third Party Air Monitor will perform air sampling activities and project monitoring at the Work Site.
- B. The Laboratory will perform analysis of air samples utilizing Phase Contrast Microscopy (PCM) and/or Transmission Electron Microscopy (TEM). This laboratory shall meet the standards stated in Paragraph 1.17. B.
- C. Observations will include, but not be limited to, checking the standard operating procedures, engineering control systems, respiratory protection, decontamination systems, packaging and disposal of asbestos waste, and any other aspects of the project that may affect the health and safety of the environment, Asbestos abatement contractor, and/or facility occupants.
- D. The Third Party Air Monitoring Firm and the designated Project Monitor shall have access to all areas of the asbestos removal project at all times and shall continuously inspect and monitor the performance of the asbestos abatement contractor to verify that said performance complies with this Specification. The Third-Party Air Monitor shall be on site throughout the entire abatement operation.
- E. The NYCDDC will be responsible for costs incurred with the Third Party Air Monitoring Firm and laboratory work. Any subsequent additional testing required due to limits exceeded during initial testing shall be paid for by the Asbestos abatement contractor.
- F. At a minimum, air sampling shall be conducted in accordance with the following schedule:

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Abatement Activity	Pre-Abatement	During Abatement	Post-Abatement
Equal to or greater than 10,000 square feet or 10,000 linear feet of ACM	PCM	PCM	TEM
Less than 10,000 square feet or 10,000 linear feet of ACM	PCM	PCM	PCM

Note: TEM is acceptable wherever PCM is required.

G. The number of air samples required per stage of abatement and size of abatement project is listed in the table below:

		Pre-Abatement	During Abatement	Post Abatement
Large Asbestos Projects				
1.	Full Containment	10	5	10
2.	Glovebag inside Tent	5 ^a	5 ^a	5 ^a
3.	Exterior Foam and Vertical Surfaces	-	5 ^c	5 ^d
4.	Interior Foam	10	5 ^c	10 ^d
Small Asbestos Projects				
1.	Full Containment	6	3	6
2.	Glovebag inside Tent	3 ^b	3 ^b	3 ^b
3.	Tent	3 ^b	3 ^b	3 ^b
4.	Exterior Foam and Vertical Surfaces	-	3 ^c	3 ^d
5.	Interior Foam	6	3 ^c	6 ^d
Minor Projects				
1.	Glovebag inside Tent	-	-	1 ^d
2.	Tent	-	-	1 ^d
3.	Exterior Foam and Vertical Surfaces	-	-	1 ^d
4.	Interior Foam	-	-	1 ^d

Notes:

- a. if more than three (3) tents then two (2) samples required per enclosure.
- b. if more than three (3) tents then one (1) sample required per enclosure.
- c. samples shall be taken within the work area(s).
- d. area sampling is required only if:
 - visible emissions are detected during the project
 - during-abatement area sampling results exceeded 0.01 f/cc or the pre-abatement area sampling result(s) for interior projects where applicable.

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- work area to be reoccupied is an interior space at a school, healthcare, or daycare facility.

- H. Prior to commencement of abatement activities, the Third Party Air Monitoring Firm will collect a minimum number of area samples inside each homogeneous work area.
1. Samples will be taken during normal occupancy activities and circumstances at the work site.
 2. Samplers shall be located within the proposed work area and at all proposed isolation barrier locations.
 3. Samples shall be analyzed using PCM.
 4. The number of samples to be collected will be determined by the size of the project and the abatement methods to be utilized.
- I. Frequency and duration of the air sampling during abatement shall be representative of the actual conditions during the abatement. The size of the asbestos project will be a factor in the number of samples required to monitor the abatement activities. The following minimum schedule of samples shall be required daily.
1. For large asbestos projects employing full containment, area air sampling shall be performed at the following locations:
 - a. Two area samples outside the work area in uncontaminated areas of the building, remote from the decontamination facilities.
 - (1) Primary location selection shall be within 10 feet of isolation barriers.
 - (2) Where negative ventilation exhaust runs through uncontaminated building areas, one of the area samples will be required in these areas to monitor any potential fiber release.
 - (3) Where exhaust tubes have been grouped together in banks of up to five (5) tubes, with each tube exhausting separately and the bank of tubes terminating together at the same controlled area, one area air sample shall be taken.
 - b. One area sample within the uncontaminated entrance to each decontamination enclosure system.
 - c. Where adjacent non-work areas do not exist, an exterior area sample shall be taken.

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- d. One area sample within 5 feet of the unobstructed exhaust from a negative pressure ventilation system exhausting indoors but not within a duct.
 - e. One area sample outside, but within 25 feet of, the building or structure, if the entire building or structure is the work area.
2. For large asbestos projects involving interior foam method, area air sampling shall be performed at the following sampling locations:
- a. One area sample taken outside the work area within 10 feet of isolation barriers.
 - b. One area sample taken within the uncontaminated entrance to each worker decontamination and waste decontamination enclosure system.
 - c. One area sample within 5 feet of the unobstructed exhaust from a negative pressure ventilation system exhausting indoors but not within a duct, if applicable.
 - d. Three area samples inside the work area.
 - e. One area sample where the negative ventilation exhaust ducting runs through uncontaminated building areas, if applicable.
3. For large asbestos projects employing the glovebag procedure within a tent, a minimum of five continuous air samples shall be taken concurrently with the abatement for each work area, unless there are more than three enclosures, in which case two area samples per enclosure are required.
- a. Four area samples taken outside the work area within ten feet of tent enclosure(s).
 - b. One area sample taken within the uncontaminated entrance to each worker and waste decontamination enclosure system.
 - c. One area sample within five feet of the unobstructed exhaust from a negative pressure ventilation system exhausting indoors, but not within a duct, if applicable.
 - d. One area sample where negative ventilation exhaust ducting runs through uncontaminated building areas, if applicable.

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4. For large asbestos projects involving exterior foam method or removal of ACM from vertical surfaces, a minimum of five continuous area samples shall be taken concurrently with the abatement for each work area using the following minimum requirements:
 - a. Three area samples inside the work area and remote from the decontamination systems.
 - b. One area sample within the uncontaminated entrance to each worker and waste decontamination enclosure system.
 - c. One area sample outside the work area within 25 feet of the building or structure, if the entire building or structure is the work area.
 - d. One area sample inside the building or structure at the egress point to the work area, if applicable.

5. For small asbestos projects employing full containment, a minimum of three continuous area samples shall be taken concurrently with the abatement for each work area at the following locations:
 - a. Two area samples taken outside the work area within ten feet of the isolation barriers.
 - b. One area sample within the uncontaminated entrance to each worker or waste decontamination enclosure system.
 - c. One area sample within five feet of the unobstructed exhaust from a negative pressure ventilation system exhausting indoors, but not within a duct, if applicable.
 - d. One area sample where negative ventilation exhaust ducting runs through an uncontaminated building area, if applicable.

6. Tent Procedures:

For projects involving more than 25 linear feet or 10 square feet, a minimum of three continuous samples shall be taken concurrently throughout abatement.

- J. Post-abatement clearance air monitoring for projects not solely employing glove-bag procedures shall include a minimum number of area samples inside each homogeneous work area and outside each homogeneous work area (five samples inside/five samples outside for Large Projects and three samples inside/three samples outside for Small Projects). In addition to the five sample inside/five sample outside minimum for Large Projects, one additional representative area sample shall be collected inside and outside the work area for every 5,000 square feet above 25,000 square feet of floor space where ACM has been abated.

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- K. Post-abatement clearance air monitoring for Small Projects solely employing glove-bag procedures is not required unless one or more of the following events occurs. In such cases, post-abatement clearance air monitoring procedures shall be followed. The events requiring post-abatement clearance air monitoring are:
1. The integrity of the glove-bag was compromised,
 2. Visible emissions are detected outside the glove-bag, and/or
 3. Ambient levels exceed 0.01 f/cc during abatement.
- L. Monitoring requirements for other than post-abatement clearance air monitoring are as follows:
1. The sampling zone for indoor air samples shall be representative of the building occupants' breathing zone.
 2. If possible, outdoor ambient and baseline samplers should be placed about 6 feet above the ground surface in reasonable proximity to the building and away from obstructions and drafts that may unduly affect airflow.
 3. For outdoor samples, if access to electricity and concerns about security dictate a rooftop site, locations near vents and other structures on the roof that would unduly affect airflow shall be avoided.
 4. Air sampling equipment shall not be placed in corners of rooms or near obstructions such as furniture.
 5. Samples shall have a chain of custody record.
- M. Area air sampling during abatement shall be conducted as specified in the following documents except as restricted or modified herein:
1. Measuring Airborne Asbestos Following an Abatement Action, US EPA document 600/4-85-049 (Nov., 1985);
 2. Guidance for Controlling Asbestos-Containing Materials in Buildings; US EPA Publication 560/5-85- 024 (June, 1984);
 3. Methodology for the Measurement of Airborne Asbestos by Electron Microscopy US EPA Contract No. 68-02- 3266;
 4. Mandatory and non-mandatory Electron Microscopy Methods set forth in 40 CFR Part 763, Subpart E, Appendix A.
 5. NIOSH 7400 method using "A" counting rules

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N. In accordance with the above criteria, area samples (see NYCDEP Asbestos Control Program Regulations) shall conform to the following schedule:

Area Samples for Analysis by	Minimum Volume	Flow Rate
PCM, 25mm cassettes	560 liters	5 to 15 liters/minute
TEM, 25mm cassettes	560 liters	1 to 10 liters/minute
TEM, 37mm cassettes	1,250 liters	1 to 10 liters/minute

O. Post-abatement clearance air monitoring requirements are as follows:

1. Sampling shall not begin until at least one hour after wet cleaning has been completed and no visible pools of water or condensation remain.
2. Samplers shall be placed at random around the work area. If the work area contains the number of rooms equivalent to the number of required samples based on floor area, a sampler shall be placed in each room. When the number of rooms is greater than the required number of samples, a representative sample of rooms shall be selected.
3. The representative samplers placed outside the work area but within the building shall be located to avoid any air that might escape through the isolation barriers and shall be approximately 50 feet from the entrance to the work area, and 25 feet from the isolation barriers.

P. The following aggressive sampling procedures shall be used within the work area during all clearance air monitoring:

1. Before starting the sampling pumps, use forced air equipment (such as a one horsepower leaf blower) to direct exhaust air against all walls, ceilings, floors, ledges and other surfaces in the work area. This pre-sampling procedure shall take at least five minutes per 1,000 square feet of floor area; then
2. Place a 20-inch diameter fan in the center of the room. Use one fan per 10,000 cubic feet of room space. Place the fan on slow speed and point it toward the ceiling.
3. Start the sampling pumps and sample for the required time or volume.
4. Turn off the pump and then the fan(s) when sampling is completed.

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5. Collect a minimum number of area samples inside and outside each homogeneous work area (five inside/five outside samples for Large Projects and three inside/three outside samples for Small Projects). In addition to the minimum for Large Projects, one representative area samples shall be collected inside and outside the work area for every 5,000 square feet above 25,000 square feet of floor space where ACM has been abated.

Q. For post-abatement monitoring, area samples shall conform to the following schedule:

Area Samples for Analysis by	Minimum Volume	Flow Rate
PCM	1,800 liters	5 to 15 liters/minute
TEM	1,250 liters	1 to 10 liters/minute

1. Each homogeneous work area that does not meet the clearance criteria shall be thoroughly re-cleaned using wet methods, with the negative pressure ventilation system in operation. New samples shall be collected in the work area as described above. The process shall be repeated until the work site meets the clearance criteria.
2. For an asbestos project with more than one homogeneous work area, the release criterion shall be applied independently to each work area.
3. Should airborne fiber concentrations exceed the clearance criteria, the asbestos abatement contractor shall re-clean the work area utilizing wet wiping and HEPA-vacuuuming techniques. Following completion of re-cleaning activities, the Third-Party Air Monitor will perform an observation of the Work Area. If the Third-Party Air Monitor determines that the work was performed in accordance with the specifications, the appropriate settling period will be observed and additional air sampling will be performed.
4. All costs resulting from additional air tests and observations shall be borne by the asbestos abatement contractor. These costs may include, but are not limited to, labor, analysis fees, materials, and expenses.
5. After the area has been found to be in compliance, the asbestos abatement contractor may remove Isolation Barriers and perform final cleaning as specified.

R. Clearance and/or Re-occupancy Criteria:

1. The clearance criteria shall be applied to each homogeneous work area independently.

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2. For PCM analysis, the clearance air monitoring shall be considered satisfactory when each of the 5 inside/5 outside samples for Large Projects and/or 3 inside/3 outside samples for Small Projects is less than or equal to 0.01 f/cc or the background concentrations, whichever is greater.
3. For TEM analysis, the clearance air monitoring shall be considered satisfactory when the requirements stated in 40 CFR Part 763, Subpart E, Appendix A, Section IV are met.
4. As soon as the air monitoring tests are completed, the Third-Party Air Monitor will send the results of such tests to the City and notify the Asbestos abatement contractor.
5. The asbestos abatement contractor shall initiate the appropriate closeout information into the DEP ARTS database within 24 hours of work area completion to allow the Third Party Air Monitoring Firm to complete and submit the ACP-15 forms for each specific work area.
6. The asbestos abatement contractor shall provide the ACP-20 and ACP-21 forms to the Third Party Air Monitoring Firm within 48 hours of receipt.

1.19 TAMPERING WITH TEST EQUIPMENT

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

1.20 GUARANTEE

- A. Work performed in compliance with this Contract shall be guaranteed for a period of one year from the date the completed work is accepted by the City.
- B. The asbestos abatement contractor shall not be held liable for the guarantee where the repair required under the guarantee is a result of obvious abuse or vandalism, as determined by the Commissioner.
- C. The City will notify the asbestos abatement contractor in writing regarding defects in work under the guarantee.

PART 2 – PRODUCTS

2.01 MATERIAL HANDLING

- A. Deliver all materials to the job site in their manufacturer's original container, with the manufacturer's label intact and legible.

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1. Maintain packaged materials with seals unbroken and labels intact until time of use.
 2. Store all materials on pallets, away from any damp and/or wet surface. Cover materials in order to prevent damage and/or contamination.
 3. Promptly remove damaged materials and unsuitable items from the job site, and promptly replace with material meeting the specified requirements, at no additional cost to the City.
- B. The Construction Project Manager may reject as non-complying such material and products that do not bear identification satisfactory to the Construction Project Manager as to manufacturer, grade, quality and other pertinent information.

2.02 MATERIALS

- A. Wetting agents: (Surfactant) shall consist of resin materials in a water base, which have been tested to ensure materials are non-toxic and non-hazardous. Surfactants shall be installed according to the manufacturer's written instructions.
- B. Encapsulants: Liquid material which can be applied to asbestos-containing material which temporarily controls the possible release of asbestos fibers from the material or surface either by creating a membrane over the surface (bridging encapsulant) or by penetrating into the material and binding its components together (penetrating encapsulant). A thin coat of lockdown encapsulant shall be applied to all surfaces in the work area which were not the subject of removal or abatement, including the cleaned layer of the surface barriers, but excepting sprinklers, standpipes, and other active elements of the fire suppression system.
- C. During abatement activities, replacement materials shall be stored outside the work area in a manner to prevent contamination. Materials required for the asbestos project (i.e., plastic sheeting, replacement filters, duct tape, etc.) shall be stored to prevent damage or contamination.
- D. Framing Materials and Doors: As required to construct temporary decontamination facilities and isolation barriers. Lumber shall be high grade, new, finished one side and fire retardant.
- E. Fire Retardant Polyethylene Sheeting: minimum uniform thickness of 6-mil. Provide largest size possible to minimize seams. All materials used in the construction of temporary enclosures shall be noncombustible or fire-retardant in accordance with NFPA 701 and 255.
- F. Fire Retardant Reinforced Polyethylene Sheeting: For covering floor of decontamination units, provide translucent, nylon reinforced or woven polyethylene laminated, fire retardant polyethylene sheeting. Provide largest size possible to minimize seams, minimum uniform thickness 6-mil. All materials used

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in the construction of temporary enclosures shall be noncombustible or fire-retardant in accordance with NFPA 701 and 255.

- G. Drums: Asbestos-transporting drums, sealable and clearly marked with warning labels as required by OSHA and EPA.
- H. Polyethylene Disposal Bags: Asbestos disposal bags, minimum of fire retardant 6-mil thick. Bags shall be clearly marked with warning labels as required by OSHA and EPA.
- I. Signs: Asbestos warning signs for posting at perimeter of Work Area, as required by OSHA and EPA.
- J. Waste Container Bag Liners and Flexible Trailer Trays: One piece leak-resistant flexible tray with absorbent pad.
- K. Tape: Provide tape which is of high quality with an adhesive that is formulated to aggressively stick to sheet polyethylene.
- L. Spray Adhesive: Provide spray adhesive in aerosol cans which is specifically formulated to stick tenaciously to sheet polyethylene.
- M. Flexible Duct: Spiral reinforced flex duct for air filtration devices.
- N. Protective Clothing: Workers shall be provided with sufficient sets of properly fitting, full-body, disposable coveralls, head covers, gloves, and 18-inch high boot-type foot covers. Protective clothing shall conform to OSHA Standard 29 CFR 1926.1101.
- O. Surfactants, strippers, sealers, or any other chemicals used shall be non-carcinogenic and non-toxic.
- P. Materials used in the construction of temporary enclosures shall be noncombustible or fire-retardant in accordance with NFPA 701 and 255.

2.03 TOOLS AND EQUIPMENT

- A. Air Filtration Device (AFD): AFDs shall be equipped with High Efficiency Particulate Air (HEPA) filtration systems and shall be approved by and listed with Underwriter's Laboratory.
- B. Scaffolding: All scaffolding shall be designed and constructed in accordance with OSHA (29 CFR 1926/1910), New York City Building Code, and any other applicable federal, state and local government regulations. Whenever there is a conflict or overlap of the above references the most stringent provisions are applicable. All scaffolding and components shall be capable of supporting without failure a minimum of four times the maximum intended load, plus an allowance

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for impact. All scaffolding and staging must be certified in writing by a Professional Engineer licensed to practice in the State of New York.

1. Equip rungs of all metal ladders, etc., with an abrasive, non-slip surface.
 2. Provide non-skid surface on all scaffold surfaces subject to foot traffic. Scaffold ends and joints shall be sealed with tape to prevent penetration of asbestos fibers.
- C. Transportation Equipment: Transportation Equipment, as required, shall be suitable for loading, temporary storage, transit and unloading of asbestos contaminated waste without exposure to persons or property. Any temporary storage containers positioned outside the building for temporary storage shall be metal, closed and locked.
- D. Vacuum Equipment: All vacuum equipment utilized in the Work Area shall utilize HEPA filtration systems.
- E. Vacuum Attachments: Soft Brush Attachment, Asbestos Scraper Tool, Drill Dust Control Kit.
- F. Electric Sprayer: An electric airless sprayer suitable for application of encapsulating material and shall be approved by and listed with Underwriters Laboratory.
- G. Water Sprayer: The water sprayer shall be an airless or other low-pressure sprayer for amended water application.
- H. Water Atomizer: Powered air-misting device equipped with a ground fault interrupter and equipped to operate continuously.
- I. Brushes: All brushes shall have nylon bristles. Wire brushes are excluded from use due to their potential to shred asbestos fibers into small, fine fibers. Wire brushes maybe used for cleaning pipe joints within glove-bags upon written approval of the Construction Project Manager.
- J. Power tools used to drill, cut into, or otherwise disturb ACM shall be manufacturer-equipped with HEPA filtered local exhaust ventilation. Abrasive removal methods, including the use of beadblasters, are prohibited.
- K. Other Tools and Equipment: Asbestos abatement contractor shall provide other suitable tools for the stripping, removal, encapsulation, and disposal activities including but not limited to: hand-held scrapers, sponges, rounded-edge shovels, brooms, and carts.

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- L. Fans and Leaf Blower: Provide Leaf Blower (one leaf blower per floor) and one 20-inch diameter fans for each 10,000 cubic feet of Work Area volume to be used for aggressive sampling technique for clearance air testing.
- M. Fire Extinguishers: At least one fire extinguisher with a minimum rating 2-A:10-B:C shall be required for each work place. In the case of large asbestos projects, at least two such fire extinguishers shall be required.
- N. First Aid Kits: Asbestos abatement contractor shall maintain adequately stocked first aid kits in the clean rooms of the decontamination units and within Work Areas. The first aid kit shall be approved by a licensed physician for the work to be performed under this Contract.
- O. Water Service:
 - 1. Temporary Water Service Connection: All connections to the Facilities water system shall include back flow protection. Valves shall be temperature and pressure rated for operation of the temperature and pressures encountered. After completion of use, connections and fittings shall be removed without damage or alteration to existing water piping, and equipment. Leaking or dripping fittings/valves shall be repaired and or replaced as required.
 - 2. Water Hoses: Employ new heavy-duty abrasion-resistant hoses with a pressure rating greater than the maximum pressure of the water distribution system to provide water into each Work Area and to each Decontamination Enclosure Unit. Provide fittings as required for connection to existing wall hydrants or spouts, as well as temporary water heating equipment, branch piping, showers, shut-off nozzles and equipment.
 - 3. Water Heater: Provide UL rated 40-gallon electric water heaters to supply hot water for Personal Decontamination Enclosure System Shower. Activate from 30 Amp Circuit breakers located within the Decontamination Enclosure sub panel. Provide relief valve compatible with water heater operations, pipe relief valve down to drip pan at floor level with type 'L' copper piping. Drip pans shall be 6-inch deep and securely fastened to water heater. Wiring of the water heater shall comply with NEMA, NECA, and UL standards.
- P. Electrical Service:
 - 1. General: Comply with applicable NEMA, NECA and UL standards and governing regulations for materials and layout of temporary electric service.
 - 2. Temporary Power: Provide service to decontamination unit sub panel with minimum 60 AMP, two pole circuit breaker or fused disconnect connected to the building's main distribution panel. Sub panel and disconnect shall be

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sized and equipped to accommodate all electrical equipment required for completion of the work.

3. Voltage Differences: Provide identification warning signs at power outlets that are other than 110-120 volt power. Provide polarized outlets for plug-in type outlets, to prevent insertion of 110-120 volt plugs into higher voltage outlets. Dry type transformers shall be provided where required to provide voltages necessary for work operations.
4. Ground Fault Protection: Equip all circuits for any purpose entering Work Area with ground fault circuit interrupters (GFCI). Locate the GFCIs outside the Work Area so that all circuits are protected prior to entry to Work Area. Provide circuit breaker type ground fault circuit interrupters (GFCI) equipped with test button and reset switch for all circuits to be used for any purpose in Work Area, decontamination units, exterior, or as otherwise required by NEC, OSHA or other authority.
5. Power Distribution System: Provide circuits of adequate size and proper characteristics for each use. In general run wiring overhead, and rise vertically where wiring will be least subject to damage from operations.
6. Temporary Wiring: In the Work Area shall be type UF non-metallic sheathed cable located overhead and exposed for surveillance. Provide liquid tight enclosures or boxes for all wiring devices. Do not wire temporary lighting with plain, exposed (insulated) electrical conductors.
7. Electrical Power Cords: Use only grounded extension cords; use hard service cords where exposed to traffic and abrasion. Use single lengths of cords only.
8. Temporary Lighting: All lighting within the Work Area shall be liquid and moisture proof and designed for the use intended.
 - a. Provide sufficient temporary lighting to ensure proper workmanship everywhere; by combined use of daylight, general lighting, and portable plug-in task lighting.
 - b. Provide lighting in the Decontamination Unit as required to supply a minimum 50-foot candle light level.
9. If electrical circuits, machinery, and other electrical systems in or passing through the work area must stay in operation due to health and safety requirements, the following precautions must be taken:
 - a. All unprotected cables, except low-voltage (less than 24 volts) communication and control system cables, panel boxes of cables and joints in live conduit that run through the work area shall be covered

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with three (3) independent layers of six (6) mil fire retardant polyethylene. Each layer shall be individually duct taped and sealed. All three (3) layers of polyethylene sheeting shall be left in place until satisfactory clearance air sampling results have been obtained.

2.04 CLEANING

- A. Throughout the construction period, the asbestos abatement contractor shall maintain the building as described in this Section.
1. The asbestos abatement contractor shall prevent building areas other than the Work Area from becoming contaminated with asbestos-containing dust or debris. Should areas outside the Work Area become contaminated with asbestos-containing dust or debris as a consequence of the asbestos abatement contractor's work practices, the asbestos abatement contractor shall be responsible for cleaning these areas in accordance with the procedures appended in Title 15, Chapter 1 of RCNY and NYS DOL ICR56. All costs incurred in cleaning or otherwise decontaminating non-Work Areas and the contents thereof shall be borne by the asbestos abatement contractor at no additional cost to the City.
 2. The asbestos abatement contractor shall provide to all personnel and laborers the required equipment and materials needed to maintain the specified standard of cleanliness.
- B. General
1. Waste water from asbestos removal operations, including shower water, may be discharged into the public sewer system only after approved filtration is on operation to remove asbestos fibers.
 2. Asbestos wastes shall be double bagged in six mil (.006") fire retardant polyethylene bags approved for ACM disposal and shall be properly labeled and handled before disposal.
 3. All waste generated shall be bagged, wrapped or containerized immediately upon removal. The personal and waste decontamination enclosure systems and floor and scaffold surfaces shall be HEPA vacuumed and wet cleaned at the end of each work shift at a minimum.
 4. The asbestos abatement contractor shall use corrugated cartons or drums for disposal of asbestos-containing waste having sharp edged components (e.g., nails, screws, metal lathe and tin sheeting) that may tear polyethylene bags and sheeting. The waste within the drums or cartons must be double bagged.

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5. The asbestos abatement contractor shall transport all bags of waste to disposal site in thirty gallon capacity metal or fiber drums with tight lids, or in locked steel dumpster.
6. Dumping of debris, waste or bagged waste will not be permitted.
7. The waste decontamination enclosure system shall be wet cleaned twice using wet cleaning methods upon completion of waste removal. When the worker decontamination enclosure shower room alternates as a waste container wash room, the shower room shall be washed immediately with cloths or mops saturated with a detergent solution prior to wet cleaning.
8. Excessive water accumulation or flooding in the work area shall require work to stop until the water is collected and disposed of properly.
9. ACM shall be collected utilizing rubber dust pans and rubber squeegees.
10. HEPA vacuums shall not be used on wet materials unless specifically designed for that purpose.
11. Metal shovels shall not be used within the work area.
12. Mastic solvent when used will be applied in moderation (e.g., by airless sprayer). Saturation of the concrete floor with mastic solvent must be avoided.
13. The asbestos abatement contractor shall retain all items in the storage area in an orderly arrangement allowing maximum access, not impeding traffic, and providing the required protection of all materials.
14. The asbestos abatement contractor shall not allow accumulation of scrap, debris, waste material, and other items not required for use in this work. When asbestos contaminated waste must be kept on the work site overnight or longer, it shall be double bagged and stored in accordance with New York City Department of Sanitation (NYCDOS) regulation Title 16 Chapter 8, and Federal, State and City laws.
15. At least twice a week (more if necessary), the asbestos abatement contractor shall completely remove all scrap, debris and waste material from the job site.
16. The asbestos abatement contractor shall provide adequate storage space for all items awaiting removal from the job site, observing all requirements for fire protection and concerns for the environment.
17. All respiratory protection equipment shall be selected from the latest NIOSH Certified Equipment list.

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18. Daily and more often, if necessary, the asbestos abatement contractor shall inspect the Work Areas and adjoining spaces, and pick up all scrap, debris, and waste material. All such items shall be removed to the place designated for their storage.
19. Weekly, and more often, if necessary, the asbestos abatement contractor shall inspect all arrangements of materials stored on the site; re-stack and tidy them or otherwise service them to meet the requirements of these Specifications.
20. The asbestos abatement contractor shall maintain the site in a neat and orderly condition at all times.

PART 3 – EXECUTION

3.01 WORKER DECONTAMINATION FACILITY

A. Large Asbestos Projects (Small Project Option):

1. Provide a worker decontamination facility in accordance with, Title 15, Chapter 1, OSHA Standard 29 CFR 1926.1101, 12NYCRR Part 56 and as specified herein. Unless approved by NYCDEP and the City, worker decontamination facilities shall be attached to the Work Areas
 - a. Structure:
 - (1) Use modular systems or build using wood or metal frame studs, joists, and rafters placed at a maximum of 16 inches on-center.
 - (2) When worker decontamination unit is located outdoors, in areas with public access, or in correctional facilities, frame work shall be lined with minimum 3/8" thickness fire rated plywood sheathing. Sheathing shall be caulked or taped airtight at all joints and seams.
 - (3) Interior shall be covered with two layers of fire retardant 6-mil polyethylene sheeting, with a minimum overlap of 12 inches at seams. Seal seams airtight using tape and adhesive. The interior floor shall be covered with two (2) layers of reinforced fire-retardant polyethylene sheeting with a minimum overlap on the walls of twelve inches.
 - (4) Entrances to the decontamination unit shall be secured with lockable hinged doors. Doors shall be open at all times when abatement operations are in progress. Doors shall be louvered

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to allow for air movement through the decontamination units into Work Area.

- b. Curtained Doorways: A device to allow ingress or egress from one room to another while permitting minimal air movement between the rooms.
- c. Air Locks: Air locks shall consist of two curtained doorways placed a minimum of three feet apart.
- d. Decontamination Enclosure System shall be placed adjacent to the Work Area and shall consist of three totally enclosed chambers, separated from Work Area and each other by airlocks, as follows:
 - (1) Equipment Room: The equipment room shall have a curtain doorway to separate it from the Work Area, and share a common airlock with the shower room. The equipment room shall be large enough to accommodate at least one worker (allowing them enough room to remove their protective clothing and footwear), and a fire retardant 6-mil disposal bag for collection of discarded clothing and equipment. The equipment room shall be utilized for the storage of equipment and tools after decontamination using a HEPA-vacuum and/or wet cleaning. A one-day supply of replacement filters, in sealed containers, for HEPA-vacuums and negative air machines, extra tools, containers of surfactant, and other materials and equipment required for the project shall be stored here. A walk-off pan filled with water shall be placed in the Work Area just outside the equipment room for persons to clean foot coverings when leaving the Work Area. Contaminated footwear and reusable work clothing shall be stored in this room.
 - (2) Shower Room: The shower room shall have two airlocks (one that separates it from the equipment room and one that separates it from the clean room). The shower room shall contain at least one shower, with hot and cold water adjustable at the tap, per six workers. Careful attention shall be given to the shower to ensure against leaking of any kind and shall contain a rigid catch basin at least six inches deep. Asbestos abatement contractor shall supply towels, shampoo and liquid soap in the shower room at all times. Shower water shall be continuously drained, collected, and filtered through a system with at least a 5-micron particle size collection capacity. A system containing a series of several filters with progressively smaller pore sizes shall be used to avoid rapid clogging of the filters by large particles. Pumps shall be installed, maintained

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and utilized in accordance with manufacturer's recommendations. Filtered water shall be discharged in accordance with applicable codes. Contaminated filters shall be disposed of as asbestos waste.

- (3) Clean Room: The clean room shall share a common airlock with the shower room and shall have a curtained doorway to separate it from outside non-contaminated areas. Lockers, for storage of workers' street clothing, and shelves, for storing respirators, shall be provided in this area. Clean disposable clothing, replacement filters for respirators, and clean dry towels shall be provided in the clean room. The clean room shall not be used for the storage of tool, equipment or other materials.

B. Small Asbestos Projects:

1. Provide a worker decontamination facility in accordance with, Title 15, Chapter 1, OSHA Standard 29 CFR 1926.1101, 12NYCRR Part 56 and as specified herein. Unless approved by NYCDEP and the City, worker decontamination facilities shall be attached to the Work Areas.
2. The worker decontamination enclosure system shall consist of, as a minimum, an equipment room, a shower room, and a clean room separated from each other and from the work area by curtained doorways. The equipment storage, personnel gross decontamination and removal of disposal clothing shall occur in the equipment room prior to entering the shower. All other requirements shall be the same as described above for a large asbestos project.
3. For small asbestos projects with only one exit from the work area, the shower room may be used as a waste washroom. The clean room shall not be used for waste storage. All other requirements shall be the same as described above for a large asbestos project.

- C. Decontamination Enclosure System Utilities: Lighting, heat, and electricity shall be provided as necessary by the Asbestos abatement contractor, and as specified herein.

3.02 WASTE DECONTAMINATION FACILITY

A. Large Asbestos Project (Small Project Option)

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

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- a. Structure:
- (1) Use modular systems or build using wood or metal frame studs, joists, and rafters placed at a maximum of 16 inches on-center.
 - (2) When worker decontamination unit is located outdoors, in areas with public access, or in correctional facilities, frame work shall be lined with minimum 3/8" thickness fire rated plywood sheathing. Sheathing shall be caulked or taped airtight at all joints and seams.
 - (3) Interior walls shall be covered with two layers of fire retardant 6-mil polyethylene sheeting, with a minimum overlap of 12 inches at seams. Seal seams airtight using tape and adhesive. The interior floor shall be covered with two (2) layers of reinforced fire-retardant polyethylene sheeting with a minimum overlap on the walls of twelve inches.
 - (4) Entrances to the decontamination unit shall be secured with lockable hinged doors. Doors shall be open at all times when abatement operations are in progress. Doors shall be louvered to allow for air movement through the decontamination units into the Work Area.
- b. Curtained Doorways: A device to allow ingress or egress from one room to another while permitting minimal air movement between the rooms.
- c. Air Locks: Air locks shall consist of two curtained doorways placed a minimum of three feet apart.
- d. Decontamination Enclosure System shall be located outside the work area and attached to all locations through which ACM waste will be removed from the work area and shall consist of two totally enclosed chambers, separated from the Work Area and each other by airlocks, as follows:
- (1) Washroom: An equipment washroom shall have two air locks (one separating the unit from the Work Area and one common air lock that separates it from the holding area). The washroom shall have facilities for washing material containers and equipment. Gross removal of dust and debris from contaminated material containers and equipment shall be accomplished in the Work Area, prior to moving to the washroom.

- (2) Holding Area: A holding area shall share a common air lock with the equipment washroom and shall have a curtained doorway to outside areas. A hinged, lockable door shall be placed at the holding area entrance to prevent unauthorized access into the Work Area.

B. Small Asbestos Project:

1. The worker decontamination enclosure system shall consist of, as a minimum, an equipment room, a shower room, and a clean room separated from each other and from the work area by curtained doorways. The equipment storage, personnel gross decontamination and removal of disposal clothing shall occur in the equipment room prior to entering the shower. All other requirements shall be the same as described above for a large asbestos project.
2. For small asbestos projects with only one exit from the work area, the shower room may be used as a waste washroom. The clean room shall not be used for waste storage. All other requirements shall be the same as described above for a large asbestos project.

- C. Decontamination Enclosure System Utilities: Lighting, heat, and electricity shall be provided as necessary by the Asbestos abatement contractor, and as specified herein.

3.03 PERSONNEL ENTRANCE AND DECONTAMINATION PROCEDURES FOR REMOVAL OPERATIONS UTILIZING REMOTE DECONTAMINATION FACILITIES

- A. All individuals who enter the Work Area shall sign the entry log, located in the clean room, upon each entry and exit. The log shall be permanently bound and shall fully identify the facility, agents, asbestos abatement contractor(s), the project, each Work Area, and worker respiratory protection employed. The job supervisor shall be responsible for the maintenance of the log during the abatement activity. The log shall be submitted to the NYC DDC within 48 hours of request.
- B. Each worker shall remove street clothes in the clean room; wear two disposable suits, including gloves, hoods and non-skid footwear; and put on a clean respirator (with new filters) before entering the Work Area.
- C. Each worker shall, before leaving the Work Area or tent, clean the outside of the respirators and outer layer of protective clothing by wet cleaning and/or HEPA-vacuuuming. The outer disposable suit shall be removed in the airlock prior to proceeding to the Worker Decontamination Unit. The inner disposable suit and respirator shall be wet wiped and HEPA vacuumed thoroughly before removing and prior to aggressive shower.

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

3.04 PERSONNEL ENTRANCE AND DECONTAMINATION PROCEDURES FOR REMOVAL OPERATIONS UTILIZING ATTACHED DECONTAMINATION FACILITIES

- A. All workers and authorized visitors shall enter the Work Area through the worker decontamination facility.
- B. All individuals who enter the Work Area shall sign the entry log, located in the clean room, upon each entry and exit. The log shall be permanently bound and shall identify fully the facility, agents, asbestos abatement contractor(s), the project, each Work Area and worker respiratory protection employed. The site supervisor shall be responsible for the maintenance of the log during the abatement activity. The log shall be submitted to the NYC DDC within 48 hours of request.
- C. Each worker or authorized visitor shall, upon entering the job site, remove street clothes in the clean room and put on a clean respirator with filters, and clean protective clothing before entering the Work Area through the shower room and equipment room.
- D. Each worker or authorized visitor shall, each time he leaves the Work Area, remove gross contamination from clothing before leaving the Work Area; proceed to the equipment room and remove clothing except the respirator; still wearing the respirator, proceed to the shower room; clean the outside of the respirator with soap and water while showering; remove filters, wet them, and dispose of them in the container provided for that purpose; wash and rinse the inside of the respirator; and thoroughly shampoo and wash himself/herself.
- E. Following showering and drying off, each worker or authorized visitor shall proceed directly to the clean room, dress in street clothes, and exit the decontamination enclosure system immediately. Disposable clothing of the type worn inside the Work Area is not permitted outside the Work Area.

3.05 MAINTENANCE OF DECONTAMINATION ENCLOSURE FACILITIES AND BARRIERS

The following procedures shall be followed during abatement activities.

- A. All polyethylene barriers inside the work place and partitions constructed to isolate the Work Area from occupied areas shall be inspected by the asbestos handler supervisor at least twice per shift.

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- B. Smoke tubes shall be used to test the integrity of the Work Area barriers and the decontamination enclosure systems daily before abatement activity begins and at the end of each shift.
- C. Damage and defects in the decontamination enclosure system shall be repaired immediately upon discovery. The decontamination enclosure system shall be maintained in a clean and sanitary condition at all times.
- D. At any time during the abatement activity, if visible emissions are observed, or elevated asbestos fiber counts outside the Work Area are measured, or if damage occurs to barriers, abatement shall stop. The source of the contamination shall be located, the integrity of the barriers shall be restored and extended to include the contaminated area, and visible residue shall be cleaned up using appropriate HEPA-vacuuming and wet cleaning.
- E. Inspections and observations shall be documented in the daily project log by the asbestos handler supervisor.
- F. The daily inspection to ensure that exits have been checked against exterior blockage or impediments to exiting shall be documented in the log book. If exits are found to be blocked, abatement activities shall stop until the blockage is cleared.

3.06 MODIFICATIONS TO HVAC SYSTEMS

- A. Shut down, isolate or seal, all existing HVAC units, fans, exhaust fans, perimeter convection air units, supply and/or return air ducts, etc., situated in, traversing or servicing the work zone.
- B. Seal all seams with duct tap. Wrap entire duct with a minimum of two layers of fire retardant 6-mil polyethylene sheeting. All shutdowns are to be coordinated with the Facility. Where systems must be maintained, i.e., traversing Work Areas to non-Work Areas, only supply ducts will be maintained, protect as described above. All returns must be blanked off in Work Area and adjacent areas, including floor above and below Work Area. When required Asbestos abatement contractor shall apply for a clarification from NYCDEP. The Asbestos abatement contractor shall implement the following engineering procedures:
 - 1. Maintenance of a positive pressure within the HVAC system of 0.01 inch water gauge (or greater) with respect to the ambient pressure outside the Work Area. The conditions for this system shall be maintained and be operational 24 hours per day from the initiation of Work Area preparation until successful final air clearance. Positive pressurization of HVAC system shall be applied only under the direction and control of professional engineer, or other knowledgeable licensed professional;

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2. The positive pressurization of the duct shall be tested, inspected and recorded both at the beginning and at the end of each shift;
 3. The positive pressurization shall be monitored using instrumentation which will provide a written record of pressurization and that will trigger an audible alarm, if the static pressure falls below the set value;
 4. The supply air fan and the supply air damper for the active positive-pressurized duct shall be placed in the manual "on" positions to prevent shutdown by fail-safe mechanisms;
 5. The return air fan and the return air dampers shall be shut down and locked-out;
 6. All the seams of the HVAC ducts that pass through the Work Area shall be sealed;
 7. The HVAC ducts that pass through the Work Area shall be covered with two (2) layers of fire retardant 6-mil polyethylene sheeting, and all seams and edges of both layers shall be sealed airtight;
 8. The supply air fans, return air fans, and all dampers servicing the Work Area itself shall be shut down and locked-out. All openings within the Work Area of supply and return air ducts shall be sealed with 3/8-inch fire rated plywood and two layers of fire retardant 6-mil polyethylene;
 9. When abatement occurs during periods while the HVAC system is shut down an alternative method of pressurization of the duct passing through the Work Area should be employed (e.g., by low-pressure "blowers", etc., directly coupled into the duct). Item #4 above shall be deleted and shall be replaced by the requirement to set the dampers of the HVAC duct in the manual closed positions, in order to effect pressurization.
- C. Asbestos abatement contractor to coordinate this item with the Facility and Construction Project Manager at the commencement of work. Where present HVAC systems (ducts) service an area and that air system cannot be shut down, asbestos abatement contractor shall isolate and seal the ducts, both supply and return, at the boundary of that zone.
1. To isolate, cap, or seal a duct, the asbestos abatement contractor shall remove insulation from duct (if necessary), then disconnect linkage to fold shut all fire dampers. Asbestos abatement contractor shall seal all edges and seams with caulk and duct-tape.
 2. Asbestos abatement contractor shall then cut existing duct and fold metal in and secure with approved fasteners. Asbestos abatement contractor shall caulk and duct-tape all seams and edges.

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3. All ducts shall then be completely wrapped and sealed with duct-tape and three (3) layers of reinforced polyethylene sheeting.
 4. All ducts shall be restored to original working order at the end of the project.
- D. Where present HVAC systems (ducts) service occupied areas (non-Work Areas), the Asbestos abatement contractor shall blank off the ducts.
1. To isolate or seal the return duct, the asbestos abatement contractor shall remove any insulation (if necessary) from the duct. Then disconnect linkage to fold shut all fire dampers and insert a fiberglass board within the duct. Asbestos abatement contractor shall seal all edges and seams with caulk, duct-tape and three (3) layers of reinforced polyethylene sheeting.
 2. All isolation of return ducts and any other activity that requires removal of ceiling by the asbestos abatement contractor shall be conducted under controls. Work is to be coordinated with the Construction Project Manager and the Facility and is described as follows:
 - a. Work shall occur as scheduled.
 - b. Horizontal surfaces near the blanking operations shall be protected with fire retardant 6-mil polyethylene sheeting.
 - c. Plastic drapes shall be used to enclose the immediate area.
 - d. Asbestos abatement contractor to position and operate air filtration devices and HEPA-vacuums in the area to clean space after blanking operations.
 - e. All personnel involved with this work shall receive personal protection (i.e., respirators and disposable suits).
- E. Upon loss of negative pressure or electric power, all work activities in an area shall cease immediately and shall not resume until negative pressure and/or electric power has been fully restored. When a power failure or loss of negative pressure lasts, or is expected to last, longer than thirty (30) minutes, the following sequence of events shall occur.
1. All make up air inlets shall be sealed airtight.
 2. All decontamination facilities shall be sealed airtight after evacuation of all personnel from the Work Area.
 3. All adjacent areas shall be monitored for potential fiber release upon discovery of and subsequently throughout, power failure.

3.07 LOCKOUT OF HVAC SYSTEMS, ELECTRIC POWER, AND ACTIVE BOILERS

Prior to the start of any prep work, the asbestos abatement contractor shall employ skilled tradesmen with limited asbestos licenses for the following work:

- A. Disable all ventilating systems or other systems bringing air into or exhausting air out of the Work Area. Disable system by disconnecting wires removing circuit breakers, by lockable switch or other positive means to ensure against accidental re-starting of equipment.
- B. Lock out power to the Work Area by switching off all breakers and removing them from panels or by switching and locking entire panel. Label panel with following notation: "DANGER CIRCUIT BEING WORKED ON". Give all keys to Facility.
- C. Lock out power to circuits running through Work Area whenever possible by switching off and removing breakers from panel. If circuits must remain live, the Facility shall notify asbestos abatement contractor in order that he may secure a variance from NYCDEP. The asbestos abatement contractor shall protect all conduit and wires to remain and label all active circuits at intervals not to exceed 3 feet with tags having the following notation: "DANGER LIVE ELECTROCUTION HAZARD". The asbestos abatement contractor shall label all circuits in all locations including hidden locations that may be affected by the work in a similar manner.
- D. All boilers and other equipment within the work area shall be shut down, locked out, tagged out and the burner/boiler/equipment accesses and openings shall be sealed until abatement activities are complete. If the boiler or other exhausted equipment will be subject to abatement, all breeching, stacks, columns, flues, shafts, and double-walled enclosures serving as exhausts or vents shall be segregated from the affected boiler or equipment and sealed airtight to eliminate potential chimney effects within the work area.

PART 4 – PREPARATION OF WORK AREA AND REMOVAL PROCEDURES

4.01 REMOVAL OF ASBESTOS-CONTAINING MATERIAL

- A. Asbestos abatement contractor Responsibility

Asbestos abatement contractor shall be responsible for the proper removal of ACM from the Work Area using standard industry techniques. The Third-Party Air Monitor representative shall observe the Work.

- 1. General Requirements:

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- a. Removal of ACM shall be performed using wet methods. Dry removal of ACM is prohibited.
- b. Spray ACM with amended water with sufficient frequency and quantity to enhance penetration. Sufficient time shall be allowed for amended water to penetrate the material to the substrate prior to removal. All ACM shall be thoroughly wetted while work is being conducted.
- c. Accumulation of standing water on the floor of the Work Area is prohibited.
- d. Apply removal encapsulants, when used, in accordance with the manufacturer's recommendations and guidelines.
- e. Containerize ACM immediately upon detachment from the substrate. Alternately, ACM may be dropped in to a flexible catch basin and promptly bagged. Detached ACM is not permitted to lie on the floor for any period of time. Excess air within the bag shall be removed before sealing. ACM shall not be dropped from a height of greater than 10 feet. Above 10 feet, dust free inclined chutes may be used. Maximum inclination from horizontal shall be 60-degrees for all chutes.
- f. Exits from the work area shall be maintained, or alternative exits shall be established, in accordance with section 1027 of the New York City Fire Code. Exits shall be checked at the beginning and end of each work shift against blockage or impediments to exiting.
- g. Signs clearly indicating the direction of exits shall be maintained and prominently displayed within the work area.
- h. No smoking signs shall be maintained and prominently displayed within the work place.
- i. At least one fire extinguisher with a minimum rating 2-A:10-B:C shall be required for each work place. In the case of large asbestos projects, at least two such fire extinguishers shall be required.
- j. If the containment area of an asbestos project covers the entire floor of the affected building, or an area greater than 15,000 square feet on any given floor, the installation of a negative air cut off switch or switches shall be required at a single location outside the work place, such as inside a stairwell, or at a secured location in the ground floor lobby when conditions warrant. The required switch or switches shall be installed by a licensed electrician pursuant to a permit issued by the Department of Buildings. If negative pressure ventilation

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equipment is used on multiple floors the cut off switch shall be able to turn off the equipment on all floors.

B. Removal of ACM Utilizing Full Containment Procedures shall be as follows:

1. Preparation Procedures:

- a. Ensure that the Third-Party Air Monitor has performed area monitoring and established a background count prior to the preparatory operations for each removal area, as applicable.
- b. Shut down, isolate, and lock out or tag heating, ventilating, and air conditioning (HVAC) systems which serve or which pass through the Work Area. Vents within the Work Area and seams in HVAC components shall be sealed with tape and two layers of fire retardant polyethylene sheeting. Filters in HVAC systems shall be removed and treated as asbestos-asbestos contaminated waste.
- c. Shut down, disconnect, and lock out or tag all electric power to the Work Area so that there is no possibility of its reactivation until after clearance testing of the Work Area.
- d. Provide and install decontamination enclosure systems in accordance with Sections 3.01 and 3.02 of this Section.
- e. Remove ACM that may be disturbed by the erection of partitions using tent procedures and wet removal methods. Removal shall be limited to a one-foot wide strip running the length/height of the partition.
- f. Pre-clean and remove moveable objects from the Work Area. Pre-cleaning shall be accomplished using HEPA-vacuum and wet-cleaning techniques. Store moveable objects at a location determined by the City.
- g. Protect carpeting that will remain in the Work Area.
 - (1) Pre-clean carpeting utilizing wet-cleaning techniques.
 - (2) Install a minimum of two layers of fire retardant 6-mil reinforced polyethylene sheeting over carpeting.
 - (3) Place a rigid flooring material, minimum thickness of 3/8-inch, over polyethylene sheeting.
- h. Pre-clean all fixed objects to remain within the Work Area using HEPA-vacuum and wet-cleaning techniques.

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- i. Seal fixed objects with two individual layers, minimum, of 6-mil fire retardant polyethylene sheeting.
- j. Pre-clean entire Work Area utilizing HEPA-vacuum and wet-cleaning techniques. Methods of cleaning that raise dust; such as dry sweeping or use of vacuum equipment not equipped with HEPA-filters, is prohibited.
- k. Install isolation barriers (i.e., sealing of all openings, including but not limited to windows, corridors, doorways, skylights, ducts, grills, diffusers, and other penetrations within the Work Area) using two layers of 6-mil fire retardant polyethylene sheeting and duct-tape.
- l. Construct rigid framework to support Work Area barriers.
 - (1) Framework shall be constructed using 2-inch by 4-inch wooden or metal studs placed 16 inch on center when existing walls and/or ceiling do not exist for all openings greater than 32 square feet. Framework is not required except where one dimension is one foot or less or the opening will be used as an emergency exit.
 - (2) Apply a solid construction material, minimum thickness of 3/8-inch to the Work Area side of the framing. In secure interior areas, not subject to access from the public or building occupants, an additional layer of 6-mil fire retardant polyethylene sheeting may be substituted for the rigid construction material.
 - (3) Caulk all wall, floor, ceiling, and fixture joints to form a leak tight seal.
- m. Seal floor drains, sumps, shower tubs, and other collection devices with two layers of 6-mil fire retardant plastic and fire rated plywood, as necessary, and provide a system to collect all water used by the asbestos abatement contractor. Collected water shall be passed through a water filtration system prior to being discharged into the sanitary sewer.
- n. Remove ceiling mounted objects not previously sealed that will interfere with removal operations. Mist object and surrounding ACM with amended water prior to removal to minimize fiber dispersal. Clean all moveable objects using HEPA-vacuum and wet-cleaning techniques prior to removal from the Work Area.

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- o. Fiberglass insulation with intact coverings shall be protected in place during abatement activities. These materials shall be protected with two layers of 6-mil fire retardant polyethylene sheeting as isolation barriers and two additional layers of 6-mil fire retardant polyethylene sheeting serving as primary and secondary surface barriers.
- p. Install and initiate operation of AFDs to provide a negative pressure and a minimum of four air changes per hour within the Work Area relative to surrounding non-Work Areas. Do not shut down AFDs until the Work Area is released to the City following final clearance procedures. The use of HEPA-filtered vacuum to produce a negative air pressure inside the enclosure is prohibited.
- q. Maintain emergency and fire exits from the Work Areas or establish alternative exits satisfactory to the local fire officials. Emergency exits and routes shall be established and clearly marked with florescent paint or other effective designations to permit easy location from anywhere within the Work Area. Cutting tools (e.g., knife, razor) shall be attached to the work area side of the sheeting for use in the event that the barrier must be cut open to allow egress. Emergency exits shall be secured to prevent access from uncontaminated areas and yet permit emergency exiting. Exits shall be checked daily against exterior blockage or impediments to exiting.
- r. Temporary lighting within the Work Area and decontamination system shall be provided as required to achieve minimum illumination levels.
- s. Hand power tools used to drill, cut into, or otherwise disturb ACM shall be manufacturer-equipped with HEPA filtered local exhaust ventilation.
- t. Prior to being plasticized, the Work Areas shall be cleaned using HEPA vacuum equipment and/or wet cleaning methods as appropriate. Methods that raise dust, such as dry sweeping or vacuuming with equipment not equipped with HEPA filters, shall not be used.
- u. Plasticize the area after pre-cleaning, using the following procedures.
 - (1) Cover floors with one layer of 6-mil fire retardant polyethylene sheeting, turning layer a minimum of 6 inches up wall, and seal layer to wall.

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- (2) Cover walls with one layer of 6-mil fire retardant polyethylene sheeting, overlapping wall layer a minimum of 6 inches, and seal layer to floor layer.
 - (3) Cover floors with a second layer of 6-mil fire retardant polyethylene sheeting, turning layer a minimum of 12 inches up wall, and seal layer to wall.
 - (4) Cover walls with a second layer of fire retardant 6-mil polyethylene sheeting, overlapping wall layer a minimum of 12 inches, and seal layer to floor layer.
 - (5) In areas where demolition is required to access ACM, a layer of fire retardant 6-mil reinforced polyethylene sheeting shall be placed on the floor of the enclosure.
 - (6) Perform demolition required to access ACM. Debris resulting from demolition activities shall be disposed of as ACM waste as described in this Specification.
 - (7) Repeat preparation of areas accessed by demolition activities as described above.
- v. Suspended ceiling tiles and T-grid components shall remain in place until the preparation of the Work Area below the ceiling tiles are completed and personnel and equipment decontamination enclosures have been constructed.
- w. Scaffolds shall be provided for workers engaged in work that cannot safely be performed from the ground or other solid Work Area surface.
- x. Means of egress shall not be obstructed by hardwall barriers.
- y. Pre-Removal Inspections.
- (1) Prior to removal of any ACM, the asbestos abatement contractor shall notify the Third-Party Air Monitor and request a pre-removal inspection. Posting of warning signs, building of decontamination enclosure systems, and all other preparatory steps have been taken prior to notification of the Third-Party Air Monitor.
 - (2) Asbestos abatement contractor shall correct any deficiencies observed by Third-Party Air Monitor at no additional cost to City.

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- (3) Following the Third-Party Air Monitor's approval of the Work Area preparations, removal of ACM may commence.
2. Removal of ACM Within Full Containment:
 - a. Mist material with amended water. Allow sufficient time for the amended water to penetrate the material to be removed.
 - b. Remove the material using hand tools such as scrapers or putty knives. Wire-mesh or wood lathe reinforcing, when present, shall be cut into manageable pieces and disposed of as ACM.
 - c. Remove any residual material from the substrate using wet cleaning methods and nylon-bristled hand brushes.
 - d. Place the removal material immediately into a properly labeled fire retardant 6-mil polyethylene bag. All material shall be properly containerized and decontaminated prior to removal from the Work Area.
 - e. Following the completion of removal of insulation, all visible residue shall be removed from the substrate.
3. Following Removal of ACM utilizing Full Containment Procedures:
 - a. First Cleaning:
 - (1) Remove any visible accumulation of asbestos material and debris. HEPA-vacuuuming and wet cleaning shall be performed on all surfaces inside the Work Area. All sealed drums, plastic bags, and equipment used in the Work Area shall be removed from the Work Area.
 - (2) Upon request of the asbestos abatement contractor, the Third-Party Air Monitor will perform a visual inspection. Evidence of asbestos contamination identified during the inspection will necessitate further cleaning as heretofore specified.
 - (3) Remove first layer of plastic sheathing inside the Work Area. The isolation barriers and decontamination facility shall remain in place and be utilized.
 - b. Second Cleaning:
 - (1) After the first cleaning, the Work Area shall be vacated for twelve hours to allow fibers to settle.

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- (2) All objects and surfaces in the Work Area shall be HEPA - vacuumed and wet cleaned for a second cleaning.
- (3) A thin coat of lockdown encapsulant shall be applied to all plastic covered surfaces in the Work Area.
- (4) When the encapsulant is dry, second layer of polyethylene sheeting on the walls, ceiling and floors shall be removed. Do not remove seals from doors, windows, Isolation Barriers or disconnect the negative pressure equipment.

c. Third Cleaning:

- (1) A minimum of four hours after the second cleaning, all the surfaces in the Work Area shall be HEPA-vacuumed and wet cleaned for a third cleaning.
- (2) Upon the request of the asbestos abatement contractor, the Third-Party Air Monitor will do final visual inspection for re-occupancy. Evidence of asbestos contamination identified during the inspection will necessitate further cleaning as heretofore specified.
- (3) When the Work Area passes the Third-Party Air Monitor's visual re-occupancy inspection, air sampling shall not begin until at least one hour after the completion of the third cleaning. The Third-Party Air Monitor shall perform air monitoring using aggressive testing techniques. The Third-Party Air Monitor will approve re-occupancy if the specified fiber count in the Work Area is achieved according to the Third-Party Air Monitor.
- (4) When the Work Area passes the re-occupancy test, all controls and seals established shall be removed.
- (5) The cleaned layer of the surface barriers shall be removed from walls and floors.
- (6) The isolation barriers shall remain in place throughout cleanup. Decontamination enclosure systems shall remain in place and be utilized. A thin coat of lockdown encapsulant shall be applied to all surfaces in the work area which were not the subject of removal or abatement, including the cleaned layer of the surface barriers, but excepting sprinklers, standpipes, and other active elements of the fire suppression system.

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- d. Final Barrier Removal:
 - (1) Upon receipt of acceptable clearance testing results, polyethylene sheeting and Isolation Barriers shall be removed and disposed accordingly as asbestos-containing material.
 - (2) The area surrounding the abatement work place shall be cleaned of any visible debris utilizing HEPA vacuum and wet methods.
 - e. The Third-Party Air Monitor will conduct a final visual observation. Approval must be granted prior to break down of decontamination facility and asbestos abatement contractor demobilization.
- C. Removal of ACM utilizing NYCDEP Title 15, Chapter 1 §1-106 Tent Containment Procedures and/or Tent and Glove-bag Procedures utilizing NYDEP Title 15, Chapter 1 §1-105 shall be as follows:
- 1. Preparation Procedures:
 - a. Ensure that the Third-Party Air Monitor has performed area monitoring and established a background count prior to the preparatory operations for each removal area, as applicable.
 - b. Shut down, isolate, and lock out or tag heating, ventilating, and air conditioning (HVAC) systems which serve or which pass through the Work Area. Vents within the Work Area and seams in HVAC components shall be sealed with tape and two layers of polyethylene sheeting. Filters in HVAC systems shall be removed and treated as asbestos-asbestos contaminated waste.
 - c. Shut down, disconnect, and lock out or tag all electric power to the Work Area so that there is no possibility of its reactivation until after clearance testing of the Work Area.
 - d. Provide and install decontamination enclosure systems in accordance with PART 3 - EXECUTION, Sections 3.01 and 3.02 of these Specifications. Decontamination facilities may be remote from the Work Areas.
 - e. Construct rigid framework to support Work Area barriers. Framework shall be constructed using 2-inch by 4-inch wooden or metal studs placed 16 inch on center when existing walls and/or ceiling do not exist.

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- f. Seal floor drains, sumps, shower tubs, and other collection devices with two layers of fire retardant 6-mil plastic and minimum 3/8" fire rated plywood, as necessary, and provide a system to collect all water used by the asbestos abatement contractor. Collected water shall be passed through a water filtration system prior to being discharged into the sanitary sewer. Any opening greater than 32 square feet shall be framed with 2-inch by 4-inch studding placed 16 inches on center.
- g. Install and initiate operation of AFDs to provide a negative pressure and a minimum of four air changes per hour and negative pressure of -0.02" of water column within the Work Area relative to surrounding non-Work Areas. Do not shut down AFDs until the Work Area is released to the City following final clearance procedures. The use of HEPA-filtered vacuums to produce a negative air pressure inside the enclosure is prohibited.
- h. Maintain emergency and fire exits from the Work Areas or establish alternative exits satisfactory to the local fire officials. Emergency exits and routes shall be established and clearly marked with florescent paint or other effective designations to permit easy location from anywhere within the Work Area. Emergency exits shall be secured to prevent access from uncontaminated areas and yet permit emergency exiting. Exits shall be checked daily against exterior blockage or impediments to exiting.
- i. Temporary lighting within the Work Area and decontamination system shall be provided as required to achieve minimum illumination levels.
- j. Hand power tools used to drill, cut into, or otherwise disturb ACM shall be manufacture equipped with HEPA filtered local exhaust ventilation.
- k. Prior to being plasticized, the Work Areas shall be cleaned using HEPA-vacuum equipment and/or wet cleaning methods as appropriate. Methods that raise dust, such as dry sweeping or vacuuming with equipment not equipped with HEPA filters, shall not be used.
- l. There shall be an airlock at the entrance to the tent, unless there is an attached worker or waste decontamination system.
- m. Plasticize the area after pre-cleaning, using the following procedures. Do not apply polyethylene sheeting to the wall and ceiling surfaces that will be demolished to access ACM.

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- (1) Cover floor with one layer of fire retardant 6-mil polyethylene sheeting, turning layer a minimum of 12 inches up wall, and seal layer to wall.
 - (2) Cover walls with one layer of fire retardant 6-mil polyethylene sheeting, overlapping wall layer a minimum of 12 inches, and seal layer to floor layer.
 - (3) Cover ceilings with one layer of fire retardant 6-mil polyethylene sheeting, overlapping wall layer a minimum of 12 inches, and seal layer to wall layer.
 - (4) Repeat procedure for second layer. All joints in polyethylene sheeting shall be glued and taped in such a manner as to prohibit air passage. Joints on plastic layers shall be staggered to reduce the potential for water to penetrate.
 - (5) In areas where demolition is required to access ACM, a layer of fire retardant 6-mil reinforced polyethylene sheeting shall be placed on the floor of the enclosure.
 - (6) Perform demolition required to access ACM. Debris resulting from demolition activities shall be disposed of as ACM as described in this Specification.
 - (7) Repeat preparation of areas accessed by demolition activities as described above.
 - (8) Suspended ceiling tiles and T-grid components shall remain in place until the preparation of the Work Area below the ceiling tiles are completed and personnel and equipment decontamination enclosures have been constructed.
 - (9) Protect non-ACM insulation within the Work Area(s) with two individual layers of fire retardant 6-mil polyethylene sheeting. Sheeting shall remain in-place until satisfactory clearance air monitoring results are achieved.
- n. Installation of glove-bags for removal of thermal system insulation, when required:
- (1) General: Glove-bag operations shall be performed using commercially available glove-bags of at least fire retardant 6-mil, transparent plastic appropriately sized for the diameter of the material to be removed. The use of "moveable" glove-bag techniques is strictly forbidden. At no time, shall the glove-bag be sized to allow for the removal of more than three linear feet

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of insulation. Glovebag procedures may only be used in conjunction with full containment of the work area or the tent procedure.

- (2) Place the necessary tools and materials inside of the tool pouch of the glove-bag before the glove-bag procedure begins.
 - (3) Place duct-tape securely around the affected area to form a smooth area to which the glove-bag can be securely fastened.
 - (4) Attach glove-bag to the cable, wire or pipe. Seal top of glove-bag by double folding and stapling. Place duct-tape along the seam to form an airtight seal. Seal sides of glove-bag, where cable, wire or pipe passes through, with duct-tape to form an airtight seal.
 - (5) If the material adjacent to the work section is damaged, terminates, is jointed or contains an irregularity, wrap the section in two layers of 6-mil fire retardant polyethylene sheeting and seal airtight with duct-tape.
 - (6) Smoke test each glove-bag as indicated below. The Third-Party Air Monitor shall be present during all smoke testing.
 - (7) The glovebag shall be placed under negative pressure utilizing a HEPA vacuum, and a smoke tube shall then be aspirated to direct smoke at all seams and seals from outside the glovebag. Any leaks detected by the smoke test shall be duct taped airtight.
 - (8) All necessary tools and materials shall be brought into the work area before the glovebag procedure begins.
 - (9) Glovebag procedures shall be conducted by workers specifically trained in glovebag procedures and equipped with appropriate personal protective equipment.
 - (10) The insulation diameter worked shall not exceed one half the bag working length above the attached gloves.
- o. Glovebag procedures shall be conducted by workers specifically trained in glovebag procedures and equipped with appropriate personal protective equipment.
- p. Pre-Removal Inspections

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- (1) Prior to removal of any ACM, the Asbestos abatement contractor shall notify the Third-Party Air Monitor and request a pre-removal inspection. Posting of warning signs, building of decontamination enclosure systems, and all other preparatory steps have been taken prior to notification of the Third-Party Air Monitor.
 - (2) Asbestos abatement contractor shall correct any deficiencies observed by Third-Party Air Monitor at no additional cost to City.
 - (3) Following the Third-Party Air Monitor's approval of the Work Area preparations, removal of ACM may commence.
2. Removal of ACM Thermal Insulation Using Glove-Bag Techniques:
- a. Mist material with amended water. Allow sufficient time for the amended water to penetrate the material to be removed.
 - b. Remove the insulation using hand tools such as knives or scissors.
 - c. Exercise caution when removing insulation.
 - d. Remove any residual asbestos-containing insulation from the substrate using wet cleaning methods and nylon-bristled hand brushes.
- (1) Any insulation ends created by this procedure shall be sealed with encapsulant prior to bag removal or thoroughly wetted before bag removal and sealed with wettable cloth end caps and spray glue or any combination of these materials immediately following bag removal.
 - (2) The tool pouch shall be separated from the bag prior to disposal by twisting it and the wall to which it is attached several times, and taping the twist to hold it in place, thus sealing the bag and the pouch which are severed at the midpoint of the twist. Alternatively, the tools can be pulled through with one or both glove inserts, thus turning the gloves inside out. The glove(s) is/are then twist sealed forming a new pouch, taped and several mid-seal forming two separate bags.
 - (3) A HEPA vacuum shall be used for evacuation of the glovebag in preparation for removal of the bag from the surface for clean-up in the event of a spill, and for post project clean-up.

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- (4) With the glovebag collapsed and the ACM in the bottom of the bag, the bag shall be twisted several times and taped to seal that section during bag removal.
 - (5) A 6-mil plastic bag shall be slipped around the glovebag while it is still attached to the surface. The bag shall be detached from the surface by removing the tape or cutting the top with blunt scissors.
 - (6) The asbestos-containing waste, the clean-up materials, and protective clothing shall be wetted sufficiently, double-bagged minimizing air content, sealed separately, and disposed of in conformance with applicable regulations.
3. Removal of ACM Utilizing Tent Containment Procedure:
- a. Tent procedures shall be limited to the removal of less than 260 linear feet and 160 square feet of ACM and shall not result in disturbance of ACM during tent erection.
 - b. Mist material with amended water and/or foam. Allow sufficient time for the amended water to penetrate the material to be removed.
 - c. Cut bands, wire or other items placed over insulation or ACM.
 - d. Remove the ACM using hand tools such as knives or scrapers.
 - e. Exercise caution when removing ACM.
 - f. Remove any residual asbestos-containing material from the substrate using wet cleaning methods.
 - g. Seal exposed ends of remaining insulation or ACM with a "wetable cloth" and/or encapsulant.
 - h. Place the removed material immediately into a properly labeled fire retardant 6-mil polyethylene bag. All material shall be properly containerized and decontaminated prior to removal from the Work Area.
 - i. Following the completion of removal of ACM, all visible residue shall be removed from the substrate.
4. Following Removal of ACM Utilizing Tent Containment or Tent/Glovebag Procedure:

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- a. Clean all visible accumulations of loose ACM. Metal shovels shall not be used within the Work Area.
- b. Accumulations of dust shall be cleaned continuously until completion of clean up.
- c. After removal of all visible accumulations of ACM, the area shall be:
 - (1) Wet cleaned using rags, mops or sponges.
 - (2) Permitted sufficient time to dry, prior to HEPA vacuuming all substrates.
 - (3) Lightly encapsulated to lockdown residual asbestos. A thin coat of an encapsulating agent shall be applied to any surfaces in the Work Area which were not the subject of removal or other remediation activities. In no event shall encapsulant be applied to any surface that was the subject of removal or other remediation activities prior to obtaining satisfactory clearance air monitoring results. Asbestos abatement contractor shall request and pass a visual inspection performed by the consultant before proceeding to the next step. Documentation of passing this inspection shall be recorded in a daily logbook.
 - (4) The Third-Party Air Monitor will conduct a visual observation of the Work Area to verify the absence of asbestos-containing waste materials.
 - (5) If the Work is accepted by the Third-Party Air Monitor based on the inspection, asbestos abatement contractor shall be notified. Conduct the following activities in accordance with the contract and all applicable laws, codes, rules and regulations.
 - (a) All waste shall be removed from the Work Area and holding areas.
 - (b) All tools and equipment are to be removed and decontaminated in the decontamination enclosure system.
 - (6) If the Work is not approved, the Third-Party Air Monitor will inform Asbestos abatement contractor who will then HEPA-vacuum and/or wet-clean the Work Area. The Third-Party Air Monitor will then perform a subsequent visual observation. This process will continue until the Third-Party Air Monitor accepts the Work Area as clean.

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- (7) The Work Area shall be vacated for a minimum of one hour to allow fibers to settle prior to clearance air monitoring, when required.
- d. Final Barrier Removal
 - (1) Upon receipt of acceptable clearance testing results polyethylene sheeting (inside layers) and Isolation Barriers shall be removed and disposed accordingly as ACM. The tent shall be collapsed inward, enclosing the contaminated clothing. This contaminated material shall be disposed of in another plastic bag. The HEPA vacuum shall be decontaminated and sealed.
 - (2) The area surrounding the abatement work place shall be cleaned of any visible debris utilizing HEPA-vacuum and wet methods.
 - e. The Third-Party Air Monitor will conduct a final visual inspection. Approval must be granted prior to break down of decontamination facility and asbestos abatement contractor demobilization. Other Information: Extra time required to clean Work Areas in order to achieve clearance criteria shall not be considered grounds for an extension of time for contract completion.
- D. Removal of ACM from Vertical Exterior Surfaces utilizing NYCDEP Title 15, Chapter 1 §1-109 Abatement from Vertical Exterior Surfaces procedures shall be as follows:

Preparation procedures: This procedure shall apply to the abatement of asbestos-containing materials from vertical exterior surfaces such as, but not limited to caulking or glazing compounds, asphaltic materials or tar, cement siding or shingles (including transite), paints, sealants coping stone caps or clay roof tiles.

- a. The entire surface to be abated and ground-level perimeter shall be considered the work area unless partitions and warning tape are used to define the work area.
- b. A restricted area shall be established using warning tape extending at least 25 feet from the affected areas of the building or to the nearest vertical obstruction or the curb.
- c. The restricted area may be entered only by certified workers or authorized visitors.

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- d. Before plasticizing, the restricted area shall be inspected for ACM debris and, if necessary, pre-cleaned using HEPA vacuums and wet methods.
- e. All openings to the building or structure's interior which are within 25 feet of the affected ACM shall be closed and sealed.
- f. Scaffolding erected to access the ACM shall be constructed, maintained, and used in accordance with applicable federal, state, and city laws.
- g. Horizontal surfaces beneath the affected ACM shall be covered with two layers of fire-retardant 6-mil plastic to a width of six feet.
- h. Elevated platforms being used to access the affected ACM shall be plasticized with two layers of fire-retardant 6-mil plastic, which shall extend up from the platform to at least the height of the mid-rail on three sides, and shall be attached directly to the building just below the surfaces under abatement.
- i. The ground-level restricted area shall be cleared of all moveable objects and plasticized with two sheets of fire-retardant 6-mil plastic, which shall be extended one foot up the side of the building. The plasticized area shall be ten feet wide for every floor up to a maximum width of thirty feet, or to the curb. This plastic shall be cleaned, replaced, and disposed of as asbestos waste at the end of each shift.
- j. Sidewalk bridges in the restricted area shall be covered with two layers of fire retardant 6-mil plastic, placed over and secured to the bridge, spread across the full width, draped over the side to ground level, and extended to a width of at least thirty feet.
- k. Establish a remote decontamination unit in accordance with Section 3.01 within the restricted area.
- l. Construct all elevated work platforms a minimum of one foot below the surface to be abated.
- m. Pre-Removal Inspections
 - (1) Prior to removal of any ACM, the asbestos abatement contractor shall notify the Project Monitor and request a pre-removal inspection. Posting of warning signs, building of decontamination enclosure systems, and all other preparatory steps have been taken prior to notification of the Third-Party Air Monitor.

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- (2) Asbestos abatement contractor shall correct any deficiencies observed by Third-Party Air Monitor at no additional cost to City.
 - (3) Following the Project Monitor's approval of the Work Area preparations, removal of ACM may commence.
2. Removal of ACM Materials:
- a. Mist material with amended water. Allow sufficient time for the amended water to penetrate the material to be removed.
 - b. Remove the caulk using hand tools such as knives or scrapers.
 - c. Exercise caution when removing caulking material to prevent damage to windows or skylight openings.
 - d. Remove any residual asbestos-containing caulking material from the substrate using wet cleaning methods and nylon-bristled hand brushes. The use of metal bristled brushes is prohibited.
 - e. Place the removed material immediately into a properly labeled 6-mil polyethylene bag. All material shall be properly containerized and decontaminated prior to removal from the Work Area.
 - f. Following the completion of removal of caulking, all visible residues shall be removed from the substrate.
 - g. Air sampling shall be conducted in compliance with NYC DEP Title 15 Chapter 1, §1-41 Air Sampling Schedule. This sampling shall be performed by the Third Party Air Monitoring Firm.
3. Following Removal of ACM :
- a. The stripped substrate shall be HEPA vacuumed and wet-wiped.
 - b. A visual clearance inspection shall be conducted by the asbestos handler supervisor and project monitor after the work area dries, to ensure the absence of ACM residue or debris in the work area.
 - c. After the inspection is completed, the warning tapes and barriers may be removed.
 - d. The clearance inspection shall be documented in the log and the project air sampling log.

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- e. Air monitoring shall be conducted in accordance with relevant provisions.
- f. Asbestos abatement contractor shall request and pass a visual inspection performed by the consultant before proceeding to the next step. Documentation of passing this inspection shall be recorded in a daily logbook.
- g. The Third-Party Air Monitor will conduct a visual observation of the Work Area to verify the absence of asbestos-containing waste materials.
- h. If the Work is accepted by the Third-Party Air Monitor based on the inspection, asbestos abatement contractor shall be notified. Conduct the following activities in accordance with the contract and all applicable laws, codes, rules and regulations:
 - (1) All waste shall be removed from the Work Area and holding areas.
 - (2) All tools and equipment are to be removed and decontaminated in the decontamination enclosure system.
- i. If the Work is not approved, the Third-Party Air Monitor will inform Asbestos abatement contractor who will then HEPA-vacuum and/or wet-clean the Work Area. The Third-Party Air Monitor will then perform a subsequent visual observation. This process will continue until the Third-Party Air Monitor accepts the Work Area as clean.
- j. Final Barrier Removal
 - (1) Upon receipt of acceptable observation results, polyethylene sheeting and barrier tape shall be removed and disposed accordingly as ACM.
 - (2) The area surrounding the abatement work place shall be cleaned of any visible debris utilizing HEPA vacuum and wet methods.
 - (3) The Third-Party Air Monitor will conduct final visual inspection. Approval must be granted prior to break down of decontamination facility and asbestos abatement contractor demobilization. Other Information: Extra time required to clean Work Areas in order to achieve clearance criteria shall not be considered grounds for an extension of time for contract completion.

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- E. Removal of ACM Roofing and Flashing Materials utilizing NYC DEP § 1-107
Foam Procedure for Roof Removal shall be as follows:

1. Preparation procedures:

- a. These procedures apply only to the removal of asbestos-containing roofing material (ACRM) from exterior roof surfaces. The work area on the roof shall be cordoned off with clearly visible barriers such as caution tape, and only authorized persons shall have access.
- b. The foam or viscous liquid shall be non-toxic, shall not require special respiratory protection for handling, and shall not affect the handling and disposal of the waste.
- c. The foam or viscous liquid shall coat and maintain a stable blanket (minimum 1" thickness) for the duration of the removal process and shall leave an identifiable colored residue when it dissipates.
- d. The foam or viscous liquid shall wet the ACRM. The ACRM shall be kept wet through the bagging process.
- e. Persons entering the work area shall wear correctly-fitting, good traction rubber boots.
- f. Abatement shall not be carried out during adverse weather conditions (e.g., precipitation, high winds, ambient temperature below 32 degrees Fahrenheit, etc.).
- g. The worker decontamination unit may be attached to each work area at an entry/exit from each work area, or may be remote, in which case it shall be equipped with an airlock at the entrance. In addition to the shower head(s), the shower room shall be equipped with a flexible hose for waste decontamination for removal of less than 1,000 square feet of ACRM. For 1,000 square feet or more of ACRM removal, a separate waste decontamination facility shall be located at an entry/exit from each work area. Remote holding areas for the asbestos containing waste shall comply with Title 16, Chapter 8, Rules of the City of New York (16 RCNY 8 et. seq.).
- h. Movable objects shall be removed from the work area, or kept in place and wrapped in one sheet of fire retardant 6 mil plastic sheeting.
- i. Provisions shall be made to ensure a safe and adequate air supply to affected building(s). All vents, skylights, air intakes, windows and doors opening onto the roof, and all other openings shall be sealed with 2 layers of fire retardant 6 mil plastic or fitting with HEPA filters when appropriate. Temporary extensions may be installed to a

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height of 10 feet to ensure adequate air exchange instead of sealing vents, air intakes, etc., with 2 layers of plastic or HEPA filters. Drains may be equipped with 5 micron filtering system in lieu of being sealed.

- j. Fixed objects including perimeter walls, bulkheads, cooling towers, ducts and other rooftop appurtenances shall be covered in one sheet of fire retardant 6 mil plastic up to a height of at least six feet.
- k. THE ASBESTOS ABATEMENT CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTION OF THE INTERIOR SPACES BENEATH THE ROOF.
- l. All office equipment and furniture, including but not limited to desks, chairs, computers, printers, cabinets, etc., carpeted and wooden floors shall be covered with one layer of 6- mil plastic sheeting.
- m. THE ASBESTOS ABATEMENT CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE THAT MAY OCCUR IN THE INTERIOR SPACES, INCLUDING BUT NOT LIMITED TO OFFICE EQUIPMENT, FURNITURE, FLOORS, ETC., BENEATH THE ROOF DURING ALL PHASES OF THE ROOF ABATEMENT.
- n. The asbestos abatement contractor shall provide temporary roof protection consisting of 10-mil polyethylene sheeting following abatement over the open roof areas. Strict coordination with the General Asbestos abatement contractor, Construction Project Manager and/or Architect is required and necessary during this phase of abatement.
- o. Preliminary examination shall be conducted and precautions shall be taken to prevent damage to the interior of the building, including but not limited to office equipment, furniture, carpeted and wooden floors, etc., and to ensure no adverse effect on the structural stability of the roof due to the abatement activity.
- p. Abatement activities shall not be carried out during adverse weather conditions (e.g., precipitation, heavy winds, etc.).
- q. The floor area between the remote decontamination facility and the Work Area must be protected with 2 layers of 6-mil. polyethylene sheeting suitably anchored.
- r. Provisions shall be made to ensure a safe and adequate air supply to affected building(s). All vents, skylights, air intakes, windows and doors opening onto the roof, and all other openings are to be sealed

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with two layers of 6-mil plastic or fitted with HEPA-filters where appropriate. In lieu of sealing vents, air intakes, etc., with two layers of plastic or HEPA-filters, temporary extensions may be installed to a height of 10 feet to ensure adequate air exchange. Drains may be equipped with 5 micron filtering systems in lieu of being sealed.

s. Pre-Removal Inspections:

- (1) Prior to removal of any ACM, the Asbestos abatement contractor shall notify the Third-Party Air Monitor and request a pre-removal inspection. Posting of warning signs, building of decontamination enclosure systems, and all other preparatory steps have been taken prior to notification of the Third-Party Air Monitor.
- (2) Asbestos abatement contractor shall correct any deficiencies observed by Third-Party Air Monitor at no additional cost to City.
- (3) Following the Third-Party Air Monitor's approval of the Work Area preparations, removal of ACM may commence.

2. Removal of ACM Roofing and Flashing Materials:

- a. The asbestos abatement contractor shall be responsible for the removal of all roofing components, including multiple layers of built-up membrane, tar, vapor barrier and/or flashing down to the substrate/deck.
- b. Prior to actual removal, the built-up roofing shall be blanketed and wetted with a minimum 1" coating of the acceptable foam or viscous liquid which shall be maintained for the duration of the removal until the material is bagged. The foam or viscous liquid shall be confined to the work area.
- c. Hand-held power tools used to drill, cut into, or otherwise disturb the ACRM shall be equipped with the HEPA-filtered local exhaust ventilation and operated to prevent potential fiber release.
- d. Abatement shall not be performed in adverse weather conditions (e.g., precipitation, heavy winds, etc.). Asbestos abatement contractor shall protect all exposed roof during adverse weather conditions.
- e. Portable HEPA-vacuum machines shall be available during abatement.

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- f. After the ACM removal and bagging, the bagged waste shall be HEPA-vacuumed, and then wet-cleaned and transferred into the shower room for double bagging. The double-bagged waste shall be transferred outside the clean room for its final transfer for storage in an enclosed waste container.
3. Following Removal of ACM Roofing and/or Flashing:
 - a. Upon completion of the abatement in roof work area, clean-up procedures shall involve removal and bagging of:
 - b. The asbestos containing roofing material (ACRM)
 - c. Visible accumulations of asbestos containing waste
 - d. All excess foam or similar viscous liquid
 - e. All debris, and shall be followed by a thorough wet cleaning.
 - f. All tools shall be wet cleaned and HEPA-vacuumed, and then removed from the work area upon completion.
 - g. Following the removal of all debris, the work area shall be thoroughly wet cleaned. The work area shall be allowed to dry completely before the visual inspection is conducted. The inspection shall confirm the absence in the work area of:
 - (1) ACM, debris, bagged ACM waste,
 - (2) Excess foam or other viscous liquid.
 - h. If the work area fails visual inspection, it shall undergo another wet cleaning and/or HEPA vacuuming until it passes the visual inspection.
 - i. When the visual inspection and clearance testing is successful, all plastic may be removed.
 - j. Air monitoring shall be conducted in accordance with the relevant provisions of Air sampling shall be conducted in compliance with NYC DEP Title 15 Chapter 1, §1-41 Air Sampling Schedule.

4.02 MAINTENANCE OF CONTAINED WORK AREA AND DECONTAMINATION ENCLOSURE SYSTEMS

- A. Ensure that barriers are installed in a manner appropriate to the expected weather conditions during the project and for its duration. Repair damaged barriers and remedy defects immediately upon their discovery. Visually inspect barriers at the beginning and end of each work period.
- B. Visually inspect non-Work Areas and the decontamination enclosure system for water leakage. Check the floor below, ceiling and walls, and view beneath/or around the decontamination enclosure system, for signs of leakage. Perform the visual inspection a minimum of two times for each 8-hour work shift.

PART 5 – ASBESTOS WASTE MANAGEMENT

5.01 ACM WASTE REQUIREMENTS

- A. The asbestos abatement contractor and all sub-asbestos abatement contractors are specifically alerted to the illegal practice of combining asbestos-containing waste (ACW) from one project with the ACW of other projects without using the services of a permitted waste transfer station as defined by 6 NYCRR Part 360 and 364. As part of the shop drawing submittals, the Asbestos abatement contractor must submit for approval the proposed method of transportation and disposal that will be utilized to manage the ACW of this Contract. If a permitted transfer station is to be used, the cost shall be included in the work. The asbestos abatement contractor must submit a waste manifest consistent with whatever approved method is utilized as part of the invoicing and payment procedures.
- B. The asbestos abatement contractor shall maintain compliance with the strictest set of regulations of Title 15, Chapter 1 of RCNY, NYC LL 70/85, NYS DOL ICR 56, USEPA, Asbestos Regulation 40 CFR Section 61.152, 29 CFR 1926.1101, 29 CFR 1910.1200 (F) of OSHA’s Hazard Communication Standards, and other applicable standards.

NOTE: Any penalties incurred for failure to comply with any of the above regulations will be the sole responsibility for fines imposed due to negligence of the Asbestos abatement contractor.

- C. When presenting ACW for storage at the generation site, the Asbestos abatement contractor shall:
 - 1. Wet down ACW in a manner sufficient to prevent all visible emissions of dust into the air.
 - 2. Seal material in a leak tight container while wet.
 - 3. Keep ACW separate from any other waste.

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- D. When presenting ACW for storage away from the site of generation, the Asbestos abatement contractor shall:
1. Ensure that ACW has been properly packaged as per requirements above.
 2. Examine the containers of ACW to ensure that there are no breaks in the containers and that no visible dust is being released into the air.
 3. If examination reveals damage to a container of ACW the Asbestos abatement contractor or person accepting the waste shall immediately wet down the ACW and repackage it into a clean leak tight container. The subsequent repackaging shall be the financial responsibility of the Asbestos abatement contractor and occur at no extra cost to the City.
 4. Keep ACW separate from any other waste.
- E. When storing ACW – The Asbestos abatement contractor shall:
1. Ensure that the ACW has been sufficiently wetted down in tight containers.
 2. Re-wet and repackage any damaged containers.
 3. Maintain at storage site an adequate supply of spare leak tight containers.
 4. Maintain at storage site an adequate supply of amended water.
 5. Keep ACW separate from any other waste.
 6. Keep ACW in a secured, enclosed, and locked container.
 7. If the Asbestos abatement contractor has intention of sorting a quantity of ACW greater than or equal to 50 cubic yards, the Asbestos abatement contractor shall:
 - a. Submit a written request and receive written approval from the City.
- F. When presenting for transport, the Asbestos abatement contractor shall:
1. Ensure that ACW has been sufficiently wetted down.
 2. Examine the integrity of the container's airtight seal.
 3. Re-wet and repackage any damaged containers.
 4. Keep ACW separate from all other waste.

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5. Ensure that a person transporting asbestos waste holds a valid permit issued pursuant to law.
6. Frequency of Waste Removal:
 - a. Properly packaged and labeled asbestos waste shall be removed from the site on a daily basis. Under no circumstance shall asbestos waste be stored on site without written approval from the City. The Waste Hauler and landfill shall be as indicated on the notifications to regulatory agencies.
- G. Waste Load-out Through Equipment Decontamination Enclosure (Full Decontamination Facility): Place asbestos waste in disposal bags. Large items not able to fit into disposal bags shall be wrapped in one layer of 6-mil thick polyethylene sheeting. Clean outer covering of asbestos waste package by wet cleaning and/or HEPA-vacuuming in a designated part of the Work Area. Move wrapped asbestos waste to the equipment washroom, wet clean each bag or object and place it inside a second disposal bag, or a second layer of 6-mil polyethylene sheeting, as the item's physical characteristics demand. Air volume shall be minimized, and the bags or sheeting shall be sealed airtight with tape.
 1. The clean containerized items shall be moved to the equipment decontamination enclosure holding area pending load-out to storage or disposal facilities.
 2. Workers who have entered the equipment decontamination enclosure system from the uncontaminated non-Work Area shall perform load-out of containers from the decontamination enclosure holding area. Dress workers moving asbestos waste to storage or disposal facilities in clean overalls of a color different than from that of coveralls used in the Work Area. Ensure that workers do not enter from uncontaminated areas into the equipment washroom or the Work Area. Ensure that contaminated workers do not exit the Work Area through the equipment decontamination enclosure system.
 3. Thoroughly clean the equipment decontamination enclosure system immediately upon completion of the waste load-out activities, and at the completion of each work shift.
 4. Labeled ACM waste containers or bags shall not be used for non-ACM debris or trash. Any materials placed in labeled containers or bags, including those turned "inside-out", shall be handled and disposed of as ACM waste.
- H. All asbestos materials, wastes, shower water, polyethylene, disposable equipment and supplies shall be disposed of as asbestos contaminated waste, in accordance with the EPA regulation (40 CFR, Section 61.150) and those requirements of the New York Department of Environmental Conservation and New York City Department of Sanitation.

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- I. All asbestos materials shall be prepared for transportation in accordance with this specification and all applicable Federal, State, County and City Regulations. asbestos abatement contractor shall submit the following documentation:
1. Where applicable, an EPA Generator's identification number which has been obtained from the EPA for all asbestos waste generated from the project.
 2. Applicable State Waste Hauler license and registration numbers.
 3. Federal Hazardous Materials Waste Hauler number.
 4. Designated landfill EPA Permit numbers.
- J. Prior to loading asbestos waste the enclosed cargo areas (dumpster) shall be prepared as follows:
1. Clean via HEPA-vacuum and wet wipe techniques the enclosed cargo areas of all visible debris prior to preparing with polyethylene.
 2. Line the cargo area with two layers of 6-mil polyethylene sheeting to prevent contamination from damaged or leaking containers. Floor sheeting shall be installed first and extend up the walls a minimum of 24-inches. Wall sheeting shall be overlapped and taped securely into place.
- K. Asbestos-containing waste shall be placed on level surfaces in the cargo area of the dumpster and shall be packed tightly to prevent any shifting or tipping of the waste during transportation.
- L. Asbestos-containing waste shall not be thrown into or dropped from the dumpster. All material shall be handled carefully to prevent rupture of the containers.
- M. All personnel engaged in handling and loading of asbestos contaminated waste outside of the Work Area shall wear protective clothing. The disposable clothing shall include head, body and foot protection and color of clothing shall be different from abatement personnel in the Work Area. Minimum respiratory protection shall be half face, dual cartridge, air purifying respirators with HEPA-filters.
- N. Asbestos abatement contractor shall immediately clean debris or residue observed on containers or surfaces outside of the Work Area. Cleaning shall be via HEPA equipped wet/dry vacuums only.
- O. All asbestos-containing waste shall be transported from the abatement site to the landfill by a registered Waste Hauler. When transporting ACW:
1. Ensure that the ACW has been sufficiently wetted down in a leak tight container.

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2. Re-wet and repackage any damaged containers.
 3. Maintain at storage site an adequate supply of spare leak tight containers.
 4. Maintain at storage site an adequate supply of amended water.
 5. Keep ACW separate from any other waste.
- P. Keep ACW in a secured, enclosed, and locked container.
- Q. Waste transport documents shall conform to the requirements of the U.S. Department of Transportation, Hazardous Materials Transportation Regulation, 49 CFR Part 173 and EPA 40 CFR 61.150 (d)(1)(2). Shipping documents shall be clearly marked with the required designation "RQ Asbestos". Asbestos abatement contractor shall provide a copy of this document to the City.
- R. A uniform hazardous waste manifest shall be prepared by the asbestos abatement contractor and signed by the asbestos abatement contractor each time the asbestos abatement contractor ships a dumpster load of Asbestos-Containing Waste Material. The uniform hazardous waste manifest shall include the site of waste generation, the names and addresses of the Transporter, the asbestos abatement contractor, and the landfill operator with information on the type and number of asbestos-waste containers, time and date. Asbestos abatement contractor shall provide the Construction Project Manager, Third-Party Air Monitor or authorized designated representative with signed copies of the waste manifest before each departure.
- S. Asbestos abatement contractor or his registered hazardous Waste Hauler shall transport asbestos-containing waste material from the abatement site directly to the specified disposal site. Asbestos abatement contractor or their Waste Hauler shall not accept material from any other site when transporting asbestos-containing waste material from the abatement site. The authorized DDC representative or Construction Project Manager reserves the right to travel with asbestos abatement contractor's Waste Hauler to the waste disposal site. No intermediate storage of waste material (i.e., asbestos abatement contractor's warehouse) shall be permitted.
- T. Final or progress application for payments will not be processed unless all hazardous waste manifests generated to date have been received and reviewed by the Construction Project Manager.
- U. All asbestos materials, wastes, shower water, polyethylene disposable equipment and supplies shall be disposed of as asbestos contaminated waste, in accordance with the EPA regulation (40 CFR, Section 61.150) and those requirements of the New York State Department of Environmental Conservation and the New York Department of Sanitation.

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- V. Asbestos abatement contractor shall transport all sealed drums to a landfill disposal site approved by the Department of Environmental Conservation and the EPA. Transportation shall be performed by a New York State registered Waste Hauler, where required. When presenting the ACW for disposal the Asbestos abatement contractor or sub Asbestos abatement contractor shall:
1. Ensure that waste container is properly labeled according to the National Emission Standard for Hazardous Air Pollutants (NESHAP); Asbestos Revision, 40 CFR, Part 61, Subpart M. The labels shall include the name of the waste generator and the location where the waste was generated.
 2. Comply with all applicable orders issued pursuant to asbestos disposal.
 3. Ensure that ACW has been sufficiently wetted down.
 4. Re-wet and repackage any damaged containers.
 5. Keep ACW separate from all other wastes.
- W. Asbestos abatement contractor shall notify the waste disposal site, at least 24 hours prior to transportation of asbestos contaminated waste to be delivered. Asbestos abatement contractor shall determine if a larger notification period is required.
- X. At the site asbestos abatement contractors or Waste Hauler trucks shall approach the dump location as close as possible for unloading asbestos waste. Containers shall be carefully placed in the ground. Do not throw containers from truck.
- Y. Asbestos abatement contractor or Waste Hauler shall inspect containers as they are unloaded at the disposal site. Material in damaged containers shall be repacked in empty containers, as necessary.
- Z. Asbestos abatement contractor or Waste Hauler shall not remove asbestos-containing waste Material from drums unless required to do so by the disposal site City. Used drums shall be disposed of as asbestos-asbestos contaminated waste.
- AA. All personnel engaged in unloading of the containers at the waste site shall wear protective clothing. The disposable clothing shall include head, body and foot protection. Minimum respiratory protection shall be half face, dual cartridge, air purifying respirators with HEPA-filters. Workers shall remove their protective clothing at the disposal site, place it in labeled disposal bags and leave them with the deposited waste shipment.
- BB. For the compaction operation, the asbestos abatement contractor shall ensure that disposal sites personnel have been provided with personal protective equipment by the disposal operator. If the disposal site City has not provided this protective equipment, the asbestos abatement contractor shall supply protective clothing and

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respiratory protection for the duration of this operation (PAPR respirators are mandatory).

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

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PART 6 – ACCEPTANCE

6.01 ACCEPTANCE

Upon satisfactory completion of all decontamination procedures, a certificate will be issued by the Construction Project Manager with copies to all parties.

- A. A letter of Compliance stating that all the work on the project was performed in accordance with the Specifications and all applicable Federal, State and Local regulations.
- B. All warranties as stated in the Specifications.

END OF SECTION 02082

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Section 02105
IN-SITU SOIL SAMPLING, TESTING AND LABORATORY ANALYSIS

PART 1 GENERAL**1.01 SECTION INCLUDES**

- A. The Contractor shall provide all labor, materials, tools, and equipment to perform all operations necessary to determine the in-situ classification, handling, reuse and disposal requirements of all soils and fill materials in the area to be excavated during construction.
- B. The Contractor shall develop and implement an In-situ Soil Sampling and Analysis Plan required for sampling, quality assurance and quality control (QA/QC) of work. Work includes, but is not necessarily limited to, sampling and analysis of on-site soils.
- C. The Contractor shall provide a Field Sampling Plan to test all soils and fill materials for presence of chemicals to determine if material is hazardous or non-hazardous and shall fulfill all testing requirements of the selected reuse or disposal method.
- D. The Contractor shall provide the services of a laboratory, certified by New York State Department of Health, to perform testing and chemical analyses. The laboratory shall also meet the certification requirements of the reuse or disposal facility that will be utilized by the Contractor.

1.02 RELATED SPECIFICATIONS

- A. Section 01330 - Shop Drawings
- B. Section 02240 - Dewatering
- C. Section 02316 - Excavation
- D. Section 02317 - Backfilling

1.03 REFERENCES

- A. EPA QA/G-4, Guidance on Systemic Planning Using the Data Quality Objectives Process, February 2006 or latest revision.
- B. Test Methods for Evaluating Solid Waste, USEPA Office of Solid Waste, SW-846, 3rd Edition, Final Update III, December 1996, or latest revision.
- C. Federal Register Vol. 51, No. 114, 06/13/86, 40 CFR Part 261.
- D. NYSDEC regulations, 6NYCRR Subpart 360-1, General Provisions, Solid Waste Management Facilities

- E. NYSDEC regulations, 6NYCRR Part 371, Identification and Listing of Hazardous Wastes (40 CFR Part 261)
- F. NYSDEC regulations, 6NYCRR Subpart 375, Environmental Remediation Programs
- G. American Society for Testing and Materials (ASTM) Standards:
 - 1. D422 - Method for Particle-Size Analysis of Soils
 - 2. D1556 - Test Method for Density and Unit Weight of Soil in Place by the Sand-Cone Method
 - 3. D1557 - Tests for Moisture-Density Relations of Soils and Soil-Aggregate Mixtures using 10-lb (4.5 kg) Hammer and 18-in (457 mm) Drop
 - 4. D 2922 - Tests for Density of Soil and Soil-Aggregate in place by Nuclear Methods (Shallow Depth).
- H. DER-10, Technical Guidance for Site Investigation and Remediation, NYSDEC Division of Environmental Remediation

1.04 DEFINITIONS

- A. Analyte-free Water: Water containing less than the detection limits for volatile organics, pesticides, PCB's and inorganics. Compliance shall be verified by either the supplier or by an analytical laboratory.
- B. Excavated Material: Includes all material removed from the ground regardless of type, character, composition, moisture, or condition thereof. All material will be classified by the Commissioner, prior to excavation, following receipt of in-situ soil sampling results from the Contractor, and reused or disposed of accordingly.
- C. Waste Classification
 - 1. Regulated Solid Waste
 - a. Hazardous Solid Waste: Material shall be considered a hazardous waste when it exhibits any of the following characteristics: ignitability, corrosivity, reactivity, or toxicity for Volatile Organic Compounds (VOCs), semi-VOCs, metals, pesticides, or herbicides, as defined in 6 NYCRR Part 371 or 40 CFR Section 261. Under New York State (NYS) regulations, a material that contains greater than 50 ppm of PCBs is considered a hazardous waste. The Environmental Protection Agency (EPA) considers greater than 50 ppm of PCB to be a PCB-contaminated waste under Toxic Substances Control Act (TSCA). All hazardous

waste shall be considered unsuitable for reuse onsite, and shall be disposed of at an approved permitted hazardous waste facility.

- b. Non-Hazardous Industrial Waste
- (1) Solid waste generated by manufacturing or industrial processes. Such processes may include, but are not limited to the following: electric power generation; fertilizer/agricultural chemicals; inorganic chemicals; iron and steel manufacturing; organic chemicals; and all other materials as defined in 6 NYCRR Part 360. The forms of such wastes are exemplified by but not limited to: liquids such as acids, alkalis, caustics, leachate, petroleum (and its derivatives), and processes or treatment wastewaters; sludges which are semi-solid substances resulting from process or treatment operations or residues from storage or use of liquids; solidified chemicals, paints or pigments; and dredge spoil generated by manufacturing or industrial processes, foundry sand, and the end or by-products of incineration or other forms of combustion.
 - (2) Historic Fill. Historic fill material means non-indigenous or non-native material, historically deposited or disposed in the general area of, or on a site to create useable land by filling water bodies, wetlands or topographic depressions, which is in no way connected with the subsequent operations at the location of emplacement, and which was contaminated prior to emplacement. Historic fill may be solid waste, including but not limited to coal ash, wood ash, municipal solid waste incinerator ash, construction and demolition debris, dredged sediments, railroad ballast, refuse and land clearing debris, which was used prior to October 10, 1962. Evidence of historic fill can be documented by physical characteristics or published documents such as would be generated by due diligence evaluations (e.g., mapping, etc.).
 - (3) Soil, historic and other fill material containing industrial waste shall be considered industrial waste and is not suitable for reuse onsite without a site-specific beneficial use determination for NYSDEC. Evidence that a soil or fill material contains industrial waste shall include visual identification of waste, chemical odors, vapor emission, chemical staining.
- c. Construction and Demolition (C&D) Debris: Uncontaminated solid waste resulting from the construction, remodeling, repair and demolition of utilities, structures and roads; and uncontaminated solid waste resulting from land clearing. Such waste includes, but is not limited to bricks, concrete, and other masonry materials, rock, and uncontaminated soil. Uncontaminated solid waste means C&D debris that is not mixed

with other solid waste (i.e., industrial waste) at the point of generation, processing or disposal, and that is not contaminated with spills of a petroleum product, hazardous waste, or industrial waste. Contamination from spills of a petroleum product does not include asphalt or concrete pavement that has come in contact with petroleum through normal vehicle use of the roadway. Soil and rock C&D debris may be suitable for reuse onsite, if deemed acceptable by the Engineer.

- d. Petroleum-contaminated Waste: Exhibits a discernible petroleum-type odor, contains visible petroleum product, may be associated with a reported spill. Petroleum-contaminated waste is not suitable for reuse onsite without obtaining a site-specific beneficial use determination for NYSDEC.
2. Non-regulated Solid Waste: This applies to materials that, before being beneficially used (as determined by the NYS DEC or applicable Out-of-State Regulatory Agency), were solid waste. Material is no longer considered solid waste when used as described: uncontaminated soil which has been excavated as part of a construction project, and which is being used as a fill material, in place of soil native to the site of disposition; non-hazardous contaminated soil which has been excavated as part of a construction project, other than a NYS DEC-approved or undertaken inactive waste disposal site remediation program, and which is used as backfill for the same excavation or excavations containing similar contaminants at the same site. Excess materials on these projects are subject to the requirements of 6 NYCRR Part 360; non-hazardous petroleum-contaminated soil which has been decontaminated to the satisfaction of the NYS DEC and is being used in a manner acceptable to the NYS DEC; recognizable, uncontaminated concrete and concrete products, asphalt pavement, brick, glass, soil and rock placed in commerce for service as a substitute for conventional aggregate; non-hazardous petroleum-contaminated soil when incorporated into asphalt pavement products by a producer authorized by the NYS DEC; and all other uses as described in 6 NYCRR Part 360, Section 360-1.15.
- D. In-situ Soil Sampling: Sampling of soil prior to excavation and most representative of undisturbed conditions.
 - E. Grab Sample: A grab sample is collected at a particular time and place that represents the composition of the source soil at that location and time only.
 - F. Composite Sample: A composite sample is comprised of grab samples which are initially collected from within a grid area and then combined into a single sample. This sample is representative of the entire grid area from which the grab samples were collected.

- G. Split Sample: The Contractor shall provide the Commissioner with random (at least 10 percent) split samples of soils. Split samples are to be used to verify waste characterization for off-site disposal .

1.05 SUBMITTALS

- A. The Contractor shall provide all submittals, including the following, as specified in Section 01330 - Shop Drawings.

1. Field Sampling Plan (FSP): An FSP shall be submitted for approval 30 days following notice to proceed. The FSP shall include protocols for the collection and analysis of representative samples that represent all soils to be excavated. The results of soil sampling determine if the soil is acceptable for beneficial reuse on or offsite or requires disposal at a permitted solid waste disposal facility. The Commissioner will approve the FSP only if it clearly provides the information to allow for classification of all material proposed for excavation. No sampling shall be conducted until the Commissioner has reviewed and formally approved the FSP in writing. The FSP shall include the following at a minimum:

- a. For materials destined for offsite reuse under a Beneficial Use Determination (BUD) or disposal at a permitted facility, the FSP shall include a detailed outline of the BUD or disposal facility requirements for sampling, testing and analysis. This detail shall include the specific number and types of samples per unit volume of soil to be excavated.
- b. Parameters analyzed for soils to be reused onsite shall be at a minimum full RCRA Characteristics including ignitability, corrosivity, reactivity, and full Toxicity Characteristic Leachate Procedure (TCLP) for volatiles, semi-volatiles, metals, pesticides and herbicides, and as required by the disposal facility. Soils, historic or other fill material that contain industrial waste or exhibit evidence of petroleum contamination are not acceptable for reuse onsite without a site-specific BUD from NYSDEC. If the Contractor intends to pursue a site-specific BUD, the Contractor shall consult NYSDEC for testing requirements and incorporate those testing requirements into the FSP.
- c. For all materials to be reused or disposed, the minimum sampling frequency shall be 1 sample per 500 cubic yards.
- d. The area to be excavated shall be divided into distinct vertical and horizontal segments, identifying the volume of soil or fill that each sample will represent. The FSP shall include sample collection that is representative of the entire depth of excavation.
- e. A scaled map of the site showing existing fixed landmarks and the proposed excavation limits. The map shall contain specific sampling

- locations that will conform to the disposal facilities' sampling frequency requirements.
- f. Identification numbers of the sample grids, relative depth, sampling intervals, and volumes reflective of the Contractor's excavation method shall be shown on the scaled site map.
 - g. Sampling intervals shall account for existing subsurface data, historic sampling information, including: descriptions, depths, orientation, and location of material of potentially different classifications, and shall minimize undue mixing of varied native soil and fill material.
 - h. Proposed sampling, handling, and preservation procedures, including sample collection and transfer and equipment decontamination and storage
 - i. Analytical Methods. Proposed analytical methods shall be in accordance with SW-846, latest edition.
 - j. Data Quality Objectives. Procedures for assessing precision, accuracy, degree of representation, comparability and completeness of samples and data, including performance audits and proposed protocols for corrective measures where problems are identified shall be defined.
 - k. Name and address of Analytical Laboratory, copy of laboratory certification, Quality Assurance Manual, and Standard Operating Procedures for the analyses to be performed.
 - l. Schedule of field and laboratory inspections.
 - m. Planned preparation of daily and project summary quality control reports.
 - n. A statement that the sampling program is in accordance with the Contract requirements.
 - o. Manufacturer, catalog data and calibration records of all analytical equipment to be used on-site
2. Field Sampling Summary Report: The field sampling summary report shall contain all laboratory analytical results obtained from the field sampling event. A detailed account of any field procedures used which deviated from those established in the FSP shall be included, as well as a complete set of field notes. The Contractor shall submit hard copies of the Field Sampling Summary Report which shall include a Summary Table listing the analytical results with highlighted exceedances of RCRA Characteristics, BUD, or applicable parameters of 6NYCRR Part 375 and all disposal facility limits,

including any alternate acceptance criteria. Detailed field notes shall be maintained by the Contractor during sampling and excavation to allow identification of sample analysis results with the respective grids that the data represent, and to verify quantities of materials to be disposed of as hazardous waste, non-hazardous industrial waste, petroleum-contaminated waste or C&D debris. The field notes shall be made available to the Commissioner during the sampling program, and shall consist of:

- a. Boring or probe logs from each sampling location containing a continuous stratigraphic description of all material encountered to the excavation depth required. Descriptions of material shall include, but not be limited to, color, odor, staining, relative grain size distribution, material composition, moisture content, and cohesive properties.
 - b. The location of each sampling point on a scaled map.
 - c. Depth intervals for each sample, whether a grab or composite, and any special notes, which are included on the laboratory chain-of-custody forms.
 - d. Copies of all laboratory chain-of-custody forms for samples that are collected for analysis.
3. Data Management: Manage the analytical data by utilizing a computer spreadsheet or database program as approved by the Engineer. Data shall be organized in such a way that all samples may be tracked from collection through analysis.
- a. The analytical results generated for a ten (10) day turn-around time deliverable shall include a Form I (or equivalent) showing compounds analyzed for, and concentrations detected, and associated chain-of-custody reports to the Engineer.
 - b. The final data package generated by the laboratory shall include the following information:
 - (1) A Form I showing pertinent physical data presented in concise, easy to follow formats (i.e., sample number, laboratory ID, client, date of sample preparation, date analyzed, percent moisture, dilution factor, sample matrix, units, undetected and detected compounds, etc.)
 - (2) Reference to analytical methodology used.
 - (3) General discussion including a description of sample types, tests performed, any problems encountered, and any general comments (case narrative)

- (4) Data from each discrete sample reported using cross-referencing between site samples and quality control samples and including all pertinent dates, information and reporting limits
- (5) Associated quality control samples such as blanks, spikes and spike duplicates, laboratory duplicates, laboratory control samples, field duplicates and appropriate check standards
- (6) Copies of chain-of-custody sheets
- (7) The analytical results shall be provided in a tabular Microsoft Excel format with highlighted exceedances of RCRA Characteristics, BUD, or applicable parameters of 6NYCRR Part 375 and all disposal facility limits, including any alternate acceptance criteria as part of all Field Sampling Summary Reports and disposal facility application packages submitted to the Engineer for review and approval. The data shall be delivered on CD or via e-mail to the Engineer.

1.06 QUALITY ASSURANCE

- A. Laboratory Requirements: Laboratory facilities shall meet, at a minimum, the requirements and procedures of this specification. The laboratory is subject to inspection and prior approval by the Engineer.
 1. Provide and coordinate the services of a laboratory(ies) to perform specified services and analyses. Laboratory services shall be provided for the duration of the work.
 2. The laboratory shall maintain, throughout the duration of the work, the appropriate New York State Department of Health ELAP Certifications for the analyses to be performed.
- B. Permits and Regulations
 1. The Contractor shall obtain all necessary permits and perform all work in compliance with applicable requirements of OSHA and other governing authorities having jurisdiction.
- C. Laboratory Qualifications
 1. Analytical Methods and Procedures: Fully describe and provide references (SOPs) for the specific analytical methods and procedures which will be used to perform all soil chemical analyses associated with this project. The analytical methods and procedures shall be used to determine sample characterization and suitability for transportation and disposal.

2. Quality Control Checks and Data Acceptance: Provide a system of internal quality control checks designed to establish technically sound criteria for each measurement parameter, which will serve to accept or reject data in a uniform and systematic manner. A minimum of ten percent of the total number of a given type of sample shall be devoted to internal QC checks, or more, as specified in the laboratory SOP. These checks are designed to ensure accuracy in the sampling procedure and the analytical methods and include blanks, duplicates, matrix spikes, reference standards and performance evaluation samples.
- D. In-situ Sampling: All material shall be in-situ sampled and analyzed in accordance with the reuse or disposal facility requirements and as specified herein.
1. Field duplicate samples shall be collected for a minimum of 5 percent of the samples spaced throughout the sample program.
 2. The number of samples required for a quantity of soil shall meet all disposal facility requirements, and the approval of the Engineer.
- E. Sample Turn-Around: The Contractor shall provide for prompt sampling and turn-around of analysis so as not to delay the project. If a turn-around time of less than 10 days is required due to delays in construction scheduling or other constraints, Contractor shall provide for such at no additional cost to the City.
- F. Reuse or Disposal Facility Selection: If the approved reuse option or disposal facility is not available when disposal operation begins, the Contractor shall be fully responsible for procuring alternate reuse options or disposal facilities at no additional cost to the City. Any additional labor, sampling and analysis required associated with alternate reuse or disposal facility shall be the responsibility of the Contractor.

1.07 DELIVERY, STORAGE AND HANDLING

- A. Sample Identification: All samples shall be identified with a sample label in addition to an entry on a chain-of-custody record. The label shall be identified upon receipt by the laboratory and cross-referenced to the chain-of-custody record. Any inconsistencies shall be noted on the custody record. Laboratory personnel shall notify the Sampling and Analysis Manager immediately if any inconsistencies exist in the paper work associated with the samples, and Contractor shall collect new samples to replace those with inconsistencies which cannot be rectified.
- B. Sample Labels: The field team shall complete the following information on a sample label for each sample bottle:
1. Site Name
 2. Job Number
 3. Sample Number

4. Sample Description
5. Sampling Company Name
6. Parameters to be Analyzed
7. Date
8. Time
9. Preservation Technique Employed
10. Sample labels shall be attached to the sample bottles

C. Completion of Chain-of-Custody Record

1. Maintain a chain-of-custody record on all samples. A chain-of-custody record is a printed multi-part form that accompanies a sample or group of samples as custody is transferred from person to person. A chain-of-custody record is a controlled document.
2. As soon as is practical after sample collection, preferably after decontamination, the following information shall be entered on the chain-of-custody form. All information shall be recorded in ink.
 - a. Project number: Enter the alphanumeric designation assigned by the field team that uniquely identifies the project site.
 - b. Project name: Enter the site name.
 - c. Samplers: Sign the name(s) of the sampler(s).
 - d. Station number: Enter the sample number for each sample in the shipment. This number appears on the sample identification label.
 - e. Date: Enter a six-digit number indicating the year, month, and day of sample collection.
 - f. Time: Enter a four-digit number indicating the time of collection in 24-hour time; for example, 1354.
 - g. Matrix/Type: Indicate the type of sample; composite or grab.
 - h. Station location: Describe the location where the sample was collected.
 - i. Number of containers: For each sample number, enter the number of sample bottles that are contained in the shipment.
 - j. Remarks: Enter any appropriate remarks.

D. Sample Shipment

1. Custody of samples shall be maintained through the shipment of samples to the selected laboratory(ies). All samples shall be packaged and shipped daily to ensure that no sample is held at the site more than 24 hours. Samples shall be delivered directly to the laboratory using the following procedures:
 - a. Use waterproof high-strength plastic ice chests or coolers only.
 - b. After filling out the pertinent information on the sample label and tag, put the sample in the bottle or vial and screw on the lid. For bottles other than VOA sample bottles, secure the lid with tape. (Tape on VOA bottles may cause contamination.)
 - c. Place inert cushioning material such as vermiculite or "bubble-wrap" in the bottom of the cooler.
 - d. Enclose the bottles in clear plastic bags through which sample labels are visible, and seal the bag. Place bottles upright in the cooler in such a way that they do not touch and will not touch during shipment.
 - e. Put in additional inert packing material to partially cover sample bottles (more than half-way). Place double-bagged crushed ice around, among, and on top of the sample bottles.
 - f. Fill cooler with cushioning material.
 - g. Put paperwork (chain-of-custody record) in a waterproof plastic bag and tape it with packing tape to the inside lid of the cooler.
 - h. Tape the drain shut.
 - i. Secure lid by taping. Wrap the cooler completely with strapping tape at a minimum of two locations. Do not cover any labels.
 - j. Attach completed shipping label to top of the cooler.
 - k. Put "This Side Up" labels on all four sides and "Fragile" labels on at least two sides of coolers containing glass containers.
 - l. Ship the cooler overnight by commercial carrier (e.g., Federal Express, UPS), laboratory carrier or field personnel to the respective laboratory.
2. Custody forms for the samples shall be signed by the Contractor's designated representative who is relinquishing custody. The custody form shall include the air bill number, method of shipment, and time and date of the transfer of custody.

3. Custody seals shall be applied to the front and back of the sample coolers. A shipping label with return address shall be applied as well as the air express bill and any U.S. Department of Transportation (DOT) required labels or markings.
- E. Transferring Custody of Samples to Shipper, if applicable: Contractor shall transfer custody of samples to a shipper as follows:
1. Sign, date, and enter time on the chain-of-custody report under "Relinquished by."
 2. Make certain that shipper signs the "Received by" entry.
 3. Enter name of the carrier under next "Relinquished by" category. Receiving laboratory shall sign "Received for Laboratory by" on lower line and enter date and time.
- F. Transferring Custody from Sampler or Shipper to Common Carrier:
1. The shipper or Contractor shall transfer custody of samples to a common carrier as follows:
 - a. Sign, date, and enter time under "Relinquished by" entry.
 - b. Enter name of carrier (e.g., UPS, Federal Express) under "Received by."
 - c. Enter bill-of-lading or Federal Express airbill number under "Remarks."
 - d. Place the original of the chain-of-custody form in the appropriate sample shipping package. Retain a copy with field records.
 - e. Sign and date the custody seal. The custody seal is part of the chain-of-custody process and is used to prevent tampering with samples after they have been collected in the field.
 - f. Wrap the seal across filament tape which has been wrapped around the hinges of the shipping package at least twice.
 - g. Fold the custody seal over on itself so that it sticks together.
 - h. Complete other carrier-required shipping papers.
 2. In instances when the Common Carrier will not accept responsibility for handling chain-of-custody forms, the Contractor shall ensure that the record is packed within the sample package.

- G. Laboratory Custody Procedures: Once the samples arrive at the laboratory, the Contractor shall ensure that custody of the samples is maintained by laboratory personnel. The laboratory shall, at a minimum, document the chain of custody through each stage of analysis from receipt to final reporting.

1.08 PROJECT CONDITIONS

- A. Decontamination of Sampling Equipment: All sampling equipment shall be certified clean or precleaned, prior to collection of each sample, by the following method:
 1. Wash all sampling equipment, secondary containers (e.g., mixing bowls for composite sampling) and aluminum foil with non-phosphate laboratory grade detergent and tap water.
 2. Triple rinse with distilled water.
 3. Rinse with isopropyl alcohol, or if samples are visibly contaminated with petroleum use a solvent, such as hexane.
 4. Triple rinse with analyte-free water.
- B. Disposal of Decontamination Solutions: Collect all decontamination solution and dispose of it through a licensed chemical waste disposal service if it is unsuitable for treatment on-site by incorporation into existing on-site treatment processes as defined in Section 02240 - Dewatering.
- C. No stockpiling of excavated material or stripped topsoil shall be allowed on site unless a written letter of approval is obtained from the Commissioner. Contractor shall use in-situ sampling methods for all materials to be excavated or requiring sampling for characterization. The Contractor shall assume that all subsurface areas are potentially contaminated, and excavated material shall be classified as a regulated non-hazardous, industrial waste or petroleum-contaminated waste.

1.09 REUSE/DISPOSAL FACILITY REQUIREMENTS

- A. Provided that In-Situ Sampling results confirm the absence of hazardous waste, non-hazardous industrial waste or petroleum contaminated waste, the Contractor may reuse the excavated materials onsite in accordance with the NYSDEC predetermined BUDs as described in 6 NYCRR Part 360-1.15(b)7 and (b)(8). All other excavated material must be reused or disposed offsite.
- B. Selection Requirements for Offsite Reuse or Disposal. : The Contractor shall submit the name of the selected offsite reuse/disposal facility and its location to the Commissioner for approval. Note that some companies have numerous locations each with differing requirements regarding types of material accepted, the specific analytical testing parameters, and the sampling frequencies. It is the Contractor's

responsibility to determine the specific waste acceptance criteria and testing requirements for each of its proposed facilities.

1. Regardless of the facility chosen, the Commissioner will confirm the permit status, types of materials accepted, and will check for outstanding violations and enforcement actions of the facility prior to approval.
 2. The Contractor shall verify location of the chosen facility(ies), as well as types of material accepted, the specific analytical testing parameters, and the sampling frequencies. The analytical and frequency requirements of these facilities are subject to change and it shall be the Contractor's responsibility to confirm and comply with all requirements of the chosen facility.
 3. If an approved facility is not available during construction, the Contractor shall be fully responsible for procuring alternate approved facilities at no additional cost to the City. Any additional sampling and analysis required and labor involved in selecting new facilities after the initial reuse or disposal facilities are accepted shall be the responsibility of the Contractor.
- C. Hazardous Waste: Material found to be a characteristic hazardous waste shall be disposed of at an approved hazardous waste disposal facility.

PART 2 PRODUCTS (Not Used)

PART 3 EXECUTION

3.01 IN-SITU TESTING

- A. Conduct testing in accordance with the Specifications and the approved Field Sampling Plan.
- B. Field sampling shall be completed in ample time to prevent delay of the excavation work or the work of any other contractor.
- C. Classification of the soils for reuse or disposal shall be carried out by the Commissioner.

-END OF SECTION-

Section 02106
EX-SITU SOIL SAMPLING, TESTING AND LABORATORY ANALYSIS

PART 1 GENERAL**1.01 SECTION INCLUDES**

- A. Temporary stockpiling of excavated material shall NOT be allowed on-site, unless a written letter of approval is obtained from the Commissioner. The preferred method of characterizing soils for disposal is in-situ sampling; however, if stockpiled soils have not been previously sampled during the in-situ sampling program, ex-situ sampling shall be required prior to reuse or disposal. The Contractor shall provide all labor, materials, tools, and equipment to perform all operations necessary to determine the ex-situ classification, handling and disposal requirements of soils and fill material.

1.02 RELATED SPECIFICATIONS

- A. Section 01330 – Shop Drawings
- B. Section 02105 - In-situ Soil Sampling, Testing and Laboratory Analysis
- C. Section 02316 – Excavation
- D. Section 02371 - Dust, Soil Erosion and Sedimentation Control

1.03 REFERENCES

- A. All references shall be in accordance with the requirements of Section 02105.

1.04 DEFINITIONS

- A. All definitions shall be in accordance with the requirements of Section 02105 – In-Situ Soil Sampling, Testing and Laboratory Analysis, except as modified herein.
 - 1. Ex-situ Soil Sampling: Sampling of soil that has been excavated and stockpiled.

1.05 SUBMITTALS

- A. If stockpiling is considered necessary, and approved by the Engineer, sampling shall be conducted only after the Field Sampling Plan prepared in accordance with Section 02105 is expanded to provide for the following:
 - 1. Stockpiles shall be constructed in accordance with Section 02371 – Dust, Soil Erosion and Sedimentation Control.
 - 2. The Contractor shall place excavated materials in stockpiles that are no larger than 500 CY.

3. Sampling shall be conducted by collecting representative grab samples throughout the soil stockpile. Surface soil shall not be used as sampling material. The Contractor is also required to satisfy the specific sampling requirements of the reuse or disposal facility.
 4. During stockpiling activities, the Engineer may identify quantities within each 500 cubic yard portion that differ in appearance from the bulk of the material. In this case, the Engineer will direct the Contractor to segregate these variable materials for stockpiling onsite.
 5. Unless otherwise specified by the Beneficial Use Determination or disposal facility, samples for VOC analysis shall be grab samples that are selected based on field screening to identify biased (worst case) physical evidence of contamination, e.g. staining, volatile vapors, odors.
- B. All other submittals shall be in accordance with the requirements of Section 02105 – In-Situ Soil Sampling, Testing and Laboratory Analysis.

1.06 QUALITY ASSURANCE

- A. All quality assurance requirements shall be in accordance with the requirements of Section 02105 – In-Situ Soil Sampling, Testing and Laboratory Analysis.

1.07 DELIVERY, STORAGE AND HANDLING

- A. All delivery, storage and handling requirements shall be in accordance with the requirements of Section 02105 – In-Situ Soil Sampling, Testing and Laboratory Analysis.

1.08 PROJECT CONDITIONS

- A. All project conditions shall be in accordance with the requirements of Section 02105 – In-Situ Soil Sampling, Testing and Laboratory Analysis.

1.09 ANALYSES

- A. All analytical requirements shall be in accordance with the requirements of Section 02105 – In-Situ Soil Sampling, Testing and Laboratory Analysis.

1.10 DISPOSAL FACILITY REQUIREMENTS

- A. All disposal facility requirements shall be in accordance with the requirements of Section 02105 – In-Situ Soil Sampling, Testing and Laboratory Analysis.

PART 2 PRODUCTS (Not Used)

PART 3 EXECUTION

3.01 EX-SITU TESTING

- A. Conduct testing in accordance with this Section and the approved Field Sampling Plan.
- B. Ex-situ sampling shall be completed in ample time to prevent delay of the excavation work.

-END OF SECTION-

NO TEXT ON THIS PAGE

**Section 02222
DEMOLITION AND REMOVALS**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Contractor shall provide all labor, materials, equipment and incidentals as shown on the Contract Drawings, specified and required to complete the demolition and removals work and properly dispose of all demolition and removals waste materials from the site.
- B. Included, without limitation, are demolition and removals of existing materials, structures, equipment, and other work necessary to install the new Work as shown and specified and to connect the same with existing work to remain in an approved manner. Demolition and removals include existing marine piles, structural concrete, foundations, walls, doors, windows, structural steel, metals, roofs, masonry, attachments, appurtenances, piping, utilities, electrical and mechanical equipment, paving, curbs, walks, fencing, and similar existing facilities.
- C. Demolition and removals that may be specified under other Sections shall conform to requirements of this Section.
- D. The removal of all equipment, piping, pumps, and all other materials from the demolition of buildings and structures shall, when released by the Commissioner, become Contractor's property, unless otherwise noted. These materials and debris shall be disposed of off-site as required by the Contract Documents.
- E. Contractor shall obtain all required permits for the demolition and removals work from the City and other agencies having jurisdiction.
- F. Contractor is responsible for the transportation, handling, removal and proper disposal of regulated solid and hazardous wastes.

1.02 RELATED SPECIFICATIONS

- A. Section 01355 - Hazardous Materials Control
- B. Section 01733 - Construction Waste Management
- C. Section 02223 - Lead Management
- D. Section 02316 - Excavation
- E. Section 02371 - Dust, Soil Erosion and Sedimentation Control
- F. Section 13210 - Closure of Aboveground Petroleum Storage Tanks

- G. Section 13283 - PCB Management
- H. Section 13284 - Asbestos Management
- I. Section 13285 - Management of Universal and Other Miscellaneous Regulated Waste
- J. Section 13286 - Management of Bird Excrement

1.03 REFERENCES

- A. Reference Standards: Regarding closure of underground storage tanks, Contractor shall comply with the applicable provisions and recommendations of the following, unless otherwise shown or specified.
 - 1. 29 CFR 1926 - Safety and Health Regulations for Construction (Subpart T- Demolition)
 - 2. 29 CFR 1910 - Occupational Safety and Health Standards
 - 3. ANSI/ASSE A10 Construction and Demolition Safety Standards
 - 4. AWS D12.1 - Reinforcing Steel Welding Code

1.04 SUBMITTALS

- A. Provide all submittals in accordance with Section 01330 - Shop Drawings.
- B. Working drawings and shop drawings shall include, but not be limited to proposed methods, equipment and operating sequences to be used in performance of the demolition and removals work.
- C. Sequence and Schedule. Submit a detailed schedule showing the sequence and duration of demolition activities, including the removal and management of hazardous materials performed under Section 01355 - Hazardous Materials Control, Section 02223 - Lead Management, Section 13210 - Closure of Aboveground Petroleum Storage Tanks, Section 13283 - PCB Management, Section 13284 - Asbestos Management, Section 13285 - Management of Universal and Other Miscellaneous Regulated Waste, and Section 13286 - Management of Bird Excrement.
 - 1. The schedule shall reflect the priority for addressing damaged ACM and asbestos containing debris identified on the Tipping Floor, Access Ramp, Ramp A and Ramp B and other potential areas within the Marine Transfer Station, such that hazards posed by asbestos can be eliminated or controlled during all other aspects of the contract work.

1.05 JOB CONDITIONS

A. Protection

1. Demolition and removals work shall be performed by competent workmen experienced in the various types of demolition and removals work required, and it shall be carried through to completion with the prevention of damage or injury to structures and facilities to remain, City employees, workers on the site, the public and adjacent features which might result from falling debris or other causes, and so as not to interfere with the use of, and free and safe passage to and from, adjacent structures and facilities.
2. Contractor shall provide, erect and maintain catch platforms, lights, barriers, weather protection, warning signs and other items as required for proper protection of the public, occupants of the building, workers engaged in demolition operations, and adjacent construction.
3. Contractor shall provide and maintain temporary protection of existing structures and facilities designated to remain where demolition and removals and new work is being done, connections made, materials handled or equipment moved. Contractor shall be responsible for any damage to such existing structures and facilities to remain or contents by reason of providing insufficient protection.
4. Contractor shall take necessary precautions to control dust as required by Section 02371 - Dust, Soil Erosion and Sedimentation Control. Dust shall be prevented from rising by wetting demolished masonry, concrete, plaster and similar debris, as necessary to control visible dusts and as required when conducting work under 02223 - Lead Management.
5. Contractor shall provide adequate fire protection in accordance with local Fire Department requirements.
6. Contractor shall be solely responsible for making all necessary arrangements and for performing all necessary work involving the discontinuance or interruption of all utilities or services.
7. Closing or obstructing of roadways, sidewalks, and passageways adjacent to the Work by the placement or storage of materials will not be permitted, and all operations shall be conducted with minimum interference to traffic.
8. Contractor shall repair damage caused by its operations to facilities to remain, or to any property belonging to the City.
9. The work shall comply with 29 CFR Part 1926 -- Safety and Health Regulations for Construction, applicable provisions and recommendations of ANSI/ASSE A10 -- Construction and Demolition Safety Standards, all

governing codes and rules, and as specified herein or in the Detailed Specifications.

10. Contractor shall make such investigations, explorations and probes as are necessary to ascertain any required protective measures before proceeding with demolition and removals.
 11. Demolition and removal of hazardous materials shall be in accordance with applicable Federal, State and Local regulations and Sections 02223 – Lead Management, 13210 – Closure of Aboveground Petroleum Storage Tanks, 13283 – PCB Management, 13284 – Asbestos Management, 13285 – Management of Universal and Other Miscellaneous Regulated Waste, and 13286 – Management of Bird Excrement.
 12. Handling and disposal of all other waste demolition and removals materials shall conform to requirements of Section 01733 - Construction Waste Management
- B. Permits: Obtain all permits required for closing or obstructing streets and sidewalks. Obtain all permits as required for demolition of any building or structure located in New York City including a Demolition Permit from the Department of Buildings and a DEP Registration for Demolition from the Department of Environmental Protection, Bureau of Environmental Compliance.
- C. Condition of Buildings, Structures and Equipment
1. The City does not assume responsibility for the actual condition of buildings, structures and equipment to be demolished and removed.
 2. Conditions existing at the time of inspection for bidding purposes will be maintained by the City so far as practicable. However, there is no guarantee by the City that the number of fixtures, amount of equipment or any other material of value existing at bidding time in the buildings and structures to be demolished will be present in the structures when they are demolished. Contractor shall have no claim against the City because of the absence of such fixtures and materials.
 3. The information regarding the existing structures and equipment shown on the Contract Drawings is based on a compilation of past project drawings, visual inspections and a walk-through survey. Neither the Commissioner nor the City will be responsible for interpretations or conclusions drawn therefrom by Contractor.
- D. Notification: At least 48 hours prior to commencement of demolition and removals, Contractor shall notify the Engineer in writing of its proposed schedule. The City of New York will inspect the existing equipment or facilities and review with the Contractor those items that are to remain the property of the City of New York. No

demolition or removals shall be started without the permission of the Commissioner.

- E. The use of explosives will not be permitted.

PART 2 PRODUCTS (Not Used)

PART 3 EXECUTION

3.01 GENERAL

- A. The work required shall be performed with care, and shall include all necessary shoring, bracing, and support to prevent movement, settlement, or collapse of existing structures or facilities. Contractor shall be responsible for any damage that may be caused by demolition and removal work to any part or parts of existing structures or items designated for reuse or to remain, and shall repair the same at no additional costs to the City.
- B. Pollution Controls: Use temporary enclosures, water sprinkling, and other suitable methods to prevent contamination of the adjacent water bodies and to control dusts to the lowest practical level. Comply with Section 02371 - Dust, Soil Erosion and Sedimentation Control and all governing regulations pertaining to environmental protection.
 - 1. Protection of adjacent water bodies during demolition and hazardous materials remediation activities shall be in accordance with the Contractor's Water Protection Plan as required by Section 01355 Article 1.11.A.4.
 - 2. Do not use water when it may create hazardous or objectionable conditions such as ice, flooding, and pollution.
 - 3. Clean adjacent structures, facilities, existing facilities to remain and improvements of dust, dirt, and debris caused by demolition operations. Return adjacent areas to conditions existing prior to the start of the work unless otherwise shown, specified or required.
 - 4. The use of calcium chloride for dust control will not be allowed.
- C. Any materials or items designated to remain the property of the City of New York shall be removed with care and stored at locations designated by the City of New York.
- D. Where equipment is shown or specified to be removed and relocated, Contractor shall not proceed with removal of this equipment without specific prior approval of the Commissioner. Upon approval, and prior to commencing removal operations, the equipment shall be operated in the presence of representatives of Contractor and the Commissioner. Such items shall be removed with care and shall be protected

and stored until required. Material or equipment damaged during removal shall be replaced with similar new material or equipment. Any equipment that is removed without proper authorization shall be replaced at no cost to the City of New York.

- E. Wherever piping is to be removed for disposal, the piping shall be drained by Contractor, and adjacent pipe and headers that are to remain in service shall be blanked off or plugged and then anchored in an approved manner.
- F. Where alterations occur, or new and old work join, Contractor shall cut, remove, patch, repair or refinish the adjacent surfaces to the extent required by the construction conditions, so as to leave the altered work in as good a condition as existed prior to the start of the work. The materials and workmanship employed in the alterations shall be of the same quality as required for new work of the same type.
- G. Contractor shall remove temporary work, such as enclosures, signs, guards, and the like when such temporary work is no longer required or when directed at the completion of the work.
- H. Contractor shall dispose of all demolition materials, equipment debris, and all other items not marked or specified by the City of New York to remain as property of the City of New York, off site and in conformance with Section 01733 – Construction Waste Management all existing applicable laws and regulations. Disposal of hazardous materials shall also be in accordance with Sections 01355 – Hazardous Materials Control, 02223 – Lead Management 13283 – PCB Management, 13284 – Asbestos Management, 13285 – Management of Universal and Other Miscellaneous Regulated Waste, and 13286 – Management of Bird Excrement.
- I. Backfill to grade all open areas caused as a result of the demolition except for areas where new work will proceed within 30 days and the nature of the new Work dictates otherwise.
- J. Building Demolition
 - 1. Unless otherwise approved by the Engineer, proceed with demolition from the top of the structure to the ground. Complete demolition work above each floor or tier before disturbing supporting members of lower levels.
 - 2. Demolish concrete and masonry in small sections.
 - 3. Break up and remove foundations and slabs-on-grade, unless otherwise shown to remain.
 - 4. Locate equipment used for demolition work, and remove demolished materials, so as not to impose excessive loads on structures and facilities to remain nor cause any contamination of the adjacent water bodies.

5. Regrade in accordance with Section 02316 - Excavation, where appropriate.

3.02 STRUCTURAL REMOVALS

- A. Contractor shall remove existing marine piles, foundations, concrete, structures and sub-structures to the lines and grades shown or noted unless otherwise directed by the Commissioner. Where no limits are shown or noted, the limits shall be grade or top of bottom slab, unless otherwise approved by the Commissioner. The removal and replacement of materials beyond these limits shall be at Contractor's expense.
- B. Determine the thickness of existing concrete to be removed and the extent to which it is reinforced. No additional compensation will be made because of variations from the thickness shown or for variations in the amount of reinforcement.
- C. All concrete, stone, masonry, roofing materials, reinforcement, structural or miscellaneous metals, plaster, wire mesh and other items contained in or upon the structure shall be removed and taken from the site and disposed of at a permitted facility. Demolished items shall not be used in backfill.

3.03 MECHANICAL REMOVALS

- A. Mechanical removals shall consist of dismantling and removing existing pipes, pumps, motors and other facilities as specified, shown, or required for the completion of the work. It shall include cutting, capping, draining, and plugging as required.
- B. Existing process, water, chemical, and other piping shall be removed and capped where shown on the Contract Drawings. Piping shall be purged and made safe by the Contractor prior to removal or capping. Disposal of any chemicals or other purged material in accordance with the requirements of Section 01355 – Hazardous Materials Control and Section 13285 – Management of Universal and Other Miscellaneous Regulated Wastes. . Where piping that is to be removed passes through existing walls, it shall be cut off and properly capped on each side of the wall.
- C. When underground piping is to be altered or removed, the remaining piping shall be properly capped. Abandoned underground piping may be left in place unless it interferes with new work or is shown or specified to be removed.
- D. Any required demolition or changes to potable water piping and other plumbing system work shall be made in conformance with all applicable codes.
- E. Provide all caps, plugs, blind flanges, shut-off valves and other work and materials required to remove from service existing piping and necessary to keep existing piping in service where shown or required.

3.04 PAVEMENT, CURB AND SIDEWALK REMOVALS

- A. Remove existing pavement, including base and surface courses, stabilized sub-bases, curbs, and gutters as required to construct new facilities or as shown. When removing sections next to sections that are to remain, sawcut the full depth of the concrete and asphalt. Cut pavements, curbs and sidewalks with non-impact tools or other equipment approved by the Commissioner. Breaking of pavements, curbs and sidewalks by impact, such as with the use of a ball, is not permitted. Curbs and gutters shall be removed to the nearest construction joint beyond the limit of demolition shown on the Drawings.
- B. Provide for satisfactory transition between replaced pavement and sidewalks and the portions remaining in place.

3.05 ELECTRICAL REMOVALS

- A. Electrical removals shall consist of the removal of existing generators, transformers, distribution switchboards, control panels, motors, conduits and wires, and miscellaneous electrical equipment all as shown, specified, or required to perform the work.
- B. All existing electrical equipment and fixtures to be removed shall be removed with such care as may be required to maintain the integrity of the grounding systems.
- C. Motors shall be disconnected and removed where shown or specified. Motors not marked or designated by the City of New York to be salvaged shall be removed from the site. Motors or other electrical gear designated for reuse shall be stored in enclosed, heated storage.
- D. Conduits and wires shall be abandoned or removed where shown.
- E. Electrical Contractor is responsible for de-energizing the existing electrical service.

3.06 MISCELLANEOUS REMOVALS

- A. Contractor shall remove miscellaneous items where shown on the Contract Drawings or where necessary for the construction of new structures or modification of existing structures.

3.07 MODIFICATIONS AND CLOSURES

- A. Modifications shall conform with all applicable Specifications, Contract Drawings, and the directions and approvals of the Commissioner.
- B. Where alterations require cutting or drilling into existing floors, walls, and roofs, the holes shall be repaired in an approved manner. Contractor shall repair such openings with the same or matching materials as the existing floor, wall, or roof, or

as otherwise approved by the Commissioner. All repairs shall be smoothly finished unless otherwise approved by the Commissioner.

- C. Openings in existing concrete slabs, ceilings, roofs, masonry walls, floors and partitions which are not to be used in the new work shall be closed and sealed as shown or otherwise directed by the Commissioner.
- D. Where parts of existing structures are to remain in service, demolish the portions to be removed, repair damage, and leave the structure in proper condition for the intended use. Remove concrete and masonry to the lines designated by drilling, chipping, and other suitable methods. Leave the resulting surfaces true and even, with sharp straight corners that will result in neat joints with new construction or be satisfactory for the purpose intended. Where existing reinforcing rods are to extend into new construction, remove the concrete so that the reinforcing is clean and undamaged. Cut off other reinforcing flush with the surface.
- E. New work shall be keyed into the existing in an acceptable manner. New reinforcing steel shall be welded to the existing reinforcing. Welding shall conform to AWS D12.1, Reinforcing Steel Welding Code. In general, the same or matching materials as the existing adjacent surface shall be used. The finished closure shall be a smooth, tight, sealed, permanent closure with all exposed surfaces smooth finished and acceptable to the Commissioner.

3.08 MAINTENANCE AND CLEAN UP

- A. Contractor shall maintain all buildings, structures, and other City properties free from accumulations of waste, debris, and rubbish caused by the demolition and removal operations.
- B. Contractor shall provide on-site dump containers for collection of waste materials, debris and rubbish, and shall wet down dry materials to prevent blowing dust.
- C. At reasonable intervals during the progress of the demolition and removal work or as directed by the Commissioner, Contractor shall clean the Site and dispose of waste materials, debris, and rubbish in accordance with Section 01733-Construction Waste Management.

-END OF SECTION-

NO TEXT ON THIS PAGE

Section 02223
LEAD MANAGEMENT

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. This Section details the requirements for construction and demolition activities affecting materials and structures coated with or containing lead or other heavy metals (i.e., arsenic, cadmium, chromium, or mercury) or PCBs, as shown on the Contract Drawings, specified herein, or required to complete the work.
- B. The Contractor is responsible for the proper management of lead containing materials identified during various investigations at the Marine Transfer Station site as detailed in the Bidwell Environmental Report dated December 2012. These materials include lead pipe joints summarized in Table 6, and lead-containing paint summarized in Tables 2 and 3 of Section 01355 – Regulated Materials Control. Much of the paint is peeling and paint debris is scattered throughout the facility.
- C. The Contractor is responsible for removing all loose (e.g., flaking, peeling, delaminated, separated, etc.) paint and paint debris from all substrates and surfaces prior to proceeding with demolition. Removal of paint that is adhered to substrates (e.g., abatement, spot removal) or lead pipe joints need not be performed unless necessary to control airborne contaminant levels as described herein.
- D. All work under this Section shall be performed to minimize the creation of airborne emissions; minimize the quantity of hazardous waste generated; protect the health and safety of all site personnel and the welfare of the public; and avoid adverse environmental impacts.
- E. The Contractor shall be responsible for verifying all existing field conditions, including, but not limited to, the location and extent of loose and peeling paint and paint debris.
- F. In the absence of analytical testing results for a specific paint, the paint shall be classified as PCB-containing and heavy metal-containing (i.e., arsenic, cadmium, chromium, lead, and mercury).
- G. Any unforeseen or additionally identified PCB, lead or heavy metal-containing paints/coatings discovered during the work to be performed under this Section shall be remediated as necessary to complete the work in accordance with this Section.
- H. The Contractor shall perform all work under this Section without damaging or contaminating adjacent water bodies or areas proximate to where the work is being performed. Where such areas are damaged or contaminated, as determined by the Engineer, the Contractor shall restore the areas to their original condition at no additional cost to the City of New York.

1.02 RELATED SPECIFICATIONS

- A. Section 01355 - Hazardous Materials Control
- B. Section 01733 - Construction Waste Management

1.03 REFERENCES

- A. The Contractor shall comply with all applicable regulations, standards, and guidelines of federal, state, and local environmental and occupational safety and health agencies regarding lead-containing materials and lead wastes. These regulations, standards, and guidelines include, but are not limited to the following:

1. American Society for Testing and Materials (ASTM)
 - 1) Method E1553-93 - Standard Practice for Collection of Airborne Particulate Lead during Abatement and Construction Activities
2. Department of Transportation (DOT)
 - 1) 49 CFR 171 - General Information, Regulations, and Definitions
 - 2) 49 CFR 172 - Hazardous Materials Table, Special Provisions, Hazardous Materials Communications, Emergency Response Information, and Training Requirements
 - 3) 49 CFR 173 - Shippers: General Requirements for Shipments and Packagings
 - 4) 49 CFR 178 - Specifications for Packagings
3. Environmental Protection Agency (EPA)
 - 1) 40 CFR 50 - National Primary and Secondary Ambient Air Quality Standards
 - 2) 40 CFR 116 - Designation of Hazardous Substances
 - 3) 40 CFR 117 - Determination of Reportable Quantities for Hazardous Substances
 - 4) 40 CFR 260 - Hazardous Waste Management Systems: General
 - 5) 40 CFR 261 - Identification and Listing of Hazardous Waste
 - 6) 40 CFR 262 - Standards Applicable to Generators of Hazardous Waste
 - 7) 40 CFR 263 - Standards Applicable to Transporters of Hazardous Waste

- 8) 40 CFR 264 - Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities
 - 9) 40 CFR 265 - Interim Status Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities
 - 10) 40 CFR 268 - Land Disposal Restrictions
 - 11) 40 CFR 302 - Designation, Reportable Quantities, and Notification
 - 12) 40 CFR 745 - Lead-Based Paint Poisoning Prevention in Certain Residential Structures
4. National Institute for Occupational Safety and Health (NIOSH)
- 1) Method 5503 – Polychlorobiphenyls
 - 2) Method 6009 – Mercury
 - 3) Method 7048 - Cadmium and Compounds, as Cd
 - 4) Method 7082 - Lead by FAAS
 - 5) Method 7105 - Lead by GFAAS
 - 6) Method 7300 - Elements by ICP
 - 7) Method 7600 - Chromium, Hexavalent
 - 8) Method 7604 - Chromium, Hexavalent
 - 9) Method 7900 - Arsenic and Compounds, as As
5. New York State Department of Environmental Conservation (NYSDEC)
- 1) 6 NYCRR 364 - Waste Transporter Permits
 - 2) 6 NYCRR 370 - Hazardous Waste Management Regulations
 - 3) 6 NYCRR 371 - Identification and Listing of Hazardous Waste
 - 4) 6 NYCRR 372 - Hazardous Waste Manifest System and Related Standards for Generators, Transporters, and Facilities
 - 5) 6 NYCRR 373 - Hazardous Waste Management Facilities
 - 6) 6 NYCRR 376 - Land Disposal Restrictions
6. Occupational Safety and Health Administration (OSHA)
- 1) 29 CFR 1910 - Occupational Safety and Health Standards
 - 2) 29 CFR 1910.28 - Safety Requirements for Scaffolding

- 3) 29 CFR 1910.120 - Hazardous Waste Operations and Emergency Response
 - 4) 29 CFR 1910.134 - Respiratory Protection Standard
 - 5) 29 CFR 1910.1200 - Hazard Communication Standard
 - 6) 29 CFR 1926 - Safety and Health Regulations for Construction
 - 7) 29 CFR 1926.62 - Lead in Construction Standard
 - 8) 29 CFR 1926.1118 - Inorganic Arsenic in Construction Standard
 - 9) 29 CFR 1926.1126- Hexavalent Chromium in Construction Standard
 - 10) 29 CFR 1926.1127 - Cadmium in Construction Standard
7. Society for Protective Coatings (SSPC)
- 1) SSPC-Guide 6, Guide for Containing Debris Generated During Paint Removal Operations
 - 2) SSPC-Guide 7, Guide for the Disposal of Lead-Contaminated Surface Preparation Debris
 - 3) SSPC-SP COM, Surface Preparation Commentary for Steel and Concrete Substrates
 - 4) SSPC-SP 1, Solvent Cleaning
 - 5) SSPC-SP 2, Hand Tool Cleaning
 - 6) SSPC-SP 3, Power Tool Cleaning
 - 7) SSPC-SP 11, Power Tool Cleaning to Bare Metal
 - 8) SSPC-SP 13/ NACE No.6, Surface Preparation of Concrete
 - 9) SSPC-SP 15, Commercial Grade Power Tool Cleaning
8. Underwriters Laboratories, Inc. (UL)
- 1) UL 586 - Standard for Safety High Efficiency, Particulate, Air Filter Units.

1.04 DEFINITIONS

- A. Action Level: Defined by OSHA as individual exposure, without regard to the use of respirators, to a specific airborne concentration of a contaminant expressed in micrograms per cubic meter of air ($\mu\text{g}/\text{m}^3$) calculated as an 8-hour Time-Weighted Average (TWA). Once an Action Level is met or exceeded, the Contractor is responsible for meeting specific requirements outlined in the applicable OSHA standard, which may include additional worker exposure monitoring, the use of Personal Protective Equipment (PPE) including respiratory protection, the use of hygiene facilities, medical surveillance, or training for workers. The following Action Levels are pertinent to the disturbance, removal, construction/demolition, and disposal activities associated with painted/coated materials and structures:
- 1) Cadmium – $2.5 \mu\text{g}/\text{m}^3$ per 29 CFR 1926.1127;
 - 2) Hexavalent chromium - $2.5 \mu\text{g}/\text{m}^3$ per 29 CFR 1926.1126;
 - 3) Inorganic arsenic - $5 \mu\text{g}/\text{m}^3$ per 29 CFR 1926.1118;
 - 4) Lead - $30 \mu\text{g}/\text{m}^3$ per 29 CFR 1926.62.
- B. Area Monitoring: Stationary air sampling outside of a Lead Control Area for the purpose of determining compliance with OSHA's Lead in Construction Standard (29 CFR 1926.62), and for the purpose of ensuring that airborne lead concentrations remain below $30 \mu\text{g}/\text{m}^3$ outside of the Lead Control Area during all work activities that have the potential to disturb lead-containing materials or lead wastes. Area monitoring for PCBs or other heavy metals (i.e., arsenic, cadmium, chromium, or mercury) will be required if exposure monitoring results exceed corresponding Action Levels, Permissible Exposure Limits (PELs), or Threshold Limit Values (TLVs). All area monitoring shall follow pertinent NIOSH or ASTM sampling methodologies.
- C. Department of Transportation (DOT) Hazardous Materials Transportation Training: Training that meets the criteria outlined in 49 CFR 172.704. This training shall include discussions of the following:
- 1) Hazardous materials tables within 49 CFR 172;
 - 2) Material packaging and labeling;
 - 3) Shipping papers and placards;
 - 4) Material loading and segregation.
- D. Exposure Monitoring: Personal air sampling performed outside the respirator within the breathing zone of individuals, for the purpose of determining compliance with OSHA's Limits for Air Contaminants Table (29 CFR 1910.1000, Table Z-1),

OSHA's Cadmium in Construction Standard (29 CFR 1926.1127), Hexavalent Chromium in Construction Standard (29 CFR 1926.1126), Inorganic Arsenic in Construction Standard (29 CFR 1926.1118), and Lead in Construction Standard (29 CFR 1926.62). Analytical results obtained from exposure monitoring will be used to select appropriate respiratory protection and Personal Protective Equipment (PPE) for individuals within a work area. For the purpose of this Section, exposure monitoring samples shall be collected from individuals who are representative of each type work task being conducted by the Contractor, and all exposure monitoring shall follow pertinent NIOSH or ASTM sampling methodologies.

- E. Lead-Containing Material: Any material that contains, or is coated with, a detectable concentration of lead. In the absence of analytical testing, a lead-containing material shall be considered PCB and heavy metal-containing (i.e., contains arsenic, cadmium, chromium, and mercury).
- F. Lead Control Area: The area within the physical boundary where worker hygiene facilities are located and where all work activities take place that involve the disturbance of lead-containing materials and lead wastes.
- G. OSHA Cadmium in Construction Standard (29 CFR 1926.1127): A federal standard that applies to all construction work where an employee may be occupationally exposed to cadmium. In this standard, "construction work" is defined as work involving construction, alteration, or repair, including, but not limited to, the following:
 - 1) Wrecking, demolition, or salvage of structures where cadmium or materials containing cadmium are present;
 - 2) The use of cadmium-containing paints, and cutting, brazing, burning, grinding, or welding on surfaces that were painted with cadmium-containing paints;
 - 3) Construction, alteration, repair, maintenance, or renovation of structures, substrates, or portions thereof, that contain cadmium, or materials containing cadmium;
 - 4) Cadmium welding, cutting and welding cadmium-plated steel, brazing or welding with cadmium alloys;
 - 5) The installation of products containing cadmium;
 - 6) Electrical grounding with cadmium welding, or electrical work using cadmium-coated conduit;
 - 7) Maintaining or retrofitting cadmium-coated equipment;
 - 8) Cadmium contamination/emergency cleanup;

- 9) Transportation, disposal, storage, or containment of cadmium or materials containing cadmium on the site or location at which construction activities are performed.
- H. OSHA Hexavalent Chromium in Construction Standard (29 CFR 1926.1126): A federal standard that applies to occupational exposures to chromium (VI) in all forms and compounds in construction except the following:
- 1) Exposures that occur in the application of pesticides regulated by the EPA or another federal government agency (e.g., the treatment of wood with preservatives);
 - 2) Exposures to Portland cement;
 - 3) Exposures where the employer has objective data demonstrating that a material containing chromium or a specific process, operation, or activity involving chromium cannot release dusts, fumes, or mists of chromium (VI) in concentrations at or above the Permissible Exposure Limit (PEL) of 5 $\mu\text{g}/\text{m}^3$ as an 8-hour Time-Weighted Average (TWA) under any expected conditions of use.
- I. OSHA Inorganic Arsenic in Construction Standard (29 CFR 1926.1118): A federal standard that applies to all occupational exposures to inorganic arsenic except the following:
- 1) Employee exposures in agriculture;
 - 2) Exposures resulting from pesticide application;
 - 3) Exposures resulting from the treatment of wood with preservatives or the utilization of arsenic-preserved wood.
- J. OSHA Lead in Construction Standard (29 CFR 1926.62): A federal standard that applies to all construction work where an employee may be occupationally exposed to lead. In this standard, "construction work" is defined as work for construction, alteration, or repair, including painting and decorating. It also includes, but is not limited to, the following:
- 1) The demolition or salvage of structures where lead or materials containing lead are present;
 - 2) The removal or encapsulation of materials containing lead;

- 3) New construction, alteration, repair, or renovation of structures, substrates, or portions thereof, that contain lead, or materials containing lead;
 - 4) The installation of products containing lead;
 - 5) Lead contamination/emergency cleanup;
 - 6) The transportation, disposal, storage, or containment of lead or materials containing lead on the site or location at which construction activities are performed;
 - 7) Maintenance operations associated with any of the construction activities described in this definition.
- K. Permissible Exposure Limit (PEL): Defined by OSHA as employee exposure, without regard to the use of respirators, to a specific airborne concentration of a contaminant expressed in micrograms per cubic meter of air ($\mu\text{g}/\text{m}^3$) calculated as an 8-hour Time-Weighted Average (TWA). Once a PEL is met or exceeded for a particular contaminant, the Contractor is responsible for meeting specific requirements outlined in the applicable OSHA standard, which may include worker exposure monitoring, the use of Personal Protective Equipment (PPE) including respiratory protection, the use of hygiene facilities, medical surveillance, or training for workers. The following PELs are pertinent to removal, demolition, and disposal activities associated with lead and PCB-containing materials and lead and PCB containing wastes:
- 1) Cadmium – $5 \mu\text{g}/\text{m}^3$ per 29 CFR 1926.1127;
 - 2) Hexavalent chromium - $5 \mu\text{g}/\text{m}^3$ per 29 CFR 1926.1126;
 - 3) Inorganic arsenic - $10 \mu\text{g}/\text{m}^3$ per 29 CFR 1926.1118;
 - 4) Lead - $50 \mu\text{g}/\text{m}^3$ per 29 CFR 1926.62.;
 - 5) PCB Aroclor 1254 – $0.5 \text{ mg}/\text{m}^3$ per 29 CFR 1910.1000, Table Z-1;
 - 6) PCB Aroclor 1242 – $1.0 \text{ mg}/\text{m}^3$ per 29 CFR 1910.1000, Table Z-1.
- L. Resource Conservation and Recovery Act (RCRA) Training: Training that meets the criteria outlined in 40 CFR 265.16. This training shall include site-specific discussions of the following:
- 1) Hazardous waste identification;
 - 2) Waste storage container use and labeling;

- 3) Waste storage area management;
- 4) Personal health and safety, including fire safety;
- 5) Manifesting and the off-site transportation of wastes;
- 6) Procedures for using, inspecting, repairing, and replacing emergency equipment and monitoring equipment;
- 7) Procedures for communicating with other employees and outside emergency response personnel;
- 8) Responses to fires or explosions;
- 9) Responses to leaks, spills, and potential groundwater contamination incidents
- 10) The shutdown of operations.

M. Threshold Limit Value (TLV): Developed by the American Conference of Governmental Industrial Hygienists (ACGIH) as a guideline for employee exposure, without regard to the use of respirators, to a specific airborne concentration of a contaminant expressed in milligrams per cubic meter of air (mg/m³) calculated as an 8-hour Time-Weighted Average (TWA) or ceiling limit. The following TLV is pertinent to removal, demolition, and disposal activities associated with painted/coated materials and structures:

- 1) mercury – 0.025 mg/m³.

1.05 SUBMITTALS

A. Within 30 business days of the "Notice to Proceed" or as directed by the Engineer, the Contractor shall submit the following to the Engineer:

1. Lead Management Plan(s): Prior to the removal of any loose and peeling paint, or disturbance of any lead-containing materials, the Contractor shall submit a detailed, project-specific Lead Management Plan that addresses work procedures and equipment to be used during the disturbance, removal, handling, collection, and disposal of lead, heavy metal and PCB containing materials and wastes. The Lead Management Plan shall be prepared in accordance with Occupational Safety and Health Administration (OSHA) Construction Standards and all other pertinent federal, state, and local regulations. The Lead Management Plan shall be signed and dated by an American Board of Industrial Hygiene Certified Industrial Hygienist (CIH) and shall address the following:

- a) Inventory of Lead Containing Materials

- (1) The Contractor shall submit a final inventory of lead containing materials. The final inventory shall include known lead-containing materials wastes identified in the Bidwell Environmental Hazardous Materials Investigation Report (located in appendix) and summarized in Tables 2,3 and 6 of Section 01355, and any additionally identified wastes identified during the Contractor's Hazardous Material Investigation performed in accordance with Section 01355 – Hazardous Materials Control.

b) Lead Control

- (1) Drawings showing the location and details of the following:
 - (a) Each Lead Control Area;
 - (b) Each hygiene facility;
 - (c) Proposed electrical hookups;
 - (d) Proposed water hookups;
 - (e) Each waste storage area, including but not limited to C&D containers, drummed paint debris, and decontamination wastes;
 - (f) Restroom areas;
 - (g) Designated break areas for eating and drinking;
- (2) A detailed discussion regarding the interfacing of trades, as applicable and the sequencing of lead-related work;
- (3) A detailed discussion regarding the collection, handling procedures, and disposal of lead-containing materials and lead wastes (including the collection, filtering, and disposal of wastewater);
- (4) A detailed discussion regarding the procedures and methodologies that will be used to conduct exposure monitoring and area monitoring for particulates. Also, provide the name and qualifications (i.e., training and experience documentation) of the Air Monitor who will be responsible for conducting the air monitoring activities. The Air Monitor shall have, at a minimum, completed lead and PCB awareness training within the past year in the form of either an initial course or a refresher course. In addition, the Air Monitor shall have a minimum of two (2) years' experience in conducting area monitoring and exposure monitoring on projects involving the disturbance of lead-containing materials. It is acceptable for an individual who meets the criteria of the Competent Person or Waste Manager, to also serve as the Air Monitor for this Contract as long as the individual satisfies all of the minimum requirements;

- (5) A detailed discussion regarding housekeeping procedures to be used for maintaining clean work areas and clean hygiene facilities;
- (6) A detailed discussion regarding personal and equipment decontamination protocol;
- (7) A detailed discussion regarding the specific methods and procedures of emissions control that will be used to ensure that airborne contaminant levels do not meet or exceed an OSHA Action Level or American Conference of Governmental Industrial Hygienists (ACGIH) Threshold Limit Value (TLV) outside of each Lead Control Area. It should be noted that even after paint/coating removal, demolition activities (e.g., torch-cutting abated steel) still have the potential to generate elevated airborne levels of lead, heavy metals and PCBs. Therefore, the Contractor shall provide engineering controls to capture dusts or fumes emitted during demolition work that involves the cutting or burning of steel structures that have already been abated;
- (8) A detailed task analysis for each work activity that has the potential to disturb lead-containing materials or lead wastes. Each task analysis shall include, but is not limited to, the following information:
 - (a) The type of work activity;
 - (b) The tools/equipment that will be used;
 - (c) Operation and maintenance practices and procedures that will be used for the tools/equipment;
 - (d) The types of lead-containing materials that may be disturbed or lead wastes that may be generated when performing the activity;
 - (e) The engineering controls that will be used to control the spread of contamination during the activity;
 - (f) The proposed crew size for the activity and individual employee responsibilities during the activity;
 - (g) Housekeeping procedures that will be used during the activity;
 - (h) Personal Protective Equipment (PPE) and proposed respiratory protection that will be used for the activity;
- (9) Equipment and Supplies: Identify the equipment and supplies that will be used to perform the work;
- (10) Rental Equipment Notification: If rental equipment is to be used during the work, the Contractor shall notify the rental agency in writing concerning the intended use of the equipment.

- (11) MSDSs: Provide MSDSs for all chemical products (including chemical stripping products) to be used for the work;
- (12) The name and qualifications (i.e., experience and training documentation) of the Competent Person who will be responsible for the oversight and execution of the Lead Management Plan during all activities affecting lead-containing materials and lead wastes. At a minimum, the Competent Person shall have successfully completed DOT Hazardous Materials Transportation training and RCRA training courses. In addition, the Competent Person shall have successfully completed both HAZWOPER training, lead and PCB awareness training courses. Note – C-3/C-5 Supervisor Competent Person Training for Deleading of Industrial Structures, or training as an EPA Lead Supervisor may be substituted for HAZWOPER and lead awareness training. Each training course shall have been completed within the past year in the form of either an initial course or a refresher course.
- (13) The Competent Person shall have a minimum of two (2) years' relevant experience and shall be responsible for the following:
 - (a) Determining prior to the performance of the work, whether lead, PCBs, or other heavy metals (i.e., arsenic, cadmium, chromium, or mercury) are present in the workplace;
 - (b) Establishing Lead Control Areas and assuring that access to and from those areas is limited to authorized personnel;
 - (c) Assuring the adequacy of any employee exposure monitoring required by OSHA;
 - (d) Assuring that all employees exposed to airborne contaminant levels above Action Levels, Permissible Exposure Limits (PELs), or Threshold Limit Values (TLVs) wear appropriate Personal Protective Equipment (PPE), respiratory protection, and are trained in the use of appropriate methods of exposure control for all of the contaminants present;
 - (e) Assuring that proper hygiene facilities are provided and that workers are trained to use those facilities;
 - (f) Assuring that engineering controls specific to the contaminants present are implemented, maintained in proper operating condition, and functioning properly.

- (14) Waste Management
- (15) The identification of lead-containing materials, lead wastes, and hazardous wastes (as defined in 40 CFR 261 and 6 NYCRR 371) associated with the work;
- (16) The estimated quantity of each waste stream, including but not limited to construction and demolition debris, paint debris and decontamination wastes that will be generated and disposed of/recycled;
- (17) The name, address, phone number, and qualifications for each vendor and facility that will be transporting, storing, testing, or disposing of the wastes. Include a 24-hour phone contact for each vendor and facility;
- (18) Current permit documentation for each recycling facility or Treatment, Storage and Disposal Facility (TSDF) indicating that the facility is approved by federal, state, and local regulatory agencies to receive lead-containing materials and lead wastes. The documentation shall include an "acceptance letter" from each TSDF indicating its ability to accept the specific waste streams that will be generated during work performed under this Section;
- (19) Current 6 NYCRR 364 permit documentation for the waste transporter that will transport lead-containing materials and lead wastes from the work site to the TSDF. The documentation shall clearly indicate the transporter's ability to deliver the hazardous or non-hazardous wastes to the chosen TSDF;
- (20) Spill prevention, containment, and cleanup contingency measures to be implemented during the work, as well as procedures to be followed during a suspected lead emissions/bulk material release or emergency situation;
- (21) A detailed discussion of the on-site handling, storage, removal, and disposal of waste materials. This discussion shall include, but is not limited to the following:
 - (a) Specifications for a secondary containment system for each drum storage area;
 - (b) Provisions for covering bulk construction and demolition debris containers;
 - (c) The methods of demarcation that will be used to identify the waste storage areas and each waste container;
 - (d) The methods and procedures that will be used to collect and containerize wastes on a daily basis;

- (e) The types of containers that will be used to containerize the wastes;
 - (f) The posting of weekly waste inspection and inventory records for known or potentially hazardous waste streams as defined in Article 1.05.B.2 of this Section;
- (22) The name and qualifications (i.e., experience and training documentation) of the Waste Manager who will be responsible for the oversight and execution of the Lead Management Plan during waste management activities involving lead-containing materials and lead wastes. At a minimum, the Waste Manager shall have successfully completed DOT Hazardous Materials Transportation Training, HAZWOPER training, lead awareness training, PCB awareness training and RCRA training courses. Each training course shall have been completed within the past year in the form of either an initial course or a refresher course. The Waste Manager shall have a minimum of two (2) years' experience on projects involving hazardous wastes (including lead).
- c) A detailed schedule for the implementation of the Lead Management Plan elements. The schedule shall clearly indicate the starting and completion dates for the work, and shall allow adequate time for cleanup, inspections, and air monitoring activities.
 - d) Medical Surveillance: For all activities that result in airborne lead concentrations equal to, or in excess of the Action Level (as defined in 29 CFR 1926.62), or for those activities that take place within a Lead Control Area, the Contractor shall submit for this Contract a sufficient number of properly trained and experienced workers, each of whom shall:
 - (23) Have completed initial blood testing (including zinc protoporphyrin (ZPP) testing), and have a blood lead level (BLL) below 35 micrograms per deciliter (ug/dl)(if the worker's BLL is in excess of 35 ug/dl, the worker shall show medical approval for this work);
 - (24) Have received a medical exam that included a Pulmonary Function Test (PFT) within the past year;
 - (25) Have received written medical clearance within the past year, by a licensed physician, to wear a respirator;
 - (26) Have received a qualitative or quantitative respirator fit-test for the specific respirator the employee will be using for this work within the past year.
 - e) Employee Documentation: For all activities that result in airborne contaminant concentrations (i.e., heavy metals or PCBs) equal to, or in excess of an Action Level, PEL, or TLV, or for those activities that take

place within a Lead Control Area, the Contractor shall provide a sufficient number of properly trained and experienced workers, each of whom shall:

- (1) Have written proof of training (e.g., certificates) for Lead Workers, Competent Persons, Waste Managers, and Air Monitors that will be used for the work;
 - (2) Copies of resumes for Competent Persons, Waste Managers, and Air Monitors that will be used for the work, indicating work experience;
 - (3) Dates and written proof of initial medical surveillance by the Contractor or other employer within the past year, and proof that the employee is currently participating in the employer's ongoing medical surveillance program;
 - (4) Dates and written proof of respiratory clearance and a medical exam;
 - (5) Dates and written proof of a respirator fit-test.
- f) A current (i.e., within the last month) signed and notarized statement disclosing all of the Contractor's OSHA, Environmental Protection Agency (EPA), and Department of Transportation (DOT) citations/violations on projects involving lead within the past three (3) years. If the Contractor will be using a subcontractor, a current signed and notarized statement disclosing all of the subcontractor's OSHA, EPA, and DOT citations/violations on projects involving lead within the past three (3) years will also be required.
2. Analytical Laboratory Qualifications: Submit the name, address, and telephone number of each analytical laboratory selected to perform the analyses of waste samples (solid and liquid), air samples collected for area monitoring and exposure monitoring purposes. The analytical laboratory shall be currently accredited by the American Industrial Hygiene Association (AIHA) and the New York State Department of Health's (NYSDOH's) Environmental Laboratory Approval Program (ELAP). Provide copies of current AIHA and ELAP certificates along with dates of accreditation/reaccreditation. ELAP certificates must show evidence of certification for the specific analytical methods that will be used to analyze each type of sample that will be collected.
- B. Field Reports and Recordkeeping: During all work performed under this Section, the Contractor shall maintain and provide the following documentation:
1. Air Monitoring Documentation: All air monitoring results and daily air monitoring reports shall be provided to the Engineer within 24 hours from the date the samples are collected. The results shall be signed by the laboratory employee who analyzed or supervised the analysis of the samples, as well as the Air Monitor that physically performed the air monitoring activities at the

work site. All laboratory analytical results shall be accompanied by complete Chain of Custody documentation.

- 1) Each daily air monitoring report shall be signed by the Contractor's employee who generated the report. The content of these reports shall include, but shall not be limited to, the following information:
 - (1) Sample "start" and "stop" times;
 - (2) Flow rates (initial and final) for each sample;
 - (3) The total volume of air collected for each sample;
 - (4) Sample location descriptions/sample location drawings/names of individuals being sampled;
 - (5) Types (i.e., makes and models) of sampling equipment used;
 - (6) Types of sample media (i.e., filters and cassettes) used;
 - (7) The most recent calibration dates, along with the calibration results, for the sampling equipment used;
 - (8) The name of the Air Monitor that conducted the air monitoring;
 - (9) Dates that the air monitoring was conducted;
 - (10) Work tasks being performed during the air monitoring;
 - (11) Unique sample numbers used to identify each sample.

2. Waste Documentation: Completed and signed waste manifests from TSDFs shall be provided to the Engineer within ten (10) business days of disposal. In addition, on-site known or potentially hazardous waste storage areas shall be inspected weekly by the Waste Manager.
 - 1) Each waste storage area inspection shall be coordinated with the Engineer, documented in the form of a written report, and each report shall be signed by the Contractor's employee who generated the report. All reports shall be provided to the Engineer within 24 hours of the date the inspection is completed. The content of these reports shall include, but not be limited to, the following information:
 - (1) The name of the individual that conducted the inspection;
 - (2) Descriptions of waste streams being stored;
 - (3) Types and quantities of waste containers being used;
 - (4) The current disposal status (i.e., when each waste container is scheduled to be removed from the work site) and physical condition of each waste container;
 - (5) The presence/absence of proper labeling for each waste container in accordance with Article 3.04.E of this Section and federal, state, and local regulations;
 - (6) Secondary containment systems being used;
 - (7) The methods being used to secure/lock each waste storage area to prevent any unauthorized entry;

- (8) The presence of any waste containers on site generated during the work performed under this Section that violate RCRA generator storage time limitations, as defined in 40 CFR 262.
 - 2) In addition to performing weekly waste storage area inspections, the Waste Manager shall also maintain an ongoing waste inventory. The waste inventory shall be coordinated with the Engineer, and the content of the inventory record shall include, but is not limited to, the following information:
 - (1) Specific dates that each waste container was added/removed from the waste storage area;
 - (2) The full name (printed) and signature of the individual responsible for adding/removing each waste container from the waste storage area.
3. Lead Control Area Inspection Documentation: Lead Control Areas shall be inspected daily by the Competent Person.
 - 1) Each daily Lead Control Area inspection shall be documented in the form of a written report, and each report shall be signed by the Contractor's employee who generated the report. All reports shall be provided to the Engineer within 24 hours of the date the inspection is completed. The content of these reports shall include, but not be limited to the following information:
 - (1) The types of work being performed;
 - (2) The names of the Lead Workers, Competent Person, Waste Manager, and Air Monitor on site, as well as the name of the company each individual is representing;
 - (3) The types of air monitoring (i.e., exposure monitoring or area monitoring) being conducted, and the number of samples being collected for each type of air monitoring activity;
 - (4) Any non-compliance issues observed (i.e., observations that conflict with the requirements of the Contractor's Lead Management Plan, this Section, or federal, state, and local regulations) along with the corrective actions that were taken to achieve compliance.
4. Contractor Project Record: The Contractor's Competent Person shall maintain a project record at the work site. The Contractor Project Record shall be made available to the Engineer for review at any time during the work, and shall be submitted to the Engineer within 24 hours after the completion of the work.
 - 1) At a minimum, the Contractor Project Record shall contain the following information:

pertaining to the disturbance, abatement, removal, construction/demolition, handling, storage, transportation, and disposal of lead-containing materials and lead wastes. All matters regarding the interpretation of any regulations, standards, or policies shall be submitted to the Engineer for resolution before starting the work. Where the requirements of this Section, or federal, state, or local regulations conflict or vary, the most stringent requirements or regulations shall apply.

- B. **Rejection of Non-Complying Items:** The Engineer reserves the right to reject items incorporated into the work which fail to meet the specified minimum requirements. Submittal items that may be deemed inappropriate or unacceptable include proposed vendors or subcontractors with previous regulatory citations/violations.
- C. **Qualifications (Demolition Contractor and Paint Removal Contractor)**
1. **Contractor:** The Contractor shall have successfully completed at least three (3) projects of comparable scope and methodologies to the work being performed under this Section. This experience shall be documented by identifying the following:
 - 1) The name, address, and phone number of each facility where the work was performed;
 - 2) The name of the individual representing the owner who supervised the work at each facility;
 - 3) The types of facilities where the work was performed;
 - 4) The volume and type of each material that was abated/removed;
 - 5) The specific methods of abatement/removal used at each facility (including the tools, technologies, and engineering controls employed).
 2. **Lead Worker:** The Contractor shall have on staff and assigned to this Contract a sufficient number of Lead Workers who have successfully completed DOT Hazardous Materials Transportation training and lead awareness training courses. Each training course shall have been completed within the past year in the form of either an initial course or a refresher course. In addition, each Lead Worker shall have worked on three (3) projects of comparable scope and methodologies to the work being conducted under this Section.

PART 2 PRODUCTS

2.01 MATERIALS

- A. Respirators: The Contractor shall select respirators approved by the National Institute for Occupational Safety and Health (NIOSH) for use in areas where paints/coatings, dusts, materials, or wastes containing contaminants may be disturbed. At a minimum, the Contractor shall provide each individual with a half-face, negative pressure, air purifying respirator equipped with HEPA/P-100 filter cartridges (and organic vapor cartridges if PCBs are present), until exposure monitoring results indicate that respiratory protection can be modified. The Contractor's CIH shall make all determinations regarding respiratory protection modifications that will be implemented for the work. All modifications shall be in accordance with the OSHA Lead in Construction Standard (29 CFR 1926.62), Inorganic Arsenic in Construction Standard (29 CFR 1926.1118), Hexavalent Chromium in Construction Standard (29 CFR 1926.1126), Cadmium in Construction Standard (29 CFR 1926.1127), and the Contractor's Lead Management Plan.
- B. PPE: The Contractor shall provide personnel who have a potential to be exposed to materials or wastes containing contaminants, with appropriate PPE as prescribed by the Contractor's CIH.
- C. HEPA Filters: HEPA/P-100 filters used in vacuuming equipment, power tools, and local exhaust equipment must meet or exceed any manufacturer's specifications and recommendations, as well as specifications presented in the Standard for Safety High Efficiency, Particulate, Air Filter Units (UL 586).
- D. Waste Containers: Containers for the storage of all wastes shall be DOT-approved, and shall be provided by the Contractor.
- E. Abrasives: Mechanical paint/coating removal equipment shall not use any products containing crystalline silica, and the equipment shall not utilize any non recoverable materials or any cutting materials which introduce toxic or hazardous materials into the environment.
- F. Chemical Strippers: The Contractor shall utilize an environmentally safe chemical paint stripping system. The system shall include non-alkaline or alkaline strippers that provide the lowest possible level of toxicity consistent with the types of paints/coatings to be removed. Neutralization products and procedures shall be provided for all alkaline stripping systems, no stripping system shall contain methylene chloride, and the stripping system shall be low in volatile organic compounds (VOCs).

PART 3 EXECUTION

3.01 PREPARATION

- A. **Hygiene Facilities:** The Contractor shall provide functional hygiene facilities that are appropriate for the types of work to be performed under this Section. The Contractor shall ensure that employees do not leave a Lead Control Area wearing any potentially contaminated PPE. Using compressed air to dislodge dust from clothing/PPE shall be strictly prohibited. The Contractor shall collect, test, and properly dispose of all wastewater generated from hygiene facilities.
1. **Handwash Stations:** The Contractor shall provide functioning handwash stations on all projects that disturb lead-containing materials or lead wastes. Handwash stations shall have running water at the tap, clean towels, and soap per 29 CFR 1926.51. Substituting "hand wipes" in place of soap and running water will not be acceptable.
 2. **Showers:** The Contractor shall provide shower facilities in accordance with 29 CFR 1926.62, for use by employees whose airborne exposure to lead is above the PEL. When shower facilities are necessary, employees are required to shower at the end of the work shift each day prior to leaving the Lead Control Area that they are working in.
- B. **Utilities:** The temporary use of any on-site utilities shall be subject to the approval of the Engineer. The Contractor shall furnish all water and hoses needed for the work, as well as any temporary hookups. Also, the Contractor shall supply all heating equipment and water filtration devices needed for the work. In addition, all temporary lighting and temporary electrical service to a Lead Control Area shall be provided by the Contractor, and shall be in weather-proof enclosures and be ground fault protected.
- C. **Scaffolding:** The Contractor shall furnish all scaffolding of whatever type is necessary to perform the work under this Section, subject to the OSHA Safety Requirements for Scaffolding (29 CFR 1910.28), the City of New York, and the approval of the Engineer. Scaffolding shall be inspected after its construction, but prior to use by any Contractor employees, by an individual qualified as a Competent Person to inspect scaffoldings, as defined by OSHA.
- D. **Signs:** The Contractor shall post conspicuous warning signs at all approaches to work areas and waste storage areas. The signs shall be located at such a distance so that personnel may read the sign and take the necessary precautions before entering a work area or waste storage area. Signs shall comply with federal, state, and local regulations, including the requirements of OSHA. Signs shall not be removed until all abatement, removal, and construction/demolition activities have been completed. At a minimum, each sign shall bear the following information in English and the predominant language that is spoken by the Contractor's employees if English is not spoken:

WARNING
LEAD WORK AREA
POISON
NO SMOKING OR EATING

1. Each sign shall be appropriately modified to include additional warnings for other contaminants that are identified during exposure monitoring (i.e., arsenic, cadmium, chromium, mercury, or PCB warnings shall be added as necessary).
- E. Physical Boundary Delineation: The Contractor shall clearly delineate each work area and waste storage area with a physical boundary such as "caution tape" or a partition that surrounds the work area in order to limit the entry of unauthorized personnel and to delineate "clean areas" for areas that may meet or exceed an Action Level or Permissible Exposure Limit.
- F. Work Area Preparation: The Contractor shall implement engineering controls, as necessary, to mitigate the release of lead containing materials and wastes into adjacent water bodies and mitigate the migration of particulates outside the work area limits. The engineering controls may include, but are not limited to, installation of tarps, barriers, etc. In the event of a release, the Contractor shall provide labor, equipment, and materials to perform emergency measures, and to remove regulated materials for offsite disposal at no additional cost to the City of New York.

3.02 LOOSE PAINT REMOVAL

- A. The Contractor shall remove loose paint from the interior exterior surfaces and structural components of the Marine Transfer Stations to the satisfaction of the Engineer. The Contractor shall be responsible for identifying locations where loose paint is present. Loose paint removal activities shall be conducted in accordance with 29 CFR Parts 1926.62.
- B. The Contractor shall conduct the loose paint removal activities in a manner that minimizes the generation of airborne dust (e.g., vacuuming the building surfaces with high-efficiency particulate air [HEPA] vacuum). The use of burning and/or open flame devices will not be allowed. Removed paint, used personnel protective equipment and decontamination wastes shall be collected and placed into USDOT-approved containers (e.g., 55-gallon drums).
- C. Following the completion of loose paint removal activities, floor areas and other surfaces that contain separated pieces of paint shall be cleaned of loose paint, dirt, and debris to the satisfaction of the Resident Engineer. Loose paint, dirt, and debris shall be placed into USDOT-approved containers for subsequent transportation and offsite disposal (by the Contractor).

3.03 AIR MONITORING

- A. Air monitoring for airborne concentrations of lead, PCBs, and other heavy metals (i.e., arsenic, cadmium, chromium, and mercury particulates) shall be conducted by the Air Monitor in accordance with OSHA and Articles 1.04.B and 1.05.D of this Section.
1. Exposure Monitoring: For work involving the disturbance of any detectable concentration of lead, PCBs, or other heavy metals (i.e., arsenic, cadmium, chromium, and mercury) the Contractor shall collect personal air samples from employees who are anticipated to have the greatest risk of exposure, as determined by the Contractor's CIH or Competent Person. Personal air samples shall be collected during every work shift from at least one (1) employee that is representative of each type of work task that is being performed. Each personal air sample shall "run" for the employee's entire work shift in order to ensure that enough volume (of air) is collected and an accurate 8-hour TWA can be calculated. Documentation regarding the sample numbers, specific shift when the sampling was conducted, the work tasks that were sampled, the dates of sampling, the employee hours that were worked during the shift, and the total sampling times, shall accompany each laboratory COC form.
 - 1) Exposure monitoring for arsenic, cadmium, chromium, and mercury may be discontinued following a complete negative exposure assessment and approval from the Engineer and the Contractor's CIH. However, daily exposure monitoring for lead shall remain, regardless of the negative exposure assessment results.
 2. Area Monitoring: The Contractor shall collect a minimum of two (2) area air samples outside of each Lead Control Area on a daily basis for the duration of the abatement, spot removal, or construction/demolition work, as well as any other work involving the disturbance of lead-containing materials or lead wastes. During sampling activities, all air sample filter cassettes shall be positioned approximately five to six feet above the ground (in order to simulate an individual's breathing zone), and shall not be placed immediately adjacent to obstructions (e.g., walls or columns) which may restrict the flow of air to the filter cassettes. Each air sample shall be analyzed for all contaminants identified during the exposure assessment. If area air monitoring indicates an emission level in excess of an OSHA Action Level or ACGIH TLV outside of a Lead Control Area, all work in that area shall be stopped immediately. The Contractor shall then take immediate corrective actions to reduce emission levels to below the Action Level(s) or TLV, and the Contractor shall clean all adjacent areas that may have become contaminated due to the emissions. Documentation regarding the sample numbers, sample locations, the dates of sampling, the employee hours that were worked during the shift, and the total sampling times, shall accompany each laboratory COC form.

3. Documentation: Complete documentation of all air monitoring activities shall be in accordance with Article 1.05.B.1 of this Section.
4. The Contractor shall submit all air monitoring results to the Engineer as soon as possible, but no later than 24 hours from when the air samples were collected.

3.04 CLEANUP AND DISPOSAL

- A. Cleanup: The Contractor shall maintain all surfaces, including protective coverings (polyethylene sheeting) within each work area, free of accumulations of paint chips/coating debris, dusts, and wastes. The Contractor shall perform housekeeping activities daily throughout each work shift and at the end of each work shift, in order to prevent any accumulation of paint chips/coating debris, dusts, and wastes in the work areas. Dry sweeping and using compressed air to cleanup a work area shall be strictly prohibited. HEPA-filtered vacuums and wet methods shall be used to ensure that each work area remains free of visible paint chips/coating debris, dusts, and wastes.
- B. Sampling and Laboratory Analysis of Paint Removal Wastes: For hazardous waste characterization, the Waste Manager shall sample all potential heavy metal and PCB-containing waste streams in accordance with 40 CFR 261 and 6 NYCRR Part 371. All waste samples shall be collected in the presence of the Engineer using the following procedure:
 1. One (1) composite waste sample shall be collected for laboratory analysis from each waste drum that is generated. Each composite sample shall be a mixture of four (4) grab samples. The first grab sample shall be collected when the drum is approximately $\frac{1}{4}$ full of waste. The second grab sample shall be collected when the drum is approximately $\frac{1}{2}$ full of waste. The third grab sample shall be collected when the drum is approximately $\frac{3}{4}$ full of waste, and the fourth and final grab sample shall be collected when the manufacturer's recommended capacity of the drum has been achieved, and the drum is ready to be sealed for transport to the TSDF. Each composite sample shall be labeled and submitted to a laboratory that satisfies the requirements set forth in Article 1.05.A.2 of this Section. Each composite sample shall undergo Toxicity Characteristic Leaching Procedure (TCLP) analysis for the eight (8) RCRA metals.
 2. The Contractor shall also direct the laboratory to analyze each sample for any additional parameters that are required by the specific TSDF being used. In addition, if the waste stream is associated with the use of a chemical paint stripping system, the Contractor shall have the laboratory analyze each sample for pH and any other RCRA characteristic that may fail due to the chemical composition of the waste.

3. If the waste stream is associated with paints that were not previously sampled for PCBs, the Contractor shall have the laboratory perform PCB on the affected waste samples. The Contractor shall ensure that the laboratory being used to satisfy the requirements of Article 1.05.A.2 of this Section is also capable of performing these additional analytical tests.
 4. One (1) representative wastewater sample shall be collected for laboratory analysis from each drum that is generated. Each sample shall be collected using appropriate field sampling equipment (e.g., a pipette or bailer), and shall be labeled and submitted to a laboratory that satisfies the requirements set forth in Article 1.05.A.2 of this Section.
- C. **Sampling and Laboratory Analysis of Painted Demolition Debris:** Several full-core samples were collected from accessible areas of the Marine Transfer Station, including the Tipping Level and Exterior. The core samples were collected from miscellaneous non-steel substrates (i.e., painted, unpainted, glazed) substrates for the purpose of classifying construction and demolition (C&D) wastes. The results of analysis are summarized in the Bidwell Environmental Hazardous Material Investigation Report (HMIR) and Table 8 of Section 01355 and reveal that the non-steel C&D debris from the Tipping Level and facility exterior is non-hazardous. Unless otherwise determined to be asbestos containing, C&D debris from the Tipping Level and Facility Exterior shall be disposed of in accordance with Section 01733 – Construction Waste Management.
1. In accordance with Section 01355 Article 1.05, the Contractor shall collect representative bulk samples of painted demolition wastes from previously inaccessible areas of the Barge Slip Level. All bulk samples shall undergo TCLP analysis for the eight (8) RCRA metals.
 2. **Scrap Metal Exemption for Recycling:** Bulk sampling of scrap metal destined for recycling, including piping with lead joints, is not necessary. Under 6 NYCRR 371.1(c)(7), painted and lead-containing scrap metal can be sent to a recycling facility, rather than be discarded as hazardous waste. In order for the Engineer to submit a “c7 notification” to the NYSDEC and claim the “scrap metal exemption,” the Contractor must first submit notification to their recycling facility indicating that lead is present on the scrap metal. If PCBs are detected in the paints/coatings on the scrap metal, the Contractor shall also disclose this information to the recycling facility (It should be noted that if PCB concentrations are greater than or equal to 50 ppm, the scrap metal cannot be recycled and instead must be disposed of as a PCB-regulated waste). The Contractor shall receive written permission from the recycling facility indicating that the facility will accept scrap metal coated with lead and PCB-containing paints, as applicable. The Contractor shall submit this documentation to the Engineer for approval prior to disposal
- D. **Collection, Separation, and Containerization of Wastes:** The Contractor shall collect, separate (by waste stream/waste type), and containerize lead wastes (solid

and liquid), debris, PPE, and containment materials on a daily basis in accordance with the Lead Management Plan.

1. The Contractor shall store all wastes in DOT-approved container systems. No drum/container shall be filled in excess of the capacity marked on the drum/container. All drums/containers shall be sealed and covered immediately after filling, and each drum/container shall have a label affixed to it in accordance with Article 3.04.E of this Section. All labels shall remain intact and legible at all times.
 2. No water mixed with or contaminated by hazardous waste may be released onto the ground or into any drain or sewer. It should be noted that a discharge of more than 10 lbs. of lead (this includes 10 lbs. of debris containing lead) onto the ground or into the water within a 24-hour period, shall be considered a violation of the Clean Water Act and shall be treated as a "reportable quantity" in accordance with 40 CFR 117. Such a release shall be grounds for immediate termination of this Contract, and the Contractor shall be liable for any fines, penalties, or remediation costs.
 3. The Contractor shall store non-hazardous wastes separately from hazardous wastes, shall provide all non-hazardous waste containers, and shall make all transportation and disposal arrangements for non-hazardous wastes in accordance with federal, state, and local regulations.
- E. Storage of Wastes: The Contractor shall ensure that all drummed wastes are stored in a secondary containment system, and that each waste storage area is demarcated with a physical boundary. In addition, the Contractor shall post weekly waste inspections and waste inventories in the regulated waste storage area, as defined in Article 1.05.B.2 of this Section, as well as the following emergency information:
1. The name and telephone number of the facility's Emergency Coordinator;
 2. The location of fire extinguishers and fire alarms;
 3. The location of spill control materials;
 4. The telephone number for the fire department (unless the facility has a direct alarm). Unless determined to be non-hazardous via laboratory analysis, containerized waste shall be labeled:

HAZARDOUS WASTE – PENDING ANALYSIS
 FEDERAL LAW PROHIBITS IMPROPER DISPOSAL
 HANDLE WITH CARE

[Generator Name, Address, and Telephone Number]
 [Specific Contents of Container]
 [EPA-Issued Generator Identification Number]
 [EPA Waste Identification Number]
 [Accumulation Start Date]
 [Accumulation End Date]

5. Upon receipt of analytical test data, containers shall be relabeled to remove the reference to "Pending Analysis" and shall be labeled as hazardous or non-hazardous accordingly. Non-hazardous labels shall identify the contents of the drum.
- F. Disposal of Wastes: All waste profiles for containerized wastes must be reviewed by the Engineer and signed by The City of New York as the generator of the waste streams. The Contractor shall notify the Engineer least 14 business days prior to the removal of any waste drums/containers, so that the Engineer can inspect the drums/containers and the waste manifests. Wastes shall be disposed of to ensure that drums/containers do not remain on the job site for more than 90 calendar days from the initial "accumulation start date" on the label affixed to the drum/container. Containers that have reached their storage capacity shall not remain on site, and transportation arrangements shall be made for their immediate removal.
- G. Disposal Documentation: The Contractor shall submit written evidence that the TSDF receiving heavy metal-containing wastes is approved by federal, state, and local regulatory agencies to receive the wastes. If regulated PCBs (50 ppm or greater) are detected in the wastes, the Contractor shall also ensure that the TSDF is approved by federal, state, and local regulatory agencies to receive regulated PCB wastes. Once all waste profiles have been completed, the Contractor shall provide the Engineer a "Letter of Approval" issued from the TSDF indicating that the wastes will be accepted. The Contractor shall submit one (1) copy of the completed manifest that has been signed and dated by the initial transporter and TSDF in accordance with 6 NYCRR 372 and 40 CFR 262, to the Engineer. All waste profiles, manifests, and Land Disposal Restrictions (LDRs) must be signed by the Commissioner.

3.05 DUST CONTROL

- A. In addition to the requirements of Article 3.03A of this Section, if a significant amount of visible dust is generated during the demolition, removal, and/or handling of painted building components, as determined by the Engineer, the Contractor shall take all appropriate measures to reduce the concentration of airborne dust to the satisfaction of the Engineer.

-END OF SECTION-

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Section 02225
IMPACTED SOIL HANDLING

PART 1 GENERAL**1.01 SECTION INCLUDES**

- A. Requirements for identifying, classifying, handling, and staging of impacted soil generated as a result of demolition and construction activities.

1.02 RELATED SPECIFICATIONS

- A. Section 01355 – Hazardous Materials Control
- B. Section 01356 - Safe and Healthful Working Conditions
- C. Section 02105 - In-situ Soil Sampling, Testing and Laboratory Analysis
- D. Section 02106 - Ex-situ Soil Sampling, Testing and Laboratory Analysis
- E. Section 02240 - Dewatering
- F. Section 02291 - Air Monitoring Program
- G. Section 02316 - Excavation
- H. Section 02317 - Backfilling
- I. Section 02371 - Dust, Soil Erosion and Sedimentation Control
- J. Section 13287 - Environmental Waste Transportation and Disposition

1.03 PAYMENT

- A. All costs for work specified in this Section shall be included in the lump sum bid for Bid Item 1 except as described below in Part 1.03.B
- B. Additional costs for handling, transportation and disposal of soils classified as unforeseen soil conditions as described in Part 3.02 below shall be paid for out of the Hazardous Materials Allowance subject to the requirements of Section 01355 – Hazardous Materials Control.

1.04 DEFINITIONS

- A. Impacted soil – Soil that meets one or more of the following criteria:
 - 1. Soil containing constituents at concentrations greater than their respective numerical values for protection of human health and water quality presented in New York State Department of Environmental Conservation's (NYSDEC's) document entitled, *Technical and Administrative Guidance Memorandum (TAGM) 4046: Determination of Soil Cleanup Objectives and Cleanup Levels*;
 - 2. Soil identified as "impacted" in the Appendix. The Appendix is provided for informational purposes only and is not part of the Contract;

3. Soil impacted by oil or otherwise grossly impacted (e.g., staining, sheens, odors, elevated photoionization detector [PID] readings, etc.), as determined by the Commissioner at his/her sole discretion; and
 4. Soil identified by the Contractor to be impacted based on the protocol presented in Section 01355 – Hazardous Materials Control, and/or as defined in this or other applicable Sections.
- B. All excavated soil shall be classified as impacted soil, unless otherwise specified or directed by the Commissioner.

1.05 WORK SPECIFIED

- A. The Contractor shall provide all labor, equipment, materials, and services necessary for identifying, classifying, handling, and staging of impacted soil present at the work site.

1.06 SUBMITTALS

- A. At least 30 calendar days prior to the commencement of the impacted soil handling work, the Contractor shall submit the following items for review in accordance with the requirements specified in Section 01355 – Hazardous Materials Control:
1. Impacted Soil Excavation Plan containing the Contractor-proposed procedures for handling and staging impacted soil.
 2. A description of proposed impacted soil staging areas.

PART 2 PRODUCTS (Not Used)

PART 3 EXECUTION

3.01 SOIL CLASSIFICATIONS

- A. Nonhazardous Suitable Soil – Impacted soil (as defined in Paragraph 1.04A of this Section) that meets the requirements for one or more of the backfill material categories (i.e., drainage fill, select fill, etc.) presented in Section 02317 – Backfilling. If screening and/or crushing is required to meet the backfill material category requirements, the soil shall be deemed unsuitable soil.
- B. Nonhazardous Unsuitable Soil – Contains either of the following:
1. Does not meet the backfill material category (i.e., drainage fill, select fill, etc.) requirements presented in Section 02317 – Backfilling.
 2. Impacted by oil or otherwise grossly impacted (e.g., sheens, odors, elevated PID readings) as determined by the Commissioner.

- C. Hazardous Material – Meets one or more of the criteria for determination of a hazardous waste presented in Part 371 of Title 6 of New York Codes, Rules, and Regulations (6 NYCRR Part 371) and Part 261 of Title 40 of the Code of Federal Regulations (40 CFR 261).
- D. The Contractor shall assume that all soil requiring excavation is impacted and meets the description set forth in Paragraphs 3.01A and 3.01B.1 of this Section.

3.02 UNFORESEEN SOIL CONDITIONS

- A. Impacted soil that meets the description set forth in Paragraphs 3.01B.2 and 3.01C of this Section (e.g., is impacted by oil or otherwise grossly impacted [e.g., sheens, odors, elevated PID readings] or is hazardous) shall be characterized and handled in accordance with Section 01355 – Hazardous Materials Control.
- B. The Contractor shall notify the Commissioner if unforeseen soil conditions are encountered.

3.03 WASTE HANDLING, STAGING, AND DISPOSAL

A. Handling and Staging

1. Impacted soil shall be segregated into the three soil classifications listed in Article 3.01 of this Section.
2. Excavated material shall be characterized for transportation and disposal in accordance with the following:
 - a. Section 02105 and Section 02106;
 - b. Applicable federal, state, and local regulations and permits; and
 - c. Paragraph 3.03C of this Section
3. Moving impacted soil off of the project site (except for disposal at a reviewed facility) is strictly prohibited unless authorized by the Commissioner.
4. In accordance with Section 02106, temporary stockpiling of excavated material shall NOT be allowed on-site, unless a written letter of approval is obtained from the Commissioner. If a letter of approval is granted, comply with the requirements below.
5. The Contractor shall construct an onsite soil staging area(s) to properly contain impacted soil until receipt of waste characterization and transportation for off-site disposal. The soil staging area(s) shall be of suitable size to contain the anticipated quantities of soil generated during construction activities. The soil staging area(s) shall be placed within the construction limits of the Project, at designated areas as established by the Contractor prior to construction and reviewed and approved by the Commissioner. The soil

staging area(s) shall be constructed to meet the following minimum requirements:

- a. The impacted soil shall be placed by the Contractor onto an impermeable liner (e.g., 40-mil high density polyethylene [HDPE]) that is of sufficient strength and thickness to prevent puncture during use. The placement of impacted soils into the staging area shall be performed such that it does not involve any equipment or procedures that may jeopardize the integrity of the underlying impermeable liner.
 - b. An 18-inch high gravel berm shall be constructed around the perimeter of the staging area to provide for containment of liquids that have drained from the impacted soils, and to divert runoff around the staging area. The impermeable liner shall be placed within and extend up and over the berm and shall be anchored beyond the outside perimeter of the berm to prevent displacement. Soil or other waste materials shall not be utilized to anchor the cover.
 - c. The staging area shall be sloped (where practical) and equipped with a sump (if possible based upon site conditions) to collect liquids that have drained from the impacted soils or resulting from a precipitation event. The Contractor shall pump all liquids that accumulate within the staging area to a Contractor-provided temporary storage tank(s). Following collection, liquids shall be containerized by the Contractor and disposed of in accordance with the requirements of Section 02240 – Dewatering.
 - d. The staging area shall be continuously covered with 10-mil polyethylene sheeting, except while soils are being actively placed within or removed from the staging area. The polyethylene sheeting shall be maintained watertight by the Contractor for the duration of the soil staging activities and shall be securely anchored to prevent displacement.
 - e. The Contractor shall inspect the staging area(s) daily and shall promptly correct any deficiencies.
 - f. Impacted soil located in the staging area shall not exceed 8 feet in height unless authorized by the Commissioner.
 - g. Impacted soil located in the staging area shall be protected by the use of erosion and sediment control features, including silt fencing, in accordance with Section 02371 – Dust, Soil Erosion and Sedimentation Control. Such features shall be removed and disposed of appropriately at the end of construction.
- B. Soil Reuse: The Contractor shall not reuse soil for on-site backfill or for any other on-site use. The Contractor shall not reuse soil off-site.

- C. Transportation and Disposal: Soil shall be transported and disposed of in accordance with Section 13287 – Environmental Waste Transportation and Disposal and all current applicable federal, state, and local regulations and permits.

3.04 EXCAVATION DEWATERING

- A. The Contractor shall remove water that accumulates within active excavation areas to assist in dewatering soil and to facilitate implementation of the soil excavation activities. All water collected as a result of dewatering activities shall be collected, containerized, and handled in accordance with Section 02240 – Dewatering.

3.05 DECONTAMINATION OF EQUIPMENT

- A. The Contractor shall perform decontamination of equipment that comes in contact with impacted soil in accordance with the following:
1. The Contractor shall provide a personnel decontamination area as specified in the Contractor's Health and Safety Plan (HASP).
 2. Equipment decontamination shall be in accordance with provisions specified in Section 01355 – Hazardous Materials Control and Section 02371 – Dust, Soil Erosion and Sedimentation Control.
 3. The equipment decontamination area shall be placed within the contamination reduction zone as identified in the Contractor's HASP. Precautions shall be taken to limit contact between the equipment, decontamination personnel, and any cleaning liquids that may accumulate in the decontamination area.
 4. The Contractor shall dismantle and properly dispose of all materials associated with the equipment decontamination area and shall restore the area to its original conditions, and as required by the new transfer station construction design requirements at the end of construction.
 5. Wash water generated as a result of equipment decontamination activities shall be collected, containerized, and handled in accordance with Section 02240 – Dewatering.
 6. Solids and other materials generated during equipment decontamination shall not contact native soils and existing facilities, and shall be collected, characterized, and disposed of by the Contractor in accordance with Section 13287 – Environmental Waste Transportation and Disposal.
 7. Personnel engaged in equipment decontamination activities shall use personal protective equipment (PPE) in accordance with the Contractor's HASP.

-END OF SECTION-

NO TEXT ON THIS PAGE

**Section 02230
SITE CLEARING**

PART 1 GENERAL**1.01 SECTION INCLUDES**

- A. The Contractor shall provide all labor, tools, equipment, materials and incidental items required to perform site clearing and grubbing of areas within the limits of construction and other areas shown on the Contract Drawings, including work designated in permits and other agreements, in accordance with the requirements of Division 1.

1.02 RELATED SPECIFICATIONS

- A. Section 02316 - Excavation
- B. Section 02317 - Backfilling
- C. Section 02371 - Dust, Soil Erosion and Sedimentation Control

1.03 DEFINITIONS

- A. Clearing: Clearing is the removal from the ground surface and disposal of trees, brush, shrubs, down timber, decayed wood, other vegetation, rubbish, trash, scrap, metal, debris and miscellaneous other structures required to permit construction of the new Work.
- B. Grubbing: Grubbing is the removal and disposal of all stumps, buried logs, roots larger than 2 inches, matted roots and organic materials.

1.04 QUALITY ASSURANCE

- A. Codes and Standards: State and local laws and code requirements shall govern the hauling and disposal of trees, shrubs, stumps, roots, rubbish, debris and other matter.

1.05 PROJECT/SITE CONDITIONS

- A. Streets, roads, adjacent property and other works and structures shall be protected throughout the entire project. Contractor shall return to original condition, satisfactory to the Commissioner, facilities damaged by the Contractor's operations.

1.06 GUARANTEE

- A. The Contractor shall guarantee that work performed under this Section will not permanently damage trees, shrubs, turf or plants to remain, or other adjacent work or facilities. If damage resulting from Contractor's operations appears during the

period up to 12 months after completion of the project, he shall replace damaged items at no expense to the City of New York.

PART 2 PRODUCTS (Not Used)

PART 3 EXECUTION

3.01 TREE AND SHRUB REMOVAL

A. Tree Removal Within Property Limits

1. Trees and shrubs within the limits of construction shall be removed unless otherwise indicated. Trees and shrubs to remain shall be trimmed when doing so will avoid removal or damage. Trimmed or damaged trees shall be treated and repaired by persons with experience in this specialty who are approved by the Commissioner.
2. Tree and shrub removal shall be conducted in a manner so as to avoid damage to those trees and shrubs that will remain.
3. Do not cut or damage trees or shrubs outside of the limits of construction. Damage outside the limits of construction, caused by the Contractor's operations, shall be corrected at the Contractor's expense.

- B. Tree Removal Outside Property Limits: The Contractor shall not cut or damage trees outside the property limits unless shown on the Contract Drawings to be removed or unless written permission has been obtained from the property owner. Furnish three copies of the written permission before removal operations commence. Damage outside the property limits caused by the Contractor's operations shall be corrected at the Contractor's expense.

3.02 CLEARING AND GRUBBING

- A. Clearing: The Contractor shall clear all items specified to the limits of construction shown by the Contract Drawings and shall remove cleared and grubbed materials from the site to an authorized disposal site.
1. Do not start earthwork operations in areas where clearing and grubbing is not complete, except that stumps and large roots may be removed concurrent with excavation.
 2. Comply with erosion, sediment control and storm management measures as specified in Section 02371 - Dust, Soil Erosion and Sedimentation Control.

- B. Grubbing: The Contractor shall clear and grub areas to be excavated, areas receiving less than 3 feet of fill and areas upon which structures are to be constructed.
 - 1. Stumps and root mats in these areas shall be removed to a depth of not less than 1 foot below the subgrade of sloped surfaces.
 - 2. All depressions made by the removal of stumps or roots shall be filled with material suitable for backfill as specified in Section 02317 - Backfilling.
- C. Limited Clearing: The Contractor shall clear areas receiving more than 3 feet of fill by cutting trees and shrubs as close as practical to the existing ground. Grubbing will not be required.
- D. Burning
 - 1. Burning of cleared and grubbed materials is not allowed within the property limits.
 - 2. All burning off-site shall be in complete accordance with rules and regulations of local authorities having jurisdiction.
- E. Explosives shall not be used.
- F. No cleared or grubbed material may be used in backfills or structural embankments.
- G. Cleared and grubbed items shall become property of the Contractor and shall be removed from the site and satisfactorily disposed.
- H. Air pollution caused by dust and dirt shall be controlled, complying with governing regulations. Dust control shall be as specified in Section 02371 - Dust, Soil Erosion and Sedimentation Control.

-END OF SECTION-

NO TEXT ON THIS PAGE

**Section 02240
DEWATERING**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. The Contractor shall furnish, install, operate and maintain dewatering equipment and systems as shown, specified and required.
- B. The Contractor shall provide standby equipment and power supply for maintaining uninterrupted construction dewatering.
- C. The Contractor shall install, measure, record and report water levels in groundwater observation wells.
- D. The Contractor shall obtain all necessary permits from State and local agencies for operation of the dewatering system and disposal of the dewatering effluent.
- E. The Contractor shall provide a Dewatering Sampling and Analysis Plan (DSAP) and arrange for the services of a New York State certified laboratory, for the collection and analyses of dewatering effluent to determine the quality of dewatering effluent prior to disposal.
- F. The Contractor shall dispose of dewatering effluent as specified herein.

1.02 RELATED SPECIFICATIONS

- A. Section 02225 - Impacted Soil Handling
- B. Section 02316 - Excavation

1.03 REFERENCES

- A. State of New York DEC General Discharge Permit
- B. State of New York DEC Long Island Well Permit
- C. NYC DEP Division of Pollution Prevention and Control
- D. NYC DEP Division of Connections and Permitting
- E. New York City Construction Codes
- F. ASTM standards applicable to piping, equipment and other items required for a complete dewatering system

1.04 DEFINITIONS

- A. Dewatering System: System of wells, well points, sumps, ejectors, pumps, power supply, effluent treatment equipment and other equipment designed by Contractor, submitted to and approved by the Commissioner prior to dewatering, that will effectively dewater the site as required. Adequate observation wells shall be included in the dewatering system to verify drawdown levels inside the excavation area and monitor groundwater levels outside the limits of the excavation near adjacent structures.
- B. Construction Dewatering: Controlling groundwater levels, hydrostatic pressures and controlling surface water, such that excavation required on the Contract Drawings can be performed to required depths in substantially dry and stable conditions.

1.05 SUBMITTALS

- A. Provide all submittals in accordance with Section 01330 - Shop Drawings.
 - 1. Pre-construction Submittals: Approval of the dewatering system by the Commissioner shall not in any way relieve the Contractor from full responsibility for the complete and adequate design and performance of the dewatering system to provide the necessary construction dewatering. A Dewatering Excavation Plan shall be submitted to the Commissioner and the NYSDEC at least 30 calendar days prior to the commencement of the dewatering work and, at a minimum, shall include the following:
 - a. Design calculations demonstrating the adequacy of the proposed dewatering system, including depth to groundwater at excavation limits.
 - b. Calculations and requisite technical data on well screens and filter materials and gradations to demonstrate the adequacy of proposed systems to prevent the pumping of fines.
 - c. Contract drawings showing proposed types and plan locations of surface water control and the dewatering system to be used.
 - d. Contract drawings shall include the arrangements, locations and depths of the dewatering system, a complete description of equipment and materials to be used and the procedure to be followed in installation, operation and maintenance in relation to the proposed sequence of excavation, foundation construction and backfilling.
 - e. The standby equipment and standby power supply.
 - f. The proposed locations of points of effluent treatment equipment, effluent flow equalization tanks and discharge of water.

1.06 QUALIFICATIONS

- A. The dewatering work shall be performed by a general contractor or a specialty subcontractor specializing in and having experience installing and operating dewatering systems in similar subsurface conditions for at least three (3) years.
- B. Dewatering system shall be designed by a Registered Professional Engineer having experience in successfully designing a system in similar site conditions.
- C. Well drillers shall be licensed in the State of New York.

1.07 DEWATERING SYSTEM DESIGN REQUIREMENTS

- A. The Contractor shall design, provide, install, operate, maintain and remove the dewatering system as necessary to:
 - 1. Lower and maintain groundwater levels and hydrostatic pressures to 2 feet below the prevailing excavation level or to a point no higher than 2 feet above the top of an impermeable stratum, if the subgrade is in the impermeable stratum. Groundwater levels shall be lowered for a time period as deemed necessary by the Commissioner to ensure adequate factor of safety for the constructed structure.
 - 2. Maintain stable slopes and subgrade.
 - 3. Control and remove seepage and surface water into excavations.
 - 4. Allow subsequent work to be safely performed and not result in damage to adjacent properties, buildings, structures, utilities and other work.
 - 5. The Contractor shall provide primary and standby power, including all costs for installation, energy and fuel.
 - 6. The Resident Engineer will perform inspections and witnessing of:
 - a. Testing of sand and silt from dewatering wells.
 - b. Drawdown and performance testing of dewatering system.
 - c. Performance testing of standby power source and backup dewatering system.
- B. The method of dewatering and control of water both inside and outside the excavation shall be selected by the Contractor who shall be solely responsible for the location, arrangement and depth of any system(s) selected to accomplish the work. The Contractor shall construct protective works as necessary to dewater, cut off porous zones of fill and direct the flow of water from whatever source away

from the excavations and adjacent areas. Protective works shall include slurry methods, grouting, clay seepage plugs, toe drains with appropriate filters, deep wells, wellpoints, sumps, dikes, ditches and all supporting features as required, but not specifically shown on the Contract Drawings, to permit construction in the dry.

1.08 DISPOSAL OF GROUNDWATER AND DEWATERING EFFLUENT

- A. The Contractor shall manage and dispose of groundwater generated during dewatering activities in accordance with the New York State Pollutant Discharge Elimination System (SPDES) standards set by the New York State DEC for discharge to surface water, and New York City DEP Sewer Discharge Criteria for discharge to the City wastewater collection system, as applicable. The Contractor shall acquire all necessary permits and/or applications for disposal of dewatering effluent.
- B. For discharge to the City wastewater collection system, a comparison of the site groundwater quality data with the Limitations for Effluent to Sanitary or Combined Sewers, June 2000, shall be required prior to the start of lowering of the water table.
- C. The following table lists these effluent limits:

Table 1: New York City Department of Environmental Protection Bureau of Wastewater Treatment			
Limitations for Effluent to Sanitary or Combined Sewers June 2000			
Parameter	Limitations	Units	Note
Temperature	<150	degrees F	
Total Petroleum Hydrocarbons	<50	mg/l	
PH	5-11	SU's	
Cadmium	2	mg/l	Daily average 0.69 mg/l
Chromium (total)	5	mg/l	
Copper	5	mg/l	
Lead	2	mg/l	
Mercury	0.05	mg/l	
Nickel	3	mg/l	
Zinc	5	mg/l	
Flash Point	>140	degrees F	
Benzene	134	ppb	
Ethylbenzene	380	ppb	
Toluene	74	ppb	
Xylenes (Total)	74	ppb	
PCBs (Total)*	1000	ppt	Method 608 by EPA only with

Table 1: New York City Department of Environmental Protection Bureau of Wastewater Treatment			
Limitations for Effluent to Sanitary or Combined Sewers June 2000			
Parameter	Limitations	Units	Note
			MDL = 65 ppt
Total Suspended Solids	No Limit		
Perc	164		
MTBE			
Napthalene	47		
Other			As appropriate
*Analysis for PCBs are requested only if both conditions listed below are met:			
1) if proposed discharge >10,000 gpd;			
2) if duration of a discharge >10 days.			

- D. The Contractor shall provide appropriately sized settling tanks to collect and store dewatering effluent commensurate with dewatering discharge rates to allow for settlement of suspended solids and sampling as required by disposal/discharge criteria. The tanks shall be equipped with an overflow collection system to prevent accidental release of dewatering effluent. Routine inspection of the tanks shall be carried out daily to ensure that tank integrity is being maintained, and that all valves or tank openings are properly locked out to avoid accidental discharge. Settling tanks shall be cleaned frequently to prevent excess deposition of solids that could overflow from the tank. Removed solids shall be classified and disposed of in accordance with applicable Section 02225 - Impacted Soil Handling and Section 02316 - Excavation requirements for manifests and material transport and disposal.
 - 1. The settling tank shall be concrete or steel as manufactured by Rockford, HyrdoFlow Technologies Inc., Ecologix Environmental Systems or approved equal, and sized based upon the maximum groundwater flow times a 1.5 safety factor.

- E. The Contractor shall provide appropriately sized oil/water separators to prevent discharge of hydrocarbons, grease and other floatable materials to surface water or the sewer system. Oil/water separators shall be cleaned frequently and collected materials classified and disposed of in accordance with applicable Section 02225 - Impacted Soil Handling and Section 02316 - Excavation requirements for manifests and material transport and disposal.
 - 1. The oil/water separator shall be concrete or steel as manufactured by Rockford, Pan America Environmental, Inc., Hydro Flow Technologies, Inc or approved equal, and sized based upon the maximum groundwater flow times a 1.5 safety factor.

- F. The Contractor shall provide treatment for, or remove from the site to an approved disposal facility, all dewatering effluent or groundwater which exceeds any limit set for surface water or sewer discharge, whichever is applicable. Classification and disposal shall conform to applicable Section 02225 - Impacted Soil Handling and Section 02316 - Excavation requirements for manifests and material transport and disposal. No separate payment will be made for treatment or disposal of such effluent or groundwater.

PART 2 PRODUCTS

2.01 GENERAL

- A. Materials and equipment used in the dewatering system shall adhere to accepted industry standards and be in good operating condition and able to perform satisfactorily over the required duration of construction dewatering.
- B. Back up equipment for the dewatering system shall be identical to the primary equipment and shall be available in operating condition at all times.

PART 3 EXECUTION

3.01 GENERAL REQUIREMENTS

- A. Construction dewatering is required to protect foundation subgrades and to maintain dry conditions for construction. The Contractor shall maintain a continuous and completely effective dewatering system for the required time as specified in Section 02316 - Excavation.
- B. The Contractor shall contact the NYSDEC a minimum of two (2) weeks in advance of dewatering system startup.
- C. The Contractor shall coordinate the operation of its dewatering system with existing and proposed construction.
- D. The Contractor shall be prepared to modify the dewatering system and methods as required by actual field conditions encountered during construction, at no additional cost to the City of New York.
- E. The Contractor shall measure water levels periodically in observation wells installed adjacent to nearby structures to ensure drawdown outside the excavation is within permissible limits specified.
- F. Surface areas adjacent to the excavation shall be graded and/or curbed to prevent flow of surface water into the excavation.

3.02 TESTING

- A. The Contractor is responsible for monitoring his dewatering efforts to determine if the project requirements are being met. The Contractor shall provide observation wells and other means to monitor the dewatering as detailed in the Dewatering Plan.
- B. Readings to determine the quantity of fines in the pumped water shall be made in accordance with permit requirements or once every two weeks, whichever is more stringent.

3.03 INSTALLATION AND OPERATION

- A. The dewatering system shall provide for an uninterrupted flow of pumped water and shall be maintained and pumped as necessary to drawdown and maintain the groundwater levels as specified. Unless otherwise specified, pumping shall maintain those depressed levels until the permanent under drainage system has been installed, tested, accepted and is operational or until the permanent structure is capable of withstanding hydrostatic pressures as determined by the Commissioner.
- B. The Contractor shall furnish, operate and maintain sufficient drainage and pumping facilities to dewater the site and its underlying soil. Dewatering operations shall operate in such a manner so that the excavation can proceed while maintaining stable slopes and the designed lateral support for the perimeter support of excavation walls, without disturbing the bearing subgrades for the structure. The ground water level as measured in observation wells shall be lowered and maintained at least two feet below the prevailing excavation level, or it shall be lowered to a point no higher than 2 feet above the top of impermeable stratum if the subgrade is in the impermeable stratum.
- C. The dewatering system shall be installed and operated in such a manner as to avoid the movement of fines or loss of ground below the bearing level and shall not influence the stability of surrounding areas. Well points and deep wells shall be properly sanded in and sumps shall be sheeted and provided with proper filter material.
- D. A sufficient number of observation wells shall be installed and water levels read by the Contractor, at least weekly, to demonstrate that the goals of the dewatering system are being met. Water level readings shall be submitted within 24 hours to the Commissioner. If applicable, the Contractor may make use of existing observation wells as shown on the Contract Drawings.
- E. Open pumping with sumps and ditches resulting in boils, loss of fines, softening of the ground or instability of slopes will not be permitted.

3.04 SURFACE WATER

- A. Surface water on and around the site shall be collected into local sumps by means of trenches, pipes, or other means. The Contractor shall discharge the water into the City of New York wastewater collection system. Direct surface water to minimize surface erosion, ponding and softening of slopes and berms, including haul roads

and equipment working stations. Slope protection by means of polyethylene sheets, held in place by tires or otherwise, shall be provided locally as required. At the perimeter of the excavation, surface water is to be directed into the sewer system and not permitted to enter the excavation. Curbs shall be maintained and, where necessary, extended across intersections, curb cuts and defective curb sections. Surface cracks in the adjacent streets are to be sealed and re-sealed as necessary. Should adjacent settlement occur during the work, curbs shall be raised or watertight mounds shall be installed as directed by the Commissioner to prevent flow into the site.

3.05 DISPOSAL OF DEWATERING EFFLUENT

- A. Dewatering effluent discharge to the City of New York wastewater collection system may be affected by rainfall. The Contractor shall provide adequate equalization and holding tanks to allow work to proceed in the case of restricted discharge capability during rain events.
- B. The Contractor shall provide sufficient clean water to flush all sewers and drains when necessary. If any sewer, drain, catch basin, or inlet becomes filled or partially filled with sediment or debris, the Contractor shall promptly and satisfactorily remove such deposits.
- C. The Contractor shall collect one dewatering effluent sample per discharge point, to be submitted as part of the Wastewater Quality Control Application, in order to complete analyses for parameters listed in Table 1. If pretreatment, other than oil/water separators and settling tanks, is required, the Contractor shall continue to collect effluent samples during dewatering operations, and analyze for all listed parameters at intervals based on dewatering discharge volume as a verification of discharge compliance. Intervals will be as required. A copy of all analytical results shall be submitted for review and approval, no later than one day after receipt of such data. The Contractor shall provide for prompt sampling and turn-around times so as not to delay the project, but in no case shall turn-around time be longer than 5 calendar days.
- D. The Contractor shall obtain and pay for all permits, applications and licenses required by law that are associated with the disposal of dewatering effluent, including NYSDEC SPDES Permit, if applicable.
- E. The Contractor shall submit a Wastewater Quality Control (WQC) Application for combined sewer use to the NYC DEP Division of Pollution Prevention and Control - Compliance Engineering Section. The initial effluent sampling results shall be submitted as part of the application. These samples may be collected either from representative nearby groundwater monitoring wells, which shall be purged (3 well volumes) prior to sampling, or from each known dewatering well following well development.

- F. If discharge to the combined sewer system is greater than 10,000 gallons per day (GPD) and/or a new sewer connection is needed, the Contractor shall submit a Sewer Use Letter of Approval to the NYC DEP Division of Connections and Permitting. The Sewer Use Letter of Approval, signed by a Professional Engineer in the State of New York, must include the Dewatering Plan and the WQC Application Letter of Approval. If pretreatment, other than oil/water separators and settling tanks, is necessary, treatment train effluent must be held in settlement tanks until analytical sample results verifying compliance with all criteria, as listed in Table 1, are sent to the NYC DEP Division of Pollution Prevention and Control for final approval. Once approval is received, the Contractor shall discharge effluent via gravity flow to the sewer system at allowable discharge rates.
- G. The Contractor shall allow 60 days for NYC DEP WQC permitting and Sewer Use Letter of Approval processing.
- H. All portions of the dewatering system shall be removed by the Contractor immediately after completion of dewatering activities.

-END OF SECTION-

Section 02291
AIR MONITORING PROGRAM

PART 1 GENERAL**1.01 SECTION INCLUDES**

- A. Requirements for the Contractor to implement a work area air monitoring program during building demolition, soil removal/handling/backfilling activities, and other activities that could potentially generate impacted airborne particulates or volatile organic vapors under this Contract.
- B. Requirements for the Commissioner to implement a perimeter air monitoring program (airborne particulates and volatile organic vapors) during building demolition, soil removal/handling activities, and other activities that could potentially generate impacted airborne particulates (e.g., lead, arsenic, etc.) or volatile organic vapors under this Contract.

1.02 RELATED SPECIFICATIONS

- A. Section 01355 - Hazardous Materials Control
- B. Section 02222 - Demolition and Removal
- C. Section 02223 - Lead Management
- D. Section 02225 - Impacted Soil Handling
- E. Section 02316 - Excavation
- F. Section 02317 - Backfilling
- G. Section 13286 - Management of Bird Excrement

1.03 WORK SPECIFIED FOR CONTRACTOR

- A. The Contractor shall provide all labor, equipment, materials, and services necessary to perform air monitoring in accordance with the Contractor's site-specific Health and Safety Plan (HASP), applicable Occupational Health and Safety Administration (OSHA) regulations, and in accordance with the requirements of this Section. The HASP shall address air monitoring and air sampling to determine the proper level of personal protective equipment (PPE) and determine the extent of safety requirements for confined space entry (if needed).
- B. The Contractor shall provide all labor, equipment, materials, and services necessary to install and maintain a temporary meteorological station in accordance with the manufacturer's specifications and the protocols specified in this Section. The temporary meteorological station shall continuously monitor ambient air temperature, wind direction, and wind speed.
- C. The Contractor shall implement the appropriate corrective action as required in Article 3.03 of this Section and in the Contractor's site-specific HASP if any of the action levels in the work area are exceeded.

- D. The Contractor may conduct perimeter air monitoring (outside the immediate work area) to evaluate the effectiveness of engineering controls and/or dust vapor suppression methods at no additional cost to the City of New York. However, decisions regarding corrective actions to be implemented by the Contractor will be made by the Commissioner.

1.04 WORK PERFORMED BY ENGINEER

- A. The Commissioner will establish the background concentrations for airborne particulates and volatile organic vapors in the vicinity of the site as described in Article 3.02 of this Section prior to construction activities.
- B. The Resident Engineer will perform real-time perimeter air monitoring (outside the immediate work area) to evaluate and document the effectiveness of engineering controls and/or dust/vapor suppression methods implemented by the Contractor. The perimeter air monitoring program will include monitoring for potentially impacted airborne particulates and volatile organic vapors as described in this Section. The determination as to what activities could generate potentially impacted particulates will be made by the Commissioner. Air monitoring activities conducted by the Commissioner do not alleviate any of the Contractor's air monitoring responsibilities.
- C. The Commissioner will compare real-time perimeter readings during the demolition and construction activities to the action levels presented in Article 3.03 of this Section and will notify the Contractor if the levels are exceeded.

1.05 SUBMITTALS

- A. Within 30 calendar days prior to the commencement of mobilization activities, the successful Contractor shall submit the following items for review in accordance with the requirements specified in Section 01355 – Hazardous Materials Control:
 - 1. A Dust Control Plan including a description of controls and actions that the Contractor proposes to utilize to respond to potential migration of elevated levels of airborne particulates or volatile organic vapors beyond work area limits.
 - 2. A detailed manufacturer's specification for the proposed meteorological station and a map indicating the proposed general location of the meteorological station.

PART 2 PRODUCTS

2.01 MATERIALS AND EQUIPMENT PROVIDED BY THE CONTRACTOR

- A. The Contractor shall provide a meteorological station that will continuously monitor ambient air temperature, wind direction, and wind speed. The meteorological station shall be a Met One meteorological system (or approved equal).
- B. The Contractor shall provide materials and equipment necessary to perform air monitoring within the work area in accordance with the Contractor's HASP and applicable OSHA regulations.
- C. The Contractor shall provide labor, equipment, and materials for implementing corrective action activities (i.e., dust and volatile organic vapor suppression, modifying work procedures, etc.). The Contractor shall implement corrective actions if the action levels presented in Article 3.03 of this Section are exceeded or if deemed necessary by the Resident Engineer.

2.02 MATERIALS AND EQUIPMENT PROVIDED BY THE ENGINEER

- A. The Commissioner will provide its own air monitoring equipment to conduct real-time perimeter air monitoring.

PART 3 EXECUTION

3.01 CONTRACTOR

- A. The Contractor shall provide all labor, equipment, materials and services necessary to install and maintain the meteorological station in accordance with the manufacturer's specifications and the protocols specified in this Section. The meteorological station shall be installed at a location proposed by the Contractor and reviewed by the Commissioner that allows the Commissioner continuous and unrestricted access to the meteorological station. The Contractor shall protect the meteorological station against theft and vandalism.
- B. If relocation of the meteorological station is required to accommodate the work, the Contractor shall provide all equipment, materials, and labor to relocate the meteorological system at no additional cost to the City of New York. The new location shall comply with requirements discussed in Paragraph 3.01A of this Section.
- C. Air monitoring shall be performed by the Contractor within active work area limits in accordance with the Contractor's HASP and applicable OSHA regulations. Air monitoring shall be performed by the Contractor within active work areas during building demolition, soil removal/handling activities, and other activities that could potentially generate airborne impacted particulates or volatile organic vapors.

- D. The air monitoring data shall be recorded on an air monitoring log and shall be maintained in an onsite project file. Real-time air quality monitoring data shall be provided to the Commissioner for review/evaluation on a daily or as-requested basis.
- E. The Contractor shall implement corrective actions if airborne particulates and/or volatile organic vapors detected at the perimeter exceed action levels outlined in Article 3.03 of this Section.
- F. At least two days prior to the commencement of building demolition, soil removal/handling/backfilling, and other activities that could potentially generate airborne impacted particulates or volatile organic vapors, the Contractor shall inform the Commissioner of the work activities scheduled. If the schedule changes, the Contractor shall notify the Commissioner.

3.02 ENGINEER

- A. Real-time airborne particulate monitoring and real-time volatile organic vapor monitoring (if applicable) will be performed by the Commissioner at the perimeter to evaluate and document the effectiveness of the engineering controls and/or dust/vapor suppression methods implemented by the Contractor. The perimeter air monitoring activities will be conducted a minimum of four times per day during building demolition, soil removal/handling activities and other activities that could potentially generate impacted airborne particulates or volatile organic vapors. If an exceedence is measured, or if potentially impacted visible dust is observed leaving the work area, perimeter air monitoring activities will be conducted at a minimum frequency of twice an hour (or as determined by the Commissioner). The perimeter monitoring data will be compared to the action levels presented in Article 3.03 of this Section indicating the need for the Contractor to implement additional control measures and/or to stop work.
- B. Perimeter air monitoring will be conducted at four perimeter monitoring locations (two upwind locations and two downwind locations, such that a rectangle is formed around the perimeter of the work area). The perimeter monitoring locations will be adjusted if the wind direction changes more than 45 degrees. The perimeter monitoring locations will be determined by the Commissioner and will be based on wind speed, wind direction, and type of work activities being conducted.
- C. The Resident Engineer will establish the airborne dust and volatile organic vapors background concentrations at the site as described below.
 - 1. Within three weeks prior to Contractor's mobilization to the site, a background particulate and volatile organic vapor study will be performed by the Resident Engineer to measure background concentrations of airborne particulates and volatile organic vapors at the site.

2. Airborne particulate levels will be measured during normal work hours (e.g., 7:00 a.m. to 5:00 p.m.) every 30 minutes on three separate days. The arithmetic average of the background particulate concentrations from the background study will be used to establish the background concentrations for airborne particulates and volatile organic vapors for use in the monitoring activities specified in this Section.

3. Concentrations of volatile organic vapors will be measured using a photoionization detector during normal work hours (e.g., 7:00 a.m. to 5:00 p.m.) every 30 minutes on three separate days. The arithmetic average of the volatile organic vapor concentrations from the background study will be used to establish the background ambient air concentration for use in the monitoring activities specified in this Section.

3.03 PERIMETER AIR MONITORING ACTION LEVELS

- A. The airborne constituent action levels for the real-time perimeter air monitoring conducted during building demolition, soil removal/handling/backfilling activities and other activities that could potentially generate impacted airborne particulates are presented in the following table.

Parameter	Site Perimeter Action Level	Action
Airborne Particulates	0 to 100 $\mu\text{g}/\text{m}^3$ (above predetermined background) and no visible dust leaving work area	Contractor shall continue normal operations.
	100 to 150 $\mu\text{g}/\text{m}^3$ (above predetermined background) and/or visible dust leaving work area	Contractor shall implement dust suppression/engineering control measures as outlined in the Dust Control Plan (prepared by the Contractor and reviewed by the Resident Engineer).
	> 150 $\mu\text{g}/\text{m}^3$ (above predetermined background)	Contractor shall stop all work activities, identify the source of the particulates, and implement measures outlined in the Dust Control Plan (prepared by the Contractor and reviewed by the Resident Engineer) at no additional cost to the City of New York. After these steps are performed to the satisfaction of the Resident Engineer, work activities can resume provided that the particulate level (measured by the Resident Engineer) 200 feet downwind of the work area or half the distance to the nearest potential receptor, whichever is less or as determined by the Engineer, is below 100 $\mu\text{g}/\text{m}^3$ (above background).

Parameter	Site Perimeter Action Level	Action
Volatile Organic Vapors	0 to 5 ppm (above predetermined background)	Contractor shall continue normal operations.
	> 5 ppm (above predetermined background)	Contractor shall stop work activities, identify the source of vapors, and implement corrective actions to abate emissions at no additional cost to the City of New York. After these steps are performed to the satisfaction of the Resident Engineer, work activities can resume provided that the total organic vapor level (measured by the Resident Engineer) 200 feet downwind of the work area or half the distance to the nearest potential receptor, whichever is less or as determined by the Resident Engineer, is below 5 ppm (above background).

3.04 HEALTH AND SAFETY PROTOCOLS

- A. The Contractor shall comply with all applicable federal, state, and local regulations (including, but not limited to, OSHA regulations codified at 29 CFR 1926) during the implementation of the work. The work described in this Section shall be conducted in accordance with the Contractor's site-specific HASP.

-END OF SECTION-

**Section 02316
EXCAVATION**

PART 1 GENERAL**1.01 SECTION INCLUDES**

- A. This specification describes excavation and disposal of all material as specified herein, shown on the Contract Drawings or required, for the purpose of demolition and removal of structures, conduits, pipelines, as well as grading and completing the work in every respect.
- B. Excavation work includes stripping and stockpiling of topsoil, sheeting and bracing, excavation over the site, excavation for roads, pipelines and structures, control of water, segregation and stockpiling of excavated material, disposal of unsuitable and excess excavated material, and trimming, shaping and grading of excavations, all complete and in place as shown on the Contract Drawings, specified, required and directed. The work includes the excavation of any material that, in the opinion of the Commissioner, is necessary to be excavated for any purpose pertinent to the construction of the work. The requirements for clearing and grubbing are set forth in Section 02230 - Site Clearing.
- C. All excavated soil shall be considered Non-hazardous Industrial Waste or Petroleum-contaminated Waste as defined in Section 02105 Article 1.04.C. The Contractor shall assume that all excavated materials are unsuitable for onsite reuse unless otherwise deemed acceptable in accordance with a NYSDEC site-specific beneficial use determination.

1.02 RELATED SPECIFICATIONS

- A. Section 01120 - Contract Summary
- B. Section 01330 - Shop Drawings
- C. Section 01355 - Hazardous Materials Control
- D. Section 02105 - In-Situ Soil Sampling, Testing and Laboratory Analysis
- E. Section 02106 - Ex-Situ Soil Sampling, Testing and Laboratory Analysis
- F. Section 02222 - Demolition and Removals
- G. Section 02240 - Dewatering
- H. Section 02371 - Dust, Soil Erosion and Sedimentation Control
- I. Section 02821 - Metal Fence
- J. Section 13287 - Environmental Waste Transportation and Disposal

1.03 PAYMENT

- A. The cost of all excavation shown on the Contract Drawings and necessary to complete the work shown shall be included in the lump sum price bid for Bid Item 3.

- B. The cost of additional earth excavation shall be paid as described in Section 01270 – Measurement and Payment.
- C. Additional costs for the handling, transportation and disposal of excavated soil classified as Hazardous Solid Waste, as defined in Section 02105 Article 1.04.C.1. shall be addressed as described in Section 01355 – Hazardous Materials Control.

1.04 REFERENCES

- A. ASTM D1557 - Test Methods for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/ft³)
- B. Occupational Safety and Health Administration, U.S. Department of Labor
- C. Board of Standards and Appeals, N.Y.S. Department of Labor
- D. New York City Rules and Regulations
- E. New York State Department of Transportation
- F. New York State Department of Environmental Conservation
- G. U.S. Department of Transportation, Federal Highway Administration
- H. U.S. Environmental Protection Agency
- I. New York City Building Code
- J. National Bureau of Standards Building Science Series 127 "Recommended Technical Provisions for Construction Practice in Shoring and Sloping Trenches and Excavations."
- K. Guide Design Specifications for Bridge Temporary Works, AASHTO, Latest Edition.

1.05 DEFINITIONS

- A. The term "excavation" shall mean the excavation of all material regardless of its nature.
- B. Topsoil: Topsoil is friable clay loam surface soil found in a depth of not less than 4 inches, and is substantially free of subsoil, clay lumps, stones, and other objects over 2 inches in diameter, and without weeds, roots, and other objectionable material.

- C. Suitable Soils - Soil and rock materials that meet the requirements for one or more of the backfill material categories (i.e., drainage fill, select fill, common fill etc.) presented in Section 02317 – Backfilling, and that are defined as one of the following:
1. Soil and rock construction and demolition (C&D) debris as described in Section 02105 Paragraph 1.04.C.1.c.
 2. Soil, historic and other fill material deemed acceptable for reuse onsite by a NYSDEC site-specific beneficial use determination.
- D. Unsuitable Soils – Soil and rock materials that do not meet the requirements for one or more of the backfill material categories (i.e., drainage fill, select fill, common fill, etc.) presented in Section 02317 – Backfilling, or that are defined as one or more of the following:
1. Hazardous solid waste as described in Section 02105 Paragraph 1.04.C.1.a.
 2. Soil, historic and other fill material containing industrial waste as defined in Section 02105 Paragraph 1.04.C.1.b, unless deemed acceptable for onsite reuse in a NYSDEC site-specific beneficial use determination.
- E. Pre-Determined Beneficial Use Determination (BUD) – DEC allows soil to be reused on site under a Pre-Determined BUD under the following conditions: 360-1.15(b)(7) uncontaminated soil which has been excavated as part of a construction project, and which is being used as a fill material, in place of soil native to the site of disposition; 360-1.15(b) (8) non-hazardous, contaminated soil which has been excavated as part of a construction project, other than a DEC-approved or undertaken inactive hazardous waste disposal site remediation program, and which is used as backfill for the same excavation or excavations containing similar contaminants at the same site. Excess materials on these projects are subject to the requirements of Part 360. The Pre-Determined BUD allows for reuse of soil on the same site without DEC approval. See Section 02317 – Backfilling.
- F. Site Specific Beneficial Use Determination (BUD) – Allows for the reuse of soil offsite with NYSDEC or other applicable out-of state agency approval.

1.06 DESIGN REQUIREMENTS

- A. In designing the sheeting, take note of the minimum load diagram requirements shown in Attachments A and B at the end of this Section, unless otherwise shown on the Contract Drawings. However, when it is anticipated that heavier crane or equipment loads will fall within the influence line of the excavation, increase design loads accordingly.

1.07 SUBMITTALS

- A. Provide all submittals in accordance with Section 01330 - Shop Drawings.
- B. A Dewatering Excavation Plan shall be submitted in accordance with requirements of Section 02240 - Dewatering.
- C. Sheeting and Bracing: Submit a certificate (only), signed and sealed by a Licensed Professional Engineer experienced in Structural Engineering and registered in the State of New York that certifies that the Licensed Professional Engineer has evaluated and approved the Contractor's excavation plan and has prepared complete design calculations and Contract drawings for the shoring, sheeting and bracing, not specifically shown on the Contract Drawings, which will be used for excavation support. Provide a separate certificate for each excavation before starting the excavation. Where commercially manufactured trench boxes are to be used, provide a certificate from the Contractor's Licensed Professional Engineer stating the conditions under which the trench boxes will be used.
- D. Soil Excavation, Reuse, Transport and Disposal Plan: Submit a Soil Excavation, Reuse, Transport and Disposal Plan to the Commissioner for approval at least 30 calendar days prior to the start of excavation. This Soil Excavation, Reuse, Transport and Disposal Plan shall include excavation methods, reuse onsite or offsite, transportation, and disposal protocols to be used for hazardous solid waste, non-hazardous industrial waste, non-hazardous petroleum-contaminated waste, construction and demolition (C&D) debris, and non-regulated solid waste prepared in accordance with all applicable Federal, State and local hauling and disposal codes and regulations.
 1. Excavation protocol shall include, but not be limited to, the following:
 - a. Limits of excavation
 - b. Protection methods:
 - (1) Sheeting and bracing
 - (2) Fencing, bridging and decking
 2. Reuse, Transport and Disposal protocol shall include the following:
 - a. Identities of beneficial use determination (BUD) site(s) with copy(ies) of the regulatory approvals, including all supporting back-up information sent to and received from DEC or other applicable out-of-state agency.
 - b. Identities of disposal facilities' solicited including names and locations, insurance certificate, permit documentation including the types of materials allowed and not allowed, and chemical and physical material acceptance criteria. If no concentrations are indicated, then the facility

- will indicate the types of material that it is allowed to accept under its permit. Treatment, storage, or disposal (TSD) of any waste generated by excavation work shall be at a facility permitted to accept such waste by the Environmental Protection Agency (EPA) or an authorized state or local government agency.
- c. Identities of waste transporters and supporting DEC Part 364 Waste Transporter Permit(s) required to transport the wastes to the TSD facilities.
 - d. Each Beneficial Use Determination (BUD) site and facility's requirements for sampling, including analytical parameters, frequencies, protocols, and minimum detection limits.
 - e. Provisions for submittals for DDC signature as generator. The Contractor shall provide waste profiles, advance copies of waste manifest(s), and Land Disposal Restriction (LDR) Notification and Certification Form (if hazardous waste) for the Commissioner's review and approval and DDC signature as generator.
3. The Soil Excavation, Reuse, Transport and Disposal Plan shall be coordinated with the Field Sampling Plan (FSP) and reuse site and waste disposal facility selection and materials acceptance requirements specified in Section 02105, In-Situ Soil Sampling, Testing and Laboratory Analysis.
- E. Manifest Requirements and Submittals: Manifests shall include measurements of the volume of all excavated material to be removed from the site prior to transporting to an approved beneficial use site or disposal facility. The Contractor shall also prepare all vehicles and manifests necessary for transporting all material. Nonhazardous waste shall be manifested in a fashion similar to that for hazardous waste. The Contractor shall comply with all Federal, State and local regulations regarding the transport of hazardous and nonhazardous waste.
1. Applicable Regulations: All project work that concerns the transport of hazardous and non hazardous waste shall comply with the appropriate EPA and DEC regulations and DOT hazardous material transportation regulations.
 2. EPA Hazardous Waste Manifest: The Contractor shall obtain an appropriate number of hazardous waste manifest forms (EPA Form 8700-22 (Rev. 3-05) or latest version, sequentially numbered for this project based on the quantity of hazardous waste to be removed from site. The name of the generator, transporter and disposal facility, and their appropriate EPA identification number, shall be typed on each form. All other pertinent information shall be included on the manifest. A copy of the partially completed manifest including the above information shall be submitted for approval at least 3 weeks prior to commencement of excavation.

- a. Routing: The Contractor shall provide a map and written description of the route which will be taken to the approved treatment, storage or disposal facility by the hazardous waste transporter.
3. Non-hazardous Waste Manifest: Material classified as non-hazardous shall be transported and measured in a similar manner to that specified for hazardous material. Manifests shall be provided for each truckload of material removed from the site. The form of the manifest shall be approved by the Commissioner. Nonhazardous waste shall be transported in accordance with all applicable Local, State and Federal DOT regulations by properly licensed and permitted waste haulers.
4. Routing: The Contractor shall provide a map and written description of the route which will be taken to the approved treatment, storage or disposal facility by the non-hazardous waste transporter.
5. The Contractor shall submit written evidence that selected TSD facilities have accepted or will accept the wastes generated during excavation. The Contractor shall also submit copies of the completed manifest, signed and dated by the initial transporter, in accordance with Federal and State requirements and with associated documentation (e.g., Waste Profile and Hazardous Waste Land Disposal Restrictions (LDR) Notification and Certification Form). Copies of completed and signed waste manifests from TSD facilities shall be provided to the Commissioner within seven (7) days of waste shipment offsite.

1.08 REGULATORY REQUIREMENTS

- A. General: Before proceeding with any excavation, obtain all necessary permits required by City Departments having jurisdiction, or consents from owners of private property where their interests may be affected by the work, such as for temporary or permanent occupation, for disposal or storage of materials, or other encroachment except where temporary easements may have been obtained by the City in connection with permanent easements or otherwise.
- B. During the course of the excavation operations and related work, strictly follow the applicable sections of OSHA 1926 Subpart P-Excavations, New York City Department of Buildings Regulations and N.Y.S. Department of Labor, Industrial Board of Appeals, Part 23 Protection in Construction, Demolition and Excavation Operations latest editions. .
- C. In the period of 2 to 10 days prior to starting excavation, notify all utilities of intended work locations and have utility locations marked.

1.09 SITE CONDITIONS

- A. Actual Conditions: Make any geotechnical investigations deemed necessary to determine actual site conditions. Geotechnical data reports are available as described in Section 01120 - Contract Summary.
- B. Underground Utilities: Locate and identify all existing underground utilities prior to the commencement of work.
- C. Quality and Quantity: Make any other investigations and determinations necessary to determine the quality and quantities of earth and the methods to be used to excavate these materials.

1.10 DUST, SOIL EROSION AND SEDIMENTATION CONTROL

- A. The Contractor's operations shall conform to the requirements of Section 02371 - Dust, Soil Erosion and Sedimentation Control.

PART 2 PRODUCTS

2.01 MANUFACTURERS AND MATERIALS

- A. Use manufacturers and materials for shoring, sheeting and bracing as recommended by the Contractor's Licensed Professional Engineer who designed the shoring, sheeting, and bracing. Where wood lagging is to be left in place, use oak or treated fir or treated pine. Use only environmentally safe treatment for wood lagging.

PART 3 EXECUTION

3.01 GENERAL

- A. No excavation work shall begin before the Dewatering Excavation Plan is approved, as specified in Section 02240 - Dewatering.
- B. Clearing and Grubbing: Clear and grub the site of all open cut excavations and all areas shown on the Contract Drawings and specified. The Contractor shall comply with the requirements of Section 02230 - Site Clearing.
- C. Sheeting and Bracing: Provide safe working conditions, prevent shifting of material, prevent damage to structures or other work, and avoid delay to the work, all in accordance with applicable laws and regulations. Properly shore, sheet, and brace all excavations that are not cut back to the proper slope, as determined by the Contractor's Licensed Professional Engineer.
 - 1. Take sole responsibility for the design and adequacy of shoring, sheeting and bracing not shown on the Contract Drawings.

2. Take sole responsibility for the methods of installation of the shoring, sheeting and bracing.
- D. Structure Excavation: Excavations shall be of sufficient size to permit the work to be economically and properly constructed in the manner and of the size specified, except where limits of excavation are provided on the Contract Drawings.
1. Exercise care to prevent disturbing or loosening of the soil in the excavation. Densify the bearing surface for all structures with an approved type vibratory compactor to 95 percent of the maximum dry density obtainable by ASTM D1557 before the construction of any foundations. Where the depth of disturbed or loosened soils is greater than 12 inches or as determined by the Commissioner that it will require special compaction, the Contractor shall propose the appropriate method of compaction and submit to the Commissioner for approval. All disturbed or loosened soils as determined by the Commissioner that should be removed shall be replaced in accordance with the requirements of Paragraph 3.011 "Unauthorized Excavation".
 2. Whenever abandoned existing piles are encountered during excavation, they shall be cut off at least 18 inches below the bottom of new footings, unless otherwise indicated on the Contract Drawings, and shall not be pulled.
- E. Site Excavation: Excavate over the site within the limits of site grading to conform to finished site grades. Arrange the excavation work to permit continuous surface drainage, eliminate low spots and surface ponding, and prevent runoff from flowing into the surrounding areas.
- F. Protection of Plants and Structures: Before starting excavation, clear away all obstructions that are to be removed or relocated. Comply with the requirements of Section 02230 - Site Clearing.
- G. Trench Excavation
1. Maintain the minimum trench width adequate to place, joint and backfill the pipe or conduit properly. The clear width of the trench at the level of the top of the pipe shall not exceed the sum of the outside diameter of the pipe barrel plus 20 inches for pipe 4 through 24 inches in diameter nor the outside diameter of the pipe barrel plus 2 feet for pipe more than 24 inches in diameter, unless otherwise approved by the Commissioner. The banks of pipe trenches shall be as near to vertical as practicable.
 2. Length of Excavation: Make excavation for the sewers, drains, ducts, conduits or pipe lines only a reasonable distance in advance of pipe laying, at the discretion of the Commissioner, and as may be indicated by the supply of materials on hand.

3. In sheeted trenches, measure the clear width of the trench at the level of the top of the pipe to the inside of the sheeting.
 - a. Pipes placed in trenches wider than specified above shall be provided with concrete cradle or encasement as directed by the Commissioner. No separate payment will be made for such cradles or encasement.
 - b. The bottom of trenches shall be graded accurately to provide uniform base for pipe bedding.
 - c. Remove stones as necessary to avoid point bearing. Except as hereinafter specified for wet or otherwise unstable material, backfill overdepths with materials specified for backfilling the lower portion of trenches. Whenever wet or otherwise unstable material that is incapable of properly supporting the pipe is encountered in the bottom of the trench, over excavate such material (a minimum of 2 feet below pipe) to a depth to allow for construction of stable pipe bedding. Backfill the trench to the proper grade with suitable approved materials.
 - d. If unstable material is exposed at the level of the bottom of the trench excavation, it shall be excavated in accordance with Paragraph 3.01H "Authorized Additional Excavation". When the Commissioner judges that the unstable material extends to an excessive depth, he may advise the Contractor, in writing, to stabilize the trench bottom with additional select fill or pipe bedding material or to ensure firm support for the pipe or electrical duct by other suitable methods.
 - e. The open, excavated trench preceding the pipe laying operation and the unfilled trench with pipe in place shall be kept to a minimum length, causing the least possible disturbance. Ladders shall provide means of exit from the trench without more than 25 feet of lateral travel. Ladders shall extend a minimum of 36 inches above the top of the sheeting and shall be tied down with a grabrail provided.
 - f. No water shall be allowed to rise in the trench excavation until sufficient backfill has been placed to prevent pipe flotation.
- H. Authorized Additional Excavation: In case the materials encountered at the elevations shown on the Contract Drawings are not suitable, or in case it is found desirable or necessary to go to an additional depth or to an additional depth and width, carry the excavation to such additional depth and width as the Commissioner may direct in writing. Refill such excavated space with either 2,500 psi concrete or compacted select fill materials, as ordered. Where necessary, compact fill materials to avoid future settlement. Use select fill materials meeting the requirements of Section 02317 - Backfilling and compact to attain a minimum degree of compaction of 95 percent of the maximum dry density as determined by ASTM D1557. Place backfill in lifts not exceeding 9 inches in loose thickness.

- I. Unauthorized Excavation: Wherever the excavation is carried beyond or below the lines and grades shown on the Contract Drawings or given by the Commissioner, except as specified in Paragraph 3.01H "Authorized Additional Excavation", refill all such excavated space with such material and in such a manner as may be directed by the Commissioner in order to ensure the stability of the various structures. Areas excavated beneath all manholes, structures, pipelines or conduits without authority shall be refilled by the Contractor at its own expense with 2,500 psi concrete or compacted select fill material and properly compacted as ordered by the Commissioner.
- J. Explosives: Do not use explosives for any clearing, grubbing or excavation work.
- K. Contaminated and/or hazardous materials shall be handled in accordance with Section 01355 – Hazardous Materials Control and all applicable Federal, State and Local Regulations.

3.02 LINES AND GRADES

- A. General: Excavate for sewers, drains, conduits, pipe lines, walls, foundations, footings, and other structures, including any excavating indicated on the Contract Drawings or necessary, to the lines and grades shown on the Contract Drawings, specified or required.
- B. Demolition: Cut pavements, curbs and sidewalks in compliance with Section 02222 – Demolition and Removals.
- C. Adequate Space: Perform all trimming, grading and other incidental work to the grades and slopes shown on the Contract Drawings, specified or required as approved by the Commissioner. Perform all excavations of sufficient size for the proper execution and inspection of the work. Keep excavation in good condition at all times and fill all voids that may endanger existing structures to the satisfaction of the Commissioner.

3.03 SUBGRADE CONSOLIDATION

- A. Consolidating Suitable Materials: Materials used in the bottom of excavation to replace boggy and other yielding or unsound materials for providing solid and firm foundations for the structures to be built thereon, where approved in writing, may be either select fill or lean concrete.

3.04 FROST PREVENTION

- A. Protection shall be provided against the penetration of frost into material below the bearing level during work in the winter months. This protection shall consist of a temporary blanket of straw or salt hay covered with a plastic membrane or other approved means.

3.05 SEGREGATION, STORAGE AND DISPOSAL OF MATERIALS

- A. All unsuitable material which may be excavated by the Contractor in his operations shall be kept separated from suitable excavated material and reused offsite under a DEC or other applicable out-of state agency's site specific BUD or disposed offsite. Excavated soil shall be sampled and analyzed in accordance with the requirements of Section 02105 – In Situ Soil Sampling and, Analysis and Disposal. Removal, reuse and disposal of excavated soils shall be as described in the approved Soil Excavation, Transport and Disposal Plan.
- B. Stockpiling: Excavated material to be used for backfilling onsite shall be so piled and placed as not to encumber sidewalks or roadways, or wash away or obstruct the free flow of surface or drainage water. Excavated material shall not be placed closer to the edge of an excavation than a distance equal to 1-1/2 times the depth of the excavation, unless the excavation is in rock or the sides of the excavation have been sloped or sheeted and shored to withstand the lateral forces imposed by such superimposed loads.
 - 1. All stockpiles of excavated soil shall be covered with an impermeable, woven polyethylene fabric. The fabric shall be a composite structure of woven polyethylene fabric and 1.5 mils of polyethylene film laminated on both sides to form a monolithic sheet. The fabric shall be inert to biological degradation and naturally encountered chemicals, alkalies and acids. Its permeability coefficient shall be less than 10⁻³ cm/sec. The terminal edges of the fabric panels shall be secured to prevent uplift by wind. Stockpiles shall be covered during non-working hours and during periods of no construction activity.
- C. Excess Materials: The Contractor shall make arrangements for and properly transport and re-use the soil offsite under a DEC or applicable out-of-state agency's site specific BUD or dispose of all surplus material.

3.06 SHEETING AND BRACING

- A. Arrange shoring, sheeting and bracing so as not to place any strain on portions of completed work until the general construction has proceeded far enough to provide ample strength.
- B. If the Contractor or its Licensed Professional Commissioner is of the opinion that at any time the Contractor's excavation plan, shoring, sheeting or bracing is inadequate or unsuited for the purpose, take immediate and appropriate action. Provide a new certificate if the Contractor's excavation plans, shoring, sheeting or bracing require modifications.
- C. Monitoring: Periodically monitor horizontal and vertical deflections of sheeting, shoring and bracing.

- D. Accurately locate all underground utilities and take the required measures necessary to protect them from damage. All underground utilities shall be kept in service at all times as specified in Division 1.
- E. Removal of Sheeting
1. When the sheeting and bracing for the vertical sides of such trench excavations is not required to be left in place, such sheeting and bracing shall be removed, and backfill shall be placed and compacted to an elevation at least 1'-6" above the top of the pipe or conduit. Any exception to this requirement will be shown on the Contract Drawings.
 2. Where sheeting and bracing is removed, it shall be done as the excavation is refilled in a manner to avoid the caving in of the bank or disturbance to adjacent areas or structures, except as otherwise shown on the Contract Drawings or directed. Carefully fill voids left by the withdrawal of the sheeting by ramming or otherwise as directed by the Commissioner.
 3. Obtain permission of the Commissioner before the removal of any shoring, sheeting or bracing. Such permission by the Commissioner shall not relieve the Contractor of responsibility for injury to structures or to other property or persons resulting from failure to leave such sheeting and bracing in place.
 4. Load from rakers, struts and corner braces shall be released in a controlled fashion by cutting kickers and removing wedges and shims, as approved by the Commissioner.
- F. Permission for Removal: Obtain permission from the Contractor's Licensed Professional Commissioner before the removal of any shoring, sheeting or bracing. Retain the responsibility for injury to structures or to other property or persons for failure to leave such shoring, sheeting and bracing in place even though permission for removal has been obtained.
- G. Credit: Sheeting and bracing required to be provided by the Contract Drawings or the Specifications and subsequently allowed or ordered in writing by the Commissioner to be omitted shall be subject to suitable credit to the City. Measurement of sheeting and bracing limits subject to suitable credit shall extend from the subgrade to within 18 inches of the ground surface in the case of vertical sides, regardless of stages; and shall extend from the subgrade to 12 inches above the junction of the vertical and sloping sides in the case of excavations with sloped sides above and vertical sides below. Sheeting and bracing indicated to be omitted on the Contract Drawings or in the Specifications will not be subject to credit.

3.07 SHEETING AND BRACING LEFT IN PLACE

- A. All sheeting and bracing in excavation for sewer pipe lines, including manholes and chambers, shall be left in place except where otherwise shown on the Contract

Drawings, specified or ordered in writing by the Commissioner. Sheeting left in place shall be cut off at the elevation shown on the Contract Drawings, or at least 18 inches below final grade. Bracing remaining in place shall be driven up tight.

- B. Where it is necessary to remove cross braces to make way for sewer pipe, manholes, and chambers, rebrace the sheeting in a manner approved by the Commissioner, but in no case shall sheeting be braced against the sides of pipe or structures, unless approved in writing by the Commissioner.
- C. Leave sheeting and bracing in place in excavations for structures other than pipe lines where shown on the Contract Drawings, specified or ordered in writing by the Commissioner to be left in place. Where such sheeting is to be left in place, the original braces shall not be removed and the sheeting shall not be rebraced against the structure unless it is approved by the Commissioner.
- D. Sheeting and bracing to be left in place shall include all elements of the sheeting and bracing regardless of the type used, except such braces required to be removed to make way for the structure or pipe line being constructed. Where lagging and "soldier" beams are used, the "soldier" beams shall also be left in place.
- E. In excavations with vertical sides for the full depth, cut off sheeting left in place at the elevations provided in writing by the Commissioner, but in general, such cutoffs shall not be less than 18 inches below the existing ground surface. In excavations with sloped sides above and vertical sides below, cut off sheeting at the top of the vertical sides of the excavation. Cut off timber sheeting by sawing, and steel sheeting or "soldier" beams by burning. Breaking off sheeting will not be permitted.
- F. Do not remove sheeting and bracing not shown on the Contract Drawings or specified to be left in place without first obtaining a statement in writing from the Commissioner that such sheeting may be removed.
- G. No separate payment will be made for sheeting and bracing left in place, the cost thereof shall be included in the lump sum bid for Bid Item 1 under this Contract.

3.08 REMOVAL OF WATER

- A. Conform to the requirements of Sections 02240 – Dewatering, 02371 - Dust, Soil Erosion and Sedimentation Control
- B. Care of Water: At all times during construction of the work and at its completion for final inspection, provide and maintain ample means and suitable equipment with which to promptly remove and properly dispose of all water and sewage entering excavations or other parts of the work. Keep all excavations dry at all times until the structures to be built therein are completed and backfilled to approximately final grades except where otherwise approved by the Commissioner in writing. Do not

permit sewage from existing sewers and house connections to flow into excavations.

- C. To prevent flotation or uplift of the structure or portions of the structure under construction, provide approved dewatering or freezing methods which shall operate under supervision 24 hours per day, including holidays and weekends. Maintain this dewatering or other system in continuous operation until the structure or portions of the structure are substantially completed to a gravity load 10 percent greater than the upward load caused by the ground water uplift pressure measured and computed from the original ground water level. Place backfill and mechanically compact it to approximately final grade after the structure has achieved the required strength, except where otherwise approved by the Commissioner in writing. In addition, provide and have available at the work site suitable standby equipment for prompt replacement during breakdowns of operating equipment.
- D. The dewatering system shall be maintained in operation until the backfill is completed to a minimum of one foot above normal ground water level.
- E. Obtain written approval from the Commissioner before discontinuing the dewatering or other groundwater control system.
- F. The Contractor shall take care of all sewer drainage interfered with by its operations to the satisfaction of the Commissioner. Drainage into trench excavations is expressly prohibited.

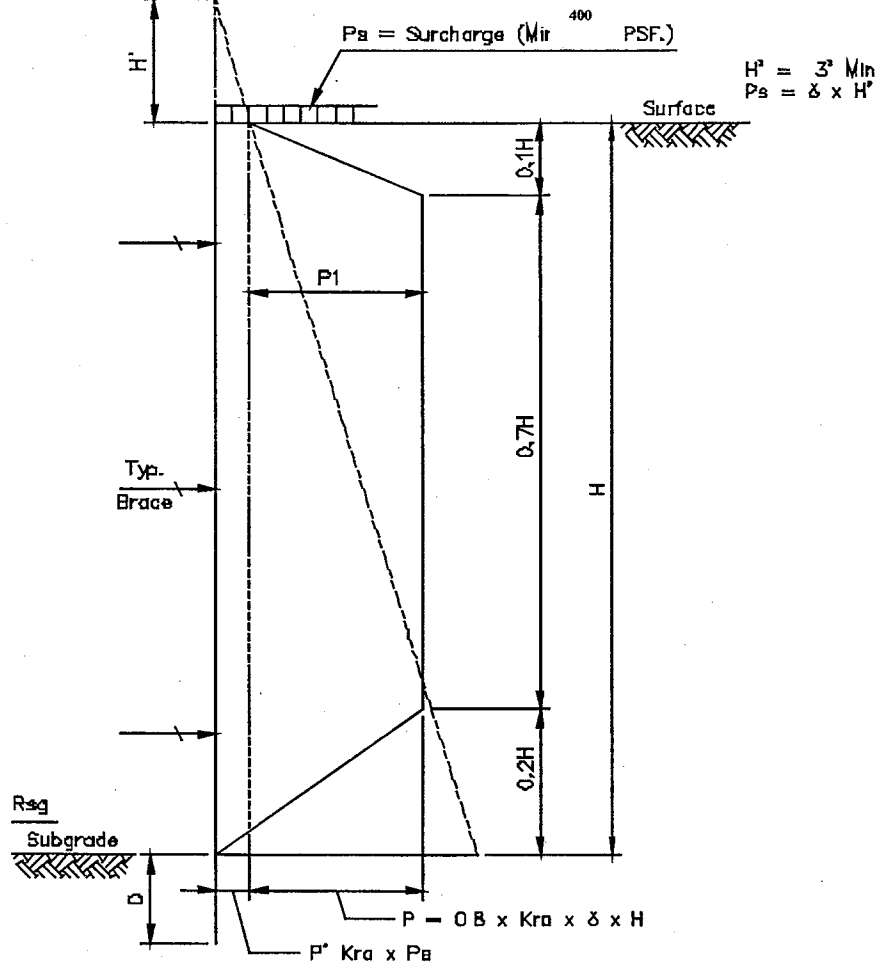
3.09 FENCING, BRIDGING AND DECKING

- A. All excavations or openings made under this Contract in any public street, park or place, or in any adjoining property, shall be immediately enclosed by a guard fence constructed in a neat and workmanlike manner.
- B. Wherever a driveway occurs, construct a bridge of adequate strength and width and provide with side railings to span the excavation.
- C. Wherever the distance between available crossings over the excavation is, in the opinion of the Commissioner, excessive, he may order a temporary footbridge with side rails to be constructed.
- D. At all street intersections, excavations made from the surface shall be decked over in a substantial manner so that traffic can be maintained at all times except as herein provided for. The removal of the pavement and the placing of the decking shall be done during the hours of a day or night that will cause the least inconvenience to adjoining property owners and to public traffic in general. During certain designated hours of the day or night, sections of planking not more than ten feet in length may be temporarily removed for the purpose of removing excavated material, receiving materials of construction or for backfilling.

Attachment A

MINIMUM LOAD DIAGRAM FOR NON-WATER TIGHT SHEETING DESIGN

(Revised 9/88)

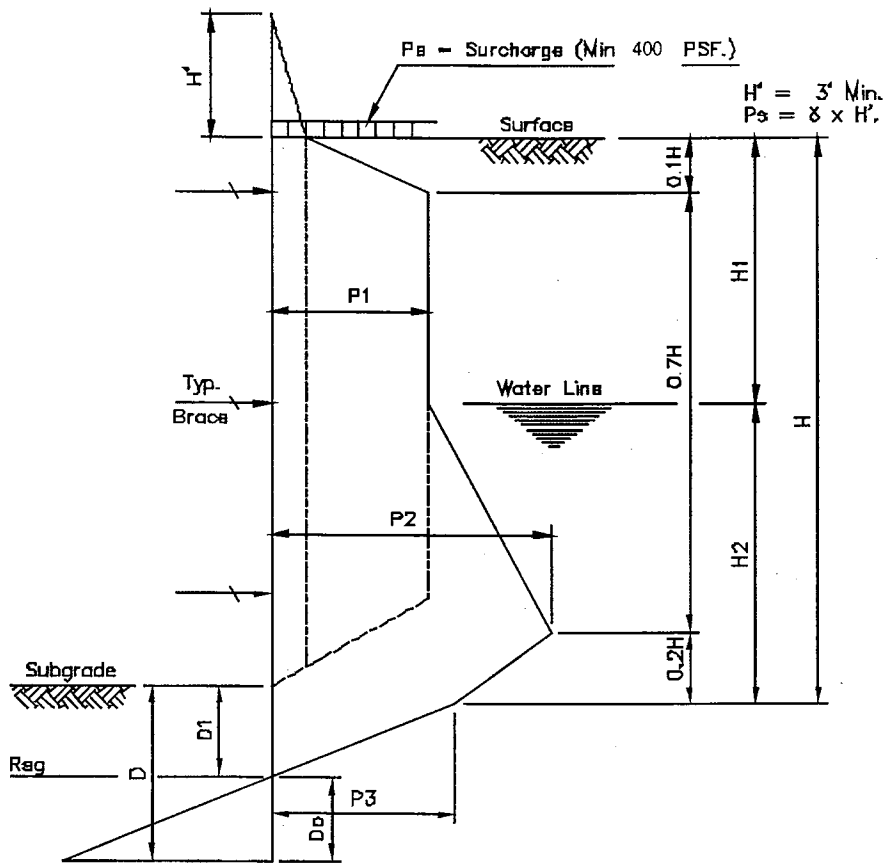


- δ = Unit Weight of Soil
- δ_w = Unit Weight of Water
- δ_s = Unit Weight of Submerged Soil
- ϕ = Angle of Internal Friction of Soil
- $K_{ra} = \frac{(1 - \sin \phi)}{(1 + \sin \phi)}$ For Active Earth Pressure
- $K_{rp} = \frac{(1 + \sin \phi)}{(1 - \sin \phi)}$ For Passive Earth Pressure
- $D = \sqrt{\frac{2 R_{eq}}{\delta (K_{rp} - K_{ra})}}$ (1.3)
(Min. 2'-0")

Attachment B

(Revised 9/88)

MINIMUM LOAD DIAGRAM FOR WATER TIGHT SHEETING DESIGN



$$\begin{aligned}
 P' &= K_{ra} \times P_s \\
 P_1 &= P' + 0.8 \times K_{ra} \times (\delta H_1 + \delta_s H_2) \\
 P_2 &= P_1 + \delta_w (H_2 - 0.2H) \\
 P_3 &= \delta_w \times H_2 \\
 D_1 &= \frac{P_3}{\delta_s (K_{rp} - K_{ra})} \\
 D_o &= \sqrt{\frac{2 R_{sq}}{\delta_s (K_{rp} - K_{ra})}} \\
 D &= (D_1 + D_o) (1.3)
 \end{aligned}$$

-END OF SECTION-

**Section 02317
BACKFILLING**

PART 1 GENERAL**1.01 SECTION INCLUDES**

- A. Backfilling work includes furnishing, placing and compacting all fill material necessary to bring excavations and site work to final grade as shown, specified or required.
- B. Backfilling – If the soil meets the requirements for a DEC Pre-Determined Beneficial Use Determination (BUD), reuse the soil onsite for backfilling rather than import soil from other sources.

1.02 RELATED SPECIFICATIONS

- A. Section 02316 - Excavation
- B. Section 02371 - Dust, Soil Erosion and Sedimentation Control

1.03 PAYMENT

- A. The cost of all backfilling shown on the Contract Drawings and necessary to complete the work shown and specified shall be included in the lump sum prices bid for Bid Items 1.
- B. The cost of additional select fill material and additional common fill material shall be paid as described in Section 01270 - Measurement and Payment.

1.04 REFERENCES

- A. ASTM C131 - Test Method for Resistance to Degradation of Small-Size Coarse Aggregate by Abrasion and Impact in the Los Angeles Machine
- B. ASTM C143 - Slump of Portland Cement Concrete
- C. ASTM C330 - Lightweight Aggregates for Structural Concrete
- D. ASTM D422 - Standard Test Method for Particle-Size Analysis of Soils
- E. ASTM D698 - Test Method for Laboratory Compaction in Characteristics of Soil Using Standard Effort (12,400 ft-lbf/ft³ (600 kN-m/m³))
- F. ASTM D1556 - Standard Test Method for Density and Unit Weight of Soil in Place by the Sand-Cone Method

- G. ASTM D1557 - Test Method for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/ft)
- H. ASTM D2167 - Standard Test Method for Density and Unit Weight of Soil in Place by the Rubber Balloon Method.
- I. ASTM D2922 - Standard Test Methods for Density of Soil and Soil-Aggregate in Place by Nuclear Methods (Shallow Depth)
- J. ASTM D4318 - Standard Test Method for Liquid Limit, Plastic Limit and Plasticity Index of Soils

1.05 DEFINITIONS/EXPLANATION OF TERMS

- A. Suitable Material -- any material whose composition is satisfactory for use as fill. Any mineral (inorganic) soil, blasted or broken rock and similar materials of natural or man-made (i.e. recycled) origin, including mixtures thereof, are considered suitable materials. Determinations of whether a specific natural material is suitable shall be made by the Engineer on the above basis.
 - 1. Recycled materials that the Engineer has evaluated and approved for general use shall be considered to be suitable material subject to the conditions for use as determined by the City. In general the use of recycled materials must be sanctioned by NYSDEC, usually in the form of a BUD.
- B. Unsuitable Materials -- any material containing vegetable or organic matter such as muck, peat, organic silt, topsoil or sod, that is not satisfactory for the use as fill material. Certain man made deposits of industrial waste, or contaminated materials may also be determined to be unsuitable materials.
- C. Pre-Determined Beneficial Use Determination (BUD) -- DEC allows soil to be reused on site under a Pre-Determined BUD under the following conditions: 360-1.15(b)(7) uncontaminated soil which has been excavated as part of a construction project, and which is being used as a fill material, in place of soil native to the site of disposition; 360-1.15(b) (8) non-hazardous, contaminated soil which has been excavated as part of a construction project, other than a DEC-approved or undertaken inactive hazardous waste disposal site remediation program, and which is used as backfill for the same excavation or excavations containing similar contaminants at the same site. Excess materials on these projects are subject to the requirements of Part 360.
- D. Backfill: Material to be excavated and proposed for reuse as backfill must meet 6NYCRR 360.1.15 (b) Pre-Determined BUD. Backfill shall be in-situ sampled and tested as directed by the Engineer to confirm the material is Non-hazardous.

1.06 SUBMITTALS

- A. Provide all submittals in accordance with Section 01330 - Shop Drawings.
- B. Name and location of all suppliers.
- C. Certificate of compliance with standard specified for each source of material.
- D. Prior to stockpiling or placing of select fill materials at the job site, submit for approval approximately 100-pound samples representative of the fill at the proposed borrow source. In addition, submit documentation of the availability of the required fill quantities at any proposed borrow source.
- E. Submit optimum moisture - maximum density curves and reports for all fill material before placement of fill.
- F. Results of all compaction tests for fill placement.
- G. Certification by the lightweight fill producer of the gradation, dry loose unit weight, dry compacted unit weight and Los Angeles Abrasion Test loss for the proposed lightweight fill source.

1.07 QUALITY CONTROL

- A. Testing: The Contractor shall retain the services of an independent materials testing laboratory to perform the following laboratory and field tests.
- B. All materials used in construction shall be tested for optimum moisture-maximum density curve, and reports of the test results for each source shall be submitted promptly. The tests shall be as follows:

Test	ASTM Standard	Tests Per Volume Delivered
Gradation	D422	1 per 200 C.Y.
Compaction or Density	D1557	1 per 200 C.Y.

- C. Acceptability of completed compaction shall be demonstrated by tests performed by the Contractor and accepted by the Commissioner. The minimum number of tests shall be determined by quantity of material placed, and reports of the test results shall be submitted promptly. The Contractor shall perform either of the following tests subject to the approval of the Commissioner:

Test	ASTM Standard	Tests Per Volume Placed
In-Place Density	D2167 D2922	1 per 200 cy delivered

- D. Any fill material being brought to the site that is composed of soil or a mixture of soil (excluding gravel, crushed stone, limestone screenings, other granular materials or flowable fill), as well as any soil being used for drainage fill, common fill and pipe bedding for small piping, must comply with the following protocol:
1. Top one foot of fill and/or topsoil meeting the intended Site End Use as per Part 375.
 2. Testing of all soil brought on-site shall be according to the intended Site End Use as per Part 375.
 3. The frequency of testing per volume of fill shall be one per 1000 CY.

1.08 DELIVERY AND STORAGE

- A. Materials delivered to the site shall be stored in a manner to prevent contamination and segregation. Segregated or contaminated material will not be permitted to be placed as backfill.
- B. Soil being brought on site shall meet Subpart 375-6 for intended Site End Use. Soil that does not meet Subpart 375-6 for intended end use shall not be brought on site, unless otherwise approved by the Engineer in writing.

PART 2 PRODUCTS

2.01 BACKFILL MATERIAL - GENERAL

- A. Backfill with sound materials, free from waste, organic matter, rubbish, boggy or other unsuitable materials.
1. Onsite Materials: Soil that is excavated and reused as backfill on site must meet the testing requirements for a DEC Pre-Determined BUD as specified in 6 NYCRR Part 360, Section 360-1.15 (b).
 - a. Backfilling – If the soil meets the requirements for a DEC Pre-Determined BUD, reuse the soil onsite for backfilling rather than import soil from other sources.
 - b. Backfilling – Soil, historic and other fill material containing industrial waste shall be considered industrial waste and is not suitable for reuse onsite without a site-specific beneficial use determination for NYSDEC. Evidence that a soil or fill material contains industrial waste shall include visual identification of waste, chemical odors, vapor emission, chemical staining.
 2. Offsite Imported Materials: Fill that is brought on site to be used as backfill must meet the requirements of Subpart 375-6 for intended site end use.

B. Materials Requirements: Follow common fill requirements whenever drainage or select fill is not specified. Determine and obtain the approval of the Engineer for the appropriate test method where more than one compaction test method is specified.

C. Wet and Frozen Materials: Do not use wet or frozen material for backfilling.

2.02 DRAINAGE FILL

A. Materials for Drainage Fill: Use clean gravel, crushed stone, or other suitable material conforming to the gradation specified for drainage fill. Clay and fine particles are unacceptable in drainage fill. Provide drainage fill that complies with the following gradation limits:

U.S. Standard Sieve	Percent Passing By Weight
1-1/2 inch	100
1 inch	95-100
2 inch	45-65
#4	5-15
#16	0-4

2.03 SELECT FILL

A. Materials for Select Fill: Use gravel, crushed stone, limestone screenings or other granular or similar material as approved which can be readily and thoroughly compacted to not less than 95 percent of the maximum dry density obtainable by ASTM D1557.

1. Provide select fill that complies with the following gradation limits:

U.S. Standard Sieve	Percent Passing By Weight
2 inch	100
1-1/2 inch	90-100
1 inch	75-95
1/2 inch	45-70
#4	25-50
#10	15-40
#200	5-15

- 2. Very fine sand, uniformly graded sands and gravels, or other materials that have a tendency to flow under pressure when wet are unacceptable as select fill.

2.04 COMMON FILL

A. Material for Common Fill

- 1. Materials for Common Fill: Material from on-site excavation may be used as common fill provided that it can be readily compacted to not less than 90 percent of the maximum dry density obtainable by ASTM D1557, and does not contain unsuitable material. Existing on-site soil must be sampled as per Section 02105 – In Situ Soil Sampling, Testing and Laboratory Analysis. Select fill may be used as common fill at no change in the Contract Price.

B. Granular Materials: Granular material that complies with the following gradation limits may be used as granular common fill:

U.S. Standard Sieve	Percent Passing By Weight
3 inch	100
#10	50-100
#60	20-90
#200	0-20

C. Cohesive Materials: Cohesive material may be used as common fill as follows:

- 1. The gradation requirements do not apply to cohesive common fill.
- 2. Use material having a liquid limit less than or equal to 40 and a plasticity index less than or equal to 20, as determined by ASTM D4318.

D. Material Approval: All material used as common fill is subject to approval by the Commissioner.

2.05 PIPE BEDDING

- A. Gradation for All Piping: Use a well graded material of which 90 percent will be retained on a No. 8 sieve, 100 percent will pass a 1-inch sieve, and will be well graded between those limits.

2.06 LIGHTWEIGHT FILL

- A. Lightweight fill shall be a lightweight aggregate produced by the rotary kiln method and meeting the requirements of ASTM C330. No byproduct slags or cinders are permitted.

- B. The material shall meet the grading requirements of ASTM C330, Table 1, Coarse Aggregate: 3/4 inch to No. 4.
- C. Dry loose unit weight shall be a maximum of 55 pcf. Dry compacted unit weight shall be a maximum of 60 pcf when measured by a one-point test performed in accordance with ASTM D698.
- D. Maximum Los Angeles Abrasion Test loss of 50 percent when tested in accordance with ASTM C131 (B grading).

PART 3 EXECUTION

3.01 GENERAL

- A. Backfill all excavations to the original surface of the ground or to such other grades as may be shown or required. Obtain approval for the time elapsing before backfilling against recently constructed masonry structures. Remove from all backfill, and from the space being backfilled, any compressible, putrescible, or destructible rubbish and refuse and all lumber and braces before backfilling is started. Leave sheeting and bracing in place or remove as the work progresses, while conforming to Section 02316 - Excavation.
- B. Equipment Limitations: Do not permit construction equipment used to backfill to travel against and over cast-in-place concrete structures until the specified concrete strength has been obtained, as verified by concrete test cylinders. In special cases where conditions warrant, the above restriction may be modified provided the concrete has gained sufficient strength, as determined from test cylinders, to satisfy design requirements for the removal of forms and the application of load.
- C. Dust, Soil Erosion and Sedimentation Control: The Contractor's operations shall conform to the requirements of Section 02371 - Dust, Soil Erosion and Sedimentation Control.
- D. Testing: No material shall be placed until satisfactory test reports for material type and compaction requirements have been approved by the Commissioner.

3.02 ELECTRICAL DUCT AND STRUCTURE BEDDING

- A. Bedding Placement and Compaction: All electrical ducts and precast manhole bases shall be bedded in well graded, compacted, select fill material. Select fill shall be placed in uniform layers not greater than 9 inches in loose thickness and compacted in place with suitable mechanical or pneumatic tools to not less than 95 percent of the maximum dry density as determined by ASTM D1557. Bedding thickness shall be not less than 6 inches after compaction. Bedding below electrical ducts shall extend the full width of the trench.

- B. Bedding of Existing Facilities: Bed existing underground structures, tunnels, conduits and pipes crossing the excavation with compacted select fill material. Place bedding material under and around each existing underground structure, tunnel, conduit or pipe and extend underneath and on each side to a distance equal to the depth of the trench below the structure, tunnel, conduit or pipe.
- C. Concrete Work Mats: Cast-in-place manhole bases and other foundations for structures shall be cast against a concrete work mat in clean and dry excavations, unless otherwise shown, specified or required.

3.03 PIPE BEDDING AND INITIAL BACKFILL

- A. Hand Placement: Place select fill by hand for initial pipe backfill from top of bedding to 1 foot over top of pipes in uniform layers not greater than 6 inches in loose thickness. Tamp under pipe haunches and thoroughly compact in place the select fill with suitable mechanical or pneumatic tools to not less than 95 percent of the maximum dry density as determined by ASTM D1557.
- B. Stone Placement: Do not place stone fragments larger than 2-inch size in the pipe bedding or in the backfill to 1 foot over the top of pipes, nor any stone fragments larger than 3-inch size nearer than 2 feet from any pipe, conduit or concrete wall.
- C. Disallowed Materials: Pipe bedding containing very fine sand, uniformly graded sands and gravels, or other materials that have a tendency to flow under pressure when wet, is unacceptable.

3.04 BEDDING PLACEMENT AND BACKFILL FOR PIPE IN SHORT TUNNEL

- A. Bed pipelines or electrical ducts placed in short tunnels in select fill or 2500 psi concrete. Completely fill the remainder of the annular space between the outside of the pipe wall and the tunnel wall with select fill, suitable material, or 2500 psi concrete, as approved. Pipes and ducts in short tunnels shall be supported to permit placing and compaction of backfill.

3.05 TRENCH BACKFILL

- A. General: Backfill trenches from 1 foot over the top of the pipe, from the top of electrical duct bedding or as shown to the bottom of pavement base course, subgrade for lawns or lawn replacement, to the top of the existing ground surface or to such other grades as may be shown or required. Backfill trenches as soon as, in the opinion of the Commissioner, it can be done without injury to the concrete or pipelines.
- B. Materials: Provide select fill, or other suitable material, as specified and as approved for trench backfill.

C. Depth of Placement

1. Except under pavements, walkways, railroad tracks, and street or highway appurtenances, or as otherwise specified, place trench backfill in uniform layers not greater than 9 inches in loose thickness and thoroughly compact in place using suitable mechanical or pneumatic equipment. Compact backfill to not less than 90 percent of the maximum dry density as determined by ASTM D1557.
 2. Traffic Areas and Under Utilities: Where pavements, walkways, railroad tracks and street or highway appurtenances are to be placed over trenches and under utilities or utility services crossing the trench, provide trench backfill using select fill placed in uniform layers not greater than 9 inches in loose thickness and thoroughly compacted in place with equipment as specified above. Compact backfill to not less than 95 percent of the maximum dry density as determined by ASTM D1557.
 3. Undeveloped Areas: In undeveloped areas and where select fill material or hand-placed backfill are not specified or required, place suitable backfill material in lifts not exceeding 12 inches in loose thickness. When the trench is full, consolidate the backfill by jetting, spading, tamping or puddling to ensure complete filling of the excavation. Mound the top of the trench approximately 12 inches to allow for consolidation of backfill.
- D. Dropping of Material on Work: Backfill trenches in such a way as to prevent dropping material directly on top of any conduit or pipe through any great vertical distance. Do not allow backfilling material from a bucket to fall directly on a structure or pipe and, in all cases, lower the bucket so that the shock of falling earth will not cause damage.
- E. Distribution of Large Materials: Break up lumps and distribute any stones, pieces of crushed rock or lumps that cannot readily be broken up, throughout the mass so that all interstices are solidly filled with fine material.
- F. Temporary Bulkhead for Trenches: Retain backfill in trenches by temporary bulkheads only and remove them as the backfilling progresses. Do not make bulkheads of stone.
- G. Sewers Not to be Covered: Do not cover sewers, drains, basin connections, ends of sewers and branches until the Commissioner orders or gives permission to backfill.
- H. Temporary Pavement: After completion of backfilling in City streets, remove all surplus material, and regrade and leave free, clear, and in good order all roadways and sidewalks. Deposit and compact a temporary surface of asphalt, or other equivalent and suitable material to a depth of six inches on all backfilled areas where ordered by the Commissioner in writing. Until areas are restored to their original condition, maintain the surface of the temporary pavement in good and safe

condition and promptly fill all depressions caused by settlement of the backfill with the temporary surfacing materials and compact the same. Wet the temporary surface by spraying with water when necessary to prevent a dust nuisance.

3.06 STRUCTURE BACKFILL

- A. General: Backfill excavations as soon as, in the opinion of the Engineer, it can be done without injury to the concrete or structures.
- B. Use of Select Fill: Use select fill underneath all structures, and adjacent to structures where pipes, connections, electrical ducts and structural foundations are to be located within this fill. Use select fill beneath all pavements, walkways, and railroad tracks, and extend to the bottom of pavement base course or ballast.
 - 1. Place backfill in uniform layers not greater than 8 inches in loose thickness and thoroughly compact in place with suitable approved mechanical or pneumatic equipment.
 - 2. Compact backfill to not less than 95 percent of the maximum dry density as determined by ASTM D1557.
- C. Use of Lightweight Fill: When specified, shown on the Contract Drawings, or approved by the Engineer, lightweight fill shall be used to raise the grade in areas that are to support pavements, walkways, railroad tracks and other structures.
 - 1. Place lightweight fill in uniform horizontal layers not greater than 12 inches in loose thickness.
 - 2. Lightweight fill shall be compacted by four complete coverages with an approved smooth drum vibratory roller having a minimum static weight of 14,000 pounds, a minimum dynamic force of 23,000 pounds, and a total force not less than 5,500 pounds per foot of compactor drum width.
- D. Use of Common Fill: Use common granular fill adjacent to structures in all areas not specified above, unless otherwise shown or specified. Select fill may be used in place of common granular fill at no additional cost.
 - 1. Extend such backfill from the bottom of the excavation or top of bedding to the underside of the lawn mix for seeded, sodded or hydroseeded areas, the top of previously existing ground surface or to such other grades as may be shown or required.
 - 2. Place backfill in uniform layers not greater than 8 inches in loose thickness and thoroughly compact in place with suitable equipment, as specified above.
 - 3. Compact backfill to not less than 90 percent of the maximum dry density as determined by ASTM D1557.

- E. Use of Cohesive Material: In unpaved areas adjacent to structures, for the top 1 foot of fill directly under the lawn mix, use cohesive backfill conforming to Paragraph 2.04C, placed in 6-inch lifts. The cohesive backfill shall extend to the limits of the excavated area. Compact to not less than 90 percent of the maximum dry density as determined by ASTM D1557.
- F. Backfilling Around Sheeting: When sheeting is withdrawn, solidly fill all cavities in or adjoining the trench or other excavation. When sheeting is left in place, solidly fill all cavities behind such sheeting.

3.07 DRAINAGE BLANKET

- A. Provide a drainage blanket consisting of drainage fill where shown, specified, or required. Place drainage fill in uniform layers not greater than 8 inches in loose thickness.
- B. Where drainage fill is required underneath structures or adjacent to structures where pipes, connections, electrical ducts and structural foundations will be located within the fill, compact the fill with suitable mechanical or pneumatic equipment to not less than 95 percent of the maximum dry density as determined by ASTM D1557.
- C. Where drainage fill is required in areas not specified in Paragraph 3.07B, compact with suitable mechanical or pneumatic equipment to not less than 90 percent of the maximum dry density as determined by ASTM D1557.

3.08 EARTH EMBANKMENTS

- A. Make all earth embankments of approved cohesive common fill material.
- B. Place fill in uniform layers not greater than 10 inches in loose thickness. Compact in place with suitable approved mechanical equipment.
- C. Compact earth embankments to not less than 90 percent of the maximum dry density as determined by ASTM D1557.
- D. Do not use cohesionless, granular material as earth embankment backfill, unless otherwise shown or required.

3.09 COMPACTION EQUIPMENT

- A. Equipment and Methods: Perform all compaction with suitable approved equipment and methods.
- B. Compact clay and other cohesive material with sheep's-foot rollers or similar equipment where practicable. Use hand held pneumatic tampers elsewhere for compaction of cohesive fill material.

- C. Compact low cohesive soils with pneumatic-tire rollers or large vibratory equipment where practicable. Use small vibratory equipment elsewhere for compaction of cohesionless fill material.
- D. Do not use heavy compaction equipment over pipelines or other structures, unless the depth of fill is sufficient to adequately distribute the load.

3.10 FINISH GRADING

- A. Final Contours: Perform finish grading in accordance with the completed contour elevations and grades shown on the Contract Drawings and blend into conformation with remaining natural ground surfaces.
 - 1. Leave all finished grading surfaces smooth and firm to drain. Areas shall be finished to the degree obtainable by either blade or scraper operations and suitable for application of topsoil.
 - 2. Bring finish grades to elevations within plus or minus 0.10 foot of elevations or contours shown.
 - 3. Areas which are anticipated to be undisturbed for a period of more than 30 days shall receive temporary seeding of rye grass at a rate of three bushels per acre, weather and season permitting. This seeding shall be repeated as necessary to maintain a continuing ground cover.
- B. Surface Drainage: Grade outside of building or structure lines in a manner to prevent accumulation of water within the area. Where necessary or where shown, extend finish grading to ensure that water will be carried to drainage ditches, and the site area left smooth and free from depressions holding water.

3.11 INSPECTION AND TESTING OF BACKFILLING

- A. Provide sampling, testing, and laboratory methods in accordance with ASTM D1556 or other method as determined by the Commissioner for select fill and common fill. Lightweight fill shall be tested as described in Paragraph 2.06C in accordance with ASTM D698. Subject all backfill to these tests to the satisfaction of the Commissioner. These tests shall be the basis for acceptance or rejection by the Commissioner of the compaction. Failure to achieve the specified densities shall require the Contractor to recompact or remove the material as required.

3.12 CORRECTION OF WORK

- A. Correction of Work: Correct any areas of unsatisfactory compaction by removal and replacement, or by scarifying, aerating or sprinkling as needed and recompactation in place prior to placement of a new lift. The Contractor shall, if necessary, increase its compactive effort by increasing the number of passes, using heavier or more suitable compaction equipment, or by reducing the lift thickness.

The Contractor shall adjust the moisture content of the soil to bring it to the optimum range by drying or adding water, as required.

- B. Responsibility for Aftersettlement: Correct any depression that may develop from settlement in backfilled areas within one year after the work is fully completed. Provide, as needed, backfill material, pavement base replacement, permanent pavement, sidewalk, curb and driveway repair or replacement, and lawn replacement, and perform the necessary reconditioning and restoration work to bring such depressed areas to proper grade as approved.

-END OF SECTION-

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Section 02371
DUST, SOIL EROSION AND SEDIMENTATION CONTROL

PART 1 GENERAL**1.01 SECTION INCLUDES**

- A. The Contractor shall provide all labor, materials, tools, equipment, and incidentals required to assure adequate environmental protection including implementation of all erosion and sediment control measures and maintenance of storage areas as directed by the Commissioner.
- B. The Contractor shall provide a Sedimentation, Storm Water and Soil Erosion Control Plan in compliance with the NYS DEC approved Storm Water Pollution Prevention Plan (SWPPP) that addresses measures to prevent migration of contaminated storm water and sediment and to prevent erosion of features of the Work.
- C. The Contractor shall prevent discharge of sediment or erosion to watercourses, public streets or private property from dewatering operations. The Contractor shall provide methods to prevent demolition and construction debris from contaminating storm water runoff.
- D. The Contractor shall comply with all applicable regulatory requirements and all Federal, State, or local laws, codes, ordinances and regulations that govern the control of sediment, erosion and storm water during excavation.
- E. The Contractor shall provide silt fences, catch basins sediment traps, stabilized construction entrances or other approved means as a temporary structural practice to minimize erosion and sediment runoff.
- F. The Contractor shall provide and implement storm water pollution prevention in accordance with the Federal National Pollution Discharge Elimination System (NPDES) and State Pollution Discharge Elimination System (SPDES).
- G. The Contractor shall control dust and noise caused by operation and movement of vehicles and equipment in accordance with the latest NYC DEP, and OSHA standards, and all other applicable Federal, State and local regulations.
- H. The Contractor shall comply with the requirements given in the NYS DEC approved Stormwater Pollution Prevention Plan (SWPPP) for the project. Any changes intended to be made to the SWPPP recommendations should be submitted in conformance with Article 1.06.

1.02 RELATED SPECIFICATIONS

- A. Section 01330 - Shop Drawings
- B. Section 02240 - Dewatering

1.03 REFERENCES

- A. Comply with applicable provisions and recommendations of the following except as otherwise shown or specified.
 - 1. ASTM D 3786 - Hydraulic Bursting Strength of Knitted Goods and Nonwoven Fabrics - Diaphragm Bursting Strength Tester Method
 - 2. ASTM D 4354 - Sampling of Geosynthetics for Testing
 - 3. ASTM D 4355 - Deterioration of Geotextiles from Exposure to Ultraviolet Light and Water (Xenon-Arc Type Apparatus)
 - 4. ASTM D 4439 - Standard Terminology for Geotextiles
 - 5. ASTM D 4491 - Water Permeability of Geotextiles by Permittivity
 - 6. ASTM D 4533 - Trapezoid Tearing Strength of Geotextiles
 - 7. ASTM D 4632 - Test Method for Grab Breaking Load and -Elongation of Geotextiles
 - 8. ASTM D 4751 - Method for Determining Apparent Opening Size of a Geotextile
 - 9. ASTM D 4759 - Method for Determining the Specification Conformance of Geosynthetics
 - 10. ASTM D 4873 - Method for Identification, Storage, and Handling of Geotextiles
 - 11. ASTM D 1556 - Density and Unit Weight of Soil in Place by the Sand-Cone Method
 - 12. ASTM D 1557 - Test Methods for Moisture-Density Relations of Soils and Soil-Aggregate Mixtures Using 10-lb Hammer and 18-in. Drop

13. ASTM D 2922 - Test Methods for Density of Soil and Soil-Aggregate in Place by Nuclear Methods (Shallow Depth)
14. AISC Specifications for the Design, Fabrication, and Erection of Structural Steel for Buildings
15. OSHA Standard, Title 29, Code of Federal Regulations, Part 1926, Section 650 (Subpart p - Excavations)
16. State of New York DEC General Discharge Permit
17. New York State Stormwater Management Design Manual
18. New York Standards and Specifications for Erosion and Sediment Controls
19. SWPPP approved by the NYS DEC

1.04 DEFINITIONS

- A. Primary System: Consists of one or more of the following components: silt fence, sediment traps, stabilized construction entrances, sumps, pumps, piping, or other means determined by the Contract Documents. Components shall be of sufficient size to handle the temporary sediment, storm water and erosion control as required by the Contract Documents.
- B. Backup Components: Components such as backup pumps, piping and other components which shall be sufficiently sized and prepared to incorporate them into the system if there is potential for the failure of a primary system component. (i.e., if generators are part of the primary system, have generators readily available in the event of a power failure).

1.05 SYSTEM DESCRIPTION

- A. Silt Fences: The Contractor shall provide silt fences as a temporary structural practice to minimize erosion and sediment runoff. Silt fences shall be properly installed to effectively retain sediment immediately after completing each phase of work where erosion would occur in the form of sheet and rill erosion (i.e. clearing and grubbing, excavation, embankment, and grading). Silt fences shall be installed in the locations required and shown on the approved Contract drawings. Final removal of silt fence barriers shall be upon approval by the Resident Engineer.
- B. Sediment Traps: Sediment trap basins shall be provided around the catch basins to intercept sediment laden runoff and retain the sediment. Proposed locations of sediment traps are shown in the SWPPP. In addition, the Contractor shall provide sediment traps around any other temporary stormwater outlets from the construction

site. Upon approval by the Commissioner, the sediment trap shall be removed and the area stabilized when the constructed drainage area has been properly stabilized.

- C. **Stabilized Construction Entrances:** The Contractor shall provide a stabilized pad of aggregates underlain with geotextile at all construction vehicle ingress and egress locations to eliminate tracking of sediments onto public rights of way. Representative locations of the stabilized constructions are shown in the SWPPP.

1.06 SUBMITTALS

- A. Provide all submittals in accordance with the General Conditions and Section 01330 - Shop Drawings.
- B. **Contract Drawings:** The Contractor shall submit to the Commissioner for approval Contract Drawings and other documentation required to show conformance with the requirements specified and shown on the Contract Drawings.
 - 1. Contract drawings shall show details of the Sediment and Storm Water Control System. The Contract drawings shall include, at a minimum, the following:
 - a. Plan locations of all components of the Sediment/Storm water Control System.
 - b. Detail of silt fence, sediment traps, stabilized construction entrances, and other installations.
 - 2. The Contractor shall submit manufacturer's descriptive literature and installation instructions for stockpile liner and cover material.
- C. **Sedimentation and Storm Water Control Plan (SSCP):** The Contractor shall develop and submit for approval, 30 days following Notice to Proceed, an SSCP; in accordance with the SWPPP. The SSCP shall address schedules and measures that will be taken to prevent migration of contaminated storm water/sediment, and to prevent erosion of features of the Work. The SSCP shall include the following at a minimum:
 - 1. Storm water runoff, noise, odor control and air pollution prevention.
 - 2. Provisions for silt fences, sediment traps, stabilized construction entrances and other measures to limit migration of sediments
 - 3. Diversion of storm water: The Contractor shall include provisions for controlling storm water runoff in and around excavation areas.

4. Soil Storage Area: All details of temporary soil storage to be implemented as specified in this section.
 5. Soil Stabilization practices: All details of soil stabilization practices to be implemented, as specified in this section.
- D. Inspection Reports: Contractor shall submit SSCP inspection reports at the beginning of each month.

1.07 PERMITS AND REGULATIONS

- A. The Contractor shall obtain all necessary permits and be responsible for implementing the terms and requirements of these permits as needed and for payment of all fees.
- B. Handle all material in compliance with applicable requirements of OSHA and other governing authorities having jurisdiction.
- C. Codes and Standards: State and City laws and code requirements shall govern the hauling and disposal of trees, shrubs, stumps, roots, rubbish, debris and other matter.

1.08 ENVIRONMENTAL REQUIREMENTS

- A. Soil Stabilization: The stabilization practices to be implemented shall include one or a combination of the following: temporary seeding, mulching, geotextiles, sod stabilization, vegetative buffer strips, erosion control mats, protection of trees, preservation of mature vegetation. Stabilization practices shall be as approved by the Engineer. The Contractor shall record the dates when the major grading activities occur (i.e., clearing and grubbing, excavation, embankment and grading); when construction activities temporarily or permanently cease on a portion of the site; and when stabilization practices are initiated. Except as provided in Paragraphs 1.08A.1 and 1.08A.2, stabilization practices shall be initiated as soon as practicable, but no more than 14 days after construction activities have temporarily or permanently ceased.
 1. Unsuitable Conditions: Where the initiation of stabilization measures by the fourteenth day after construction activity temporarily or permanently ceases is precluded by unsuitable conditions caused by the weather, stabilization practices shall be initiated as soon as practicable after conditions become suitable.
 2. Temporary Inactivity Less than 21 Days: Where construction activity will resume on a portion of the site within 21 days after it temporarily ceases, no stabilization practices will be required.

- B. Sediment and Storm Water Control: Sediment and storm water control components shall be operational at all times during the Work, specifically during excavation, backfilling and restoration, and decontamination operations. The sediment and storm water control system shall be capable of handling Storm water during construction. Damage to excavation slopes and the migration of contaminated soil to downstream areas resulting from storm events shall be repaired or remediated by the Contractor, at the Contractor's expense.
- C. Storm water: At no time shall the Contractor allow storm water from soil stockpiling operations, or water from decontamination operations to migrate off of, or percolate into, the ground below the temporary stockpile area or decontamination area, so as to impact non-contaminated areas. The Commissioner will monitor any overflow or leakage that occurs, and may, at his discretion, require the Contractor to perform soil sampling within non-contaminated areas affected by such overflow. Any soils that have been contaminated by such overflow shall be removed, treated and disposed of by the Contractor. All sampling, analyses, treatment and disposal of soils required as a result of overflow on formerly non-contaminated soil shall be performed by the Contractor at no additional cost to the City of New York.
- D. Disposal of Water: Water collected from decontamination areas, dewatering operations and soil stockpiles shall be handled in accordance with Section 02240 - Dewatering.

1.09 PROJECT CONDITIONS

- A. Existing Work: All silt fences, sediment traps, construction entrances, sumps, pumps, piping, and other sediment/storm water controls shall be installed such that other aspects of the Work are not adversely impacted or endangered. The sediment traps should be installed avoiding any interference with the construction traffic. All installations shall be subject to the approval of the Commissioner.
- B. Dust Control: The Contractor shall be responsible for controlling visible dust caused by Work operations and the moving of vehicles and equipment. Dust control shall be implemented when soils are exposed, before, during and after Work activity ceases. Dust control will also be required on the weekends. The Contractor shall apply water or use other methods, subject to the Commissioner's approval, when visible dust is present on-site, in accordance with the Health and Safety Plan. The use of chemicals, including calcium chloride for dust control, will not be permitted.
 - 1. All excavation, loading and transport of materials shall minimize the formation of dust. To prevent dust generation, application of water to roadways and active work areas shall be utilized as required. The Contractor's operations shall include air monitoring and dust minimization measures, consistent with the Health and Safety Plan (HASp).

- C. Silt and Sediment Disposal: All silt and sediment which accumulates behind silt fences or other erosion control structures shall be removed and disposed of off-site in accordance with all applicable Federal, State and local regulations.

1.10 STORAGE, HANDLING AND REMOVAL

- A. Filter fabric shall be identified, stored and handled in accordance with ASTM D 4873.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Reynolds Soil Technologies (RST)
- B. SynTech Products
- C. Enviro-Pro
- D. Or approved equal.

2.02 MATERIALS

- A. Components for Silt Fences

1. Filter Fabric: Geotextile fabric that consists of a woven pervious sheet of plastic yarn as defined by ASTM D 123-90 and ASTM D 4439. The geotextile fabric shall be one that is recommended for such use by the manufacturer. The geotextile fiber shall consist of a long-chain synthetic polymer composed of at least 85 percent by weight of propylene, ethylene, ester, amide and shall contain stabilizers and inhibitors added to the base plastic, if necessary, to make the filament resistant to deterioration due to ultraviolet and heat exposure. The edges of the geotextile fabric shall be finished to prevent the outer fiber from pulling away.
2. Seams: The seams of the geotextile fabric shall be sewn with thread of material compatible with the fabric given above for geotextile yarn. Factory seams shall be tested in accordance with Method ASTM D1683-90, using 1-inch square jaws and 12 inches per minute constant rate of traverse. The strengths shall be not less than 90 percent of the required tensile strength of the geotextile fabric in any direction.

Filter Fabric Physical Requirements		
Physical Property	Test Procedure	Acceptable Values
Weight	ASTM D3776	5.6 oz/sy
Thickness	ASTM D1777	24 mils
Grab Tensile Strength Elongation (%)	ASTM D 4632	10 lbs./%

Filter Fabric Physical Requirements		
Physical Property	Test Procedure	Acceptable Values
Burst Strength	ASTM D3786	500+ psi
Trapezoid Tear Strength	ASTM D4533	115 x 90 lb.

3. Silt Fence Stakes and Posts: Provide wooden stakes or steel posts for fence construction. Wooden stakes utilized for silt fence construction, shall have a minimum cross section of 2 inches by 2 inches when oak is used and 4 inches by 4 inches when pine is used, and shall have a minimum length of 5 feet. Steel posts (standard "U" or "T" section) utilized for silt fence construction, shall have a minimum mass of 1.33 pounds per linear foot and a minimum length of 5 feet.

B. Components for Stabilized Construction Entrances

1. Aggregates: The aggregates to be used shall be a matrix of 1-4 inch stone, or reclaimed or recycled concrete equivalent.
2. The geotextile shall be woven or nonwoven fabric consisting only of continuous chain polymeric filaments or yarns of polyester. The fabric shall be inert to commonly encountered chemicals, hydro-carbons, mildew, rot resistant, and conform to the fabric properties as shown:

Fabric Properties	Test Procedure	Acceptable Values
Grab Tensile Strength (lbs)	ASTM D1682	220
Elongation at Failure(%)	ASTM D1682	60
Mullen Burst (lbs)	ASTM D3786	430
Puncture Strength (lbs)	ASTM D751 modified	125
Equivalent Opening Size	Us Std Sieve CW-02215	40-80
Aggregate Depth	-	10

- C. Mill Certificate: A mill certificate or affidavit shall be provided attesting that the fabric and factory seams meet chemical, physical, and manufacturing requirements specified above. The mill certificate shall specify the actual Minimum Average Roll Values and shall identify the fabric supplied by roll identification numbers. The Contractor shall submit a mill certificate signed by an authorized official from the company manufacturing the filter fabric.

PART 3 EXECUTION

3.01 INSTALLATION

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- A. **Silt Fences:** Silt fences shall extend a minimum of 16 inches to a maximum of 34 inches above the ground surface. Filter fabric shall be from a continuous roll cut to the length of the barrier to avoid the use of joints. When joints are unavoidable, filter fabric shall be spliced together at a support post, with a minimum 6-inch overlap, and securely sealed. A trench shall be excavated, approximately 4 inches wide and 4 inches deep, on the up slope side of the location of the silt fence. The 4-inch by 4-inch trench shall be backfilled and the soil compacted over the filter fabric. Silt fences may only be removed upon approval by the Engineer.
- B. **Sediment Traps:** The volume of sediment storage of the traps shall be 3600 cubic feet per acre of contributory drainage. All excavations for the trap shall be carried in such a way that the erosion and water pollution shall be minimal. All cut slopes of the basin shall be 1:1 or flatter.
- C. **Stabilized Construction Entrances;** Stabilized Construction Entrances shall have a minimum thickness of six inches. The width shall be at least 12 foot but not less than the full width of points where ingress or egress occurs. However, the width shall be a minimum of 24-foot if there is only one access to the site. Stabilized Construction Entrances shall be at least 50 feet long. Geotextile shall be placed over the entire area to be covered with aggregate. Piping of surface water under entrance shall be provided if required. If piping is impossible, a mountable berm with 5:1 slopes will be permitted.
- D. **Maintenance:** The Contractor shall maintain the temporary and permanent vegetation, erosion and sediment control measures, and other protective measures in good and effective operating condition by performing routine inspections to determine condition and effectiveness, by restoration of destroyed vegetative cover, and by repair of erosion and sediment control measures and other protective measures. The following procedures shall be followed to maintain the protective measures.
1. **Silt Fence Maintenance:** Silt fences shall be inspected in accordance with Article 3.02 of this Section. Any required repairs shall be made promptly. Close attention shall be paid to the repair of damaged silt fence resulting from end runs and undercutting. Should the fabric on a silt fence decompose or become ineffective, and the barrier is still necessary, the fabric shall be replaced promptly. Sediment deposits shall be removed and disposed of off-site when deposits reach one-third of the height of the barrier. When a silt fence is no longer required, it shall be removed. The immediate area occupied by the fence shall be shaped to an acceptable grade and stabilized.
 2. **Sediment Trap maintenance:** Sediment traps shall be inspected after each rain and repairs made as needed. Sediments from sediment traps shall be removed and the trap restored to its original dimensions when the sediment has accumulated to half the design depth of the trap. Removed sediment shall be deposited in a suitable area and stabilized in such a manner that it will not erode.

3. Stabilized Construction Entrance maintenance: The entrances shall be maintained in a condition which will prevent tracking or flowing of sediment onto public rights-of-way. Periodic top dressing with additional aggregate shall be done as needed. All sediment spilled, dropped or washed onto the public area must be removed immediately. When necessary, wheels must be cleaned to remove sediment prior to entrance onto public right-of-ways. All sediment shall be prevented from entering storm drains, ditches or watercourses. Periodic inspection and needed maintenance shall be provided after each rain. When washing is required, it shall be done on an area stabilized with stone and which drains into an approved sediment trapping device.

3.02 FIELD QUALITY CONTROL

- A. Inspections: The Contractor shall inspect disturbed areas of the construction site, areas used for storage of materials that are exposed to precipitation that have not been finally stabilized, stabilization practices, structural practices, other controls, and areas where vehicles exit the site daily and within 24 hours of the end of any storm that produces 1/2 inch (13 mm) or more rainfall at the site. Where sites have been finally stabilized, such inspection shall be conducted at least once every month.
 1. Inspections Details: Disturbed areas and areas used for material storage that are exposed to precipitation shall be inspected by the Contractor for evidence of, or the potential for, pollutants entering the local drainage system. Erosion and sediment control measures identified in the SSCP shall be observed to ensure that they are operating correctly. Discharge locations or points shall be inspected to ascertain whether erosion control measures are effective in preventing significant impacts to receiving waters. Locations where vehicles exit the site shall be inspected for evidence of offsite sediment tracking.
 2. Inspection Reports: For each inspection conducted, the Contractor shall prepare a report summarizing the scope of the inspection, name(s) and qualifications of personnel making the inspection, the date(s) of the inspection, major observations relating to the implementation of the SSCP, maintenance performed, and actions taken. The report shall be furnished to the Resident Engineer. A copy of the inspection report shall be maintained on the job site.

3.03 CLEANING

- A. Clean all silt and sediment from sumps during and at the conclusion of the Work. Interim cleaning shall be at the direction of the Commissioner, such that the performance of the sump, pumps and piping used in the performance of work is not hindered.

-END OF SECTION-

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**Section 02821
METAL FENCE**

PART 1 GENERAL**1.01 SECTION INCLUDES**

- A. This Section describes the specific requirements for metal fencing. Metal fencing shall be as specified herein and as shown on the Contract Drawings. The fence shall be all metal, constructed of wire fabric fastened to top, bottom and intermediate horizontal rails and to vertical line posts, corner posts and terminal posts and shall include all system components such as gates, fittings, fastenings and other accessories with polymer coating and other protective coatings as specified.

1.02 RELATED SPECIFICATIONS

- A. Section 01330 - Shop Drawings
- B. Section 05081 - Galvanizing

1.03 REFERENCES

- A. ASTM A 53 - Pipe, Steel, Black and Hot-Dipped, Zinc-Coated Welded and Seamless, Standard Specification for
- B. ASTM A 90 - Weight [Mass] of Coating on Iron and Steel Articles with Zinc or Zinc-Alloy Coatings, Standard Test Method for
- C. ASTM A 123 - Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products, Standard Specification for
- D. ASTM A 446 - Steel Sheet, Zinc Coated (Galvanized) by the Hot-Dip Process, Structural (Physical) Quality, Standard Specification for
- E. ASTM A 570 - Steel, Sheet and Strip, Carbon, Hot-Rolled, Structural Quality, Standard Specification for
- F. ASTM A 585 - Aluminum-Coated Steel Barbed Wire, Standard Specification for
- G. ASTM A 653 - Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process, Standard Specification for
- H. ASTM A 817 - Metallic-Coated Steel Wire for Chain-Link Fence Fabric, Standard Specification for

- I. ASTM A 824 - Metallic-Coated Steel Marcellled Tension Wire for Use with Chain Link Fence, Standard Specification for
- J. ASTM B 6 - Zinc, Standard Specification for
- K. ASTM F 567 - Installation of Chain-Link Fence, Standard Practice for
- L. ASTM F 626 - Fence Fittings, Standard Specification for
- M. ASTM F 900 - Industrial and Commercial Swing Gates, Standard Specification for
- N. ASTM F 1043 - Strength and Protective Coatings on Metal Industrial Chain Link Fence Framework, Standard Specification for
- O. ASTM F 1083 - Pipe, Steel, Hot-Dipped Zinc-Coated (Galvanized) Welded, for Fence Structures, Standard Specification for
- P. ASTM F 1184 - Industrial and Commercial Horizontal Slide Gates, Standard Specification for
- Q. CLF 2445 - Chain Link Fence Manufacturer's Institute: Product Manual

1.04 QUALITY ASSURANCE

A. Installer Qualifications

1. Contractor shall select a single installer regularly engaged in the installation of metal fencing with successful experience in the erection of the type of metal fencing specified. Installer shall agree to employ only tradesmen with specific skill and experience in the erection of this type of work.
2. Contractor shall submit the name and experience record of the installer to Commissioner along with the names and telephone numbers of owners, architects or engineers responsible for the project and the approximate contract cost of the metal fencing and the amount of area installed.

B. Source Quality Control

1. Provide metal fencing system as a complete system with all gates, hardware, appurtenances and other components produced by a single manufacturer, including custom erection accessories, fittings, clamps and fastenings as may be necessary or required.
2. Provide fence fabric imprinted with manufacturer's trade name, country of origin, core wire gauge, and finished outside diameter gauge. Material

delivered to the Project site lacking this information will be rejected for use in the work and shall be immediately removed even if discovered after being incorporated in the work, at no additional expense to The City of New York.

3. Provide shipping list for materials used, endorsed with the manufacturer's voucher certifying that the material used in the metal fencing system complies with these Specifications.
4. Structural shapes of satisfactory sections and equal strengths may be substituted if approved by the Commissioner.

C. Performance Criteria

1. Comply with the standards of the Chain Link Fence Manufacturer's Institute for product and installation requirements and the requirements of ASTM F 567. These standards shall represent a minimum level of quality when additional information is not shown or specified in the Contract Documents.
2. The fabricator shall be responsible for providing structural calculations for the metal fence system to Contractor for submittal to Commissioner as part of Shop Drawing review. Structural analysis shall verify that all system components including, but not limited to, supports, gates, fasteners, fittings and connections meet the requirements of the New York City Building Code.
3. Member sizes, thicknesses and weights shown or specified shall be considered minimum. Where structural analysis indicates the need for additional members or increased member size, thickness or weight, these shall be provided at no additional expense to The City of New York.
4. Modifications may be made only as necessary to meet field conditions to ensure proper fitting and support of the work, and only upon submittal of Contract.
5. Drawings and receipt of approval by the Commissioner.

D. Fabrication Tolerances

1. Fabric, posts, rails, and other supports shall be straight or uniformly curved to provide the profiles shown on the Contract Drawings, to a dimensional tolerance of 1/16 inch in 10 feet - 0 inches without warp or rack in the finished installation.

1.05 SUBMITTALS

- A. The Contractor shall submit the following in accordance with the requirements of Section 01330 – Shop Drawings.

B. Samples: Submit for approval the following:

1. Each component, fastener, post, rail, support, chain link fabric and other items labeled as to the use and location in the work.
2. Samples approximately 6 inches long, and 6 inches square of all chain link fence fabric materials including framework members, and typical accessories. Commissioner's review will be for workmanship only. Compliance with all other requirements is the responsibility of Contractor.

C. Shop Drawings: Submit for approval the following:

1. Copies of manufacturer's technical product information, specifications and certified test reports on physical properties, and installation instructions for all metal fencing system components.
2. All structural calculations verifying that all system components comply with the requirements of the New York City Building Code.
3. Large scale details drawn at a scale of 3 inches equal to one foot for all connections and gate details. Drawings at a scale of 1/4 inch equal to one foot of typical metal fence assembly identifying all components, metal fence heights, locations, and sizes and weights of all rails, posts, braces, supports and footings.
4. A list of all hardware and accessories.

1.06 DELIVERY, STORAGE AND HANDLING

- A. Deliver materials in manufacturer's original, unopened packaging with all tags, labels and other identifying information intact and legible.
- B. Store all materials under weatherproof cover, off the ground and away from other construction activities. Do not store material in a manner which would create a humidity chamber. Provide for free movement of air under protective cover and between components of the metal fence system.
- C. Handle material in a manner that is in compliance with product institute standards and that will prevent damaging coatings.

1.07 PROJECT CONDITIONS

- A. Field Measurements: Take field measurements and verify layout information and dimensions for metal fencing and gates in relation to property surveys and existing conditions.
- B. Do not begin installation and erection of the metal fencing system until final grading is completed.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Wayside Fence Company
- B. Ameristar Fence Products
- C. Master Halco
- D. Or approved equal.

2.02 MATERIALS

A. General

- 1. All parts of the metal fence system shall be galvanized steel, except that chain link fence fabric shall be aluminum-coated steel and fittings may be galvanized malleable iron, or galvanized wrought iron.
- 2. Wire gauges shall conform to American Steel and Wire Company gauge.
- 3. Pipe sizes shall be commercial pipe sizes complying with ASTM F 1083.
- 4. Tube sizes specified are nominal outside dimensions.
- 5. Roll-formed section sizes are the nominal outside dimensions.
- 6. Heat-form all arcs and chords before protective coatings are applied to metal.
- 7. All sizes specified are given for uncoated steel. All protective coatings are in addition to specified dimensions and sizes.
- 8. All galvanizing shall be done in accordance with Section 05081 – Galvanizing.

B. Chain Link Fence Fabric

- 1. Fabric shall be in one-piece widths for fencing 12 feet - 0 inches and less in height to comply with Chain Link Fence Manufacturers Institute, Product Manual.

2. Wire mesh shall be 2-inch mesh woven throughout in the form of approximately uniform square mesh with parallel sides and horizontal and vertical diagonals using 6-gauge, ASTM A 817, Type 1, cold-drawn carbon steel wire with minimum breaking strength of 2,170 pounds and coated with 0.40 ounces of aluminum by the hot-dip process per square foot of wire surface. The fabric shall be recommended by the Chain Link Fence Manufacturer's Institute for heavy industrial usage.
3. Provide fabric knuckled on edges to prevent unraveling.

C. Framework

1. General: The following table is provided for the convenience of Contractor and provides actual OD and equivalent nominal NPS size and trade size of round members. Pipe shall be commercial grade, plain end steel pipe with standard weight walls. Steel strip used in the manufacture of pipe shall be in compliance with ASTM F 1083, Schedule 40 pipe with minimum yield strength of 25,000 psi and with 1.8 ounces of hot-dipped zinc coating per square foot of surface area. Type A coating shall be applied both inside and outside according to ASTM F 1043, as determined by ASTM A 90.

Actual OD	NPS Size	Trade Size
1.315	1	1-3/8
1.660	1-1/4	1-5/8
1.900	1-1/2	2
2.375	2	2-1/2
2.875	2-1/2	3
3.500	3	3-1/2
4.000	3-1/2	4
6.625	6	6-5/8
8.625	8	8-5/8

2. For maximum metal fence system height of 8 feet - 0 inches provide posts, gate frames and rails of the following nominal pipe sizes and minimum weights per linear foot:
 - a. Line Posts: 2-1/2 NPS @ 5.79 lbs per foot
 - b. End, Corner and Pull Posts: 3 NPS @ 7.58 lbs per foot
 - c. Gate Frames: 2 NPS @ 3.65 lbs per foot

- d. Gate Posts
 - (1) For single gates 6 ft. wide or less, or double gates 12 ft. wide or less: 4 NPS @ 10.79 lbs per foot.
 - (2) For single gates more than 6 ft. wide, or double gates more than 12 ft. wide: 5 NPS @ 14.62 lbs per foot.
 - e. Top Rails, Intermediate Rails, Bottom Rails and Braces: 1-1/2 NPS @ 2.72 lbs per foot.
3. Provide manufacturer's longest length rails, with extra long expansion sleeves making firm connections but permitting expansion and contraction for each joint. Provide means for attaching the top rail securely to each gate, corner, pull and terminal post.
- D. Roll-Formed Steel: Rolled steel shapes shall be produced from structural-quality steel conforming to ASTM A 570, Grade 45, or ASTM A 446, Grade D, galvanized, with a minimum yield strength of 45,000 psi. Protective coating system shall conform to ASTM F 1043, Type A, hot-dipped galvanizing with a minimum of 4.0 ounces of zinc per square foot of surface area in accordance with the requirements of ASTM A 653.
- E. Fittings and Accessories: All fittings and accessories shall comply with ASTM F 626.
- 1. Post Caps: Pressed steel, cast iron or cast aluminum alloy, fitting snugly over posts to exclude moisture; cone-type caps for terminal posts and loop-type caps for line posts.
 - 2. Rail and Brace Ends: Pressed steel, cast iron or cast aluminum alloy, cup-shaped to receive rail and brace ends.
 - 3. Rail Sleeves: Tubular steel, 0.051-inches thick by 7-inches long, expansion type.
 - 4. Tension Bars: Steel strip, 5/8-inch wide by 3/16-inches thick.
 - 5. Tension Wire: Marcellled 7 gauge steel wire with minimum coating of 0.40 ounces per square foot of wire surface in compliance with ASTM A 824.
 - 6. Tension Bands: Pressed steel, 12 gauge thick by 3/4-inch wide.
 - 7. Truss Rods: Steel rod, 3/8-inch diameter merchant quality with turnbuckle.
 - 8. Barbed Wire Arms: Pressed steel, cast iron or cast aluminum alloy fitted with clips or slots for attaching three strands of barbed wire - arms set outward on a

45 degree angle, or vertical, and capable of supporting a 250 pound load at outer barbed wire connecting point without causing permanent deflection.

- 9. Fence Latches
 - a. Manufacturer's double latching bar latch devices with heavy mil polyvinyl chloride coating.
 - b. Padlock eye as integral part of latch.
- 10. Keeper: Provide a gate keeper for vehicle gates that automatically engages gate leaf and holds it in the open position until manually released.
- 11. Gate Hinges: 180 degree offset heavy-industrial hinges; 1-1/2 pair per leaf.
- 12. Tie Wire: Aluminum; 9 gauge, alloy 1100-H4; polyvinyl chloride coated to match fence fabric.
- 13. Gate Stops: Provide gate stops for double gates consisting of mushroom-type flush plate with anchors, set in concrete, and designed to engage a center drop rod or plunger bar. A locking device and padlock eyes shall be included as integral parts of the latch, permitting both gate leaves to be locked with a single padlock.

F. Gates

- 1. Swing gates shall comply with ASTM F 900.
- 2. Sliding gates shall comply with ASTM F 1184.

G. Hog Rings: Steel wire, 11 gauge, with a minimum zinc coating of 0.80 ounces per square foot of wire surface.

H. Barbed Wire: Commercial quality steel, two strand twisted, 12-1/2 gauge line wire with 14 gauge four point barbs at 5-inch spacing - coating shall consist of 0.40 ounces of aluminum per square foot of wire surface in compliance with ASTM A 585.

I. Galvanizing: Zinc for galvanizing shall be of High Grade or Special High Grade conforming to ASTM B 6 with a maximum aluminum content of 0.01 percent. Material shall be galvanized by the "hot-dip" process in conformity with the following standards:

Class of Work	ASTM
Structural Iron and Steel Shapes	A 123
Fittings and Accessories	F 626

Pipe	A 53
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2.03 FABRICATION

- A. Fabrication shall be in compliance with ASTM F 1083 for metal fencing, ASTM F 1184 for horizontal slide gates, and ASTM F 900 for swing gates.
- B. In addition to specified standards, fabrication shall be in compliance with Chain Link Fence Manufacturer's Institute Standard, CLF 2445 - Product Manual.
- C. Gates
 1. Gate hinges shall be of the double clamping offset type. To hold the gate in the open or closed positions, each gate frame shall be provided with a keeper which automatically engages a gate shoe set in concrete. Gates shall have a drop latch with provision for a padlock. Each gate shall be provided with a heavy-duty bronze padlock and shackle chain, No. 160DHM with 11/32-inch marine brass shackle by the Master Lock Company or equal, and three keys for each padlock. Where more than one gate is required for the same enclosure, padlocks shall be keyed the same.
 2. All gate frames shall have intermediate horizontal rails. Gate frames shall be of welded construction and shall be galvanized after fabrication. Single gates 6 feet wide or wider and double gates 12 feet wide or wider shall be provided with diagonal bracing in one direction, extending from top to bottom rail. The diagonal bracing shall be at least 1/2 inch in diameter and shall be provided with turnbuckles.

PART 3 EXECUTION

3.01 INSTALLATION

- A. General
 1. Install metal fencing system in compliance with ASTM F 567.
 2. Apply fabric to outside of framework. Install fencing on boundary lines inside of property line established by survey.
 3. Do not begin metal fence installation and erection before the final grading has been completed, and finish elevations have been established.
- B. Excavation
 1. Drill or hand-excavate (using post-hole digger) holes for posts to diameters and spacings shown or specified, in firm, undisturbed or compacted soil.

2. Unless otherwise indicated, excavate hole depths approximately 6 inches lower than post bottom.
3. Spread soil from excavations uniformly adjacent to the fence line, or on adjacent areas of the Project site, as directed.
4. When solid rock is encountered near the surface, drill into rock at least 12 inches for line posts and at least 18 inches for end, pull, corner and gate posts. Drill hole at least 1 inch greater in diameter than the largest dimension of the post to be placed. Remove rock cores from the Site.
5. If solid rock is below soil overburden, drill to full depth required, except penetration into rock need not exceed the minimum depths specified above.

C. Setting Posts

1. Remove loose and foreign materials from sides and bottoms of holes, and moisten soil prior to placing concrete.
2. Center and align posts in a continuous pour, and vibrate or tamp concrete for consolidation. Check each post for vertical and top alignment, and hold in position during placement and finishing operations.
3. Posts shall be set in concrete footings, except as otherwise shown or specified. Line posts shall extend at least three feet below finished grade, and gate posts shall extend at least four feet below finished grade. Concrete footings shall have a minimum diameter of 15 inches and shall extend at least 6 inches below the bottom of the posts. Tops of concrete footings shall receive a troweled finish. Top of footing shall be 2 inches above finish grade and sloped to direct water away from posts. The portion of posts embedded in concrete shall receive two coats of an approved coal tar paint before embedment.
4. Line posts shall be spaced not more than 10 feet on centers. Install caps on tops of all posts to exclude moisture and to receive the top rail unless equal protection is afforded by combination post top cap and barbed wire supporting arm, where barbed wire is required.
5. Keep exposed concrete surfaces moist for at least seven days after placement, or cure with membrane curing materials, or other acceptable curing method.
6. Grout posts when installed in sleeved holes, concrete constructions, and rock.
7. Allow concrete to attain at least 75 percent of its minimum 28-day compressive strength, but in no case sooner than seven days after placement, before rails, tension wire, or fabric is installed. Do not stretch and tension fabric or wires, and do not hang gates until the concrete has attained its full design strength.

D. Chain Link Fence Fabric

1. Pull fabric taut so that fabric remains in tension after force is released, with bottom edge 1 inch above grade. Fasten to terminal posts and gate posts with tension bars threaded through mesh and secured with tension bands at maximum intervals of 14 inches. Tie to line posts, gate frames and top and bottom rails with tie wires spaced at maximum 12 inches on posts and 24 inches on rails.
2. The tension bars shall be connected to posts and frames by means of adjustable bolts and bands spaced not more than 14 inches apart.

E. Top Rails, Intermediate Center Rails and Bracing

1. Install top rails through line post caps, bending to radius for curved runs, connecting sections with sleeves to form a continuous rail between terminal posts.
2. Install center rails only where shown or specified. Install center and bottom rails in one piece between posts and flush with the post on the fabric side, using rail ends and special offset fittings where necessary.
3. Install brace assemblies at end posts and at both sides of corner and pull post panels. Panels adjacent to gates shall have intermediate horizontal rails and diagonal bracing. The diagonal bracing shall run from the center of the first line post to the bottom of the terminal post.

F. Tie Wire: Use U-shaped wires conforming to diameter of pipe. Wire shall clasp pipe and fabric firmly, and each end of the wire shall be wrapped around the fabric at least two full turns and bent to minimize hazard to persons or clothing.

G. Barbed Wire

1. When barbed wire is shown or specified along the top of the fence, it shall be supported at the posts by arms inclined outward at an angle of 45 degrees.
2. The vertical members of gates shall be extended to receive the barbed wire which shall be fastened securely to prevent movement or displacement.

H. Fasteners: Install nuts for fittings, bands and hardware bolts on side of metal fence opposite fabric side. Peen ends of bolts or score threads to prevent removal of nuts.

3.02 ADJUSTMENT

A. Gates: After repeated operation of completed installation equivalent to three days' use by normal traffic, readjust gates for optimum operation and safety.

- B. Lubricate operating equipment and clean exposed surfaces.
- C. Repair and replace all broken or bent components. Repair coatings damaged in the shop or during field erection by recoating with manufacturer's recommended repair compound, applied in accordance with manufacturer's directions.
- D. Protect metal fencing system from construction traffic and all other damage until acceptance of the work.

-END OF SECTION-

**Section 02910
GENERAL PLANTING**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. The work includes but is not limited to the following:
 - 1. Furnishing and installing new seeded lawns.
 - 2. Furnishing and installing mulch.
 - 3. Protection and maintenance of all seeded areas until Substantial Completion.
 - 4. Maintenance of seeded areas during the 24-month guarantee period.

1.02 RELATED SPECIFICATIONS

- A. Section 01330 – Shop Drawings
- B. Section 02316 – Excavation
- C. Section 02317 - Backfilling
- D. Section 02371 - Dust, Soil Erosion & Sedimentation Control
- E. Section 02920 - Soil Mixes

1.03 SUBMITTALS

- A. All submittals, including the following, shall be as specified in Section 01330 -Shop Drawings.
- B. Samples: Submit samples of the following items:
 - 1. Mulch: One (1) pound bag
- C. Product Data
 - 1. Submit analysis of each seed mix to be used, showing percentage of purity, weed content and germination of seed.
 - 2. Submit certified analysis for each treatment, amendment, and fertilizer material specified and as used. Include guaranteed analysis and weight for packaged material.
- D. Maintenance Program: Submit written schedule of maintenance operations proposed for the guarantee period. Schedule shall be in the form of a list of each maintenance operation, with dates showing when each maintenance task will be performed, and the frequency of occurrence.

1.04 REGULATORY REQUIREMENTS

- A. Comply with all rules, regulations, laws and ordinances of local, state and federal authorities having jurisdiction. Provide labor, materials, equipment and services necessary for work to comply with such requirements at no additional cost to City of New York.
- B. Procure and pay for permits and licenses required for work of this Section. Obtain all required permits in a timely manner to avoid delays to the work.

1.05 PRODUCT DELIVERY, STORAGE AND HANDLING

- A. Deliver packaged materials in unopened bags or containers, each clearly bearing the name of the producer, the material composition, manufacturers' certified analysis, and the weight of the material
- B. All packaged products shall be stored, handled and applied in strict accordance with manufacturers' instructions.

1.06 COORDINATION

- A. The Contractor shall coordinate his work with that of other Contractors. Such coordination shall include, but not be limited to:
 - 1. Location of all underground utility lines and structures
 - 2. Scheduling of seeding operations
 - 3. Scheduling of maintenance operations

1.07 SUBSTANTIAL COMPLETION

- A. Contractor shall submit a written request to the Commissioner, for a formal inspection of the planting work for Substantial Completion.
- B. At the time of inspection all plant material must be alive, healthy, and installed as specified to be accepted.
 - 1. If plants are dead, dying, unhealthy, or not serving their visual function in the landscape scheme in the opinion of the Commissioner, or if workmanship is unacceptable, written notice will be given to the Contractor in the form of a punch list which itemizes all remedial work required for Substantial Completion.
 - 2. This work may include plant replacement or maintenance and must be carried out prior to issuance of the Certificate of Substantial Completion.

1.08 GUARANTEES

- A. All new plant material shall be guaranteed for a period of 24 months after the date of Substantial Completion.
- B. Maintenance
 - 1. Contractor shall submit a written maintenance program and schedule to the Commissioner for approval.
 - 2. Maintenance program shall be revised and resubmitted as required until approved by Commissioner.
 - 3. During the guarantee period, the Contractor shall maintain all plant materials as specified herein, and as noted in the approved maintenance schedule, and shall replace, at no additional cost to the City of New York, any and all plant material that has died or, in the opinion of the Commissioner, is in unhealthy or unsightly condition.
- C. Vandalism: Contractor will not be held responsible for acts of vandalism occurring after the beginning of guarantee period.
- D. Site Inspection
 - 1. Approximately one month prior to the expiration of the guarantee period, the Contractor shall arrange a site inspection by the Commissioner.
 - 2. At this time the Commissioner will prepare a list of all remedial work required, including plant replacement or maintenance.
 - 3. This work shall be carried out before the end of the guarantee period, unless weather conditions cause delays, in which case such work shall be carried out as soon as is practical.
- E. Final Acceptance
 - 1. Following the completion of all remedial work and replacement plantings, the Contractor shall request the Commissioner in writing for a formal inspection of the landscape work for Final Acceptance.
 - 2. If replacement plantings are required, Final Acceptance will be provisional upon a final inspection at the end of the guarantee period for the plant replacements.
- F. All of the materials and labor required for maintenance and replacements during the guarantee period shall be included in the Contractor's bid price. No additional payments will be made therefor.

PART 2 PRODUCTS

2.01 DRAINAGE GRAVEL

- A. Drainage fill shall conform to the requirements of Specification 02317 - Backfilling, and shall be clean, free from silt and organic materials.

2.02 MULCH

- A. Mulch shall be double-shredded bark, as approved. Mulch shall be partially decomposed, dark brown in color, free from sawdust, and any material over three (3) inches in length.

2.03 GRASS SEED

- A. Grass seed shall be fresh recleaned seed of the latest crop. Seed mixture shall have the following proportions by weight:
 - 1. 60% Nassau Kentucky Bluegrass
 - 2. 20% Jamestown Chewings Fescue
 - 3. 20% Palmer Perennial Ryegrass
- B. Seed shall be Tri-Plex General seed mix by Lofts Seed Inc. (800) 526 3890, or approved equal.
- C. All seed shall be delivered in standard size bags of the vendor, showing weight, purity, and percentage of seed varieties.

2.04 WATER

- A. The Contractor shall be responsible for supplying all required water to the site at no additional cost to the City of New York.
 - 1. All work injured or damaged due to the lack of water, or the use of too much water or contaminated water shall be the Contractor's responsibility to correct.
- B. Water shall be free from impurities injurious to vegetation.

PART 3 EXECUTION

3.01 INSPECTION

- A. Contractor shall inspect the site before bidding to determine the characteristics of the site.

- B. The Contractor shall be liable for all damage to surrounding areas caused by planting operations and shall be required to restore or replace the damaged areas to their original condition.

3.02 UTILITIES

- A. Contractor is responsible for determining the location of all utilities, by contacting the appropriate utility company prior to any planting activities.
- B. Verify that underground utilities and irrigation systems in landscape areas are in place, at proper location, tested (except final irrigation testing) and ready for use.
 - 1. Take proper precautions so as not to disturb or damage sub-surface elements.
 - 2. Coordinate with other trades.
- C. Contractor is liable for any damage to such utilities during the course of construction, and is responsible for making necessary repairs to damaged utilities at his own expense.

3.03 WATERING

- A. Immediately after installation of each plant, the soil around it shall be thoroughly saturated with water.
 - 1. Apply water slowly so as to penetrate the entire root system.
 - 2. Watering shall continue throughout the maintenance and guarantee period, as frequently as seasonal conditions require, until final acceptance of the work.
 - 3. Contractor shall be responsible for adequate water both before and after installation of irrigation system.

3.04 MULCHING

- A. After planting operations are complete all plant bed areas shall be covered with approved mulch.
 - 1. Mulch shall be installed at an even depth of 3 inches.
 - 2. Mulch shall be contained within the plant bed areas and shall not be permitted to spread onto paved areas.

3.05 PREPARATION FOR SEEDING

- A. All areas to be seeded shall be thoroughly loosened to a depth of 6 inches and graded to true lines free from all unsightly variations, bumps, ridges or depressions. All sticks, stones, roots or other objectionable material shall be removed.

- B. Provide 12 inches of lawn soil mix, spread evenly over all areas to be seeded. Prepare topsoil to provide a crumbly seedbed, firm and level after tilling.
- C. Apply ground limestone and uniformly work in to top one inch of seedbed. The rate of limestone application shall be dependent on the pH of the soil, as determined by chemical analysis, and shall be as follows:

pH of Soil	Rate: lbs/1000 Square Feet
5.0 to 5.5	100
5.5 to 6.0	50
6.0 to 6.8	25
Over 6.8	0

- 1. Apply commercial fertilizer and uniformly work in to top one inch of seedbed. The rate of application shall be: 20 pounds per 1000 sq. ft.
- 2. Apply superphosphate and uniformly work in to top one inch of seedbed. The rate of application shall be: 40 pounds per 1000 sq. ft.
- 3. After all materials have been worked in, firm up soil by rolling to eliminate all soft spots. Rake entire area into a crumbly state, with one inch of loose soil at the surface, using a wide-toothed rake or tine-harrow.

3.06 SEEDING OPERATIONS

- A. Apply seed with drop or cyclone spreader to uniformly cover seedbed at the rate of 5 lbs per 1000 sq feet.
- B. Lightly rake seed into soil, and cover entire area with salt hay, to a thickness of one inch.
- C. Water all seeded areas regularly during first 4 weeks following seeding to maintain adequate moisture for deep root growth.
- D. Seeded areas shall be protected during establishment.

3.07 WATERING OF SEEDED AREAS

- A. The Contractor shall provide all labor and arrange for all watering necessary to establish acceptable grass stands.
 - 1. Begin watering immediately following installation.

2. Watering shall continue throughout the contract period until Substantial Completion.
 3. During the first two weeks after planting, in the absence of adequate rainfall, watering shall be performed up to 3 times daily or as often as necessary and in sufficient quantities to maintain moist soil to a depth of at least two inches.
 4. After the first two weeks, the Contractor shall water the grass areas to maintain adequate moisture in the upper two inches (2") of soil, necessary for the promotion of deep root growth.
- B. Watering shall be done in a manner which will provide uniform coverage, prevent erosion due to application of excessive quantities over small areas, and prevent damage to the finished surface by the watering equipment. The Contractor shall furnish sufficient watering equipment to apply one (1) complete coverage to the lawn areas in an eight (8) hour period.

3.08 RESEEDING

- A. Any areas which fail to show growth within 3 weeks of seeding shall be immediately reseeded at no additional cost to the City of New York.
- B. Reseeding shall be carried out as many times as necessary until a uniform grass cover is established.
- C. Scattered bare spots, none of which are larger than one square foot, will be allowed up to a maximum of 3 percent of any seeded area.

3.09 MOWING

- A. Mowing of all seeded lawn areas shall begin when lawn is firmly rooted and secure, and has reached a height of 3 inches, and shall continue until Substantial Completion.
- B. Mow all grass lawn areas to maintain a grass height of between 1-1/2 and 2-1/2 inches.

3.10 CLEAN UP

- A. At the end of each work day the Contractor shall broom-clean the site, to remove all trash, debris, and loose soil materials. Store materials and equipment where directed.
- B. Immediately following the completion of planting operations, the Contractor shall remove all excess materials, stock piles, waste material, tools and equipment, and leave the site in a clear and clean condition.

- C. Immediately remove all rejected materials from the site. All rejected materials and other waste or debris shall become the property of the Contractor, who shall legally dispose of same off-site.

-END OF SECTION-

**Section 02920
SOIL MIXES**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Work Included: This work includes, but is not limited to, the following:
 - 1. Supply of component materials and soil amendments for Soil Mixes from approved off-site sources.
 - 2. Preparation and blending of Soil Mixes.
 - 3. Installation, placement, spreading, and fine grading of Soil Mixes.
 - 4. Testing of all soil component materials, soil amendment materials, and Soil Mixes.

1.02 RELATED SPECIFICATIONS

- A. Section 01330 - Shop Drawings
- B. Section 02316 - Excavation
- C. Section 02317 - Backfilling
- D. Section 02371 - Dust, Soil Erosion and Sedimentation Control

1.03 REFERENCES

- A. Association of Official Agricultural Chemists
- B. ASTM D698 - Standard Test Method for Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400 ft-lbf/ft³ (600 kN-m/m³))
- C. NYS DEC 6NYRR Subpart 360-5

1.04 SUBMITTALS

- A. All submittals, including the following, shall be as specified in Section 01330 – Shop Drawings.
- B. Product Data: Submit manufacturer's technical information, including application instructions where relevant, for the following items:
 - 1. Fertilizers
 - 2. Herbicides

- C. Samples - Soil Mix Components: Each 1 lb. packaged.
 - 1. Topsoil
 - 2. Compost
- D. Samples - Blended Soil Mixes: Each 1 lb. packaged.
 - 1. Lawn Mix
 - 2. Structural Soil Mix
- E. Test Results - Soil Mix Components: Submit written reports, as specified herein, for each bulk component:
 - 1. Topsoil
 - 2. Sand
 - 3. Compost
 - 4. Crushed Stone
- F. Test Results - Blended Soil Mixes: Submit written reports, as specified herein, for each blended soil mix:
 - 1. Lawn Mix
 - 2. Structural Soil Mix

1.05 TESTING

- A. Contractor shall submit written test reports.
 - 1. Testing shall be carried out by an independent testing laboratory.
 - 2. Testing laboratory shall be approved by Engineer.
 - 3. All testing required by this Section, or additionally required by Engineer, shall be furnished and paid for by Contractor.
 - 4. Contractor shall be responsible for timely submittal of samples to the testing laboratory.
- B. Each test shall be carried out using the categories and sieve sizes as specified herein. Failure to include any of the required criteria will be sufficient cause for rejection of the test.
- C. Each test report shall include the following information:
 - 1. Project Title
 - 2. Name of Contractor
 - 3. Name of material supplier

4. Testing Laboratory name, address and telephone number
 5. Type of test
 6. Date of test
 7. Test results, including identification of deviations from acceptable ranges
- D. Each sample shall be tested, as applicable, for the following:
1. Mechanical analysis: Sieve method, using sieve sizes specified.
 2. pH
 3. Organic matter content: Percentage of oven-dry weight of soil, determined by loss on ignition of moisture-free sample, dried in accordance with the methods of the Association of Official Agricultural Chemists.
 4. Analysis of soluble salts: Sodium, calcium, magnesium, sulfates, chlorides and bicarbonates, in millimhos per centimeter.
 5. Analysis of minerals: Nitrogen, phosphorus, and potassium, in parts per million.
 6. Analysis of heavy metals: In parts per million.
 7. Corrective recommendations for nutrients and pH
- E. The Engineer may take and analyze at any time, such additional samples of materials as deemed necessary for verification of conformance to specification requirements. Contractor shall furnish samples for this purpose upon request and shall perform testing as requested at no additional cost to the City.
- F. No component bulk material for Soil Mix shall be used or blended into a mix, until test reports have been received and approved by the Engineer. As necessary, make any and all soil mix amendments and resubmit test reports indicating amendments, until approved.

1.06 REGULATORY REQUIREMENTS

- A. Comply with all rules, regulations, laws and ordinances of local, state and federal authorities having jurisdiction. Provide labor, materials, equipment and services necessary for work to comply with such requirements at no additional cost to City.
- B. Procure and pay for all permits and licenses required for the Work of this Section.

1.07 DELIVERY AND STORAGE

- A. Conform to all governmental regulations in regard to the transportation of materials to, from, and at the job site, and secure in advance such permits as may be necessary.
- B. Packaged Materials: Deliver packaged materials to the location where planting Soil Mixes are to be blended, in unopened bags or containers, each bearing the name and trademark of the producer, material composition, manufacturers' certified analysis, and the weight of the material.
 - 1. All bags shall be protected from water and contamination with other materials.
 - 2. Retain packages for inspection by Engineer.
 - 3. All packaged materials shall be stored, handled and applied in strict accordance with manufacturer's instructions.
- C. Stockpiles
 - 1. Stockpiles of on-site or off-site bulk materials and Soil Mixes shall not exceed 50 cubic yards, and shall be no more than 6 feet in height to prevent anaerobic conditions within the piles.
 - 2. All stock piled materials shall be adequately covered with tarpaulins or otherwise protected to prevent excessive water absorption and blowing by winds, until time of actual use.

PART 2 PRODUCTS

2.01 GENERAL

- A. All Soil Mix components shall be tested and approved prior to incorporation into blended Soil Mixes.
- B. Provide adequate quantities of all Soil Mix materials to attain, after compaction and natural settlement, all design finished grades.

2.02 TOPSOIL

- A. All topsoil shall consist of natural loam, free from subsoil, obtained from an area which has never been stripped.
 - 1. Topsoil shall be removed to a depth of 12", or less if subsoil is encountered.
 - 2. Topsoil shall be of uniform quality, free from hard clods, stiff clay, hardpan, sods, roots, chips, sticks, partially disintegrated stone, cement, ashes, slag,

concrete, tar residues, tarred paper, boards, or any other undesirable material. No topsoil shall be delivered in a frozen or muddy condition.

3. Topsoil shall be free from refuse, material toxic or otherwise deleterious to plant growth, subsoil, seeds, or other viable propagules of invasive plants. Construction and demolitions debris as classified under 6 NYCRR Part 360, other than uncontaminated land clearing debris, shall not be used to amend topsoil.

B. Topsoil shall conform to the following requirements:

1. pH: 5.5 to 7.0
2. Organic content: 4 - 6%

C. Topsoil shall conform to the following mechanical analysis:

Sieve Size	Percent Passing
1"	100
1/4"	90 - 99
# 10	60 - 80
# 40	40 - 60
# 60	40 - 60
# 100	10 - 30
# 200	10 - 20

- D. When the topsoil otherwise complies with the requirements of the specification but shows a deficiency of not more than one percent (1%) organic matter content; then humus, compost, or other approved organic matter may be incorporated when or as permitted by the Engineer.

2.03 LAWN MIX

A. Lawn Mix for all seeded areas, shall conform to the following requirements:

1. Organic Matter: 4.5 % minimum
2. pH: 0 - 7.0
3. Soluble salts: Less than 2 millimhos per centimeter

4. Minerals:
 - a. Nitrogen: More than 12 ppm
 - b. Phosphorus: More than 7 ppm
 - c. Potassium: More than 150 ppm

- B. Mix shall consist of the following proportions by volume:
 1. Six parts topsoil
 2. Two parts compost
 3. Two parts sand
 4. One part perlite

- C. The following items shall be added to the above mix:
 1. Five pounds bonemeal per cubic yard of soil mixture.
 2. One pound commercial fertilizer per cubic yard of soil mixture.
 3. One pound controlled release fertilizer per cubic yard of soil mixture.
 4. Two pounds water absorbent polymer per cubic yard of soil mixture, or as recommended by manufacturer.
 5. Ground limestone as required for specified pH

PART 3 EXECUTION

3.01 INSPECTION AND COORDINATION

- A. Contractor shall inspect the site before bidding to determine the characteristics of the site and the existing soil in areas to be planted.
 1. Prior to construction and soil mix placement operations, the Contractor shall ascertain the location of all existing and proposed electric cables, conduits, irrigation, under-drainage systems and all other underground or at grade utilities, by contacting the appropriate utility company.
 2. Contractor shall take proper precautions so as not to disturb or damage any sub-surface elements.
 3. Contractor shall be liable for any and all damage to such utilities during the course of construction, and shall be responsible for making requisite repairs to damaged utilities at Contractor's own expense.

- B. Contractor shall be liable for any and all damage to surrounding areas caused by planting operations and shall be required to restore or replace damage areas to original conditions, to the satisfaction of the Engineer.
- C. Coordination: The Landscape Contractor shall coordinate, adjust, and relate together, work of this Section with other work of the Project and with work of other Contractors. Such coordination shall include but not be limited to:
 - 1. Location of all underground utility lines and structures
 - 2. Scheduling of maintenance operations
- D. Verify that all work requiring access through or adjacent to areas where soil mixes are to be placed has been completed and no further access (other than Landscape installation) will be required. In the event that access will be required, this must be coordinated with the Engineer.

3.02 WEATHER LIMITATIONS

- A. Perform both blending and site soil work only during suitable weather conditions. Do not handle, haul, place, work, disc or rototill soil when frozen, excessively wet, or in otherwise unsatisfactory condition.

3.03 PREPARATION OF SOIL MIXES

- A. Uniformly blend all ingredients as required for each Soil Mix type, by wind rowing and/or tilling on a hard surfaced area.
 - 1. The components of all soil mixes shall be blended so that ingredients are thoroughly incorporated into the mixture to assure uniform distribution.
 - 2. Do not over-mix; mix shall remain friable and well aerated.
 - 3. Organic matter shall be maintained moist, not wet, during blending.
 - 4. Delay mixing of fertilizers if planting will not follow within a few days.

3.04 PREPARATION OF SUB-GRADE

- A. Verify as-constructed or existing sub-grade elevation and perform additional grading operations as necessary to bring the sub-grade to a true, smooth, slope parallel to the finished grade, at all areas to receive soil mixes.
- B. Any sub-grades or soils polluted by gasoline, oil, plaster, construction debris, unacceptable soils, or other substances which would render material unsuitable for plant growth, shall be removed from the premises whether or not such pollution occurred or existed prior to or during the Contract period. In the event that such material is placed, this material shall be removed and replaced with approved

material. All remedial operations associated with soil mixes shall be reviewed and approved by the Engineer.

- C. Clean sub-grade and dispose of all debris prior to placement of soil mixes.
 - 1. Remove all large clods, lumps, brush, roots, stumps, litter, trash, and other foreign material and stones one-half inch in diameter or larger.
 - 2. Dispose of removed material legally off-site.
- D. Spray all vegetation on sub-grade with a pre-emergent weed killer at the rate of application recommended by the manufacturer.
- E. Protect adjacent pavements, walls, utilities and other construction from damage or staining by any soil mix placement operations.

3.05 GRADING OF SOIL MIXES

- A. After settlement has occurred, add soil to maintain finished grades. If for any reason soil is left exposed for a long duration prior to planting, add soil and regrade as required.
- B. Protect placed Soil Mixes against construction activity with snow fencing or by other acceptable methods.
 - 1. Protect from the eroding effects of wind and rain with filter fabric, as necessary.

3.06 CLEAN-UP

- A. At the end of each work day the Contractor shall broom-clean the site, to remove all trash, debris, and loose soil materials.
- B. Immediately following the completion of soil mix installation operations, the Contractor shall remove all excess materials, stock piles, waste material, tools and equipment, and leave the site in a clear and clean condition.
- C. All waste materials shall become the property of the Contractor, who shall legally dispose of same off-site.

-END OF SECTION-

**Section 05081
GALVANIZING**

PART 1 GENERAL**1.01 SECTION INCLUDES**

- A. All galvanizing of metals when such coating is specified or shown on the Contract Drawings, except as otherwise required.
- B. All galvanizing shall be done by the hot-dip process.

1.02 RELATED SPECIFICATIONS

- A. Section 01330 - Shop Drawings

1.03 REFERENCES

- A. ASTM A53 - Pipe, Steel, Black and Hot-Dipped, Zinc-Coated Welded and Seamless
- B. ASTM A90 - Test Method for Weight (Mass) of Coating on Iron and Steel Articles with Zinc or Zinc-Alloy Coatings
- C. ASTM A111 - Zinc-Coated (Galvanized) "Iron" Telephone and Telegraph Wire
- D. ASTM A116 - Zinc-Coated (Galvanized) Steel Woven Wire Fence Fabric
- E. ASTM A121 - Zinc-Coated (Galvanized) Steel Barbed Wire
- F. ASTM A123 - Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products
- G. ASTM A143 - Practice for Safeguarding Against Embrittlement of Hot-Dip Galvanized Structural Steel Products and Procedure for Detecting Embrittlement
- H. ASTM A153 - Zinc Coating (Hot-Dip) on Iron and Steel Hardware
- I. ASTM A239 - Test Method for Locating the Thinnest Spot in a Zinc (Galvanized) Coating on Iron or Steel Articles by the Preece Test (Copper Sulfate Dip)
- J. ASTM A384 - Safeguarding Against Warpage and Distortion During Hot-Dip Galvanizing of Steel Assemblies

- K. ASTM A385 - Practice for Providing High-Quality Zinc Coatings (Hot-Dip)
- L. ASTM A392 - Zinc-Coated Steel Chain-Link Fence Fabric
- M. ASTM A475 - Zinc-Coated Steel Wire Strand
- N. ASTM A653 - Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process
- O. ASTM A780 - Practice for Repair of Damaged and Uncoated Areas of Hot-Dip Galvanized Coatings
- P. ASTM A924 - General Requirements for Steel Sheet, Metallic-Coated by the Hot-Dip Process
- Q. ASTM B6 - Specification for Zinc
- R. ASTM E536 - Test Methods for Chemical Analysis of Zinc and Zinc Alloys
- S. ANSI C80.1 - Rigid Steel Conduit, Zinc Coated
- T. CSA G164-M - Hot Dip Galvanizing of Irregularly Shaped Articles
- U. American Galvanizers Association (AGA)
- V. Canadian Standards Association (CSA)

1.04 TESTS

- A. General: Samples of galvanized articles shall be taken as specified in the appropriate ASTM standards listed in Table 1. Galvanized articles shall be tested to determine the following qualities of the coating:
 - 1. Thickness of coating
 - 2. Adherence
 - 3. Uniformity
- B. Thickness of the zinc coating may be tested either by the weighing or stripping methods in conformity with the requirements set forth in Table 1 at the end of this section.
- C. Adherence of zinc coating shall be tested by the method indicated in the appropriate ASTM methods listed in Table 1.

D. Uniformity

1. Galvanized articles will be subjected to visual examination to determine uniformity of work.
2. In the event the Commissioner determines that such examination is not conclusive, the article shall be given the Preece test in conformity with ASTM A239.

1.05 SUBMITTALS

- A. The Contractor shall submit to the Commissioner, in accordance with the requirements of Section 01330 – Shop Drawings, the producer's or supplier's certification that the galvanized articles were manufactured, sampled, tested and inspected in accordance with the applicable standards specified herein and that the articles meet these requirements.

1.06 QUALIFICATIONS

- A. Galvanizing shall be done in a plant having sufficient facilities to produce the quality of coatings herein specified and ample capacity for the volume of work required.
- B. The plant shall follow the procedures in the Quality Assurance Manual of the AGA.

1.07 SHIPPING AND HANDLING

- A. Galvanized articles shall be shipped and handled in a manner that will avoid damage to the zinc coating.

PART 2 PRODUCTS

2.01 MATERIALS

- A. Zinc used for galvanizing shall conform to ASTM B6, and shall be at least equal to the grade designated as Prime Western.
- B. Maximum amount of aluminum added to a galvanizing bath shall not exceed 0.01 percent.

PART 3 EXECUTION

3.01 PREPARATION OF MATERIALS

- A. Structural steel products shall be safeguarded against embrittlement in accordance with ASTM A143.
- B. Casting surfaces to be galvanized shall be sand blasted or ground smooth. When a smooth cast is required, castings shall be tumbled and all high spots ground flush. Castings shall be normalized to prevent cracking. Malleable iron shall be safeguarded against embrittlement by pre-annealing.
- C. Steel work shall be pre-cleaned utilizing a caustic bath, acid pickle and flux or shall be blast cleaned and fluxed to obtain an acceptable surface for quality hot dip galvanizing.

3.02 METHOD OF GALVANIZING

- A. All galvanizing shall be done by the hot-dip process in conformity with the appropriate ASTM Specifications listed in Table 1.
- B. Methods tending to agitate the dross shall not be used, and materials shall not contact the dross at any time.
- C. Chemical analysis for impurities in the bath shall be made in conformity with ASTM E536.

3.03 SCHEDULE OF REQUIREMENTS

- A. Table 1 - Schedule of Hot-Dip Galvanizing Requirements
 - 1. The work shall conform to the requirements of the tabulated standards in Table 1, below.
- B. Notes Applicable to Table 1
 - 1. Prefixes A, B and E identify ASTM Specifications; prefix G identifies CSA Standard.
 - 2. Galvanized articles shall not be subject to wiping or scraping processes that may reduce the thickness of zinc coating.
 - 3. Small hardware items shall be centrifuged to remove excess bath metal.
- C. Quality of Coating
 - 1. The zinc coating shall meet the standards set forth in Table 1, ASTM A385 and CSA G164-M. The coating shall adhere firmly to the surface of the base metal, be continuous, uniform in thickness, and of the quality of finish specified.

2. When special galvanizing, such as heavier coating, flexibility to permit forming operations and similar work is required, it shall be so specified in the relevant specification section for that item.
3. All rejected materials shall be stripped and regalvanized before resubmitting for inspection and test.

3.04 REPAIR OF GALVANIZED COATINGS

- A. Galvanized coatings that are abraded or damaged shall be repaired in accordance with ASTM A780.
- B. The extent of the area to be repaired and the method of repair to be used shall be approved by the Commissioner.

-NO FURTHER TEXT ON THIS PAGE-

TABLE 1 - SCHEDULE OF HOT-DIP GALVANIZING REQUIREMENTS

CLASS OF WORK	ZINC		TEST OF ZINC COATING				COATING THICKNESS	
	Slab & Chemical Analysis	Coating	Thickness		Adherence	Uniformity	Oz. Per Sq. Ft.	
			By Weight	By Stripping				
IRON & STEEL STRUCTURAL \$ Rolled, pressed and forged, shapes, castings, plates, bars and strips \$ Gratings, iron and steel	B6, E536	A123	A123	A90, G164-M	A123	A123, A239	Table 1, A123	
SHEETS \$ Iron and steel	B6, E536	A653	A653, A924	A90, A924	A653	A239	Table 1, A653	
HARDWARE \$ Castings of malleable iron and steel \$ Rolled, pressed, forged articles \$ Threaded fasteners \$ Very small work: rivets, nails, tacks, pins, small bolts and screws, stove bolts \$ Turnbuckles and similar work \$ Chain	B6, E536	A153	A153	A90, G164-M	A153	A153, A239	Table 1, A153	
WIRE \$ Line wire \$ Fencing wire \$ Fencing fabric, chain link \$ Barbed wire \$ Strand wire	B6, E536 B6, E536 B6, E536 B6, E536 B6, E563	A111 A116 A392 A121 A475	-- -- -- -- --	A90 A90 A90 A90 A90	A111 -- -- -- A475	A111 -- -- -- A475	Table 1, A111 Table 3, A116 Tables 1 and 2, A392 Table 3, A121 Table 4, A475	
PIPE ELECTRICAL CONDUIT (Rigid Steel)	B6, E536	A53	--	A90	A53	--	1.8 oz. per sq. ft.	
Shall comply with ANSI C80.1 - Rigid Steel Conduit, Zinc Coated.								

-END OF SECTION-

Section 13210
CLOSURE OF ABOVEGROUND PETROLEUM STORAGE TANK

PART 1 GENERAL**1.01 SECTION INCLUDES**

- A. This Section details the requirements for cleaning and closure of the aboveground petroleum storage tank (AST) and associated piping and appurtenances identified at the Marine Transfer Station, as detailed in the Bidwell Environmental Report dated December 2012 and listed in Table 6 of Section 01355 – Hazardous Materials Control.
- B. The Contractor shall provide all labor, materials, equipment, and incidentals required to purge, decontaminate, remove, and dispose of the AST, associated piping and appurtenances without the release of any product or derivatives. Where additional inspection or sampling is necessary to characterize the waste for disposal, the Contractor shall conduct these efforts in accordance with the Hazardous Material Investigation Plan developed in accordance with Article 1.05 of Section 01355 – Hazardous Materials Control.
- C. All work under this Section shall be performed to minimize the quantity of waste generated; protect the health and safety of all site personnel and the welfare of the public; and avoid adverse environmental impacts.
- D. Any additionally identified or unforeseen fuel oil tanks, shall be managed and disposed offsite in accordance with this Section, and applicable federal, state and local regulations.
- E. The Contractor shall perform all work under this Section without damaging or contaminating adjacent water bodies or areas proximate to where the work is being performed. Where such areas are damaged or contaminated, as determined by the Engineer, the Contractor shall restore the areas to their original condition at no additional cost to the City of New York.

1.02 RELATED SPECIFICATIONS

- A. Section 01355 – Hazardous Materials Control

1.03 REFERENCES

- A. The Contractor shall comply with all applicable regulations, standards, and guidelines of federal, state, and local environmental and occupational safety and health agencies regarding universal and other miscellaneous regulated wastes. These regulations, standards, and guidelines include, but are not limited to the following:

1. API 2015 RP Requirements for Safety Entry and Cleaning Petroleum Storage Tank
2. API 2016 RP Guidelines and Procedures for Entering and Cleaning Petroleum Storage Tanks
3. API Standard 2217 Guidelines for Confined Space Work in the Petroleum Industry
4. API Accident Prevention Manual No. 3, Gas and Electric Cutting and Welding
5. API Accident Prevention Manual No. 1A, Cleaning Petroleum Storage Tanks.
6. National Fire Protection Association (NFPA) Bulletin No. 30, "Flammable and Combustible Liquids Code"
7. NFPA No. 327, Standard Procedures for Cleaning and Safeguarding Small Tanks and Containers.
8. American Welding Society A60-65, Safe Practices for Welding and Cutting Containers that Have Held Combustibles.
9. The Occupational Safety and Health Act of 1970 and the Code of Federal Regulations (CFR) Title 29, Parts 1910 and 1926, OSHA.
10. NYS DEC Regulations for Bulk Petroleum Storage Program
 - a. 6NYCRR Part 612 -- Registration of Petroleum Storage Facilities
 - b. 6NYCRR Part 613 -- Handling and Storage of Petroleum
 - c. 6NYCRR Part 614 -- Standards for New and Substantially Modified Petroleum Storage Facilities
11. New York City Fire Department (FDNY) – Fire Code (FC) Chapter 34

1.04 DEFINITIONS

- A. "Aboveground tank" means any stationary tank which is not entirely covered with earth or other material, or any tank which can be inspected in a subterranean vault.
- B. "Combined storage capacity" means the sum of the design storage capacity of each tank at a facility which has not been permanently closed.
- C. "Facility" or "storage facility" means one or more stationary tanks, including any associated intra-facility pipelines, fixtures, or other equipment, which have a

combined storage capacity of over eleven hundred (1,100) gallons of petroleum at the same site. A facility may include aboveground tanks, underground tanks or a combination of both. Pipelines which enter or leave the site and non-stationary tanks are not part of the facility.

- D. "Petroleum" means any petroleum-based oil of any kind which is liquid at 20 C under atmospheric pressure and has been refined, re-refined, or otherwise processed for the purpose of being burned as a fuel to produce heat or usable energy, or which is suitable for use as a motor fuel or lubricant in the operation or maintenance of an engine. Waste oil which has been reprocessed or re-refined and which is being stored for sale or use as fuel or lubricant.
- E. Petroleum Regulated Work Area. The area within the physical boundary where all work activities take place that involve the cleaning and closure of the petroleum storage tank.
- F. "Petroleum Waste" means any petroleum based or petroleum contaminated waste generated as a result of work covered by this Section.

1.05 SUBMITTALS

- A. Within 30 business days of the "Notice to Proceed" or as directed by the Engineer, the Contractor shall submit the following Petroleum AST Closure Plan to the Engineer:
 - 1. Petroleum AST Closure Plan: The Contractor shall submit a detailed, project-specific Plan that addresses work procedures and equipment to be used during the closure, removal, handling, of petroleum storage tanks. The Petroleum AST Closure Plan shall be prepared in accordance with this Section and all pertinent federal, state, and local regulations:
 - a. Inventory: The Plan shall include a final inventory of aboveground petroleum storage tanks indicating the estimated volume and waste classification of all contents for disposal purposes. The final inventory shall include the regulated AST identified in the Bidwell Environmental Hazardous Materials Investigation Report and summarized in Table 6 of Section 01355, and any additionally identified petroleum fuel ASTs identified during the Contractor's Hazardous Material Investigation performed in accordance with Section 01355.
 - b. Work Practices:
 - (1) A detailed discussion regarding the sequencing of affected work;
 - (2) Protocol for tank and pipe purging, initial and secondary cleaning, dismantling and removal.

- (3) Equipment and Supplies: Identify the equipment and supplies that will be used to perform the work;
 - (4) Confined space entry procedures, including:
 - (a) permit requirements;
 - (b) protocol for permit issuance and cancellation;
 - (c) roles, responsibilities and minimum training requirements for entrants, attendants and entry supervisors.
 - (d) emergency and rescue operations and rescue capability for confined space entry.
 - (5) Spill prevention, containment, and cleanup contingency measures to be implemented during the work;
- c. Hazard Control:
- (1) Drawings showing the location of the AST and petroleum regulated work area;
 - (a) Each hygiene facility;
 - (b) Proposed electrical hookups;
 - (c) Proposed water hookups;
 - (d) Waste storage area,
 - (e) Restroom areas;
 - (f) Designated break areas for eating and drinking;
 - (2) A task hazard analysis for each work activity. Each task analysis shall include, but is not limited to, the following information:
 - (a) The type of work activity;
 - (b) The tools/equipment that will be used;
 - (c) Operation and maintenance practices and procedures that will be used for the tools/equipment;
 - (d) The engineering controls that will be used to control the spread of contamination during the activity;
 - (e) The proposed crew size for the activity and individual employee responsibilities during the activity;
 - (f) Housekeeping procedures that will be used during the activity;
 - (g) PPE;
 - (h) Protocol for personal and equipment decontamination;

- (3) Protocol for confined space, personal and area air monitoring; At a minimum, it is expected that monitoring will be performed using a direct reading multi-gas meter capable of measuring oxygen, volatile vapors and potentially explosive atmospheres. Monitoring shall be continuous during confined space entry and all activities that have the potential to generate volatile organic vapors. The protocol shall identify action levels triggering additional engineering controls, upgrades in personal protective equipment (PPE), work stoppage and the emergency evacuation of on-site personnel.
- (4) The name and qualifications (i.e., training and experience documentation) of the person responsible for exposure monitoring and who will be responsible for ensuring that compliance with the Action Levels is maintained.
- (5) The name and qualifications (i.e., experience and training documentation) of the Competent Person who will be responsible for the oversight and execution of the Petroleum AST Closure Plan. At a minimum, the Competent Person shall have successfully completed DOT Hazardous Materials Transportation training and HAZWOPER training. Each training course shall have been completed within the past year in the form of either an initial course or a refresher course.
- (6) The Competent Person shall have a minimum of two (2) years' relevant experience and shall be responsible for the following:
 - (a) Establishing Hazard Control Areas and assuring that access to and from those areas is limited to authorized personnel;
 - (b) Assuring the adequacy of any employee exposure monitoring required by OSHA;
 - (c) Assuring that all employees wear appropriate Personal Protective Equipment (PPE), and are trained in the use of appropriate methods of exposure control for all of the contaminants present;
 - (d) Assuring that proper hygiene facilities are provided and that workers are trained to use those facilities;
 - (e) Assuring that engineering controls specific to the contaminants present are implemented, maintained in proper operating condition, and functioning properly.

d. Waste Management:

- (1) The estimated quantity of each waste stream that will be generated during tank closure activities;

- (2) The name, address, phone number, and qualifications of each vendor and facility that will be transporting, storing, testing, or recycling/disposing of the wastes. Include a 24-hour phone contact for each vendor/facility.
- (3) Current permit documentation for each recycling facility, solid waste management facility or TSDF indicating the types of wastes that the facility is permitted to approve. The documentation shall include an "acceptance letter" from each facility/TSDF indicating its ability to accept the specific waste streams that will be generated during work performed under this Section;
- (4) Current 6 NYCRR 364 permit documentation for the waste transporter that will transport petroleum wastes to the recycling or disposal facility. The documentation shall clearly indicate the transporter's ability to deliver the wastes to the chosen recycling or disposal facility;
- (5) A detailed discussion of the on-site handling and storage, of waste materials. This discussion shall include, but is not limited to, the following:
 - (a) Specifications for a secondary containment system for each waste storage area;
 - (b) The methods of demarcation that will be used to identify the waste storage areas and each waste container;
 - (c) The methods and procedures that will be used to collect and containerize wastes on a daily basis;
 - (d) The types of containers that will be used to containerize the wastes;
 - (e) The posting of weekly regulated waste inspection and inventory records as defined in Article 1.05.B.2 of this Section.
- (6) The name and qualifications (i.e., experience and training documentation) of the Waste Manager who will be responsible for the oversight and execution of the Petroleum AST Closure Plan during waste management activities. At a minimum, the Waste Manager shall have successfully completed DOT Hazardous Materials Transportation Training and HAZWOPER training. Each training course shall have been completed within the past year in the form of either an initial course or a refresher course. The Waste Manager shall have a minimum of two (2) years' experience on projects involving petroleum contaminated wastes.

- e. Employee Documentation: For all tank closure activities, the Contractor shall provide a sufficient number of properly trained and experienced workers, each of whom shall:
 - (1) Have written proof of training (e.g., certificates) for Workers, Competent Persons and Waste Managers that will be used for the work;
 - (2) Copies of resumes for Competent Persons and Waste Managers that will be used for the work, indicating work experience,
 - (3) Dates and written proof of initial medical surveillance by the Contractor or other employer within the past year, and proof that the employee is currently participating in the employer's ongoing medical surveillance program;
 - (4) Dates and written proof of respiratory clearance and a medical exam;
 - (5) Dates and written proof of a respirator fit-test.
 - f. The names of all proposed subcontractors to be used, including their qualifications, locations of origin, and descriptions of their project assignments.
 - g. A current (i.e., within the last month) signed and notarized statement disclosing all of the Contractor's Occupational Safety and Health Administration (OSHA), Environmental Protection Agency (EPA), and Department of Transportation (DOT) citations/violations on projects involving universal and other miscellaneous regulated wastes within the past three (3) years. If the Contractor will be using a subcontractor, a current signed and notarized statement disclosing all of the subcontractor's OSHA, EPA, and DOT citations/violations on projects involving universal and other miscellaneous regulated wastes within the past three (3) years will also be required.
- B. Field Reports and Recordkeeping: During all work performed under this Section, the Contractor shall maintain and provide the following documentation:
- 1. Exposure Monitoring Data: The results of all confined space, exposure monitoring and area monitoring shall be provided to the Engineer within 24 hrs from the time of collection. Any Action Level exceedances should be immediately reported to the Engineer as evidence of a release.
 - 2. Recycled Materials/Waste Documentation: Completed and signed waste manifests from disposal facilities, recycling facilities and TSDFs shall be provided to the Engineer within ten (10) business days of disposal. In addition, on-site waste storage areas shall be inspected weekly by the Waste Manager, who at a minimum shall satisfy the requirements set forth in Article 1.05.A.1.d of this Section.

- a. Each weekly waste storage area inspection shall be coordinated with the Engineer, documented in the form of a written report, and each report shall be signed by the Contractor's employee who generated the report. All reports shall be provided to the Engineer within 24 hours of the date the inspection is completed. The content of these reports shall include, but is not limited to, the following information:
 - (1) The name of the individual that conducted the inspection;
 - (2) Descriptions of waste streams being stored;
 - (3) Types and quantities of waste containers being used;
 - (4) The current recycling/disposal status (i.e., when the waste container is scheduled to be removed from the work site) and physical condition of each waste container;
 - (5) The presence/absence of proper labeling for each waste container in accordance with Article 3.03.C of this Section and federal, state, and local regulations;
 - (6) Secondary containment systems being used;
 - (7) The methods being used to secure/lock each waste storage area to prevent any unauthorized entry.

- b. In addition to performing weekly waste storage area inspections, the Waste Manager shall maintain an ongoing waste inventory. The content of the inventory shall include, but is not limited to, the following information:
 - (1) Specific dates that each waste container was added/removed from the waste storage area;
 - (2) The full name (printed) and signature of the individual responsible for adding/removing each waste container from the waste storage area.

3. Petroleum Regulated Work Area Inspection Documentation: Work areas shall be inspected daily by the Competent Person, who at a minimum shall satisfy the requirements set forth in of Article 1.05.A.1.c of this Section.
 - a. Each daily work area inspection shall be documented in the form of a written report, and each report shall be signed by the Contractor's employee who generated the report. All reports shall be provided to the Engineer within 24 hours of the date the inspection is completed. The content of these reports shall include, but is not limited to, the following information:
 - (1) The types of work being performed;
 - (2) The names of Workers and the Competent Person on site, as well as the name of the company each individual is representing;
 - (3) Any non-compliance issues observed along with the corrective actions that were taken to achieve compliance.

4. Contractor Project Record: The Contractor's Competent Person shall maintain a project record at the work site. The Contractor Project Record shall be made available to the Engineer for review at any time during the work, and shall be submitted to the Engineer within 24 hours after the completion of the work.
 - a. At a minimum, the Contractor Project Record shall contain the following information:
 - (1) Copies of training certificates for all individuals involved with the work;
 - (2) Copies of all daily sign-in sheets as defined in Article 1.05.B.5 of this Section;
 - (3) A list of emergency phone numbers, including the confined space rescue service, local fire department, local police department, nearest hospital, as well as phone numbers for the Engineer and other project personnel responsible for administering the work;
 - (4) Copies of all MSDSs pertaining to all chemicals being used during the work;
 - (5) A copy of this Section and the related Contract Drawings;
 - (6) A copy of the Petroleum AST Closure Plan
 - (7) Copies of all daily work area inspection records as defined in Article 1.05.B.3 of this Section;
 - (8) Copies of all weekly waste storage area inspection records as defined in Article 1.05.B.2 of this Section;
 - (9) A copy of the waste inventory as defined in Article 1.05.B.2 of this Section;
 - (10) A copy of the Contractor's Hazard Communication (HAZCOM) program.
5. Daily Sign-In Sheets: The Contractor shall generate daily sign-in sheets for all individuals entering and exiting each petroleum regulated work area for the duration of the work. The daily sign-in sheets shall be maintained by the Competent Person, and shall be made available to the Engineer for review at any time during the work. All daily sign-in sheets shall be submitted to the Engineer within 24 hours after the completion of the work.
 - a. At a minimum, each daily sign-in sheet shall include:
 - (1) The individual's full name (printed);
 - (2) The individual's signature;
 - (3) The name of the company the individual is representing;
 - (4) The time of entry and exit from the area;
 - (5) Verification by the Competent Person that the individual meets the minimum training requirements defined in Article 1.05.A.1.e of this Section, if the individual intends to enter a universal waste/regulated work area.

6. HAZCOM Program: The Contractor's HAZCOM program shall be made available to the Engineer for review at any time during the work.

C. Tank Closure Reports: The Contractor shall submit to the Engineer a closure report for the tank and associated piping removed from the site, which includes the following information:

1. Map showing the exact tank location and layout of associated piping;
2. Description of the work performed, including the start and end dates for tank removal;
3. The results of waste classification analysis.
4. Tank, tank contents, and related petroleum waste disposal locations;
5. Affidavit of Compliance: The Contractor shall file with FDNY an Affidavit certifying that a permanently out-of-service storage system was removed and disposed of, or abandoned in place, in compliance with the requirements of FDNY Fire Code (FC) Chapter 34 -- Flammable and Combustible Liquids. Such Affidavit shall be executed by a person with the requisite qualifications to supervise the closure of such tanks.
6. Tank destruction certificate.

1.06 WORK SPECIFIED

- A. The Contractor shall provide all labor, equipment, materials, and services necessary for the removal, handling, and containerizing all liquids and sludge/solids remaining in the AST and associated piping.
- B. The Contractor shall provide all labor, equipment, materials, and services necessary for isolating the AST from connecting lines and rendering the AST vapor free.
- C. The Contractor shall provide all labor, equipment, materials, and services for the dismantling and removal of the AST.
- D. The Contractor shall be responsible for obtaining applicable local and state permits and approvals to conduct the work described in this Section.
- E. The Contractor shall be responsible for filing notifications to regulatory agencies prior to starting the work and upon completion of the work as required. Such notifications may include but are not limited filing a Petroleum Bulk Storage Application indicating the tank will be closed and submitting a tank closure report upon completion of the work. to a tank closure report upon completion of the work.

- F. The Contractor shall conduct all AST closure activities in accordance with applicable federal, state, and local rules and regulations.

1.07 QUALITY ASSURANCE

- A. Permits and Regulations: The Contractor shall obtain all necessary building permits, inspection permits, licenses, registrations and all other permits required for closure of the petroleum AST.
- B. Codes and Standards: The Contractor shall handle all material in compliance with applicable requirements of OSHA, NYSDEC, NYC Fire Department, and other governing authorities having jurisdiction.
- C. Scheduling: The Contractor shall coordinate and schedule all phases of the work to be performed under this Section with the Engineer, subcontractors, material suppliers, and other parties as necessary to ensure the proper execution of the work.
- D. Compliance: In addition to the detailed requirements of this Section, the Contractor shall comply with all applicable regulations of federal, state, and local authorities pertaining to closure of the AST. All matters regarding the interpretation of any regulations, standards, or policies shall be submitted to the Engineer for resolution before starting the work. Where the requirements of this Section, or federal, state, or local regulations conflict or vary, the most stringent requirements or regulations shall apply.
- E. Rejection of Non-Complying Items: The Engineer reserves the right to reject items incorporated into the work which fail to meet the specified minimum requirements. The Engineer also reserves the right to reject Contractor submittal items that are deemed inappropriate or unacceptable. Submittal items that may be deemed inappropriate or unacceptable include proposed vendors or subcontractors with previous regulatory citations/violations. The Engineer further reserves the right, and without prejudice to other recourse, to accept non-complying items subject to an adjustment in the Contract amount, as approved by the Commissioner.
- F. Qualifications
 - 1. Contractor: The Contractor performing this work shall demonstrate its ability to perform and complete all work required under the Contract by submitting a statement of its experience and the experience of any subcontractor that the Contractor intends to use to perform the work (or any part thereof). The Contractor and/or the Contractor's subcontractor(s) must demonstrate experience in petroleum storage tank closure and the completion of three projects with similar scope and magnitude components.
 - 2. Workers: Each worker involved in any tank closure activity shall have successfully completed HAZWOPER training. The training shall have been completed within the past year in the form of either an initial course or a

refresher course. In addition, each Worker shall have experience on projects involving petroleum tank closure, and shall have worked on three (3) projects of comparable scope and methodologies to the work being performed under this Section.

PART 2 PRODUCTS

2.01 MATERIALS

- A. PPE: The Contractor shall provide personnel who have a potential to be exposed to petroleum and petroleum contaminated wastes, with appropriate PPE as prescribed by in the task hazard analysis. When required, respirators shall be approved by the National Institute for Occupational Safety and Health (NIOSH).
- B. Containers: Containers for the storage of petroleum waste and petroleum contaminated wastes shall be DOT-approved, and shall be provided by the Contractor.

PART 3 EXECUTION

3.01 PREPARATION

- A. Hygiene Facilities: The Contractor shall provide functional hygiene facilities that are appropriate for the types of work to be performed under this Section. The Contractor shall ensure that employees do not leave a Petroleum Regulated Work Area wearing any potentially contaminated PPE. The Contractor shall collect, test, and properly dispose of all potentially contaminated PPE and wastewater generated from hygiene facilities.
- B. Utilities: The Contractor shall furnish all water and hoses needed for the work, as well as any temporary hookups. Also, the Contractor shall supply all heating equipment and water filtration devices needed for the work. In addition, all temporary lighting and temporary electrical service to a work area shall be provided by the Contractor, and shall be in weather-proof enclosures and be ground fault protected.
- C. Signs: The Contractor shall post conspicuous warning signs at all approaches to petroleum regulated work areas and waste storage areas. The signs shall be located at such a distance so that personnel may read the sign and take the necessary precautions before entering a regulated work area or waste storage area. Signs shall comply with federal, state, and local regulations, including the requirements of OSHA. Signs shall not be removed until all the tank closure activities have been completed. At a minimum, each sign shall bear the following information in English and the predominant language that is spoken by the Contractor's employees if English is not spoken:

WARNING

Closure of Aboveground Petroleum Storage Tank
13210-12

PETROLEUM TANK CLOSURE
REGULATED WORK AREA
POISON
NO SMOKING OR EATING

- D. Physical Boundary Delineation: The Contractor shall clearly delineate each work area and waste storage area with a physical boundary such as "caution tape" or a partition that surrounds the work area in order to limit the entry of unauthorized personnel into the regulated work area.
- E. Work Area Preparation: The Contractor shall implement engineering controls, as necessary, to mitigate the release of contaminants into adjacent water bodies and mitigate the migration of particulates outside the work area limits. The engineering controls may include, but are not limited to, installation of tarps, barriers, etc. In the event of a release, the Contractor shall provide labor, equipment, and materials to perform emergency measures, and to remove regulated materials for offsite disposal at no additional cost to the City of New York.

3.02 PROTOCOLS AND METHODS

- A. Tank Purging: The Contractor shall pump out all remaining liquid in the tank. Following removal of the liquids, the tank shall be purged and tested to assure that no explosive gases are present. Any liquid present in piping shall be properly drained and piping purged prior to removal. The tank atmosphere shall be tested to determine if the tank is safe. The tank interior shall be tested for percent oxygen per volume and for percent of lower explosive limit (%LEL). The tank atmosphere shall be greater than 19% oxygen and less than 25% LEL before the tank is considered safe. If the tank is not safe, then inerting and purging must be continued until the tank passes all testing.
- B. Pipe Cleaning: After the tank is emptied, the tank and all connecting piping to the tank shall be cleaned and triple rinsed in accordance with all applicable local regulations and API Accident Prevention Manual No. 1A. The Contractor shall dispose of all removed liquids in a method conforming to all applicable Federal, State, and local regulations.
- C. Disconnecting Piping: The Contractor shall disconnect piping from all tank openings, and cap or plug all tank openings. All piping shall be removed and disposed of as specified.
- D. Excess Liquid: Residual liquid remaining in the tank shall be absorbed by sawdust or fine sand introduced into the tank or other approved method. The Contractor shall dispose of absorbing material in accordance with all applicable State and local regulations. The tank shall not be moved if liquid is still present in the tank. Preventive measures shall be taken to avoid liquid leaking from the tank or associated piping.

- E. Initial Tank Cleaning: Initial tank cleaning, prior to tank removal, shall be conducted as follows:
1. Introduce water into the high end of the tank. Pump water, along with any remaining product or sediment, out of the lower end of the tank.
 2. During the initial cleaning operations, the following items shall be observed:
 - a. The pumps or vacuum lift used in the operation shall be properly grounded and bonded.
 - b. Vapors from the vacuum vent system shall be emitted a minimum height of 12 feet above the barge slip level and 3 feet above any adjacent structure, and at least 30 feet away from public areas, including roads, sidewalks, and residential areas.
 - c. Explosive vapors may develop during cleaning procedures. The area in and around the tank site shall be monitored continuously with direct reading on-line meters for flammable or combustible vapor and total volatile vapor concentrations until the tank is removed from the excavation and the site.
 3. If the vapor concentration exceeds 25% LEL, all work shall be stopped until vapors disperse.
 4. Response to any vapor concentration (total and %LEL) condition shall be in accordance with the Petroleum AST Closure Plan task hazard analysis.
 5. All smoking and other ignition sources are prohibited from the tank area at all times.
 6. The Contractor shall maintain operable fire extinguishers on site and within the Petroleum Regulated Control area at all times.
- F. Secondary Cleaning: Secondary cleaning procedure involves actual entry into the tank for manual cleaning.
1. Create a large opening into the tank as required by the confined space entry provisions of the Petroleum AST Closure Plan.
 2. During secondary cleaning operations, the following items shall be observed:
 - a. All confined space entry safety precautions and requirements shall be met.
 - b. Enter tank only when the tank is deemed safe based on monitoring information.

- c. Remove all remaining sludge, tar, scaling, etc., using a squeegee. All remaining residue shall be pumped from the bottom of the tank, or absorbed with suitable absorbent material.
 - d. All residual material shall be recovered, characterized, drummed, labeled and disposed of in accordance with the Petroleum AST Closure Plan.
 - e. Inspect the interior wall of the tank for holes or breaks.
- G. Gas Freeing: The Contractor shall make provisions for natural breathing of the AST to ensure that the AST remains vapor-free (e.g., leave manhole covers and former line connections open and secured open).

3.03 TANK REMOVAL ACTIVITIES

- A. The Contractor shall dismantle and remove the AST and associated piping, equipment, and appurtenances using methods prescribed in the Petroleum AST Closure Plan to be proposed by the Contractor and reviewed by the Engineer. Prior to initiating the tank dismantling/cutting activities, the Contractor shall confirm that the interior of the tank has been rendered non-explosive.
- B. Marking Tanks: Prior to permanent disposal, the Contractor shall clearly mark the tanks by painting the outside with the following wording:

TANK HAS CONTAINED OIL (or other applicable name)
NOT SUITABLE FOR FOOD OR DRINKING WATER
Date of Permanent Closure: _____

- C. Removal and Disposal Petroleum Wastes: All petroleum wastes shall be classified pursuant to sampling conducted by the Contractor as part of the Hazardous Material Investigation required under Section 01355. Additionally, each distinct waste stream shall be sampled for any additional parameters required by the recycling or disposal facility.

1. Labeling: The Contractor shall affix warning labels to all waste drums and containers. Labels shall comply with the requirements of federal, state, and local regulations, including EPA and DOT requirements. At a minimum, all labels shall bear the following information in English:

[Generator Name, Address, and Telephone Number]
[Specific Contents of Container]
[Accumulation Start Date]
[Accumulation End Date]

2. The waste shall be labeled as Non-Hazardous Petroleum Contaminated unless otherwise deemed hazardous

- D. Removal and Disposal of Concrete Vault: The concrete vault shall be inspected for evidence of petroleum contamination. Provided there is no evidence of contamination (e.g., no staining) the concrete shall be disposed as construction and demolition debris in accordance with the Construction Waste Management Plan required under Section 01733. Petroleum stained concrete shall be disposed as non-hazardous petroleum contaminated waste at an appropriately permitted landfill.

3.04 SPILL CONTINGENCY, RESPONSE, AND CLEANUP REQUIREMENTS

- A. Immediate containment action shall be taken, as necessary, to minimize the effects of any spill or release. Cleanup shall be in accordance with applicable federal, state, and local laws, rules, and regulations.
- B. If a reportable quantity of AST-associated material is discharged into an adjacent water body or spilled onto soil, sediment, or any other environmental media, the Contractor shall immediately notify the spill response personnel and appropriate regulatory agencies. All spills must also be immediately reported to the Resident Engineer. Within 3 days, a written follow-up, which shall include the following, shall be submitted by the Contractor to the Resident Engineer:
1. Description of material spilled, including quantity, type, etc.
 2. Exact time and location of release.
 3. Whether the quantity released is a reportable quantity.
 4. To whom and when the release was reported.
 5. The cause of the release.
 6. Whether surface water or groundwater was impacted.
 7. Whether the release resulted in injuries and/or property damage.
 8. Containment procedures.
 9. Cleanup procedures and results (include manifests, bills of lading, sampling results, etc.).
- C. As a result of a discharge or spill, the Contractor shall be responsible for taking all necessary response actions, including additional investigations, assessments, removal actions, and/or remediation activities, as required by the City, the Engineer, or any governing local, state, or federal environmental regulatory agency, at the Contractor's own cost.

-END OF SECTION-

Section 13281
REMOVAL OF EQUIPMENT/BUILDING APPURTENANCES

PART 1 GENERAL**1.01 SECTION INCLUDES**

- A. Regulatory and procedural requirements for the removal and handling of regulated (or potentially regulated) equipment and building appurtenances.

1.02 RELATED SPECIFICATIONS

- A. Section 01355 - Hazardous Materials Control
- B. Section 13287 - Environmental Waste Transportation and Disposition

1.03 WORK SPECIFIED

- A. The Contractor shall provide all labor, equipment, materials, and services necessary for the removal, segregation, and containerization of regulated (or potentially regulated) equipment and building appurtenances located at the transfer station, unless otherwise required elsewhere in the Contract Documents.
- B. The Contractor shall be responsible for deactivation of the electrical service (or appropriate portion thereof) and other utilities, as necessary, for safe removal of equipment and appurtenances from the transfer station.
- C. The Contractor shall provide temporary interior lighting, as needed, to illuminate each work area. The Contractor shall provide temporary lighting in areas where adequate illumination is not present, as required by Occupational Safety and Health Administration (OSHA) regulations for illumination – 29 CFR 1926.56, Subpart D, and Hazardous Waste Operations and Emergency Response (29 CFR 1910.120[m]).
- D. The Contractor shall prepare and submit a written Contingency Plan and other submittals as required in Article 1.06 of this Section.
- E. The Contractor shall be directly responsible for compliance with all applicable federal, state, and local laws, rules, and regulations governing the removal and handling of regulated (or potentially regulated) equipment and building appurtenances.

1.04 MINIMUM EXPERIENCE REQUIRMENTS

- A. The entity performing the work under this section shall demonstrate at least 2 years of experience in building-associated equipment/appurtenances. All work associated with connecting to and disconnecting from energized items or public utilities shall be performed by persons licensed for such work.

1.05 EXISTING CONDITIONS

- A. Various building appurtenances and equipment (including oil-containing equipment) were observed throughout the transfer station. A summary of equipment and appurtenances observed at the South Bronx Marine Transfer Station site is presented below. For a more detailed description of equipment and appurtenances observed at the transfer station, refer to the Appendix. The Appendix is provided for informational purposes only and is not part of the Contract.

1. 6 fluorescent lamps
2. 11 HID lamps
3. 14 fluorescent and HID lamp ballasts
4. 4.5 CU YD of Rock Salt
5. 2-3ft Diameter Tires
6. 1 Refrigerator
7. 3 Lead Acid Batteries
8. 2 Mercury Containing Thermostats

The above summary may not be accurate and/or all-inclusive and is provided for the Contractor's convenience and not for bidding purposes.

- B. The Contractor shall be responsible for verifying all existing field conditions, including, but not limited to, the quantities and locations of equipment and building appurtenances present at the transfer station. Any additional equipment/appurtenances (i.e., not listed in the Appendix and/or Paragraph 1.05A of this Section) encountered by the Contractor shall be identified and remediated in accordance with the terms as described in Section 01355 - Regulated Materials Control.

1.06 SUBMITTALS

- A. At least 30 calendar days prior to the commencement of the equipment/appurtenances removal work, the Contractor shall submit the following items for review in accordance with the requirements specified in Section 01355 - Regulated Materials Control:
1. A Contingency Plan to respond to potential releases of liquids, semi-liquids (e.g., battery acid, oil), and/or gases from the equipment/appurtenances during the removal activities. The Contingency Plan shall be prepared by the Contractor based on the types, quantities, and locations of equipment/appurtenances present at the transfer station and the applicable handling and disposition requirements.
 2. A list of equipment to be used.
 3. The names of any proposed subcontractors to be used, including their qualifications, locations of origin, and descriptions of their project

assignments. Subcontracts must be approved by Commissioner before any work can begin.

4. The names, qualifications, and certifications of personnel involved in disconnection and/or removal of electrical equipment/appurtenances.
5. The names, qualifications, and certifications (including federal) of personnel performing work with chlorofluorocarbons (CFCs), refrigerants, and refrigerant-containing equipment.

PART 2 PRODUCTS

2.01 CONTAINERS

- A. The Contractor shall provide United States Department of Transportation-(USDOT-) approved containers for containerizing materials generated as a result of the equipment/appurtenances removal and segregation activities.
- B. The Contractor shall provide USDOT-approved containers (i.e., cylinders, drums, and/or tanks) for containing CFCs and refrigerant removed during the refrigerant removal activities. Recovery tanks shall be color-coded as required by law: yellow top, gray body.
- C. The Contractor shall provide USDOT-approved containers for containerizing oil and other liquids generated as a result of the equipment draining activities.
- D. All containers shall be appropriately labeled by the Contractor in accordance with applicable laws, rules, and regulations.

PART 3 EXECUTION

3.01 FLUORESCENT AND HID LAMPS

- A. Contractor shall identify the locations of all fluorescent and HID lamps at the transfer station.
- B. Each fluorescent and HID lamp shall be carefully removed/collected to prevent breakage, segregated by type, and containerized in accordance with local, state, and federal regulations. In this Section, an HID lamp shall be defined as any lamp that could be classified as a hazardous waste (typically because it has a potential to exceed the toxicity characteristic for mercury and/or lead), and shall include, but not be limited to, high intensity discharge, neon, mercury vapor, high-pressure sodium, and metal halide lamps.
- C. Whole lamps shall be packed in cardboard boxes, fiber drums, steel drums, and/or plastic drums, with the openings of the containers secured prior to relocation, movement, and transportation offsite to prevent breakage. Such containers and

packages must remain closed when full and must lack evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions.

- D. Crushed or broken lamp waste shall be collected and placed into USDOT-approved metal drums or USDOT-equivalent plastic drums, with the top of the containers adequately secured. Containers must be closed, structurally sound, and must lack evidence of leakage, spillage, or damage that could cause release of mercury or other hazardous constituents to the environment under reasonably foreseeable conditions.
- E. The fluorescent and HID lamps (intact and broken/smashed) shall be managed as a Resource Conservation and Recovery Act (RCRA) hazardous waste due to assumed mercury and lead toxicity. The Contractor may elect to manage the fluorescent and HID lamps as a universal waste in accordance with 40 CFR Part 273 and 6 NYCRR Subpart 374-3.

3.02 LAMP BALLASTS

- A. The Contractor shall identify the locations of all lamp ballasts at the transfer station.
- B. Each lamp ballast shall be removed/collected and segregated into one of the two groups (if applicable): "PCB-containing" and "No PCBs" lamp ballasts. Unless clearly labeled "No PCBs," the Contractor must assume that the ballasts contain polychlorinated biphenyls (PCBs). The ballasts shall be placed into USDOT-approved metal drums or USDOT-equivalent plastic drums prior to offsite disposition in accordance with Section 13287 - Environmental Waste Transportation and Disposition, and all applicable laws, rules, and regulations.
- C. Leaking ballasts and any material scheduled for disposal that comes in contact with leaking material (e.g., oil or potting material contained within the ballasts) shall be placed into separate USDOT-approved metal container(s) prior to offsite disposal in accordance with applicable regulations (e.g., as a TSCA-regulated waste if PCB-containing lamp ballasts).
- D. If oils or potting material have leaked from the lamp ballasts onto the light fixture, the Contractor shall containerize the lamp fixture as described in Paragraph 3.02.C of this Section.

3.03 MERCURY-CONTAINING DEVICES

- A. The Contractor shall identify the locations of all mercury-containing devices (e.g., thermostats, switches) at the transfer station.
- B. Each mercury-containing device shall be carefully removed/collected and placed into a sealable, non-leaking, USDOT-approved container.
- C. The Contractor shall inspect the mercury-containing component of each device to determine whether the component is damaged and/or leaking.
- D. If the mercury-containing component is damaged or leaking, the Contractor shall place the entire device in a sealable, non-leaking, USDOT-approved container. Mercury buildup and/or elemental mercury shall be removed from impacted surfaces and placed in a sealable, non-leaking, USDOT-approved container.
- E. The mercury-containing devices shall be managed as a RCRA hazardous waste due to assumed mercury toxicity. The Contractor may elect to manage the mercury thermostats as a universal waste in accordance with 40 CFR Part 273 and 6 NYCRR Subpart 374-3.

3.04 REFRIGERANT

- A. The Contractor shall identify the locations of all refrigerant-containing equipment at the transfer station.
- B. CFC-containing equipment shall be disconnected, and CFCs shall be evacuated by personnel certified in accordance with 40 CFR Part 82.161 and all applicable state and local regulations.
- C. The Contractor shall evacuate refrigerant to appropriate vacuum levels using certified recovery equipment. The Contractor shall utilize methods to maximize the recovery and recycling of CFCs and other refrigerants.
- D. The Contractor shall clearly label each piece of equipment as being refrigerant-free or CFC-free following refrigerant recovery.

3.05 BATTERIES

- A. The Contractor shall identify the locations of all batteries at the transfer station.
- B. The Contractor shall perform battery removal, collection, handling, and management activities in a way that prevents releases of any waste (e.g., electrolyte) to the environment.
- C. The Contractor shall segregate and separate batteries by type (e.g., lead-acid, nickel-cadmium). The Contractor shall not store lead-acid batteries in the same

container with other battery types. The Contractor shall separate leaking batteries from non-leaking batteries into separate containers.

- D. The Contractor shall place all batteries in sealable, non-leaking, USDOT-approved containers compatible with the contents of the batteries.
- E. Batteries shall not be opened (e.g., to remove electrolyte), handled or stored in a manner that may breach the battery cell casing, cause it to break, or produce short circuits.
- F. The batteries shall be managed in accordance with 40 CFR Part 266.80, 6 NYCRR Subpart 374-1.7, or as a universal waste in accordance with 40 CFR Part 273 and 6 NYCRR Subpart 374-3.

3.06 OIL-CONTAINING EQUIPMENT

- A. The Contractor shall identify the locations of all oil-containing equipment at the transfer station.
- B. The Contractor shall drain, collect, and containerize oil into USDOT-approved containers. Collected oil can be consolidated for subsequent offsite disposition by the Contractor. The Contractor shall utilize methods that mitigate the potential for uncontrolled release of oil and maximize oil recovery.
- C. Collected oil shall be managed as a used oil in accordance with 40 CFR Part 279 and 6 NYCRR Subparts 360-14 and 374-2.

3.07 FIRE EXTINGUISHERS

- A. The Contractor shall identify the locations of all fire extinguishers at the transfer station.
- B. The Contractor shall collect, discharge, and remove the top spray assembly from all fire extinguishers and place into USDOT-approved containers.

3.08 SMOKE DETECTORS

- A. The Contractor shall identify the locations of all smoke detectors that may be present at the transfer station facilities. Batteries, if any, shall be removed from the smoke detectors and handled in accordance with Article 3.05 of this Section.
- B. The Contractor shall remove and place all smoke detectors in USDOT-approved containers.
- C. The smoke detectors shall be managed as a low-level radioactive waste due to the assumed presence of radioactive material (americium 241) in accordance with 6

NYCRR Parts 381 and 382 and all other applicable federal, state, and local regulations, unless otherwise specified on a smoke detector label.

3.09 MICROWAVE OVENS

- A. The Contractor shall identify the locations of all microwave ovens at the transfer station.
- B. The Contractor shall collect, remove and place all microwave ovens into USDOT-approved containers.

3.10 CONTINGENCY ITEMS

- A. Building equipment/appurtenances listed below were not observed to be present at the site. However, the Contractor shall be responsible for verifying all site conditions, including, but not limited to, types, locations, and quantities of building associated equipment/appurtenances that require removal and offsite disposition. Should any of the equipment/appurtenances listed in this Article be encountered at the site, the Contractor shall remove, segregate, containerize, transport, and dispose of such equipment/appurtenances as described herein and in accordance with all applicable federal, state, and local regulations at no additional cost to the City.
- B. Exit Signs
 - 1. The Contractor shall identify the locations of all EXIT signs that may be present at the transfer station.
 - 2. The Contractor shall inspect all EXIT signs to determine if the signs have the potential to contain radioactive material (tritium gas). If the sign has a totally enclosed void space/chamber that could contain gas, such sign shall be assumed to contain radioactive material, unless otherwise specified on a sign label.
 - 3. The Contractor shall remove all EXIT signs that have the potential to contain radioactive gas and place these signs in USDOT-approved containers.
 - 4. The EXIT signs that have the potential to contain radioactive gas shall be managed as a low-level radioactive waste due to the assumed presence of radioactive material (tritium) in accordance with 6 NYCRR Parts 381 and 382 and all other applicable federal, state, and local regulations.

-END OF SECTION-

NO TEXT ON THIS PAGE

Section 13282
REMOVAL OF CONTAINERIZED CHEMICALS

PART 1 GENERAL**1.01 SECTION INCLUDES**

- A. Requirements for collection, containerization, and characterization of containerized chemicals.

1.02 RELATED SPECIFICATIONS

- A. Section 01355 – Hazardous Materials Control
- B. Section 13287 – Environmental Waste Transportation and Disposition

1.03 WORK SPECIFIED

- A. The Contractor shall provide all labor, equipment, materials, and services necessary for the collection, segregation, handling, characterization, and containerization of miscellaneous containerized chemicals present at the transfer station.
- B. The Contractor shall prepare and submit a written plan for performing the chemical collection, segregation, characterization, and containerization activities.

1.04 EXISTING CONDITIONS

- A. Assorted containerized chemicals were observed in the transfer station building. Inventories of containerized chemicals observed in the transfer station buildings are included in the Appendix. The Appendix is provided for informational purposes only and is not part of the Contract.
- B. The Contractor shall be responsible for verifying all existing field conditions, including, but not limited to, the quantities, locations, and types of containerized chemicals present at the transfer station. Any containerized chemicals not listed in the Appendix encountered by the Contractor shall be collected and removed as part of this Section.

1.05 SUBMITTALS

- A. At least 30 calendar days prior to the commencement of the containerized chemicals removal work, the Contractor shall submit the following items for review in accordance with the requirements specified in Section 01355 – Regulated Materials Control:
1. A written plan for performing the chemical collection, segregation, consolidation (if any), characterization, and containerization activities in a cost-effective manner.
 2. A description of the staging area to be constructed by the Contractor for temporary staging of containerized chemicals prior to their shipment for offsite disposition (by the Contractor), along with a Contractor-proposed location for the staging area.
 3. The names of any proposed subcontractors to be used, including their qualifications, locations of origin, and descriptions of their project assignments. All subcontractors must be approved by DSNY before any work can begin.
- B. Within 7 days of completing containerized chemicals characterization, as required by Article 3.02 of this Section, the Contractor shall submit to the Engineer copies of all containerized chemicals characterization results.

PART 2 PRODUCTS

2.01 CONTAINERS

- A. The Contractor shall provide United States Department of Transportation-(USDOT-) approved containers (e.g., overpack drums, lab packs) for containerizing select waste materials generated as a result of the containerized chemicals removal activities. All containers shall be labeled by the Contractor in accordance with applicable laws, rules, and regulations.

PART 3 EXECUTION

3.01 COLLECTION OF CONTAINERIZED CHEMICALS

- A. The Contractor shall collect and move all containerized chemicals to a temporary onsite staging area (to be constructed by the Contractor). The staging area shall be constructed in a well-ventilated, dry location to be proposed by the Contractor and reviewed by the Engineer, and shall be protected from precipitation and direct sunlight.

3.02 CHARACTERIZATION AND CONTAINERIZATION

- A. The Contractor shall conduct field waste characterization activities to determine disposal requirements for the chemicals and their compatibility, as specified in USDOT chemical compatibility guidelines presented in 49 CFR 173 through 178. Determining the compatibility of waste materials will allow similar waste materials to be bulked/mixed together to reduce the number of different waste streams requiring disposal. If the Contractor elects to mix/bulk materials together, a plan to mix/bulk materials shall be submitted to the Engineer for review, prior to material mixing/bulking.
- B. Place chemicals into appropriate USDOT-approved containers, based on the field characterization/compatibility results.

-END OF SECTION-

NO TEXT ON THIS PAGE

Section 13283
PCB MANAGEMENT

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. This Section details the requirements for handling Toxic Substances Control Act (TSCA) regulated polychlorinated biphenyls (PCBs) identified during various investigations at the Marine Transfer Station as detailed in the Bidwell Environmental Report dated December 2012 and identified in Table 8 of Section 01355 – Hazardous Materials Control.
- B. The Contractor is responsible for the proper management of regulated PCBs. Where additional inspection or sampling is necessary to characterize wastes for disposal, the Contractor shall conduct these efforts in accordance with the Hazardous Material Investigation Plan developed in accordance with Article 1.05 of Section 01355 – Hazardous Materials Control.
- C. For the handling of regulated PCB ballasts, refer to Section 13285 – Management of Universal and Other Miscellaneous Regulated Waste.
- D. For construction and demolition activities affecting non-regulated PCB-containing materials, refer to Section 02223 – Lead Management.
- E. All work to be performed under this Section shall be performed using methods, tools, and equipment that have demonstrated effectiveness in preventing airborne emissions from migrating outside of work areas.
- F. All work under this Section shall be performed to protect the health and safety of all site personnel and the welfare of the public; and avoid adverse environmental impacts.
- G. Any additionally identified or unforeseen regulated PCBs, shall be managed and disposed offsite in accordance with this Section, and applicable federal, state and local regulations.
- H. In the absence of analytical testing results for a specific painted/bitumastic-coated material and oils, the material shall be classified as PCB-containing and shall be sampled to determine whether the PCBs are TSCA regulated. If the material is caulking or has a bitumastic coating, the material shall also be presumed asbestos-containing and shall be sampled for confirmation purposes.
- I. The Contractor shall perform all work under this Section without damaging or contaminating adjacent areas to where the work is being performed. Where such areas are damaged or contaminated, as determined by the Engineer, the Contractor

shall restore the areas to their original condition at no additional cost to the City of New York.

1.02 RELATED SPECIFICATIONS

- A. Section 01355 - Hazardous Materials Control
- B. Section 02223 - Lead Management
- C. Section 13285 - Management of Universal & Other Miscellaneous Regulated Waste

1.03 REFERENCES

- A. The Contractor shall comply with all applicable regulations, standards, and guidelines of federal, state, and local environmental and occupational safety and health agencies regarding regulated PCB-containing materials and PCB wastes. These regulations, standards, and guidelines include, but are not limited to the following:

- 1. Department of Transportation (DOT):

- a. 49 CFR 171 - General Information, Regulations, and Definitions
- b. 49 CFR 172 - Hazardous Materials Table, Special Provisions, Hazardous Materials Communications, Emergency Response Information, and Training Requirements
- c. 49 CFR 173 - Shippers: General Requirements for Shipments and Packagings
- d. 49 CFR 178 - Specifications for Packagings

- 2. Environmental Protection Agency (EPA):

- a. 40 CFR 116 - Designation of Hazardous Substances
- b. 40 CFR 117 - Determination of Reportable Quantities for Hazardous Substances
- c. 40 CFR 260 - Hazardous Waste Management Systems: General
- d. 40 CFR 261 - Identification and Listing of Hazardous Waste
- e. 40 CFR 262 - Standards Applicable to Generators of Hazardous Waste
- f. 40 CFR 263 - Standards Applicable to Transporters of Hazardous Waste

- g. 40 CFR 264 – Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities
 - h. 40 CFR 265 – Interim Status Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities
 - i. 40 CFR 268 – Land Disposal Restrictions
 - j. 40 CFR 302 – Designation, Reportable Quantities, and Notification
 - k. 40 CFR 761 – Polychlorinated Biphenyls (PCBs) Manufacturing, Processing, Distribution in Commerce, and Use Prohibitions
 - l. Method 8082 – Polychlorinated Biphenyls (PCBs) by Gas Chromatography
3. National Institute for Occupational Safety and Health (NIOSH):
- a. Method 5503 – Polychlorobiphenyls
4. New York City Department of Buildings (DOB) – Building Code (Chapter 33)
5. New York State Department of Environmental Conservation (NYSDEC):
- a. 6 NYCRR 364 – Waste Transporter Permits
 - b. 6 NYCRR 370 – Hazardous Waste Management Regulations
 - c. 6 NYCRR 371 – Identification and Listing of Hazardous Waste
 - d. 6 NYCRR 372 – Hazardous Waste Manifest System and Related Standards for Generators, Transporters, and Facilities
 - e. 6 NYCRR 373 – Hazardous Waste Management Facilities
 - f. 6 NYCRR 376 – Land Disposal Restrictions
6. Occupational Safety and Health Administration (OSHA):
- a. 29 CFR 1910 – Occupational Safety and Health Standards
 - b. 29 CFR 1910.28 – Safety Requirements for Scaffolding
 - c. 29 CFR 1910.120 – Hazardous Waste Operations and Emergency Response

- d. 29 CFR 1910.134 – Respiratory Protection Standard
 - e. 29 CFR 1910.1200 - Hazard Communication Standard
 - f. 29 CFR 1926 – Safety and Health Regulations for Construction
7. Underwriters Laboratories, Inc. (UL):
- a. UL 586 – Standard for Safety High Efficiency, Particulate, Air Filter Units.

1.04 DEFINITIONS/EXPLANATION OF TERMS

- A. Area Monitoring: Stationary air sampling outside of a PCB Control Area for the purpose of determining compliance with OSHA's Limits for Air Contaminants Table (29 CFR 1910.1000, Table Z-1), and for the purpose of ensuring that airborne PCB concentrations remain below 1.0 mg/m³ (Aroclor 1242) and 0.5 mg/m³ (Aroclor 1254) outside of the PCB Control Area during all work activities that have the potential to disturb PCB-containing materials with PCB concentrations greater than or equal to 50 parts per million (ppm). Area monitoring for heavy metals (i.e., arsenic, cadmium, chromium, lead, or mercury) will be required if exposure monitoring results exceed corresponding Action Levels, Permissible Exposure Limits (PELs), or Threshold Limit Values (TLVs). If asbestos is present, area monitoring shall also be conducted in accordance with NYCDEP (RCNY Title 15, Chapter 1) or NYSDOL (12 NYCRR 56) regulations. All area monitoring shall follow pertinent NIOSH or ASTM sampling methodologies.
- B. Department of Transportation (DOT) Hazardous Materials Transportation Training: Training that meets the criteria outlined in 49 CFR 172.704. This training shall include discussions of the following:
- 1. Hazardous materials tables within 49 CFR 172;
 - 2. Material packaging and labeling;
 - 3. Shipping papers and placards;
 - 4. Material loading and segregation.
- C. Exclusion Zone: (See definition of "PCB Control Area").
- D. Exposure Monitoring: Personal air sampling performed outside the respirator within the breathing zone of individuals, for the purpose of determining compliance with OSHA's Limits for Air Contaminants Table (29 CFR 1910.1000, Table Z-1). Analytical results obtained from exposure monitoring will be used to select appropriate respiratory protection and Personal Protective Equipment (PPE) for individuals within a work area. For the purpose of this Section, exposure monitoring samples shall be collected from individuals who are representative of each type work task being conducted by the Contractor, and all exposure monitoring shall follow pertinent NIOSH or ASTM sampling methodologies.

- E. Hazardous Waste Operations (HAZWOPER) Training: Training that meets the criteria outlined in the OSHA Hazardous Waste Operations and Emergency Response Standard (29 CFR 1910.120). A minimum of 40-hour HAZWOPER training will be required for work being performed under this Section.
- F. High-Efficiency Particulate Air (HEPA) Filter: A filter designed to remove 99.97% of all particles greater than 0.3 micrometers (μm) in diameter. For the purpose of this Section, HEPA vacuum and negative air pressure equipment (i.e., microtraps) used by the Contractor shall meet the Standard for Safety High-Efficiency, Particulate, Air Filter Units (UL 586) developed by Underwriters Laboratories.
- G. Homogenous Materials: PCB-containing materials which are similar in appearance, color, texture, and substrate type.
- H. Hygiene Facilities: Facilities within the physical boundary of a work area that are set up to prevent cross contamination and are equipped with change areas and separate storage facilities for Personal Protective Equipment (PPE) and clean clothing. Hygiene facilities shall include adequately supplied hand washing station(s) (i.e., running water, soap, and clean towels) or shower(s) (hot and cold water that is controllable at the tap, soap, shampoo, and clean towels).
- I. Organic Vapor Cartridge: A respirator filter typically containing 25 to 40 grams of sorption media such as activated charcoal.
- J. OSHA Monitoring: (See definition of "Exposure Monitoring").
- K. P-100 Filter: (See definition of: "High-Efficiency Particulate Air (HEPA) Filter").
- L. PCB Awareness Training: Training for individuals that have the potential to be exposed to PCB-containing materials or PCB wastes. This training shall include discussions of the following:
 - 1. Sources of PCBs;
 - 2. Current federal, state, and local regulations pertaining to PCBs (including 40 CFR 761) and other contaminants that may be disturbed during the work (i.e., asbestos, arsenic, cadmium, chromium, lead, or mercury) ;
 - 3. The health effects of PCBs and other contaminant exposures;
 - 4. State-of-the-art work practices, engineering controls, and procedures for abatement, removal, construction/demolition, materials handling, housekeeping, and waste management activities that involve PCB-containing materials and PCB wastes;
 - 5. The use and maintenance of Personal Protective Equipment (PPE) and the use and maintenance of respirators in accordance with 29 CFR 1910.134;
 - 6. Medical surveillance programs;
 - 7. Requirements regarding warning signs, labeling, and Material Safety Data Sheets (MSDSs) in accordance with 29 CFR 1910.1200;

8. Responsibilities of the Competent Person.
- M. PCB Article: PCB Article means any manufactured article, other than a PCB Container, that contains PCBs and whose surface(s) has been in direct contact with PCBs. "PCB Article" includes capacitors, transformers, electric motors, pumps, pipes and any other manufactured item
1. Which is formed to a specific shape or design during manufacture,
 2. Which has end use function(s) dependent in whole or in part upon its shape or design during end use, and
 3. Which has either no change of chemical composition during its end use or only those changes of composition which have no commercial purpose separate from that of the PCB Article.
- N. PCB-Containing Material: Any material that contains, or is coated with, a detectable concentration of PCBs.
- O. PCB Control Area: The area within the physical boundary where worker hygiene facilities are located and where all work activities take place that involve the disturbance of PCB-containing materials and PCB wastes with a PCB concentration greater than or equal to 50 parts per million (ppm).
- P. PCB Hazardous Waste (per NYSDEC): All solid wastes containing PCB concentrations greater than or equal to 50 parts per million (ppm). Refer to 6 NYCRR 371(e) for specific details and exceptions regarding the classification of PCB wastes as "hazardous wastes" in New York State.
- Q. PCB Item: Any PCB Article, PCB Article Container, PCB Container, PCB Equipment, or anything that deliberately or unintentionally contains or has as a part of it any PCB or PCBs.
- R. PCB Waste: Non-specific liquid or solid waste generated during the abatement, removal, construction/demolition, handling, or cleanup of a PCB-containing material with a PCB concentration greater than or equal to 50 parts per million (ppm). PCB waste also includes any waste (including remediation waste, polyethylene sheeting and Personal Protective Equipment (PPE)) that has been in contact with a material that has a PCB concentration greater than or equal to 50 ppm, regardless of whether the waste itself has a PCB concentration of less than 50 ppm. PCB wastes are subject to the disposal requirements set forth in TSCA (40 CFR 761, Subpart D).
- S. Performance-based organic decontamination fluid (PODF): Kerosene, diesel fuel, terpene hydrocarbons, and terpene hydrocarbon/alcohol mixtures approved for PCB decontamination purposes.
- T. Permissible Exposure Limit (PEL): Defined by OSHA as individual exposure, without regard to the use of respirators, to a specific airborne concentration of a contaminant expressed in milligrams per cubic meter of air (mg/m³) calculated as

an 8-hour Time-Weighted Average (TWA). Once a PEL is met or exceeded for a particular contaminant, the Contractor is responsible for meeting specific OSHA requirements, which may include worker exposure monitoring, the use of Personal Protective Equipment (PPE) including respiratory protection, the use of hygiene facilities, medical surveillance, or training for workers. The following PELs are pertinent to handling of PCB Articles, PCB-containing materials and PCB wastes:

1. PCB Aroclor 1254 – 0.5 mg/m³ per 29 CFR 1910.1000, Table Z-1;
 2. PCB Aroclor 1242 – 1.0 mg/m³ per 29 CFR 1910.1000, Table Z-1.
- U. Personal Monitoring: (See definition of “Exposure Monitoring”).
- V. Physical Boundary: A physical barrier designated with ropes, “caution tape,” or a partition that surrounds a work area in order to limit the entry of unauthorized personnel and delineate “clean areas” from areas that may meet or exceed an Action Level, Permissible Exposure Limit (PEL), or Threshold Limit Value (TLV).
- W. Polychlorinated Biphenyls (PCBs): Any group of chlorinated isomers of biphenyl, formerly used in the form of a toxic, colorless, odorless, viscous liquid typically added to lubricants, heat-transfer fluids, and plasticizers.
- X. Regulated Area: (See definition of “PCB Control Area”).
- Y. Regulated PCBs: PCBs regulated by 40 CFR 761, including but not limited to materials containing PCBs at concentrations greater than or equal to 50 ppm, PCB Articles, PCB Items, PCB Wastes
- Z. Resource Conservation and Recovery Act (RCRA) Training: Training that meets the criteria outlined in 40 CFR 265.16. This training shall include site-specific discussions of the following:
1. Hazardous waste identification;
 2. Waste storage container use and labeling;
 3. Waste storage area management;
 4. Personal health and safety, including fire safety;
 5. Manifesting and the off-site transportation of wastes;
 6. Procedures for using, inspecting, repairing, and replacing emergency equipment and monitoring equipment;
 7. Procedures for communicating with other employees and outside emergency response personnel;
 8. Responses to fires or explosions;
 9. Responses to leaks, spills, and potential groundwater contamination incidents
 10. The shutdown of operations.
- AA. Time-Weighted Average (TWA): The average time over a given work period (e.g., an 8-hour workday) of a person’s exposure to a chemical or agent. The average is determined by sampling for the chemical or agent throughout the time period.

BB. TSCA Regulated PCBs: See Regulated PCBs.

1.05 SUBMITTALS

A. Within 30 business days of the "Notice to Proceed" or as directed by the Engineer, the Contractor shall submit the following to the Engineer:

1. PCB Management Plan: Prior to handling of regulated PCBs and PCB Articles, the Contractor shall submit a detailed, project-specific PCB Management Plan that addresses work procedures and equipment to be used during the disturbance, removal, handling, collection, and disposal of PCB containing materials and wastes. The PCB Management Plan shall be prepared in accordance with Occupational Safety and Health Administration (OSHA) Construction Standards and all other pertinent federal, state, and local regulations. The PCB Management Plan shall be signed and dated by an American Board of Industrial Hygiene Certified Industrial Hygienist (CIH) and shall address the following:

a. Inventory of TSCA-Regulated PCBs:

(1) The Contractor shall submit a final inventory of TSCA-Regulated PCBs, PCB Articles and PCB Items. The final inventory shall include the known PCB Articles, and any additionally identified regulated PCBs confirmed by the Contractor's Hazardous Material Investigation performed in accordance with Section 01355.

b. Work Practices:

- (1) A detailed discussion regarding the sequencing of affected work;
- (2) A detailed discussion regarding the collection, handling procedures, and disposal of regulated PCBs, PCB wastes, and drained PCB Articles.
- (3) Equipment and Supplies: Identify the equipment and supplies that will be used to perform the work.
- (4) Decontamination protocol for reusable equipment that has been in contact with TSCA-regulated PCBs. Decontamination shall be performed using an approved PODF, in accordance with 40 CFR 761.
- (5) Spill prevention, containment and cleanup contingency measures to be implemented during the work.

c. PCB Control:

- (1) Drawings showing the location and details of the following:
 - (a) Each PCB Control Area;
 - (b) Each hygiene facility;
 - (c) Proposed electrical hookups;
 - (d) Proposed water hookups;
 - (e) Each waste storage area;
 - (f) Restroom areas;
 - (g) Areas designated for eating, drinking, and smoking;
- (2) A detailed discussion regarding the interfacing of trades, as applicable.
- (3) A detailed discussion regarding the procedures and methodologies that will be used to conduct exposure monitoring. Also, provide the name and qualifications (i.e., training and experience documentation) of the Air Monitor who will be responsible for conducting the air monitoring activities. The Air Monitor shall at a minimum, satisfy the requirements set forth in Article 1.06.D.5 of this Section;
- (4) A detailed discussion regarding housekeeping procedures to be used for maintaining clean work areas and clean hygiene facilities;
- (5) A detailed task analysis for each work activity that has the potential to disturb regulated PCBs. Each task analysis shall include, but is not limited to, the following information:
 - (a) The type of work activity;
 - (b) The tools/equipment that will be used;
 - (c) Operation and maintenance practices and procedures that will be used for the tools/equipment;
 - (d) The types of PCB-containing materials that may be disturbed or PCB wastes that may be generated when performing the activity;
 - (e) The engineering controls that will be used to control the spread of contamination during the activity;
 - (f) The proposed crew size for the activity and individual employee responsibilities during the activity;
 - (g) Housekeeping procedures that will be used during the activity;
 - (h) Personal Protective Equipment (PPE) and proposed respiratory protection that will be used for the activity;

- (6) Rental Equipment Notification: If rental equipment is to be used during the work, the Contractor shall notify the rental agency in writing concerning the intended use of the equipment;
- (7) MSDSs: Provide MSDSs for all chemical products (including PODFs) to be used for the work;
- (8) The name and qualifications (i.e., experience and training documentation) of the Competent Person who will be responsible for the oversight and execution of the PCB Management Plan during all activities affecting regulated PCBs. At a minimum, the Competent Person shall satisfy the requirements set forth in Article 1.06.D.2 of this Section.

d. Waste Management:

- (1) The identification of regulated PCBs wastes associated with the work;
- (2) The estimated quantity of each waste stream that will be generated and disposed of;
- (3) The name, address, phone number, and qualifications for each vendor and that will be transporting, storing, testing, or disposing of the wastes. Include a 24-hour phone contact for each vendor and facility;
- (4) Current permit documentation for each recycling and TSDf indicating that the facility is approved by federal, state, and local regulatory agencies to receive PCB wastes. The documentation shall include an "acceptance letter" from each TSDf indicating its ability to accept the specific waste streams that will be generated during work performed under this Section;
- (5) Current 6 NYCRR 364 permit documentation for the waste transporter that will transport PCB-wastes from the work site to the TSDf. The documentation shall clearly indicate the transporter's ability to deliver the PCB- PCB wastes to the chosen TSDf;
- (6) Spill prevention, containment, and cleanup contingency measures to be implemented during the work, as well as procedures to be followed during a suspected PCB emissions/bulk material release or emergency situation. All measures and procedures shall be in accordance with 40 CFR 761;

- (7) A detailed discussion of the on-site handling, storage, removal, and disposal of waste materials. This discussion shall include, but is not limited to, the following:
 - (a) Specifications for a secondary containment system for each drum storage area;
 - (b) The methods of demarcation that will be used to identify the waste storage areas and each waste container;
 - (c) The methods and procedures that will be used to collect and containerize wastes on a daily basis;
 - (d) The types of containers that will be used to containerize the wastes;
 - (e) The posting of weekly regulated waste inspection and inventory records as defined in Article 1.05.B.2 of this Section;
 - (8) The name and qualifications (i.e., experience and training documentation) of the PCB Waste Manager who will be responsible for the oversight and execution of the PCB Management Plan during waste management activities involving PCB wastes. At a minimum, the PCB Waste Manager shall satisfy the requirements set forth in Article 1.06.D.3 of this Section.
- e. A detailed schedule for the implementation of the PCB Management Plan elements. The schedule shall clearly indicate the starting and completion dates for the work, and shall allow adequate time for cleanup, inspections, and air monitoring activities.
 - f. Medical Surveillance: For all activities that disturb regulated PCBs, the Contractor shall provide a sufficient number of properly trained and experienced workers, each of whom shall:
 - (1) Have completed initial blood testing for PCBs;
 - (2) Have received a medical exam that included a Pulmonary Function Test (PFT) within the past year;
 - (3) Have received written medical clearance within the past year, by a licensed physician, to wear a respirator;
 - (4) Have received a qualitative or quantitative respirator fit-test within the past year for the specific respirator the employee will be using for this work.
 - g. Employee Documentation: For all activities within the PCB Control Area, the Contractor shall provide a sufficient number of properly trained and experienced workers, each of whom shall:
 - (1) Have written proof of training (e.g., certificates) in accordance with Article 1.06.D of this Section for PCB Workers, Competent

- Persons, PCB Waste Managers, and Air Monitors that will be used for the work;
- (2) Copies of resumes for PCB Workers, Competent Persons, PCB Waste Managers, and Air Monitors that will be used for the work, indicating work experience as defined in Article 1.06.D of this Section;
 - (3) Dates and written proof of initial medical surveillance by the Contractor or other employer within the past year, and proof that the employee is currently participating in the employer's ongoing medical surveillance program in accordance with Article 1.05.A.1.f of this Section;
 - (4) Dates and written proof of respiratory clearance and a medical exam in accordance with Article 1.05.A.1.f of this Section;
 - (5) Dates and written proof of a respirator fit-test in accordance with Article 1.05.A.1.f of this Section.
- h. A current (i.e., within the last month) signed and notarized statement disclosing all of the Contractor's OSHA, Environmental Protection Agency (EPA), and Department of Transportation (DOT) citations/violations on projects involving PCBs within the past three (3) years. If the Contractor will be using a subcontractor, a current signed and notarized statement disclosing all of the subcontractor's OSHA, EPA, and DOT citations/violations on projects involving PCBs within the past three (3) years will also be required.
2. Analytical Laboratory Qualifications for Analyzing Suspect PCB-Containing Materials and Wastes: Submit the name, address, and telephone number of each analytical laboratory selected to perform the analyses of waste samples (solid and liquid), air samples collected for area monitoring and exposure monitoring purposes. The analytical laboratory shall be currently accredited by the American Industrial Hygiene Association (AIHA) and the New York State Department of Health's (NYSDOH's) Environmental Laboratory Approval Program (ELAP). Provide copies of current AIHA and ELAP certificates along with dates of accreditation/reaccreditation. ELAP certificates must show evidence of certification for the specific analytical methods that will be used to analyze each type of sample that will be collected.
- B. Field Reports and Recordkeeping: During all work performed under this Section, the Contractor shall maintain and provide the following documentation:
1. Air Monitoring Documentation: All PCB air monitoring results and daily air monitoring reports shall be provided to the Engineer as soon as possible, but no later than five (5) calendar days from the date the samples are collected. The results shall be signed by the laboratory employee who analyzed or supervised the analysis of the samples, as well as the Air Monitor that physically performed the air monitoring activities at the work site. All

laboratory analytical results shall be accompanied by complete COC documentation.

a. Each daily air monitoring report shall be signed by the Contractor's employee who generated the report. The content of these reports shall include, but is not limited to, the following information:

- (1) Sample "start" and "stop" times;
- (2) Flow rates (initial and final) for each sample;
- (3) The total volume of air collected for each sample;
- (4) Sample location descriptions/sample location drawings/names of individuals being sampled;
- (5) Types (i.e., makes and models) of sampling equipment used;
- (6) Types of sample media (i.e., filters and cassettes) used;
- (7) The most recent calibration dates, along with the calibration results, for the sampling equipment used;
- (8) The name of the Air Monitor that conducted the air monitoring;
- (9) Dates that the air monitoring was conducted;
- (10) Work tasks being performed during the air monitoring;
- (11) Unique sample numbers used to identify each sample.

2. Waste Documentation: Completed and signed waste manifests from TSDFs shall be provided to the Engineer within ten (10) business days of disposal. In addition, on-site waste storage areas shall be inspected weekly by the PCB Waste Manager, who at a minimum shall satisfy the requirements set forth in of Article 1.06.D.3 of this Section.

a. Each waste storage area inspection shall be coordinated with the Engineer, documented in the form of a written report, and each report shall be signed by the Contractor's employee who generated the report. All reports shall be provided to the Engineer within 24 hours of the date the inspection is completed. The content of these reports shall include, but is not limited to, the following information:

- (1) The name of the individual that conducted the inspection;
- (2) Descriptions of waste streams being stored;
- (3) Types and quantities of waste containers being used;
- (4) The current disposal status (i.e., when each waste container is scheduled to be removed from the work site) and physical condition of each waste container;
- (5) The presence/absence of proper labeling for each waste container in accordance with Article 3.04.F of this Section and federal, state, and local regulations;
- (6) Secondary containment systems being used;
- (7) The methods being used to secure/lock each waste storage area to prevent any unauthorized entry.

- b. In addition to performing weekly waste storage area inspections, the PCB Waste Manager shall also maintain an ongoing waste inventory. The content of the inventory record shall include, but is not limited to, the following information:
 - (1) Specific dates that each waste container was added/removed from the waste storage area;
 - (2) The full name (printed) and signature of the individual responsible for adding/removing each waste container from the waste storage area.
3. PCB Control Area Inspection Documentation: PCB Control Areas shall be inspected daily by the Competent Person, who at a minimum, shall satisfy the requirements set forth in of Article 1.06.D.2 of this Section.
 - a. Each daily PCB Control Area inspection shall be documented in the form of a written report, and each report shall be signed by the Contractor's employee who generated the report. All reports shall be provided to the Engineer within 24 hours of the date the inspection is completed. The content of these reports shall include, but is not limited to, the following information:
 - (1) The types of work being performed;
 - (2) The names of the PCB Workers, Competent Person, PCB Waste Manager, and Air Monitor on site, as well as the name of the company each individual is representing;
 - (3) The types of air monitoring (i.e., exposure monitoring or area monitoring) being conducted, and the number of samples being collected for each type of air monitoring activity;
 - (4) Any non-compliance issues observed (i.e., observations that conflict with the requirements of the Contractor's PCB Management Plan, this Section, or federal, state, and local regulations, along with the corrective actions that were taken to achieve compliance.
4. Contractor Project Record: The Contractor's Competent Person shall maintain a project record at the work site. The Contractor Project Record shall be made available to the Engineer for review at any time during the work, and shall be submitted to the Engineer within 24 hours after the completion of the work.
 - a. At a minimum, the Contractor Project Record shall contain the following information:
 - (1) Copies of training certificates for all individuals involved with the work;
 - (2) Copies of all air monitoring results generated during the work;

- (3) Copies of all sample analytical data and survey reports related to the work.;
 - (4) Copies of all daily sign-in sheets as defined in Article 1.05.B.5 of this Section;
 - (5) A list of emergency phone numbers, including the local fire department, local police department, nearest hospital, as well as phone numbers for the Engineer and project personnel responsible for administering the work;
 - (6) A copy of 40 CFR 761;
 - (7) Copies of all MSDSs pertaining to all chemicals being used during the work;
 - (8) A copy of this Section and the related Contract Drawings;
 - (9) A copy of the Contractor's PCB Management Plan;
 - (10) Copies of all daily PCB Control Area inspection records as defined in Article 1.05.B.3 of this Section;
 - (11) Copies of all weekly waste storage area inspection records as defined in Article 1.05.B.2 of this Section;
 - (12) A copy of the waste inventory as defined in Article 1.05.B.2 of this Section;
 - (13) A copy of the Contractor's Hazard Communication (HAZCOM) program.
5. Daily Sign-In Sheets: The Contractor shall generate daily sign-in sheets for all individuals entering and exiting each PCB Control Area for the duration of the work. The daily sign-in sheets shall be maintained by the Competent Person, and shall be made available to the Engineer for review at any time during the work. All daily sign-in sheets shall be submitted to the Engineer within 24 hours after the completion of the work.
- a. At a minimum, each daily sign-in sheet shall include:
 - (1) The individual's full name (printed);
 - (2) The individual's signature;
 - (3) The name of the company the individual is representing;
 - (4) The time of entry and exit from each PCB Control Area;
 - (5) Verification by the Competent Person that the individual meets the minimum training requirements defined in Article 1.06.D of this Section, if the individual intends to enter a PCB Control Area.
6. HAZCOM Program: The Contractor's HAZCOM program shall be made available to the Engineer for review at any time during the work.

1.06 QUALITY ASSURANCE

- A. Scheduling: The Contractor shall coordinate and schedule all phases of the work to be performed under this Section with the Engineer, subcontractors, material suppliers, and other parties as necessary to ensure the proper execution of the work.

- B. Compliance: In addition to the detailed requirements of this Section, the Contractor shall comply with all applicable regulations of federal, state, and local authorities pertaining to the disturbance, abatement, removal, construction/demolition, handling, storage, transportation, and disposal of regulated PCBs and PCB wastes. All matters regarding the interpretation of any regulations, standards, or policies shall be submitted to the Engineer for resolution before starting the work. Where the requirements of this Section or federal, state, or local regulations conflict or vary, the most stringent requirements or regulations shall apply.
- C. Rejection of Non-Complying Items: The Engineer reserves the right to reject items incorporated into the work which fail to meet the specified minimum requirements. The Engineer also reserves the right to reject Contractor submittal items that are deemed inappropriate or unacceptable. Submittal items that may be deemed inappropriate or unacceptable include proposed vendors or subcontractors with previous regulatory citations/violations. The Engineer further reserves the right, and without prejudice to other recourse, to accept non-complying items subject to an adjustment in the Contract amount, as approved by the Commissioner.
- D. Qualifications
1. Competent Person: The Contractor shall have on staff and assigned to this Contract a Competent Person who has successfully completed DOT Hazardous Materials Transportation training, HAZWOPER training, PCB awareness training, and RCRA training courses as defined in Article 1.04.B, Article 1.04.E, and Article 1.04.K of this Section. Each training course shall have been completed within the past year in the form of either an initial course or a refresher course.
 2. PCB Waste Manager: The Contractor shall have on staff and assigned to this Contract a PCB Waste Manager who has successfully completed DOT Hazardous Materials Transportation training, HAZWOPER training, PCB awareness training, and RCRA training courses as defined in Article 1.04.B, Article 1.04.E, Article 1.04.K and Article 1.04.Y of this Section. Each training course shall have been completed within the past year in the form of either an initial course or a refresher course. In addition, the PCB Waste Manager shall have a minimum of two (2) years experience on projects involving PCB wastes. It is acceptable for an individual who meets the criteria of the Competent Person, to also serve as the PCB Waste Manager for this Contract as long as the individual fulfills all of the requirements of this paragraph (Article 1.06.D.3).
- PCB Worker: The Contractor shall have on staff and assigned to this Contract a sufficient number of PCB Workers who have successfully completed DOT Hazardous Materials Transportation training, HAZWOPER training, and PCB awareness training courses as defined in Article 1.04.B, Article 1.04.E and Article 1.04.K of this Section. Each training course shall have been

completed within the past year in the form of either an initial course or a refresher course. In addition, each PCB Worker shall have experience on projects involving PCBs.

3. Air Monitor: When draining PCB Articles and handling regulated PCBs, the Contractor shall have an Air Monitor assigned to this Contract who has successfully completed HAZWOPER training and PCB awareness training as defined in Article 1.04.E and Article 1.04K of this Section. This training course shall have been completed within the past year in the form of either an initial course or a refresher course. In addition, the Air Monitor shall have a minimum of two (2) years experience in conducting area monitoring and exposure monitoring on projects involving PCBs. It is acceptable for an individual who meets the criteria of the Competent Person (as defined in Article 1.06.D.2 of this Section) or PCB Waste Manager (as defined in Article 1.06.D.3 of this Section), to also serve as the Air Monitor for this Contract, as long as the individual satisfies all of the requirements of this paragraph.

PART 2 PRODUCTS

2.01 MATERIALS

- A. Respirators: The Contractor shall select respirators approved by the National Institute for Occupational Safety and Health (NIOSH) for use in areas where paints/bitumastic coatings, dusts, materials, or wastes containing contaminants may be disturbed. At a minimum, the Contractor shall provide each individual with a half-face, negative pressure, air purifying respirator equipped with HEPA/P-100 filter cartridges and organic vapor cartridges, until exposure monitoring results indicate that respiratory protection can be modified. The Contractor's CIH shall make all determinations regarding respiratory protection modifications that will be implemented for the work. All modifications shall be in accordance with OSHA requirements and the Contractor's PCB Management Plan.
- B. PPE: The Contractor shall provide personnel who have a potential to be exposed to materials or wastes containing contaminants, with appropriate PPE as prescribed by the Contractor's CIH.
- C. HEPA Filters: HEPA/P-100 filters used in vacuuming equipment, power tools, and local exhaust equipment must meet or exceed any manufacturer's specifications and recommendations, as well as specifications presented in the Standard for Safety High Efficiency, Particulate, Air Filter Units (UL 586).
- D. Waste Containers: Containers for the storage of all PCB wastes shall be DOT-approved, and shall be provided by the Contractor.

PART 3 EXECUTION

3.01 PREPARATION

- A. Hygiene Facilities: The Contractor shall provide functional hygiene facilities in accordance with Article 1.04.G of this Section that are appropriate for the types of work to be performed under this Section. The Contractor shall ensure that employees do not leave a PCB Control Area wearing any potentially contaminated PPE. The Contractor shall collect, test, and properly dispose of all wastewater generated from hygiene facilities.
1. Handwash Stations: The Contractor shall provide functioning handwash stations on all projects that disturb regulated PCBs and PCB wastes. Handwash stations shall have running water at the tap, clean towels, and soap per 29 CFR 1926.51. Substituting "hand wipes" in place of soap and running water will not be acceptable.
 2. Showers: The Contractor shall provide shower facilities for use by employees whose airborne exposure to PCBs is above an OSHA PEL. When shower facilities are necessary, employees are required to shower at the end of the work shift each day prior to leaving the PCB Control Area that they are working in.
- B. Utilities: The Contractor shall furnish all water and hoses needed for the work, as well as any temporary hookups. Also, the Contractor shall supply all heating equipment and water filtration devices needed for the work. In addition, all temporary lighting and temporary electrical service to a PCB Control Area shall be provided by the Contractor, and shall be in weather-proof enclosures and be ground fault protected.
- C. Signs: The Contractor shall post conspicuous warning signs at all approaches to work areas and waste storage areas. The signs shall be located at such a distance so that personnel may read the sign and take the necessary precautions before entering a work area or waste storage area. Signs shall comply with federal, state, and local regulations, including the requirements of OSHA. Signs shall not be removed until all PCB removals have been completed. At a minimum, each sign shall bear the following information in English and the predominant language that is spoken by the Contractor's employees if English is not spoken:

WARNING
PCB WORK AREA
POISON
NO SMOKING OR EATING

1. Each sign shall be appropriately modified to include additional warnings for other contaminants that are identified as a result of the Contractor's Hazardous Materials Investigation performed in accordance with Article 1.05 of Section 01355 – Hazardous Materials Control.

- D. Physical Boundary Delineation: The Contractor shall clearly delineate each work area and waste storage area with a physical boundary in accordance with Article 1.04.U of this Section.
- E. Work Area Preparation: The Contractor shall implement engineering controls, as necessary, to mitigate the release of lead containing materials and wastes into adjacent water bodies and mitigate the migration of particulates outside the work area limits. The engineering controls may include, but are not limited to, installation of tarps, barriers, etc. In the event of a release, the Contractor shall provide labor, equipment, and materials to perform emergency measures, and to remove regulated materials for offsite disposal at no additional cost to the City of New York.

3.02 AIR MONITORING

- A. Air monitoring for airborne concentrations of PCBs shall be conducted by the Air Monitor in accordance with OSHA and Article 1.04.A and Article 1.06.D of this Section.
 - 1. Exposure Monitoring: For work involving the disturbance of regulated PCBs. The Contractor shall collect personal air samples from employees who are anticipated to have the greatest risk of exposure, as determined by the Contractor's CIH or Competent Person. Personal air samples shall be collected during every work shift from at least one (1) employee that is representative of each type of work task that is being performed. Each personal air sample shall "run" for the employee's entire work shift in order to ensure that enough volume (of air) is collected and an accurate 8-hour TWA can be calculated. Documentation regarding the sample numbers, specific shift when the sampling was conducted, the work tasks that were sampled, the dates of sampling, the employee hours that were worked during the shift, and the total sampling times, shall accompany each laboratory COC form.
 - 2. Area Monitoring: For work involving the disturbance of regulated PCBs, the Contractor shall collect a minimum of two (2) area air samples outside of each PCB Control Area on a daily basis. During sampling activities, all air sample filter cassettes shall be positioned approximately five to six feet above the ground (in order to simulate an individual's breathing zone), and shall not be placed immediately adjacent to obstructions (e.g., walls or columns) which may restrict the flow of air to the filter cassettes. Each air sample shall be analyzed for PCBs. If area air monitoring indicates an emission level in excess of an OSHA PEL outside of a PCB Control Area, all work in that area shall be stopped immediately. The Contractor shall then take immediate corrective actions to reduce emission levels to below the OSHA PEL(s), and the Contractor shall clean all adjacent areas that may have become contaminated due to the emissions. Documentation regarding the sample numbers, sample locations, the dates of sampling, the employee hours that were worked during the shift, and the total sampling times, shall accompany each laboratory COC form.

3. Documentation: Complete documentation of all air monitoring activities shall be in accordance with Article 1.05.B.1 of this Section.
4. The Contractor shall submit all air monitoring results to the Engineer as soon as possible, but no later than five (5) calendar days from when the air samples were collected.

3.03 REMOVALS

- A. Protection of Existing Work to Remain: All work involving the disturbance of PCB-containing materials or PCB wastes must be conducted without damage to, or contamination of equipment or surfaces within the work areas or other areas adjacent to the work areas. All such damage or contamination shall be immediately corrected and cleaned up by the Contractor at the Contractor's expense.
- B. Draining of PCB Article: Prior to disposal of a PCB Article, the Contractor shall remove all free-flowing liquids.
- C. Drained oils shall be immediately placed in DOT-approved shipping containers, labeled and removed to the waste storage area as described in Article 3.04.
- D. Drained PCB Articles shall be securely wrapped in poly sheeting to preclude direct contact with residual PCB contamination.

3.04 CLEANUP AND DISPOSAL

- A. Cleanup: The Contractor shall maintain all surfaces, including protective coverings (polyethylene sheeting) within each work area, free of accumulations of debris and waste. The Contractor shall perform housekeeping activities daily throughout each work shift and at the end of each work shift, in order to prevent any accumulation debris and waste in the work area.
- B. Equipment Decontamination: All reusable equipment (e.g., hand tools and power tools) that has been in contact with materials that have a PCB concentration greater than or equal to 50 ppm, shall be thoroughly decontaminated prior to being removed from the PCB Control Area in accordance with 40 CFR 761.79(c)(2)(i), which permits "swabbing surfaces that have contacted PCBs with a solvent." The solvent shall be a PODF as defined in 40 CFR 761.79(c)(3)(iv)(C) or (D). Used decontamination materials (e.g., rags used to swab equipment) shall be collected, stored, and disposed of in accordance with Article 3.04.D of this Section.
- C. Sampling and Laboratory Analysis of PCB-Containing Wastes: Characterization of the PCB-containing oils shall be based on the existing data generated during previous investigations at the site supplemented by the data generated by the Contractor during additional hazardous material investigation performed in accordance with Article 1.05 of Section 01355. All other PCB wastes are shall

require sampling for waste classification and disposal purposes. For PCB waste characterization, the PCB Waste Manager shall sample all potential PCB-containing waste streams in accordance with the Toxic Substances Control Act (TSCA) (40 CFR 761).

1. Non-oil waste materials/debris generated by work under this Section may be classified as RCRA or New York State Department of Environmental Conservation (NYSDEC) hazardous waste (6 NYCRR 371(e)) in addition to being PCB-regulated. Therefore, wastes/debris must still be sampled and characterized prior to disposal. All waste samples shall be collected in the presence of the Engineer using the following procedure:
 - a. One (1) composite waste sample shall be collected for laboratory analysis from each waste drum that is generated. Each composite sample shall be a mixture of four (4) grab samples. The first grab sample shall be collected when the drum is approximately $\frac{1}{4}$ full of waste. The second grab sample shall be collected when the drum is approximately $\frac{1}{2}$ full of waste. The third grab sample shall be collected when the drum is approximately $\frac{3}{4}$ full of waste, and the fourth and final grab sample shall be collected when the manufacturer's recommended capacity of the drum has been achieved, and the drum is ready to be sealed for transport to the TSDF. Each composite sample shall be labeled and submitted to a laboratory that satisfies the requirements set forth in Article 1.05.A.2 of this Section. Samples shall undergo Toxicity Characteristic Leaching Procedure (TCLP) analysis for the eight (8) RCRA metals and a "totals" analysis for PCB Aroclors.
 - b. The Contractor shall also direct the laboratory to analyze each sample for any additional parameters that are required by the specific TSDF being used. The Contractor shall ensure that the laboratory being used to satisfy the requirements of Article 1.05.A.2 of this Section is also capable of performing these additional analytical tests.
 - c. One (1) representative wastewater sample shall be collected for laboratory analysis from each drum that is generated. Each sample shall be collected using appropriate field sampling equipment (e.g., a pipette or bailer), and shall be labeled and submitted to a laboratory that satisfies the requirements set forth in Article 1.05.A.2 of this Section.
- D. Collection, Separation, and Containerization of Wastes: The Contractor shall collect, separate (by waste stream/waste type), and containerize PCB wastes (solid and liquid), debris, PPE, and containment materials on a daily basis in accordance with the PCB Management Plan.
 1. The Contractor shall store all wastes in DOT-approved container systems. No drum/container shall be filled in excess of the capacity marked on the drum/container. All drums/containers shall be sealed and covered

immediately after filling, and each drum/container shall have a label affixed to it in accordance with Article 3.04.F of this Section. All labels shall remain intact and legible at all times.

2. No water mixed with or contaminated by hazardous waste may be released onto the ground or into any drain or sewer. It should be noted that a discharge of more than 1 lb. of PCBs onto the ground or into the water within a 24-hour period, shall be considered a violation of the Clean Water Act and shall be treated as a "reportable quantity" in accordance with 40 CFR 117. Such a release shall be grounds for immediate termination of this Contract, and the Contractor shall be liable for any fines, penalties, or remediation costs.
 3. The Contractor shall store non hazardous wastes separately from hazardous wastes and PCB-regulated wastes, shall provide all non-hazardous waste containers, and shall make all transportation and disposal arrangements for non-hazardous wastes in accordance with federal, state, and local regulations.
- E. Storage of Wastes: The Contractor shall ensure that all drummed wastes are stored in a secondary containment system meeting the PCB waste storage requirements of 40 CFR 261 Subpart D – Storage and Disposal in addition to NYSDEC requirements for hazardous waste. In addition, the Contractor shall post weekly waste inspections and waste inventories in the regulated waste storage area, as defined in Article 1.05.B.2 of this Section, as well as the following emergency information:
1. The name and telephone number of the facility's Emergency Coordinator;
 2. The location of fire extinguishers and fire alarms;
 3. The location of spill control materials;
 4. The telephone number for the fire department (unless the facility has a direct alarm).
- F. Labeling: The Contractor shall affix warning labels to all PCB waste and hazardous waste drums/containers. Labels shall comply with the requirements of federal, state, and local regulations. At a minimum, all PCB and hazardous waste labels shall bear the following information in English:

CAUTION
CONTAINS PCBs

A toxic environmental contaminant requiring
special handling and disposal in accordance with
U.S. Environmental Protection Agency Regulations
40 CFR 761 – For Disposal Information contact
the nearest U.S.EPA Office

HAZARDOUS WASTE
FEDERAL LAW PROHIBITS IMPROPER DISPOSAL

HANDLE WITH CARE

[Generator Name, Address, and Telephone Number]

[Specific Contents of Container]

[EPA-Issued Generator Identification Number]

[EPA Waste Identification Number]

[Accumulation Start Date]

[Accumulation End Date]

1. If waste classification is pending analysis, labels shall indicate "PCB/Hazardous Waste - Pending Analysis."
 2. Non-oil PCB wastes (e.g., PPE, poly sheeting, etc.) may be relabeled as non-hazardous pending confirmatory analysis that the PCB and TCLP metals concentrations do not exceed NYSDEC hazardous waste criteria.
- G. Disposal of Wastes: All waste profiles for containerized wastes must be reviewed by the Engineer and signed by the Owner as the generator of the waste streams. The Contractor shall notify the Engineer at least 14 business days prior to the removal of any waste drums/containers, so that the Engineer can inspect the drums/containers and the waste manifests. Wastes shall be disposed of to ensure that drums/containers do not remain on the job site for more than 30 calendar days from the initial "accumulation start date" on the label affixed to the drum/container. Containers that have reached their storage capacity shall not remain on site, and transportation arrangements shall be made for their immediate removal.
1. Drained PCB oils: Disposal of drained fluids shall be disposed of in an incinerator that complies with 40 CFR 761.7 or high efficiency boiler according to 40 CFR 761.71(b).
 2. Disposal of Drained PCB-Contaminated Article: Disposal of the drained PCB-contaminated Article with no free flowing liquids shall be in accordance with one of the following methods:
 - a. In accordance with 40 CFR 761.79 – Decontamination Standards
 - b. In a facility permitted, licensed, or registered by a State to manage municipal solid waste subject to 40 CFR 258
 - c. In a scrap metal recovery oven or smelter operating in compliance with 40 CFR 761.72.
 - d. Disposal facility permitted under 40 CFR 761
 3. Disposal of all other PCB Wastes shall be based on waste characterization sampling, and shall, at a minimum, occur at a facility approved to accept

TSCA-regulated wastes. The facility may also need to be approved for hazardous waste, pending the results of waste analysis.

- H. Disposal Documentation: The Contractor shall submit written evidence that the TSDF receiving PCB wastes is approved by federal, state, and local regulatory agencies to receive the wastes. If determined hazardous based on TCLP metals analysis, the Contractor shall also ensure that the TSDF is approved by federal, state, and local regulatory agencies to receive hazardous wastes. Once all waste profiles have been completed, the Contractor shall provide the Engineer a "Letter of Approval" issued from the TSDF indicating that the wastes will be accepted. The Contractor shall submit one (1) copy of the completed manifest that has been signed and dated by the initial transporter and TSDF in accordance with 6 NYCRR 372 and 40 CFR 262, to the Owner. All waste profiles, manifests, and Land Disposal Restrictions (LDRs) must be signed by the Owner.

-END OF SECTION-

Section 13285
MANAGEMENT OF UNIVERSAL AND OTHER MISCELLANEOUS
REGULATED WASTE

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. This Section details the requirements for handling universal and other miscellaneous regulated wastes identified during various investigations at the Marine Transfer Station, as detailed in the Bidwell Environmental Report dated December 2012 and summarized in Table 6 of Section 01355 – Hazardous Materials Control.
- B. The Contractor is responsible for the proper management of universal and other miscellaneous regulated wastes. Where additional inspection or sampling is necessary to characterize the waste for disposal, the Contractor shall conduct these efforts in accordance with the Hazardous Material Investigation Plan developed in accordance with Article 1.05 of Section 01355 – Hazardous Materials Control.
- C. For construction and demolition activities affecting regulated PCBs, other than PCB-containing ballasts, refer to Section 13283 - PCB Management.
- D. Closure and removal of the fuel oil tank shall be performed in accordance with Section 13210 – Closure of Aboveground Petroleum Storage Tank.
- E. The handling of bird excrement shall be performed in accordance with Section 13286 – Management of Bird Excrement.
- F. All work under this Section shall be performed to minimize the quantity of hazardous waste generated; protect the health and safety of all site personnel and the welfare of the public; and avoid adverse environmental impacts.
- G. Any additionally identified or unforeseen universal or miscellaneous regulated wastes, shall be managed and disposed offsite in accordance with this Section, and applicable federal, state and local regulations.
- H. All mercury-containing wastes generated during this Contract work that qualify as universal wastes under federal, state, or local regulations, must be recycled (and not disposed of as hazardous wastes) regardless of the quantity of wastes generated.
- I. The Contractor shall perform all work under this Section without damaging or contaminating adjacent water bodies or areas proximate to where the work is being performed. Where such areas are damaged or contaminated, as determined by the Engineer, the Contractor shall restore the areas to their original condition at no additional cost to the City of New York.

1.02 RELATED SPECIFICATIONS

- A. Section 01355 -- Hazardous Materials Control
- B. Section 01733 -- Construction Waste Management
- C. Section 13210 -- Closure of Aboveground Petroleum Storage Tank
- D. Section 13283 -- PCB Management
- E. Section 13286 -- Management of Bird Excrement

1.03 REFERENCES

- A. The Contractor shall comply with all applicable regulations, standards, and guidelines of federal, state, and local environmental and occupational safety and health agencies regarding universal and other miscellaneous regulated wastes. These regulations, standards, and guidelines include, but are not limited to the following:

- 1. Department of Transportation (DOT):

- a. 49 CFR 171 - General Information, Regulations, and Definitions
- b. 49 CFR 172 - Hazardous Materials Table, Special Provisions, Hazardous Materials Communications, Emergency Response Information, and Training Requirements
- c. 49 CFR 173 - Shippers: General Requirements for Shipments and Packagings
- d. 49 CFR 178 - Specifications for Packagings

- 2. Environmental Protection Agency (EPA):

- a. 40 CFR 116 - Designation of Hazardous Substances
- b. 40 CFR 117 - Determination of Reportable Quantities for Hazardous Substances
- c. 40 CFR 243 - Guidelines for the Storage and Collection of Residential, Commercial and Institutional Solid Waste
- d. 40 CFR 246 - Source Separation for Materials Recovery Guidelines
- e. 40 CFR 257 - Criteria for Classification of Solid Waste Disposal Facilities and Practices
- f. 40 CFR 260 - Hazardous Waste Management Systems: General
- g. 40 CFR 261 - Identification and Listing of Hazardous Waste

- h. 40 CFR 262 – Standards Applicable to Generators of Hazardous Waste
 - i. 40 CFR 263 – Standards Applicable to Transporters of Hazardous Waste
 - j. 40 CFR 264 – Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities
 - k. 40 CFR 265 – Interim Status Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities
 - l. 40 CFR 268 – Land Disposal Restrictions
 - m. 40 CFR 273 – Standards for Universal Waste Management
 - n. 40 CFR 302 – Designation, Reportable Quantities, and Notification
3. New York City Department of Buildings (NYCDOB)
- a. Building Code Regulations – Chapter 33
4. New York State Department of Environmental Conservation (NYSDEC):
- a. NYCRR 360 - Solid Waste Management Facilities
 - b. 6 NYCRR 364 – Waste Transporter Permits
 - c. 6 NYCRR 370 – Hazardous Waste Management Regulations
 - d. 6 NYCRR 371 – Identification and Listing of Hazardous Waste
 - e. 6 NYCRR 372 – Hazardous Waste Manifest System and Related Standards for Generators, Transporters, and Facilities
 - f. 6 NYCRR 373 – Hazardous Waste Management Facilities
 - g. 6 NYCRR 374 – Management of Specific Hazardous Waste
 - h. 6 NYCRR 376 – Land Disposal Restrictions
 - i. 6 NYCRR 596 – Hazardous Substance Bulk Storage Regulations
 - j. 6 NYCRR 613 – Handling and Storage of Petroleum
 - k. Chapter 145, Laws of New York, 2004 – Mercury-Added Consumer Products Law

5. National Institute for Occupational Safety and Health (NIOSH):
 - a. NIOSH Pocket Guide to Chemical Hazards
6. Occupational Safety and Health Administration (OSHA):
 - a. 29 CFR 1910 – Occupational Safety and Health Standards
 - b. 29 CFR 1910.120 – Hazardous Waste Operations and Emergency Response
 - c. 29 CFR 1910.1200 - Hazard Communication Standard
 - d. 29 CFR 1926 – Safety and Health Regulations for Construction
7. Underwriters Laboratories, Inc. (UL):
 - a. UL 586 – Standard for Safety High Efficiency, Particulate, Air Filter Units.

1.04 DEFINITIONS / EXPLANATION OF TERMS

- A. Department of Transportation (DOT) Hazardous Materials Transportation Training: Training that meets the criteria outlined in 49 CFR 172.704. This training shall include discussions of the following:
 1. Hazardous materials tables within 49 CFR 172;
 2. Material packaging and labeling;
 3. Shipping papers and placards;
 4. Material loading and segregation.
- B. Fluorescent Light Ballast: A device that electrically controls fluorescent light fixtures and includes a capacitor containing 0.1 kilograms (kg) or less of dielectric fluid.
- C. Hazardous Waste Operations (HAZWOPER) Training: Training that meets the criteria outlined in the OSHA Hazardous Waste Operations and Emergency Response Standard (29 CFR 1910.120). A minimum of 24-hour HAZWOPER training will be required for work being performed under this Section. However, certain types of work may require 40-hour HAZWOPER training. All decisions regarding the specific HAZWOPER training that will be required for each work task shall be made by the Engineer.
- D. High-Efficiency Particulate Air (HEPA) Filter: A filter designed to remove 99.97% of all particles greater than 0.3 micrometers (μm) in diameter. For the purpose of this Section, HEPA vacuum equipment used by the Contractor shall meet the

Standard for Safety High-Efficiency, Particulate, Air Filter Units (UL 586) developed by Underwriters Laboratories.

- E. Mercury Awareness Training: Training for individuals that have the potential to be exposed to mercury-containing materials or mercury wastes. This training shall include discussions of the following:
1. Sources of mercury;
 2. Current federal, state, and local regulations pertaining to mercury;
 3. The health effects of mercury exposure;
 4. State-of-the-art work practices, engineering controls, and procedures for removal, materials handling, waste management, housekeeping, and spills that involve mercury;
 5. The use and maintenance of Personal Protective Equipment (PPE) and the use and maintenance of respirators in accordance with 29 CFR 1910.134;
 6. Requirements regarding warning signs, labeling, and Material Safety Data Sheets (MSDSs) in accordance with 29 CFR 1910.1200;
 7. Responsibilities of the Competent Person.
- F. Mercury-Containing Material: A material or device that contains a detectable amount of elemental mercury, inorganic mercury compounds, or organic mercury compounds. Mercury-containing materials may include, but are limited to, the following: paints/coatings, batteries, light bulbs, thermometers, thermostats, barometers, manometers, temperature gauges, pressure gauges, and switches.
- G. Mercury Waste: Non-specific liquid or solid waste generated during the disturbance, removal, construction/demolition, handling, and cleanup of mercury-containing materials.
- H. P-100 Filter: (See definition of: "High-Efficiency Particulate Air (HEPA) Filter").
- I. Physical Boundary: A physical barrier designated with ropes, "caution tape," or a partition that surrounds a work area in order to limit the entry of unauthorized personnel and delineate "clean areas" from areas that may meet or exceed an Action Level, Permissible Exposure Limit (PEL), or Recommended Exposure Limit (REL).
- J. Recommended Exposure Limit (REL): An exposure limit recommended by the National Institute for Occupational Safety and Health (NIOSH) that can be expressed as a Time-Weighted Average (TWA), Ceiling Limit, or Short-Term Exposure Limit (STEL). Once an REL is met or exceeded for a particular contaminant, the Contractor is responsible for ensuring that workers receive appropriate exposure monitoring, Personal Protective Equipment (PPE), including respiratory protection, hygiene facilities, medical surveillance, and training. The following REL is pertinent to removal, demolition, and disposal activities associated with mercury-containing materials and wastes: (a) mercury – 0.05 mg/m³ as a TWA for up to a 10-hour workday and a 40-hour work week.

- K. Resource Conservation and Recovery Act (RCRA) Training: Training that meets the criteria outlined in 40 CFR 265.16. This training shall include site-specific discussions of the following:
1. Hazardous waste identification;
 2. Waste storage container use and labeling;
 3. Waste storage area management;
 4. Personal health and safety, including fire safety;
 5. Manifesting and the off-site transportation of wastes;
 6. Procedures for using, inspecting, repairing, and replacing emergency equipment and monitoring equipment;
 7. Procedures for communicating with other employees and outside emergency response personnel;
 8. Responses to fires or explosions;
 9. Responses to leaks, spills, and potential groundwater contamination incidents;
 10. The shutdown of operations.
- L. Universal Waste: Any mercury-containing lamps and equipment, pesticides, and batteries that meet the criteria outlined in the Standards for Universal Waste Management (40 CFR 273), the Standards for Universal Wastes (6 NYCRR 374-3), or the Mercury-Added Consumer Products Law (Chapter 145, Laws of New York, 2004). Per 40 CFR 273.4(b)(3), if the mercury is removed from a mercury-containing material, the material can no longer be considered a universal waste and must be managed as a hazardous waste, or a determination must be made to characterize the material as non-hazardous.
- M. Used Oil: Any oil that has been refined from crude oil, or any synthetic oil, that has been used, and as a result of such use, is contaminated by physical or chemical impurities. Used oil does not include high viscosity greases.
- N. Universal Waste Awareness Training: Training for individuals that will be handling universal wastes. This training shall include discussions of the following:
1. Types of universal waste;
 2. Current federal, state, and local regulations pertaining to universal waste;
 3. The health effects of contaminants found in universal wastes;
 4. State-of-the-art work practices, engineering controls, and procedures for removal, materials handling, waste management, housekeeping, and spills;
 5. The use and maintenance of Personal Protective Equipment (PPE)
 6. Requirements regarding warning signs, labeling, and Material Safety Data Sheets (MSDSs) in accordance with 29 CFR 1910.1200;
 7. Responsibilities of the Competent Person.

1.05 SUBMITTALS

- A. Within 30 business days of the "Notice to Proceed" or as directed by the Engineer, the Contractor shall submit the following to the Engineer:
1. Universal and Other Miscellaneous Regulated Waste Management Plan: Each Contractor that will disturb universal and other miscellaneous regulated wastes as detailed in Table 6 of Section 01355 – Hazardous Materials Control, shall submit a detailed, project-specific Plan that addresses work procedures and equipment to be used during the disturbance, removal, handling, collection, and disposal of universal and other miscellaneous regulated wastes. The Universal and Other Miscellaneous Regulated Waste Management Plan shall be prepared in accordance with this Section and all pertinent federal, state, and local regulations and shall be signed and dated by an American Board of Industrial Hygiene Certified Industrial Hygienist (CIH). The Plan shall include the following elements:
 - a. Inventory of Universal and Other Miscellaneous Regulated Wastes:
 - (1) The Contractor shall submit a final inventory of Universal and Other Miscellaneous Regulated Wastes that shall include estimated volumes and waste classifications for disposal purposes. The final inventory shall include known wastes identified in the Bidwell Environmental Hazardous Materials Investigation Report and summarized in Table 6 of Section 01355, and any additionally identified wastes identified during the Contractor's Hazardous Material Investigation performed in accordance with Section 01355.
 - b. Hazardous Material Control:
 - (1) Drawings showing the locations and details of each universal waste or other miscellaneous regulated waste work area;
 - (a) Each hygiene facility;
 - (b) Proposed electrical hookups;
 - (c) Proposed water hookups;
 - (d) Each waste storage area,
 - (e) Restroom areas;
 - (f) Designated break areas for eating and drinking;
 - (2) A detailed discussion regarding the sequencing of affected work;
 - (3) A detailed discussion on the implementation of proper precaution to prevent the release of contaminants when handling universal and other miscellaneous regulated wastes removed from the Marine Transfer Station for disposal offsite;

- (4) A detailed discussion regarding the collection, handling procedures, and recycling/disposal of each anticipated waste stream;
- (5) A detailed discussion regarding the procedures and methodologies that will be used to conduct exposure monitoring. At a minimum, it is expected that exposure monitoring will be performed with a Jerome meter when handling leaking mercury containing equipment. Additionally, exposure monitoring shall be performed with a direct reading multi-gas meter when work is conducted on the oil/water separator, sanitary waste tanks, and any other waste that has the potential to generate toxic or potentially explosive atmospheres. Provide the name and qualifications (i.e., training and experience documentation) of the person responsible for exposure monitoring and, indicate what Action Levels will be used for work, how compliance with the Action Levels will be determined, and who will be responsible for ensuring that compliance with the Action Levels is maintained. At a minimum, Action Levels shall be established for the following situations:
 - (a) The removal of broken/leaking mercury-containing materials and other miscellaneous regulated wastes that have the potential to generate volatile vapors or potentially explosive atmospheres;
 - (b) The implementation of engineering controls and safe work practices;
 - (c) Upgrades/downgrades in levels of Personal Protective Equipment (PPE);
 - (d) Work stoppage or the emergency evacuation of on-site personnel;
- (6) A detailed discussion regarding housekeeping procedures to be used for maintaining clean work areas;
- (7) A detailed task analysis for each work activity that has the potential to disturb universal and other miscellaneous regulated wastes. Each task analysis shall include, but is not limited to, the following information:
 - (a) The type of work activity;
 - (b) The tools/equipment that will be used;
 - (c) Operation and maintenance practices and procedures that will be used for the tools/equipment;
 - (d) The types of universal and other miscellaneous regulated wastes that may be generated when performing the activity;
 - (e) The engineering controls that will be used to control the spread of contamination during the activity;

- (f) The proposed crew size for the activity and individual employee responsibilities during the activity;
 - (g) Housekeeping procedures that will be used during the activity;
 - (h) PPE that will be used for the removal of both intact and broken (leaking) mercury-containing lamps and equipment and other miscellaneous regulated wastes;
 - (i) Protocol for personal and equipment decontamination;
- (8) Equipment and Supplies: Identify the equipment and supplies that will be used to perform the work;
- (9) Rental Equipment Notification: If rental equipment is to be used during the work, the Contractor shall notify the rental agency in writing concerning the intended use of the equipment;
- (10) Material Safety Data Sheets (MSDSs): Provide MSDSs for all chemical products to be used during the work.
- (11) The name and qualifications (i.e., experience and training documentation) of the Competent Person who will be responsible for the oversight and execution of the Universal and Other Miscellaneous Regulated Waste Management Plan. At a minimum, the Competent Person shall have successfully completed DOT Hazardous Materials Transportation training and RCRA training courses. In addition, the Competent Person shall have successfully completed both HAZWOPER training, mercury and universal waste awareness training. Each training course shall have been completed within the past year in the form of either an initial course or a refresher course.
- (12) The Competent Person shall have a minimum of two (2) years' relevant experience and shall be responsible for the following:
- (a) Establishing Hazard Control Areas and assuring that access to and from those areas is limited to authorized personnel;
 - (b) Assuring the adequacy of any employee exposure monitoring required by OSHA;
 - (c) Assuring that all employees wear appropriate Personal Protective Equipment (PPE), and are trained in the use of appropriate methods of exposure control for all of the contaminants present;
 - (d) Assuring that proper hygiene facilities are provided and that workers are trained to use those facilities;
 - (e) Assuring that engineering controls specific to the contaminants present are implemented, maintained in proper operating condition, and functioning properly.

c. Waste Management:

- (1) The identification of universal waste and other miscellaneous regulated (non-hazardous and hazardous) wastes associated with the work under this Section. Non-hazardous waste classified as construction and demolition debris need not be addressed, provided that the handling of the affected waste is included in the Construction Waste Management Plan required under Section 01733 – Construction Waste Management;
- (2) The estimated quantity of each waste stream that will be generated and recycled/disposed;
- (3) The name, address, phone number, and qualifications of each vendor and facility that will be transporting, storing, testing, or recycling/disposing of the wastes. Include a 24-hour phone contact for each vendor/facility.
- (4) Current permit documentation for each recycling facility, solid waste management facility or TSDf indicating the types of wastes that the facility is permitted to approve. The documentation shall include an "acceptance letter" from each facility/TSDf indicating its ability to accept the specific waste streams that will be generated during work performed under this Section;
- (5) Current 6 NYCRR 364 permit documentation for the waste transporter that will transport universal and other miscellaneous regulated wastes from the work site to the recycling or disposal facility. The documentation shall clearly indicate the transporter's ability to deliver the wastes to the chosen recycling or disposal facility;
- (6) Spill prevention, containment, and cleanup contingency measures to be implemented during the work, as well as procedures to be followed during a suspected mercury emissions/bulk material release or emergency situation;
- (7) A detailed discussion of the on-site handling and storage, of waste materials. This discussion shall include, but is not limited to, the following:
 - (a) Specifications for a secondary containment system for each waste storage area;
 - (b) The methods of demarcation that will be used to identify the waste storage areas and each waste container;

- (c) The methods and procedures that will be used to collect and containerize wastes on a daily basis;
 - (d) The types of containers that will be used to containerize the wastes;
 - (e) The posting of weekly regulated waste inspection and inventory records as defined in Article 1.05.B.2 of this Section.
- (8) The name and qualifications (i.e., experience and training documentation) of the Waste Manager who will be responsible for the oversight and execution of the Universal and Other Miscellaneous Regulated Waste Management Plan during waste management activities. At a minimum, the Waste Manager shall have successfully completed DOT Hazardous Materials Transportation Training, HAZWOPER training, mercury and Universal Waste awareness training, and RCRA training courses. Each training course shall have been completed within the past year in the form of either an initial course or a refresher course. The Waste Manager shall have a minimum of two (2) years' experience on projects involving universal, hazardous and non-hazardous wastes.
- d. A detailed schedule for the implementation of the Universal and Other Miscellaneous Regulated Waste Management Plan elements. The schedule shall clearly indicate the starting and completion dates for the work, and shall allow adequate time for cleanup activities and inspections;
 - e. Employee Documentation: For all activities that disturb universal and other regulated wastes covered by this Section, the Contractor shall provide a sufficient number of properly trained and experienced workers, each of whom shall:
 - (1) Have written proof of training (e.g., certificates) for Workers, Competent Persons and Waste Managers that will be used for the work;
 - (2) Copies of resumes for Competent Persons and Waste Managers that will be used for the work, indicating work experience,
 - (3) Dates and written proof of initial medical surveillance by the Contractor or other employer within the past year, and proof that the employee is currently participating in the employer's ongoing medical surveillance program;
 - (4) Dates and written proof of respiratory clearance and a medical exam;
 - (5) Dates and written proof of a respirator fit-test.

- f. A current (i.e., within the last month) signed and notarized statement disclosing all of the Contractor's Occupational Safety and Health Administration (OSHA), Environmental Protection Agency (EPA), and Department of Transportation (DOT) citations/violations on projects involving universal and other miscellaneous regulated wastes within the past three (3) years. If the Contractor will be using a subcontractor, a current signed and notarized statement disclosing all of the subcontractor's OSHA, EPA, and DOT citations/violations on projects involving universal and other miscellaneous regulated wastes within the past three (3) years will also be required.
- B. Field Reports and Recordkeeping: During all work performed under this Section, the Contractor shall maintain and provide the following documentation:
1. Exposure Monitoring Data: The results of all exposure monitoring shall be provided to the Engineer within 24 hrs from the day exposure monitoring waste performed. Any Action Level exceedances should be immediately reported to the Engineer as evidence of a release.
 2. Recycled Materials/Waste Documentation: Completed and signed waste manifests from disposal facilities, recycling facilities and TSDFs shall be provided to the Engineer within ten (10) business days of disposal. In addition, on-site waste storage areas shall be inspected weekly by the Waste Manager, who at a minimum shall satisfy the requirements set forth in Article 1.05.A.1.c of this Section.
 - a. Each weekly waste storage area inspection shall be coordinated with the Engineer, documented in the form of a written report, and each report shall be signed by the Contractor's employee who generated the report. All reports shall be provided to the Engineer within 24 hours of the date the inspection is completed. The content of these reports shall include, but is not limited to, the following information:
 - (1) The name of the individual that conducted the inspection;
 - (2) Descriptions of waste streams being stored;
 - (3) Types and quantities of waste containers being used;
 - (4) The current recycling/disposal status (i.e., when the waste container is scheduled to be removed from the work site) and physical condition of each waste container;
 - (5) The presence/absence of proper labeling for each waste container in accordance with Article 3.03.D of this Section and federal, state, and local regulations;
 - (6) Secondary containment systems being used;
 - (7) The methods being used to secure/lock each waste storage area to prevent any unauthorized entry;
 - (8) The presence of any waste containers on site generated during the work being performed under this Section that violate Resource

Conservation and Recovery Act (RCRA) generator storage time limitations, as defined in 40 CFR 262.

- b. In addition to performing weekly waste storage area inspections, the Waste Manager shall maintain an ongoing waste inventory. The content of the inventory shall include, but is not limited to, the following information:
 - (1) Specific dates that each waste container was added/removed from the waste storage area;
 - (2) The full name (printed) and signature of the individual responsible for adding/removing each waste container from the waste storage area.
3. Universal and Other Miscellaneous Regulated Waste Work Area Inspection Documentation: Work areas shall be inspected daily by the Competent Person, who at a minimum shall satisfy the requirements set forth in of Article 1.05.A.1.b of this Section.
 - a. Each daily work area inspection shall be documented in the form of a written report, and each report shall be signed by the Contractor's employee who generated the report. All reports shall be provided to the Engineer within 24 hours of the date the inspection is completed. The content of these reports shall include, but is not limited to, the following information:
 - (1) The types of work being performed;
 - (2) The names of Workers and the Competent Person on site, as well as the name of the company each individual is representing;
 - (3) Any non-compliance issues observed (i.e., observations that conflict with the requirements of the Contractor's Universal and Other Miscellaneous Regulated Waste Management Plan, this Section, or federal, state, and local regulations) along with the corrective actions that were taken to achieve compliance.
4. Contractor Project Record: The Contractor's Competent Person shall maintain a project record at the work site. The Contractor Project Record shall be made available to the Engineer for review at any time during the work, and shall be submitted to the Engineer within 24 hours after the completion of the work.
 - a. At a minimum, the Contractor Project Record shall contain the following information:
 - (1) Copies of training certificates for all individuals involved with the work;
 - (2) Copies of all universal and other miscellaneous regulated waste survey reports relating to the work;

- (3) Copies of all daily sign-in sheets as defined in Article 1.05.B.5 of this Section;
 - (4) A list of emergency phone numbers, including the local fire department, local police department, nearest hospital, as well as phone numbers for the Engineer and other project personnel responsible for administering the work;
 - (5) Copies of all MSDSs pertaining to all chemicals being used during the work;
 - (6) A copy of this Section and the related Contract Drawings;
 - (7) A copy of the Contractor's Universal and Other Miscellaneous Regulated Waste Management Plan;
 - (8) Copies of all daily work area inspection records as defined in Article 1.05.B.3 of this Section;
 - (9) Copies of all weekly waste storage area inspection records as defined in Article 1.05.B.2 of this Section;
 - (10) A copy of the waste inventory as defined in Article 1.05.B.2 of this Section;
 - (11) A copy of the Contractor's Hazard Communication (HAZCOM) program.
5. Daily Sign-In Sheets: The Contractor shall generate daily sign-in sheets for all individuals entering and exiting each regulated work area for the duration of the work. The daily sign-in sheets shall be maintained by the Competent Person, and shall be made available to the Engineer for review at any time during the work. All daily sign-in sheets shall be submitted to the Engineer within 24 hours after the completion of the work.
- a. At a minimum, each daily sign-in sheet shall include:
- (1) The individual's full name (printed);
 - (2) The individual's signature;
 - (3) The name of the company the individual is representing;
 - (4) The time of entry and exit from the area;
 - (5) Verification by the Competent Person that the individual meets the minimum training requirements defined in Article 1.05.A.1.b of this Section, if the individual intends to enter a universal waste/regulated work area.
6. HAZCOM Program: The Contractor's HAZCOM program shall be made available to the Engineer for review at any time during the work.

1.06 QUALITY ASSURANCE

- A. Scheduling: The Contractor shall coordinate and schedule all phases of the work to be performed under this Section with the Engineer, subcontractors, material suppliers, and other parties as necessary to ensure the proper execution of the work.

- B. Compliance: In addition to the detailed requirements of this Section, the Contractor shall comply with all applicable regulations of federal, state, and local authorities pertaining to the disturbance, removal, construction/demolition, handling, storage, transportation, and recycling/disposal of universal and other miscellaneous regulated wastes. All matters regarding the interpretation of any regulations, standards, or policies shall be submitted to the Engineer for resolution before starting the work. Where the requirements of this Section, or federal, state, or local regulations conflict or vary, the most stringent requirements or regulations shall apply.
- C. Rejection of Non-Complying Items: The Engineer reserves the right to reject items incorporated into the work which fail to meet the specified minimum requirements. The Engineer also reserves the right to reject Contractor submittal items that are deemed inappropriate or unacceptable. Submittal items that may be deemed inappropriate or unacceptable include proposed vendors or subcontractors with previous regulatory citations/violations. The Engineer further reserves the right, and without prejudice to other recourse, to accept non-complying items subject to an adjustment in the Contract amount, as approved by the Owner.
- D. Qualifications

Workers: Each worker involved with the handling of universal and miscellaneous regulated wastes shall have successfully completed DOT Hazardous Materials Transportation training, mercury and universal waste awareness training courses as defined in Articles 1.04.A, 1.04.E and 1.04.N of this Section and Hazardous Communication training. Additionally, workers handling the contents of the oil/water separator and any hazardous waste shall have HAZWOPER training. Each training course shall have been completed within the past year in the form of either an initial course or a refresher course.

PART 2 PRODUCTS

2.01 MATERIALS

- A. PPE: The Contractor shall provide personnel who have a potential to be exposed to mercury-containing materials, universal and other miscellaneous regulated wastes, with appropriate PPE as prescribed by the Contractor's CIH. When required, respirators shall be approved by the National Institute for Occupational Safety and Health (NIOSH) for use in areas where mercury containing and other miscellaneous regulated materials may be disturbed.
- B. High-Efficiency Particulate Air (HEPA) Filters: HEPA/P-100 filters used in vacuuming equipment must meet or exceed any manufacturer's specifications and recommendations, as well as specifications presented in the Standard for Safety High Efficiency, Particulate, Air Filter Units (UL 586).

- C. Waste Containers: Containers for the storage of all recyclable materials and wastes shall be DOT-approved, and shall be provided by the Contractor.

PART 3 EXECUTION

3.01 PREPARATION

- A. Hygiene Facilities: The Contractor shall provide functional hygiene facilities that are appropriate for the types of work to be performed under this Section. The Contractor shall ensure that employees do not leave a Universal Waste/Regulated Control Area wearing any potentially contaminated PPE. Where hazardous materials have been released, the Contractor shall collect, test, and properly dispose of all potentially contaminated PPE and wastewater generated from hygiene facilities.
- B. Utilities: The temporary use of any on-site utilities shall be subject to the approval of the Engineer. The Contractor shall furnish all water and hoses needed for the work, as well as any temporary hookups. Also, the Contractor shall supply all heating equipment and water filtration devices needed for the work. In addition, all temporary lighting and temporary electrical service to a work area shall be provided by the Contractor, and shall be in weather-proof enclosures and be ground fault protected.
- C. Scaffolding: The Contractor shall furnish all the scaffolding of whatever type is necessary to perform the work being performed under this Section, subject to the OSHA Safety Requirements for Scaffolding (29 CFR 1910.28), the City of New York Department of Buildings (DOB) Building Code (Chapter 33), and the approval of the Engineer. Scaffolding shall be inspected after its construction, but prior to its use by any Contractor employees, by an individual qualified as a Competent Person to inspect scaffoldings, as defined by OSHA.
- D. Signs: The Contractor shall post conspicuous warning signs at all approaches to universal and regulated work areas and waste storage areas. The signs shall be located at such a distance so that personnel may read the sign and take the necessary precautions before entering a work area or waste storage area. Signs shall comply with federal, state, and local regulations, including the requirements of OSHA. Signs shall not be removed until all removal and construction/demolition activities have been completed. At a minimum, each sign shall bear the following information in English and the predominant language that is spoken by the Contractor's employees if English is not spoken:

WARNING
UNIVERSAL/REGULATED WORK AREA
POISON
NO SMOKING OR EATING

1. Each sign shall be appropriately modified to include additional warning signs for other wastes (e.g., Hazardous Wastes) or contaminants (e.g., Mercury).
- E. Physical Boundary Delineation: The Contractor shall clearly delineate each work area and waste storage area with a physical boundary such as "caution tape" or a partition that surrounds the work area in order to limit the entry of unauthorized personnel and to delineate "clean areas" for areas that may meet or exceed an Action Level or Permissible Exposure Limit.
- F. Work Area Preparation: The Contractor shall implement engineering controls, as necessary, to mitigate the release of contaminants into adjacent water bodies and mitigate the migration of particulates outside the work area limits. The engineering controls may include, but are not limited to, installation of tarps, barriers, etc. In the event of a release, the Contractor shall provide labor, equipment, and materials to perform emergency measures, and to remove regulated materials for offsite disposal at no additional cost to the City of New York.

3.02 REMOVALS

- A. Protection of Existing Work to Remain: All work involving the disturbance of universal and other miscellaneous regulated wastes must be conducted without damage to, or contamination of adjacent water bodies and work areas. All such damage or contamination shall be immediately corrected and cleaned up by the Contractor at the Contractor's expense.
- B. Work Area Containment Measures: The Contractor shall utilize impermeable containment materials (i.e., 6-mil polyethylene sheeting) within each work area to prevent potential contamination from universal and other miscellaneous regulated wastes while performing the work. At a minimum, the Contractor shall place 6-mil polyethylene sheeting on the floor of the work area when removing universal waste lamps or when handling any liquid wastes or damaged and leaking equipment. Any containment materials that become contaminated during the work shall not be reused, and shall be properly containerized and disposed of in accordance with Article 3.03 of this Section.
- C. Removal of Fluorescent and HID Lamps
1. Lamps shall be carefully removed/collected to prevent breakage, segregated by type, and containerized in accordance with Article 3.03. In this Section an HID lamp shall be defined as any lamp that could be classified as a hazardous waste (typically because it has a potential to exceed the toxicity characteristic for mercury and/or lead), and shall include, but not be limited to, high intensity discharge, neon, mercury vapor, high-pressure sodium, and metal halide lamps. Damaged or broken bulbs shall be immediately reported to the Engineer and segregated from intact bulbs.

2. Whole lamps shall be packed in cardboard boxes, fiber drums, steel drums, and/or plastic drums, with the openings of the containers secured prior to relocation, movement, and transportation offsite to prevent breakage. Such containers and packages must remain closed when full and must lack evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions.
3. Crushed or broken lamp waste shall be collected and placed into USDOT-approved metal drums or USDOT-equivalent plastic drums, with the top of the containers adequately secured. Containers must be closed, structurally sound, and must lack evidence of leakage, spillage, or damage that could cause release of mercury or other hazardous constituents to the environment under reasonably foreseeable conditions.
4. Intact fluorescent and HID lamps shall be managed as a universal waste. Broken lamps shall be managed as hazardous waste.

D. Removal of Lamp Ballasts

1. Each lamp ballast shall be removed/collected and segregated into one of the two groups (as applicable): "PCB-containing" and "No PCBs" lamp ballasts. Unless clearly labeled "No PCBs," the Contractor must assume that the ballasts contain polychlorinated biphenyls (PCBs) and shall be managed as TSCA-regulated waste. Non-PCB ballasts shall be managed as non-hazardous regulated waste. Ballasts shall be placed into DOT-approved metal drums or plastic containers. Damaged or leaking ballasts shall be immediately reported to the Engineer and segregated from intact ballasts.
2. Leaking ballasts and any material scheduled for disposal that comes in contact with leaking material (e.g., oil or potting material contained within the ballasts, PPE, Poly sheeting, spill cleanup waste, etc.) shall be placed into separate USDOT-approved metal container(s) separate disposal from non-leaking ballasts. Disposal of leaking ballasts or related contaminated materials shall be in accordance with applicable regulations (e.g., as a TSCA-regulated waste if the ballast is PCB-containing).

E. Removal of Mercury Containing Devices

1. Each mercury-containing device shall be carefully removed, and inspected for evidence of damage or leaking prior to placement into DOT-approved shipping containers. Damaged or leaking devices shall be immediately reported to the Engineer and stored separately from non-leaking devices.
2. Non-leaking devices shall be managed as universal waste.

3. Leaking devices and any material scheduled for disposal that comes in contact with the elemental mercury (e.g., PPE, Poly sheeting, spill cleanup wastes, etc.), shall be managed as hazardous waste.

F. Refrigerants

1. The Contract shall remove Chlorofluorocarbons (CFCs) or other potentially regulated refrigerants where confirmed in equipment (e.g., water fountain and refrigerators).
2. Prior to disposal, regulated refrigerant-containing equipment shall be disconnected, and the refrigerant shall be evacuated by personnel certified in accordance with 40 CFR Part 82.161 and all applicable state and local regulations. Refrigerant recovery can be performed onsite or at the disposal facility.
3. Refrigerant shall be evacuated to appropriate vacuum levels using certified recovery equipment utilizing methods to maximize the recovery and recycling of CFCs and other refrigerants.
4. Subsequent to CFC removal, the equipment shall be labeled as being refrigerant-free or CFC-free following refrigerant recovery.

G. Batteries

1. All batteries shall be carefully removed and placed into DOT shipping containers. Damaged or leaking batteries shall be immediately reported to the Engineer and stored separately from non-leaking batteries.
2. The Contractor shall segregate and separate batteries by type (e.g., lead-acid, nickel-cadmium).
3. Intact lead-acid and nickel-cadmium batteries shall be managed as universal waste;
4. Leaking lead-acid and nickel-cadmium batteries shall be managed as hazardous waste.
5. All other batteries shall recycled at an appropriately permitted facility.

H. Oil- and Grease Containing Equipment

1. The Contractor shall drain all reservoirs, and empty grease cavities and any other areas of accumulated lubricants, and containerize the waste in USDOT-approved containers. The Contractor shall utilize methods that mitigate the potential for uncontrolled release of oil and lubricants and maximize their recovery.

2. Used oils and greases shall be stored in separate containers.
3. PCB-regulated oils and greases shall be managed in accordance with Section 13283.
4. Non-PCB regulated oils shall be managed as used oil in accordance with 40 CFR Part 279 and 6 NYCRR Subparts 360-14 and 374-2, and recycled at an appropriately permitted facility.
5. Non-PCB greases shall be managed in accordance with the results of waste classification testing performed in accordance with Article 1.05 of Section 01355.

I. Oil/Water Separator(s)

1. The Contractor shall remove the contents of the oil/water separator(s) and all drains and piping associated with the system. The liquid and sludge waste shall be stored in USDOT-approved shipping containers and will be managed based on the results of waste classification testing performed in accordance with Article 1.05 of Section 01355 – Hazardous Materials Control.
2. Subsequent to waste removal the Contractor shall clean the oil/water separator, drains and associated piping. The Contractor shall utilize methods and equipment that mitigate a potential for uncontrolled release of materials (e.g., waste oil, washwater). Drains and piping shall be flushed and rinsed in accordance with all applicable local, state and federal regulations and API guidelines for cleaning petroleum piping. Cleaning of the oil/water separator tank shall be performed with high pressure water and industrial (non-toxic) detergents, as necessary to remove residual contaminants.
3. Cleaning wastes shall also be stored in USDOT-approved shipping containers and shall be managed based on the results of waste classification of the tank contents, unless otherwise re-tested by the Contractor.

J. Miscellaneous Containers, Tanks and Debris

1. Miscellaneous chemical containers, tanks and debris have been identified in the facility as summarized in Table 6 of Section 01355 – Hazardous Materials Control. The identified contents include, but are not limited to a circuit board, paints, gasoline, metal polish, rock salt, miscellaneous debris, municipal waste, and oil-like liquids, tires, and small electric transformers.
2. Where identified in Table 9 of Section 01355 – Hazardous Materials Control, further investigation and waste classification sampling shall be performed. Upon completion of waste classification activities, the Contractor shall

carefully place all wastes into appropriate DOT-shipping containers for offsite disposal.

3. The Wastes shall be managed in accordance with the waste classifications assigned in the final inventory of Universal and Miscellaneous Regulated Waste submitted under Article 1.05.A.1.a.
4. Empty containers shall be managed in accordance with applicable NYSDEC solid waste and hazardous waste regulations.
5. As applicable, regulated bulk storage containers (e.g., tanks) used to store hazardous substances shall be closed in accordance with 6 NYCRR Part 598: Handling and Storage of Hazardous Substances. Closure of regulated petroleum storage tanks shall be in accordance with 6 NYCRR Part 613 and Section 13210 – Closure of Aboveground Petroleum Storage Tank.
6. Sanitary wastes that are not suspected to contain hazardous materials (e.g., no evidence of petroleum contamination) shall be pumped by licensed septic service for disposal an appropriately permitted Public Owned Treatment Works (POTW).

K. Contingency Items

1. Building equipment/appurtenances listed below were not observed during the 2012 hazardous materials investigation. However, the Contractor shall be responsible for verifying all site conditions and performing additional inspection for suspect hazardous materials in accordance with Article 1.05 of Section 01355 – Hazardous Materials Control. Should any of the equipment/appurtenances listed in this Article be encountered at the site, the Contractor shall remove, segregate, containerize, transport, and dispose of such equipment/appurtenances as described herein and in accordance with all applicable federal, state, and local regulations.
 - a. Fire Extinguishers: Fire extinguishers require special handling and shall be disposed of by a local fire extinguisher retailer.
 - b. Smoke Detectors: The Contractor shall remove and place all smoke detectors in USDOT-approved containers.
 - (1) Batteries, if any, shall be removed from the smoke detectors and handled in accordance with Article 3.02.G of this Section.
 - (2) The smoke detectors shall be managed as a low-level radioactive waste due to the assumed presence of radioactive material (americium 241) in accordance with 6 NYCRR Parts 381 and 382 and all other applicable federal, state, and local regulations, unless otherwise specified on a smoke detector label.

c. Exit Signs:

- (1) The Contractor shall inspect all EXIT signs to determine if the signs have the potential to contain radioactive material (tritium gas). If the sign has a totally enclosed void space/chamber that could contain gas, such sign shall be assumed to contain radioactive material, unless otherwise specified on a sign label.
- (2) The Contractor shall remove all EXIT signs that have the potential to contain radioactive gas and place these signs in USDOT-approved containers.
- (3) The EXIT signs that have the potential to contain radioactive gas shall be managed as a low-level radioactive waste due to the assumed presence of radioactive material (tritium) in accordance with 6 NYCRR Parts 381 and 382 and all other applicable federal, state, and local regulations.
- (4) Exit signs that do not have the potential to contain radioactive gas shall be inspected for batteries. If batteries are present, they shall be managed in accordance with Article 3.02.G of this Section.

3.03 CLEANUP AND DISPOSAL

- A. Cleanup: The Contractor shall maintain all surfaces, including protective coverings (polyethylene sheeting) within each work area, free of accumulations of debris, dusts, and wastes. The Contractor shall perform housekeeping activities daily throughout each work shift and at the end of each work shift, in order to prevent any accumulation of debris, dusts, and wastes in the work areas. Using compressed air to cleanup a work area shall be strictly prohibited. HEPA-filtered vacuums and wet methods shall be used to ensure that each work area remains free of visible debris, dusts, and wastes.
- B. Collection, Separation, and Containerization of Wastes: The Contractor shall collect, separate (by waste stream/waste type), and containerize universal and other miscellaneous regulated wastes (solid and liquid), debris, PPE, and containment materials on a daily basis in accordance with the Universal and Other Miscellaneous Regulated Waste Management Plan.
 1. The Contractor shall store all wastes in DOT-approved container systems. No drum/container shall be filled in excess of the capacity marked on the drum/container. All drums/containers shall be sealed and covered immediately after filling, and each drum/container will have a label affixed to it in accordance with Article 3.03.D of this Section. All labels shall remain intact and legible at all times.

2. No water mixed with or contaminated by mercury or other miscellaneous contaminants may be released onto the ground or into any drain or sewer. It should be noted that a discharge of more than 1 lb. of mercury onto the ground or into the water within a 24-hour period, shall be considered a violation of the Clean Water Act and shall be treated as a "reportable quantity" in accordance with 40 CFR 117. Such a release shall be grounds for immediate termination of this Contract and the Contractor shall be liable for any fines, penalties, or remediation costs.
 3. Any quantity of elemental mercury or other hazardous material that is released or spilled must be immediately reported to the Engineer.
 4. The Contractor shall store universal wastes, non-hazardous and hazardous wastes separately, shall provide all universal waste, non-hazardous waste, and hazardous waste containers, and shall make all transportation and disposal arrangements for wastes in accordance with federal, state, and local regulations.
- C. Storage of Wastes: The Contractor shall ensure that all drummed/containerized wastes are stored in a secondary containment system, and that each waste storage area is demarcated with a physical boundary. In addition, the Contractor shall post weekly waste inspections and waste inventories in the regulated waste storage areas, as defined in Article 1.05.B.2 of this Section, as well as the following emergency information:
1. The name and telephone number of the facility's Emergency Coordinator;
 2. The location of fire extinguishers and fire alarms;
 3. The location of spill control materials;
 4. The telephone number for the fire department (unless the facility has a direct alarm).
- D. Labeling: The Contractor shall affix warning labels to all waste drums and containers. Labels shall comply with the requirements of federal, state, and local regulations, including EPA and DOT requirements. At a minimum, all labels shall bear the following information in English:

[Generator Name, Address, and Telephone Number]

[Specific Contents of Container]

[Accumulation Start Date]

[Accumulation End Date]

1. The waste shall be labeled as Universal Waste, Non-Hazardous and Hazardous Waste. When hazardous, the label shall also include the following:

HAZARDOUS WASTE
FEDERAL LAW PROHIBITS IMPROPER DISPOSAL
HANDLE WITH CARE

[EPA-Issued Generator Identification Number]

[EPA Waste Identification Number]

- E. Characterization and Disposal of Wastes: Universal wastes to be removed under the work of this Section, shall be recycled in accordance with the EPA's Standards for Universal Waste Management (40 CFR 273), the NYSDEC's Standards for Universal Wastes (6 NYCRR 374-3), and the NYSDEC's Mercury-Added Consumer Products Law (Chapter 145, Laws of New York, 2004). All other wastes shall be classified as indicated in the Contractor's approved Inventory of Universal and Other Miscellaneous Regulated Wastes, as defined in Article 1.05.A.1.a, and Article 3.02.
1. All waste profiles for containerized wastes must be reviewed by the Engineer and signed by the Commissioner as the generator of the waste streams. The Contractor shall notify the Engineer at least 14 days prior to the removal of any waste drums/containers, so that the Engineer can inspect the drums/containers and the waste manifests. Hazardous wastes shall be disposed of to ensure that drums/containers do not remain on the job site for more than 90 calendar days from the initial "accumulation start date" on the label affixed to the drum/container. Universal wastes shall be disposed of to ensure that drums/containers do not remain on the job site for more than one (1) year from the initial "accumulation start date" on the label affixed to the drum/container. Containers that have reached their storage capacity shall not remain on site and transportation arrangements shall be made for their immediate removal.
- F. Disposal Documentation: The Contractor shall submit written evidence that the recycling facility/TSDF receiving mercury-containing materials or mercury wastes is approved by federal, state, and local regulatory agencies to receive the materials/wastes. Once all waste profiles have been completed, the Contractor shall provide the Engineer a "Letter of Approval" issued from the TSDF indicating that the wastes will be accepted. The Contractor shall submit one (1) copy of the completed manifest, that has been signed and dated by the initial transporter and recycling facility/TSDF in accordance with 6 NYCRR 372 and 40 CFR 262, to the Engineer. All waste profiles, manifests, and Land Disposal Restrictions (LDRs) must be signed by the Commissioner.

-END OF SECTION-

Section 13286
MANAGEMENT OF BIRD EXCREMENT

PART 1 GENERAL**1.01 SECTION INCLUDES**

- A. This Section details the requirements for the management of accumulated bird excrement from the interior of the transfer station building.
- B. The Contractor is responsible for the control of hazards related to the presence of bird excrement, which has been observed on both floors and structural components of the Marine Transfer Station (e.g., horizontal steel beams). Bird excrement may contain fungal spores (*Histoplasma capsulatum* and *Cryptococcus neoformans*) and bacteria (*Chlamydia psittaci*), that can be harmful to human health.
- C. The Contractor shall assume that all bird excrement contains potentially harmful fungal spores and bacteria.
- D. All work under this Section shall be performed to minimize the creation of airborne emissions; protect the health and safety of all site personnel and the welfare of the public; and avoid adverse environmental impacts.
- E. The Contractor shall be responsible for verifying all existing field conditions, including, but not limited to, the location and extent of bird excrement.

1.02 RELATED SPECIFICATIONS

- A. Section 01355 - Hazardous Materials Control
- B. Section 02222 - Demolition and Removals
- C. Section 02371 - Dust, Soil Erosion and Sedimentation Control

1.03 SUBMITTALS

- A. At least 30 business days of "Notice to Proceed" or as directed by the Engineer, the Contractor shall submit the following items:
 - 1. Bird Excrement Management Plan: Prior to demolition or any other affected activity, the Contractor shall submit a detailed, project-specific Bird Excrement Management Plan that addresses work procedures and equipment to be used to control potential hazards associated with bird excrement in the Marine Transfer Station. The Contractor may elect to remove bird excrement prior to demolition or perform controlled demolition incorporating hazard control measure to protect site workers and the general public during demolition and subsequent handling of demolition debris. The Plan shall be prepared in accordance with Occupational Safety and Health Administration

(OSHA) Construction Standards and all other pertinent federal, state, and local regulations, and shall address the following:

a. Hazard Control:

- (1) Drawings showing the location and details of the hazard control areas and each hygiene facility;
- (2) A detailed discussion regarding the specific methods and procedures of reduce potential exposure hazards including but not limited to emissions control and disinfection;
- (3) A detailed task analysis for each affected work activity. Each task analysis shall include, but is not limited to, the following information:
 - (a) The type of work activity;
 - (b) The tools/equipment that will be used;
 - (c) Operation and maintenance practices and procedures that will be used for the tools/equipment;
 - (d) Housekeeping procedures that will be used during each affected activity;
 - (e) Personal Protective Equipment (PPE) and proposed respiratory protection for each affected activity.
- (4) Equipment and Supplies: Identify the equipment and supplies that will be used to perform the work and control potential exposure hazards;
- (5) MSDSs: Provide MSDSs for all chemical products and disinfectants to be used;
- (6) Minimum training requirements for affected workers, including but not limited to Hazardous Communication (HAZCOM) Training that shall include awareness training for the hazards and symptoms of exposure for fungal spores and bacterial associated with bird excrement. Written proof of HAZCOM and awareness training within the last year shall be provided by the Contractor.
- (7) Medical Surveillance: For each activity that disturbs bird excrement, the Contractor shall submit for this Contract, a sufficient number of properly trained and experienced workers each of whom shall:
 - (a) Have had a medical exam that included a Pulmonary Function Test (PFT) within the past year;

- (b) Have received medical clearance by a licensed physician, to wear a respirator;
 - (c) Have had a qualitative or quantitative fit-test for the specific respirator that will be used for the affected work. The Contractor shall provide dates and written documentation of initial medical surveillance within the past year, and proof that the employee is currently participating in the employer's ongoing medical surveillance program;
 - (d) Dates and written proof of respiratory clearance and a medical exam;
 - (e) Dates and written proof of a respirator fit-test.
- (8) Waste Management Proccotol for the handling of bird excrement and affected demolition debris.

PART 2 PRODUCTS

2.01 MATERIALS

- A. Respirators: The Contractor shall select respirators approved by the National Institute for Occupational Safety and Health (NIOSH) for use in areas where bird excrement may be disturbed. At a minimum, the Contractor shall provide each individual with a half-face, negative pressure, air purifying respirator equipped with HEPA/P-100 filter cartridges. Workers engaged in disinfecting activities shall don full face respirators. The Contractor's CIH shall make all determinations regarding respiratory protection modifications that will be implemented for the work.
- B. PPE: The Contractor shall provide personnel who have a potential to be exposed to materials or wastes containing contaminants, with appropriate PPE as prescribed by the Contractor's CIH.
- C. HEPA Filters: HEPA/P-100 filters used in vacuuming equipment, power tools, and local exhaust equipment must meet or exceed any manufacturer's specifications and recommendations, as well as specifications presented in the Standard for Safety High Efficiency, Particulate, Air Filter Units (UL 586).
- D. Waste Containers: Containers for the storage of all wastes shall be DOT-approved, and shall be provided by the Contractor. Bird excrement shall be managed as non-hazardous solid waste.
- E. Disinfectants: The Contractor shall use disinfectants with the lowest possible level of toxicity (e.g., 10% bleach solution) to disinfectant bird excrement prior to disturbance.

PART 3 EXECUTION

3.01 PREPARATION

- A. Hygiene Facilities: The Contractor shall provide functional hygiene facilities that are appropriate for the types of work to be performed under this Section.
- B. The Contractor shall implement engineering controls, as necessary, to mitigate the release of bird excrement and other debris to adjacent water bodies. The engineering controls may include, but may not be limited to, installation of tarps, barriers, etc.
- C. Disinfection: Prior to disturbance, disinfectants shall be applied to bird excrement prior using a low-pressure water spray (mist only). Allow a minimum of 15 minutes contact time for effective disinfection. The use of high-pressure sprays shall be avoided. All non-disposable equipment shall be disinfected and allowed to dry prior to reuse.
- D. After disinfecting, the Contractor shall spray the bird excrement with water to reduce the amount of dust aerosolized during affected activities. The water spray shall be amended with a surfactant or wetting agent to further reduce dust emissions.

3.02 DUST CONTROL

- A. The Contractor shall conduct the bird excrement removal and demolition activities in a manner that minimizes the generation of airborne dust (e.g., scraping and vacuuming the building surfaces with a vacuum equipped with a high-efficiency particulate air [HEPA] filtration system).
- B. All used disposable equipment, including disposable clothing, filters, polyethylene sheeting, etc., that contacts bird excrement shall be collected and placed into USDOT-approved containers for subsequent transportation and offsite disposal (by the Contractor) with the bird excrement and affected construction and demolition debris..

3.03 DUST CONTROL

- A. If the Contractor elects to use vacuum equipment for the collection of bird excrement, the vacuum equipment shall be equipped with a HEPA filtration system.
- B. If visible dust is generated during the demolition, removal, and/or handling of hazardous wood materials, as determined by the Engineer, the Contractor shall implement dust control in accordance with Section 02371 – Dust, Soil Erosion and Sedimentation Control.

-END OF SECTION-

Section 13287
ENVIRONMENTAL WASTE TRANSPORTATION AND DISPOSITION

PART 1 GENERAL**1.01 SECTION INCLUDES**

- A. Requirements for transportation and disposition of waste materials generated as a result of the environmental remediation work.
- B. Recordkeeping requirements.

1.02 RELATED SPECIFICATIONS

- A. Section 01355 – Hazardous Materials Control
- B. Section 01733 – Construction Waste Management
- C. Section 02225 – Impacted Soil Handling
- D. Section 02316 – Excavation

1.03 PAYMENT

- A. All costs associated with the characterization, profiling, disposal acceptance, regulatory compliance, loading, containerizing, transportation, and disposition of the environmental waste materials, including excavated materials, shall be borne by the Contractor and shall be included in Contractor's price for Bid Form Item A.
- B. Final payment shall not be made if the copies of manifests, bills of lading, and certificates of disposal/recycling/reclamation are not received by the City of New York for all wastes transported offsite.

1.04 DEFINITIONS

- A. Environmental waste shall mean waste generated as a result of implementing the environmental remediation work identified in the related specifications.

1.05 WORK SPECIFIED

- A. The Contractor shall provide all labor, equipment, materials, and services necessary to characterize, profile, load, containerize, transport, and dispose of/reclaim/recycle all waste materials generated during implementation of the environmental remediation work. Such materials include, but may not be limited to, fluorescent and HID lamps, fluorescent and HID lamp ballasts, refrigerant, mercury-containing devices, batteries, containerized chemicals, various oils, asbestos-containing materials (ACMs), loose paint, bird excrement, arsenic impacted wood, microwave ovens, disposable equipment and personal protective equipment (PPE), decontamination waste, and staging/decontamination area construction materials.

- B. The Contractor shall provide all labor, equipment, materials, and services necessary to profile, load, transport, and dispose of excavated material.

1.06 MINIMUM EXPERIENCE REQUIREMENTS

- A. The entity performing the work under this section must demonstrate at least three (3) years of experience in waste transportation and disposition.

1.07 RESPONSIBILITIES

- A. The Contractor shall be directly responsible for compliance with all applicable federal, state, and local laws, rules, and regulations governing the storage, handling, manifesting, transportation, and disposal/reclamation/recycling of waste materials generated as a result of work activities under the Contract.

1.08 SUBMITTALS

- A. At least 30 calendar days prior to the commencement of the environmental waste transportation and disposition work, the successful Contractor shall submit the following items for review in accordance with the requirements specified in Section 01355 – Hazardous Materials Control:

1. Estimated quantities of each type of waste material to be generated as a result of the environmental remediation work specified in the following Sections; and anticipated number and type of containers to be utilized to transport each waste stream.
 - a. Section 01355 - Hazardous Materials Control
 - b. Section 02225 - Impacted Soil Handling
 - c. Section 02316 - Excavation
2. Inaccuracies in the Contractor's estimate will not entitle the Contractor to additional compensation under this Contract.
3. A list of proposed transporters for all waste materials generated during implementation of the environmental remediation work and for surplus excavated materials that require offsite disposal (if any). All transporters must possess a valid transporter permit for handling the waste(s), as applicable.
4. A list of disposal/reclamation/recycling facilities for all anticipated environmental waste streams (i.e., regulated/hazardous materials) and for excavated materials that require offsite disposal. All disposal/reclamation/recycling facilities must be permitted in accordance with applicable regulations.

- B. Submit executed copies of waste manifests, bills of lading and verification of disposal/recycling/reclamation within 30 days of disposal/recycling/reclamation.

PART 2 PRODUCTS

2.01 CONTAINERS

- A. The Contractor shall provide United States Department of Transportation-(USDOT-) approved containers for containerizing all waste materials generated as a result of the environmental remediation work. If the containers are to be disposed with the waste they contain, the Contractor shall include costs for such containers in its bid.
- B. The Contractor shall provide USDOT-approved containers for containerizing surplus excavated materials that require offsite disposal (if any).
- C. All containers shall be labeled by the Contractor in accordance with applicable laws, rules, and regulations.

PART 3 EXECUTION

3.01 GENERAL

- A. All environmental waste streams and excavated materials shall be transported to disposal/reclamation/recycling facilities that are permitted to accept such types of waste. The disposal/recycling/reclamation facilities shall be proposed by the Contractor and reviewed by the Commissioner. Review by the Commissioner will not release the Contractor from its obligation to comply with all applicable laws, rules, and regulations and shall not constitute a relief from the requirements of the Contract.

3.02 DISPOSITION OF MATERIALS

- A. The following materials shall be transported for offsite disposal/recycling/reclamation by the Contractor:
 1. ACMs
 2. Loose paint chips. The loose paint collected from the transfer station shall be handled and disposed as a Resource Conservation and Recovery Act (RCRA) hazardous waste due to assumed lead and cadmium toxicity (EPA hazardous waste numbers D008 and D006, respectively).
 3. Bird excrement
 4. Fluorescent and HID lamps. All fluorescent and HID lamps shall be disposed of as a RCRA hazardous waste due to assumed mercury and lead toxicity (EPA hazardous waste numbers D009 and D008, respectively). The Contractor may elect to manage the fluorescent and HID lamps as a universal

- waste within states that have adopted the United States Environmental Protection Agency's (USEPA's) Universal Waste Rule.
5. Lamp ballasts. Leaking PCB-containing (or assumed to be PCB-containing) ballasts and any material that comes in contact with leaking material shall be transported to a Toxic Substance Control Act- (TSCA-) compliant incinerator for disposal. Intact, non-leaking ballasts shall be disposed of in accordance with applicable regulations.
 6. Mercury-containing devices. All mercury-containing devices shall be disposed of as a RCRA hazardous waste due to assumed mercury toxicity (EPA hazardous waste number D009). The Contractor may elect to manage the mercury-containing thermostats as a universal waste within states that have adopted the USEPA's Universal Waste Rule.
 7. Refrigerants. Used chlorofluorocarbon (CFC) refrigerants from totally enclosed heat transfer equipment are excluded from hazardous waste regulations, provided the refrigerant is reclaimed for future use. CFC refrigerants recovered from air conditioning (AC) units, drinking water fountains, beverage vending machines, and refrigerators shall be transported to a reclamation facility.
 8. Various oils
 9. Microwave ovens
 10. Containerized chemicals
 11. Decontamination waste (including liquid and solid decontamination waste) and decontamination areas.
 12. All other wastes generated during implementation of the environmental remediation work.
 13. Regulated/hazardous wastes generated during implementation of non-environmental remediation activities (i.e., general demolition).
 14. Excavated materials
 15. Arsenic-impacted wood. Arsenic-impacted wood (i.e., wood that failed the Toxicity Characteristic Leaching Procedure [TCLP] test for arsenic) shall be disposed of as a hazardous waste at a Subtitle C (hazardous) waste disposal facility.
- B. Should minimal demolition of building components (e.g., suspended ceilings, interior partition walls) be required during the performance of the pre-demolition environmental remediation activities (i.e., to gain access to regulated/potentially

regulated materials/equipment that shall be addressed prior to initiating the transfer station demolition activities), the Contractor shall move and stage demolition debris generated as a result of such minimal demolition activities. Location of the demolition debris staging area(s) shall be proposed by the Contractor and reviewed by the Commissioner. The demolition debris staging area(s) shall be located onsite in area(s) sheltered from the elements (e.g., building interior) to minimize the potential for dispersing the debris by erosion and wind forces.

3.03 RECORD KEEPING

- A. The Contractor shall be responsible for waste characterization and profiling of the environmental waste materials. All disposal-associated documentation for the environmental waste shall be submitted to the Commissioner for review prior to submittal to the disposition facility.
- B. The Contractor shall prepare the waste manifests and bills of lading for the transport and offsite disposal/reclamation of all environmental waste materials. The Commissioner will review, and sign the waste manifests and bills of lading as Generator of the waste, prior to offsite transport of waste materials. The following address shall be specified as a "Waste Generator" on the manifests and bills of lading:

New York City Department of Sanitation
Bureau of Long Term Export – Engineering Unit
44 Beaver Street, 7th Floor
New York, New York 10004
Telephone: (212) 437-4520
- C. Modifications to waste profiles, manifests, bills of lading, or any other associated documentation shall be made by the Contractor at the request of the DSNY and/or the Commissioner at no additional cost to the City of New York.
- D. The Contractor shall coordinate with disposal/recycling/reclamation facilities for a timely receipt of executed copies of hazardous waste manifests, non-hazardous waste manifests, bills of lading, and certificates of disposal/recycling/reclamation and shall provide original copies of these documents to the DSNY to the address specified in Paragraph 3.03B of this Section for all environmental wastes transported offsite. In addition, the Contractor shall submit copies of the above-referenced documents to the Commissioner. Copies must be received within 30 days of disposal/recycling/reclamation.
- E. The Contractor shall submit executed copies of the waste manifests, bills of lading, and verification of disposal/recycling/reclamation to the Commissioner to assure proper project close-out and final payment.

- F. The Contractor shall be responsible for providing the generator state (i.e., New York State) and disposal state (if different than New York) with executed copies of hazardous waste manifests, as required.

3.04 POST-WASTE SHIPMENT ACTIVITIES

- A. Any disposable material not used or shipped offsite during waste shipment operations (e.g., paper, food containers) that have not come in contact with impacted site materials shall be placed into a Contractor-provided sealable container, removed from the site, and properly disposed of by the Contractor at no additional cost to the City of New York.

-END OF SECTION-

Section 16020
TEMPORARY ELECTRICAL SYSTEM

PART 1 GENERAL**1.01 SECTION INCLUDES**

- A. Requirements for providing a complete temporary electrical system to supply power and light as required for the demolition related activities and temporary power to the existing transfer station as specified and shown. Provide a temporary electrical system that is complete and includes but is not limited to: service entrance and distribution center, conduit, wire, temporary overhead or underground extensions, grounding, lighting fixtures, panelboards and all auxiliary equipment necessary to support the demolition.

1.02 RELATED SPECIFICATIONS

- A. Section 01513 – Temporary Power Facilities

1.03 REFERENCES

- A. Codes and Standards: The following codes and standards are referred to in this Section:
 - 1. NEC - National Electrical Code
 - 2. NYCBC - New York City Building Code
 - 3. NESC - National Electrical Safety Code
 - 4. Local Utility Requirements
 - 5. OSHA – Occupational Safety and Health Administration Regulations

1.04 SYSTEM DESCRIPTION

- A. The Contractor shall make all necessary arrangements with Con Edison and shall provide a temporary electrical service point connection. Connecting lines and service supply shall be of sufficient capacity to supply all temporary light and power required on the site of the new MTS and support the continued use of the nearby existing transfer station.
- B. Arrangements shall be made with Con Edison immediately after notice to commence work.
- C. The service shall have provisions for meter connections for the Contractor and the Resident Engineer and the existing transfer station. The service shall be branched and metered using circuit breakers or fused switches and meters.
 - 1. The distribution from the meter to the Contractor's field office and shops at the site shall be the responsibility of the Contractor.

2. The distribution from one (1) meter to Resident Engineer's field office shall be the responsibility of the Contractor.
 3. The distribution from one (1) meter to the demolition temporary light, power, and security system shall be the responsibility of the Contractor.
 4. The distribution from the meter to the existing nearby transfer station shall be the responsibility of the Contractor.
- D. The Contractor shall be responsible for making arrangements with Con Edison to have any additional meters they may require installed and for payment there for.
- E. The energy charges for the Contractor's field office and shop usage shall be the responsibility of the Contractor.
- F. Energy charges associated with the work areas general power and lighting and the security site lighting shall be the responsibility of the Contractor.
- G. Energy charges associated with the Resident Engineer's field office shall be the responsibility of the Contractor.
- H. Energy charges associated with the existing transfer station shall be billed directly to the Contractor by Con Edison. The Contractor shall pay these charges.
- I. Any additional power the Contractor requires beyond that specified herein, it shall arrange with Con Edison for such additional temporary power and light and shall bear the costs of all material and ancillary equipment necessary.
- J. Provide a portable generator for use in accordance with the requirements of Section 01513 – Temporary Power Facilities.

1.05 DESIGN REQUIREMENTS

- A. The Contractor shall provide all systems and circuits in accordance with the Electrical Code of the City of New York, NFPA 70, the National Electrical Safety Code, Utility requirements, and OSHA requirements.
- B. The temporary electrical system shall be provided in accordance with the following design requirements:
1. The Contractor and the Resident Engineer trailer complex shall each have a separate branch.
 2. The Contractor's branch shall supply the work area general lighting, power, and security. Receptacles (GFI type) shall be located throughout the work area. Receptacle connected equipment shall be suitable for 120-volt

operation. Operating input shall not exceed 1500 volt-amperes. Illumination levels shall be as required by OSHA.

3. Security site lighting circuits shall supply a system of security lighting for the work area, field office complex(s), Contractor's staging areas, and all parking areas. Unless specifically shown otherwise on the Contract Drawings or stated in the Specifications, the system shall be arranged to provide a minimum lighting intensity of 5-foot candles in these areas.
4. A minimum of three 200 ampere meter pans and one 500 amp meter assembly and fused disconnect switches rated for 120/208 volt, 3 phase, 4 wire may be furnished, installed and wired for the above. All meters shall be paid by the Contractor. The ampacity listed is the minimum to be installed and may not meet the requirements of these specifications. The installed capacity shall meet all specified requirements.

1.06 SUBMITTALS

- A. Furnish all submittals, including the following, as specified in Section 01330 – Shop Drawings.
- B. Product Data and Information: Furnish manufacturer's catalog data for the equipment provided for use in the Temporary Electrical System
- C. Shop Drawings: Furnish shop drawings showing the following:
 1. One-line diagram representing the power distribution for the temporary system
 2. Location plan indicating the major distribution equipment
 3. Panel loading, voltage drop, short circuit and other calculations, as required
 4. Security lighting layout

1.07 QUALITY ASSURANCE

- A. The temporary general lighting system shall provide lighting for access to and egress from the work and for safe and expeditious demolition within designated enclosed areas of the structure or structures.
- B. The temporary service for the existing transfer station shall provide adequate power at acceptable voltage to run that facility as the operation requires, during the demolition of the MTS. This service is not required until the work on the water interface in the area of the demolition requires interruption of the present service.
- C. All temporary electrical system equipment and components shall be of recent manufacture and of proper working order for the intended purpose.

- D. The Contractor shall maintain in proper working order and repair the temporary electrical system.
- E. The Contractor shall modify, extend, and relocate the temporary electrical system components, as needed, to support demolition activities.
- F. The Contractor shall remove the temporary electrical system when directed by the Resident Engineer.

PART 2 PRODUCTS

2.01 ELECTRICAL SERVICE CONNECTION

- A. The Contractor shall provide a service entrance and distribution center at the service point. Service entrance and distribution equipment shall be in accordance with the following:
 - 1. Enclosures shall be rated NEMA 3R.
 - 2. Meter pans and assemblies shall be suitable for revenue meters of various capacities required. Meters will be furnished by the Utility.
 - 3. Circuit breakers shall be thermal magnetic type. Circuit breakers shall be equipped with lockable handles.
 - 4. Disconnect switches shall be fused type with current limiting fuses. Disconnect switches shall be equipped with padlocking features.
 - 5. All equipment shall be approved by Con Edison.
- B. The Contractor shall also provide the following other equipment at the service point:
 - 1. Eight-foot high, steel chain link fence with gate shall enclose the service entrance and distribution center. The fence shall be arranged so to permit a minimum clearance distance of 6 feet between the fence and the equipment.
 - 2. The fence shall include baked enamel, 14 by 10 inch caution signs. The signs shall read, "DANGER - HIGH VOLTAGE - KEEP - OUT". The signs shall be bolted to the fence on each side of the fence and on the main gate.
 - 3. A 4/0 AWG ground grid consisting of four ground rods, one at each corner, shall be provided. Maximum ground resistance shall be 2 ohms.

2.02 RACEWAYS AND WIRING

- A. All conductors shall be 600 volt, enclosed in properly sized raceways or be routed aerially using Type AC, MC or TC cable.

- B. Conductors shall be provided for all devices, suitably sized for the intended purpose. Conductors installed in raceways shall be single conductor type THHN/THWN or equal to be approved by the Engineer and Con Edison. Armored cable, Type AC, metal-clad cable, Type MC or power and control tray cable, Type TC shall also be permitted.
- C. Raceways where used shall be suitably sized for the conductors. Raceways shall be rigid metallic type.
- D. Aerially routed cables shall be messenger supported from solid wood poles or other recognized means. Messenger shall be high strength galvanized steel.
- E. Poles shall have a class suitable for the installation in accordance with the National Electrical Safety Code and the Utility's requirements and shall be thirty feet length minimum. Poles shall be guyed at angle or corner runs and when eccentrically loaded.
- F. Underground cables shall be USE rated and suitably protected from damage during demolition. This method may only be used where permitted by applicable codes and with permission of the engineer.

2.03 LIGHTING FIXTURES AND DEVICES

- A. Receptacles (GFI type) shall be grounded type, 120 volt, 20 ampere suitable for hand tools such as drills, hammers and grinders.
- B. General lighting lamps shall be 100 watt installed in suitable lamp holders. Security lighting lamps (outdoor) shall be 400-watt high pressure sodium installed within a floodlight type fixture suitable to illuminate the intended area.
- C. Switches, breakers and miscellaneous equipment shall be suitable for the intended purpose, with voltage, current and short circuit interrupting ratings as required for the circuits.

PART 3 EXECUTION

3.01 INSTALLATION

- A. The ground grid cable shall be installed in loop fashion completely around and outside the service point fence. The fence and distribution equipment shall be connected to the grid at a minimum of two locations.
- B. The temporary general lighting system shall be installed progressively in structures as the designated areas are enclosed or as lighting becomes necessary because of partial enclosure. Lamps shall be installed to provide an even distribution of illumination over the work areas.

- C. Receptacles shall be installed in such a manner so as to reach any point in the work areas with an extension cord not to exceed 40 feet in length.
- D. Security lighting shall be installed on poles to illuminate the staging, outdoor and parking areas.
- E. Aerial conductors shall be installed at a minimum height of 14 feet above finished grade. When conductors cannot be routed at the proper height or where it will interfere with plant operations or demolition activities, conductors shall be provided in rigid steel conduit and installed underground.

3.02 OPERATION

- A. The Contractor shall keep the temporary power and lighting system alive in accordance with Section 01513 - Temporary Power Facilities.

3.03 MAINTENANCE

- A. The temporary electrical system shall be maintained and repaired until it is no longer required.
- B. Lamps, fuses and other equipment shall be repaired and/or replaced, as required.

3.04 REMOVAL

- A. At the conclusion of the work, when directed by the Resident Engineer, the temporary system shall be removed in its entirety. The ground surfaces and structures disturbed by the work shall be restored to their original condition.

-END OF SECTION-



BIDWELL ENVIRONMENTAL, L.L.C.

MEMORANDUM

TO: Jay Loveless

FROM: Andrea Carey

DATE: December 14, 2012

SUBJECT: South Bronx Marine Transfer Station Hazardous Materials Investigation

Bidwell Environmental was retained by Greeley & Hansen (G&H) to perform a hazardous materials assessment of the South Bronx Marine Transfer Station (SBMTS). The assessment was performed in accordance with Bidwell Environmental's standard practices for investigating hazardous materials at New York City industrial facilities. All work was conducted in accordance with a task-specific job hazard analysis. The scope of the investigation was based on discussions with G&H personnel during an initial site visit and summarized in our draft sampling plan submitted October 3, 2012.

The Hazardous Materials Investigation (investigation) was performed in November and December, 2012. Hazardous materials sampled included potential lead and PCB containing paint, potential PCB containing caulk, concrete and wood, suspect asbestos containing materials (ACM) and miscellaneous bulk materials. The assessment also included an inventory of universal wastes and other miscellaneous regulated materials. All investigation activities were performed by Bidwell Environmental. Laboratory services were provided by York Analytical Laboratories, Inc. (NYS ELAP Certification No. 10854) and Niche Analysis, Inc. (NYS ELAP Certification No. 11236).

Lead and PCB Paint Chip Sampling

Methodology

Historically, lead and PCBs were used in paints for several reasons. Lead was used as pigment because it made colors more vibrant. Lead also preserved the paint in that it made the paint more weather resistant, resisted the growth of mold and mildew, and helped prevent corrosion of metal surfaces. PCBs were used in paint formulations for various reasons, including water and chemical resistance, elasticity and durability.

For this reason and based on the findings at previously sampled industrial facilities within the City, lead and PCB analysis was performed on paint chip samples collected from painted components within the facility. Samples were collected using a sharp stainless steel paint scraper, which was decontaminated prior to use and between sample locations using disposable wipes. In most cases, multiple grab samples were collected from each paint type to generate composite samples. Prior to sample collection a new pair of disposable nitrile gloves was used at each sample location. During sample collection, care was taken to collect all layers of paint film.

Lead and PCB analyses were performed by York Analytical using EPA Methods SW-846 6010B and 8082, respectively. The results of PCB analysis, along with data generated by previous sampling events, are summarized in Table 1. The results of lead analysis, along with data generated by previous sampling events, are summarized in Table 2. Sample locations are depicted in Figures 1 through 3 of Attachment A. The sample locations from the Blasland, Bouck & Lee, Inc. (BBL) 2003 Building Materials and Equipment Investigation (2003 BBL investigation) are provided in Attachment B. The complete laboratory data packages are provided as Attachment C. The complete data package associated with prior sampling for the 2003 BBL investigation is available from Greeley & Hansen.

Findings

As demonstrated in Table 1, PCBs were detected in one paint chip sample at a concentration of 4.98 mg/kg (black paint on metal switchboard in the Switchboard Room, Tipping Floor). The regulatory limit for defining TSCA-regulated PCBs is 50 mg/kg. As shown in Table 2, lead was detected in all of the paint chip samples at concentrations ranging from 13.9 mg/kg to 333,000 mg/kg. All of the previously analyzed paint chip samples contained lead ranging from 32.6 mg/kg to 103,000 mg/kg. Lead concentrations of 5,000 mg/kg and higher meet the US Department of Housing and Urban Development (HUD) definition of lead-based paint. However, painted

surfaces containing any detectable concentration of lead or PCBs may create contaminated dusts or fumes if the paint is disturbed during demolition. Hence, additional health and safety protocols and engineering controls will be required during demolition to ensure that site workers and the surrounding environment will not be affected by potential lead and PCB emissions.

Lead Paint Survey

Methodology

An X-Ray Fluorescence (XRF) survey was conducted as part of the 2003 BBL investigation to identify potential lead-containing paints within the facility using a Nitron XL-309 spectrum analyzer. The results of the XRF analysis are summarized in Table 3. The complete data package associated with prior sampling for the 2003 BBL investigation is available from Greeley & Hansen.

Findings

As shown in Table 3, the XRF survey identified lead containing paint throughout the surveyed area, including coatings on metal I beams, cleats and windows. The detected concentration of lead in the paints ranged from -0.4 (non-detect) to 79.9 mg/cm². Detected concentrations of 1 mg/cm² and higher meet the US Department of Housing and Urban Development (HUD) definition of lead-based paint. However, painted surfaces containing any detectable concentration of lead may create lead-contaminated dusts or fumes if the paint is disturbed during future demolition efforts at the site. Hence, additional health and safety protocols and engineering controls will be required during demolition to ensure that site workers and the surrounding environment will not be affected by potential lead emissions.

Cadmium Paint Chip Sampling

Methodology

The 2003 BBL investigation analyzed six paint chip samples for cadmium on both the Tipping Floor and Pier Level. The results of the cadmium paint chip analysis are summarized in Table 4. The sample locations are provided in Attachment B. The complete data package associated with prior sampling for the 2003 BBL investigation is available from Greeley & Hansen.

Findings

As shown in Table 4, cadmium was detected in all six paint chip samples at concentrations ranging from 1.44 mg/kg to 8.72 mg/kg. Painted surfaces

containing any detectable concentration of cadmium may create cadmium-contaminated dusts or fumes if the paint is disturbed during future demolition efforts at the site. Hence, additional health and safety protocols and engineering controls will be required during demolition to ensure that site workers and the surrounding environment will not be affected by potential cadmium emissions.

Asbestos Survey

Methodology

A bulk asbestos survey was performed by a NYCDEP licensed asbestos investigator to identify, assess and quantify asbestos-containing materials (ACM) within the facility. The survey was performed in accordance with the Environmental Protection Agency's (EPA) "Guidance for Controlling Asbestos Containing Materials in Buildings", Office of Pesticides and Toxic Substances, DOC #560/5-85-024, and 40 CFR Part 763, Asbestos Hazard Emergency Response Act (AHERA). Field information was generally organized following the AHERA concept of a homogenous area. That is, suspect ACM with similar age, appearance and texture was grouped together for the purpose of collecting a representative sample. Bulk sampling involved penetrating the total depth of the suspect material providing a core of all materials present. Representative sampling was based upon the material's physical characteristics and distribution throughout the survey area.

Analysis of the samples collected during the survey included Polarized Light Microscopy (PLM) and Transmission Electron Microscopy (TEM). PLM is the EPA recommended method (EPA method 40 CFR 763, subpart F, App A) for determining the presence of asbestos in building and equipment materials. These materials include, but are not limited to, insulation, ceiling tiles, brake pads and lining, fire proofing, cement slab, plaster and miscellaneous debris. The PLM procedures involve taking a small amount of the suspect material during sample collection and isolating the fibers present in a certified laboratory, and identifying them based on the crystalline properties observed. All asbestos types are crystalline materials and as a result can be identified by specific optical properties observed in the polarized light microscope. Results of the analysis are reported as a percentage of the total sample. The PLM method is sensitive to concentrations of asbestos down to 1%.

Non-friable, organically bound (NOB) material was considered positive until proven negative by TEM using NYS ELAP Protocols 198.1/198.4. TEM

represents the most sophisticated technology available for determining the presence of asbestos fibers in the finest size ranges, and has the ability to definitively identify these fibers by Energy Dispersive X-ray microanalysis (EDX) and Selected Area Electron Diffraction (SAED). The method of analysis is AHERA Method 40 CFR, Part 763, dated October 30, 1987.

The results of PLM and TEM analysis are summarized in Table 5, along with the results of previous sampling events. Sample locations from this investigation are depicted in Figures 4 through 6 in Attachment A. The sample locations from the 2003 BBL investigation are provided in Attachment B. The complete laboratory data package is provided as Attachment D. The complete data package associated with prior sampling for the 2003 BBL investigation is available from Greeley & Hansen.

Findings

As summarized in Table 5, asbestos was detected in samples collected from pipe gaskets on Ramp A (SBMTS ASB-5 and -6), rope gasket, tar and caulk on the Access Ramp (SBMTS ASB-19 and -20, ASB-33 and -34, and ASB-35 and -36, respectively), braided wire jacket on Ramp B (SBMTS ASB-23 and -24), caulk in Fan Room No. 1 (SBMTS ASB-55 and -56), caulk in the Foreman's Office (SBMTS ASB-59 and -60), insulation block in the Switchboard Room (SBMTS ASB-69 and -70), vibration damper in Fan Room No. 2 (SBMTS ASB-79 and -80), pipe insulation in the Men's and Women's Toilets and Shower (SBMTS ASB-87, -88 and -89) and tar on the Flat Roof (SBMTS ASB-104 and -105).

The rope gasket on the Access Ramp (SBMTS ASB-19 and -20) is considered representative of rope gasket observed in electrical panels in the walls of Ramp A, Ramp B and the Access Ramp, as well as the discarded rope gasket on the Access Ramp. The braided wire jacket on Ramp B (SBMTS ASB-23 and -24) is considered representative of the braided wire jacket observed in electrical panels in the walls of Ramp A, Ramp B and Access Ramp. The caulk on the Access Ramp (SBMTS ASB-35 and -36) is considered representative of the discarded caulk observed on the Access Ramp. The caulk in Fan Room No. 1 (SBMTS ASB-55 and -56) is considered representative of the caulk observed in Fan Room No. 2. The caulk under the Foreman's Office window (SBMTS ASB-59 and -60) is considered representative of the discarded caulk observed underneath the window. The vibration damper in Fan Room No. 2 (SBMTS ASB-79 and -80) is considered representative of the white vibration damper in Fan Room No. 1. The pipe insulation (SBMTS ASB-87, 88 and -89) is considered representative of discarded pipe insulation in the Men's and Women's Toilets, Men's Locker

Room, Foreman's Office, Hallway, Open Area by Stair No.1 and within the wall of the Showers. The tar on the eastern Flat Roof flashing (SBMTS ASB-104 and -105) is considered representative of the flashing tar on the western Flat Roof. Additionally, previous samples collected from corrugated transite panels, flat transite panels and caulking around the flat transite panels from the Upper Level (Tipping Floor) Perimeter were found to contain asbestos. Estimated quantities and conditions of asbestos containing materials are provided in Table 5a.

Universal Wastes and Other Miscellaneous Regulated Materials

Methodology

The survey for universal waste and other miscellaneous regulated materials included a visual inspection of suspect materials that may be affected by demolition. Fluorescent, mercury vapor and High Intensity Discharge (HID) bulbs and all other non-incandescent bulbs are assumed to be mercury-containing Universal Wastes and quantified accordingly. Ballasts are assumed to be PCB-containing unless otherwise documented via labeling. Non-PCB ballasts typically contain Di (2-ethylhexyl) phthalate and should be managed as solid wastes if removed during demolition. Other miscellaneous regulated wastes include mercury containing equipment (e.g., thermometers), batteries, paint, drums, tires, containerized chemicals and other waste. The results of the survey for universal wastes and other miscellaneous regulated materials are presented in Table 6. Locations of suspect materials are depicted in Figures 7 through 9 of Attachment A.

Findings

As summarized in Table 6, fluorescent lighting and ballasts were identified on the Tipping Floor Level in the Storage Room and Lunch Room, with 2 additional fluorescent bulbs discarded in the Men's Locker Room. A fluorescent lighting fixture containing a ballast only (no bulbs) was located in the weigh booth. Regulated HID lighting was identified in the Open Area, Fan Room No. 1 and the North External Wall above Stair No. 2. Lead acid batteries were observed in the Meter Room, Storage Room and Men's Locker Room.

Three discarded EMC transformers were found in the Meter Room. While typically not fluid cooled and therefore not expected to contain PCBs, the absence of PCB-containing fluids should be confirmed prior to disposal. Heating units located in Fan Room Nos. 1 and 2 were inaccessible at the time of the survey and should be inspected for the presence of mercury-containing thermostats prior to disposal. A discarded refrigerator with

freezer compartment is located in the Men's Toilet. The refrigerator should be recycled in accordance with local regulations as it likely contains regulated refrigerants and may contain PCB capacitors and mercury containing components. A circuit board located in the meter room should be recycled as electronic waste.

Several containers of assorted miscellaneous liquids are located throughout the Tipping Floor. A 5-gallon container of America's Finest Enamel and a 2-gallon container of Behr Premium Paint are located on the north side of a hopper on the West Side of the Tipping Floor. A 1-gallon container of Flitz metal polish is located in a locker in the Men's Locker Room and a 5-gallon gas can (roughly one-quarter full) is located in Fan Room No. 2. A 1-gallon container of "oil-like liquid" was identified in the 2003 BBL investigation on the Barge Slip Level (referred to during this investigation as the Pier Level), however its presence could not be verified as the area was inaccessible at the time of the survey.

Miscellaneous trash and debris observed during the survey included waste tires, rock salt, municipal waste and bird feces. Two 3 ft. diameter tires are located within Fan Room Nos. 1 and 2. Used tires should be recycled in accordance with local regulations. Two compromised 55-gallon drums were observed, one in the Open Area by Stair No. 1 and one in Fan Room No. 1. The drum in the Open Area appears to contain soil, concrete debris, ash, glass and plastic and should be sampled to determine proper disposal considerations. The drum in Fan Room No. 1 contains rock salt. A pile of rock salt is also located within the Open Area. Rock salt may be reused if possible or should be disposed of at a properly permitted solid waste landfill. Municipal waste is accumulated within the eastern and western hoppers and will need to be removed upon verification of the waste classification (i.e., inspection to confirm the absence of suspect hazardous materials). Bird excrement was observed throughout the facility and while not regulated, it may pose a health hazard during demolition and should be handled accordingly.

Lead Jointed Pipe

Lead was visually determined to have been used as a sealant on a green roof drain pipe that runs from the ceiling to the floor in the southeast corner of the Storage Room, as well as on water pipes within the southern wall of the Men's Toilet. Removal of this pipe should be considered lead work, and should be performed by appropriately trained personnel in accordance with lead control protocol. Removed piping should be recycled in accordance with NYSDEC regulations. Lead jointed pipe is included in Table 6.

PCB-Containing Caulk and Mastic Survey

Methodology

Historically, PCBs were used in caulking as drying oils (resins) and plasticizers or softening agents. Caulk and mastic samples were collected using a sharp stainless steel knife, which was decontaminated prior to use and between sample locations using disposable wipes. Prior to sample collection a new pair of disposable latex or nitrile gloves was used at each sample location.

PCB analysis was performed by York Analytical using EPA Method SW-846 8082. The results of analysis are summarized in Table 7. Sample locations are depicted in Figures 10 and 11 of Attachment A. The complete laboratory data package is provided in Attachment C.

Findings

As demonstrated in Table 7, one caulk sample contained PCBs at a concentration of 0.918 mg/kg (black expansion sealant in the eastern wall of Ramp A). The regulatory limit for defining TSCA-regulated PCBs is 50 mg/kg. However, caulk or mastics containing any detectable concentration of PCBs may create contaminated dusts or fumes if the caulk is disturbed during demolition. Hence, additional health and safety protocols and engineering controls will be required during demolition to ensure that site workers and the surrounding environment will not be affected by potential PCB emissions.

Oils

Methodology

PCBs have historically been used in hydraulic oils, lubricating oils and heat exchange fluids due to their chemical stability and very high thermal conductivity. The 2003 BBL investigation analyzed two oil samples from a capstan and water pump on the Barge Slip Level (referred to during this investigation as the Pier Level) for total PCBs. The results of the oil analysis are summarized in Table 7. The sample locations are provided in Attachment B. The complete data package associated with prior sampling for the 2003 BBL investigation is available from Greeley & Hansen.

Findings

As demonstrated in Table 7, one oil sample taken as part of the BBL 2003 survey contained PCBs at 387 mg/kg (inactive water pump, East Pump

Room, Barge Slip Level). The regulatory limit for defining TSCA-regulated PCBs is 50 mg/kg. The water pump in Pump Room No. 1 is also presumed to contain TSCA-regulated PCBs and additional sampling is recommended for confirmation purposes.

Concrete

Methodology

Concrete would not typically be considered hazardous waste. However, due to its porous nature, concrete can become contaminated by hazardous materials spills, leaks and releases, or by coatings applied to the concrete. Concrete samples were collected using a rotary hammer drill using a one-inch diameter carbide drill bit, which was decontaminated with a performance oriented decontamination fluid (PODF) and alcohol wipe prior to use and between sample locations. Prior to sample collection a new pair of disposable latex or nitrile gloves was used at each sample location. Five grab samples collected from randomly selected locations on the ramps were composited and analyzed for TCLP metals, semi-volatiles and total PCBs. Five grab samples collected from locations surrounding a pump known to historically contain PCB-containing oil were composited and analyzed for TCLP metals and total PCBs. Analysis was performed by York Analytical using EPA Methods SW-846 6010B/1311, 7470/1311, 8270C and 8082. The results of analysis, along with the results of previous sampling events, are summarized in Tables 7 and 8. Sample locations from this investigation are depicted in Figures 10 and 12 of Attachment A. Sample locations from the 2003 BBL investigation are provided in Attachment B. The complete laboratory data package is provided in Attachment C. The complete data package associated with prior sampling for the 2003 BBL investigation is available from Greeley & Hansen.

Findings

As demonstrated in Tables 7 and 8, concrete samples collected as part of this investigation and the 2003 BBL investigation are not RCRA hazardous or TSCA-regulated.

Wood

Methodology

Wood is often treated with chemical preservatives that may be hazardous to protect it from insect attack and fungal decay. Wood samples were collected from two utility poles using a hand drill with a standard bit, which was

decontaminated with a PODF and alcohol wipe prior to use and between sample locations, and composited for analysis. Prior to sample collection a new pair of disposable latex or nitrile gloves was used at each sample location. The composite sample was analyzed for TCLP metals, TCLP semi-volatiles, herbicides, pesticides, semi-volatiles, volatiles and total PCBs. Analysis was performed by York Analytical using EPA Methods SW-846 6010B/1311, 7470/1311, 8270C/1311, 8151B, 8081, 8270C, 8260B and 8082. The results of analysis, along with the results of previous sampling events, are summarized in Tables 7 and 8. Sample locations from this investigation are depicted in Figure 14 of Attachment A. The sample locations from the 2003 BBL investigation are provided in Attachment B. The complete laboratory data package is provided in Attachment C. The complete data package associated with prior sampling for the 2003 BBL investigation is available from Greeley & Hansen.

Findings

As demonstrated in Table 8, wood samples collected as part of this investigation and the 2003 BBL investigation are not RCRA hazardous or TSCA-regulated.

Painted Substrates

Masonry (tiles, block, mortar, etc.) would not typically be considered hazardous waste but can become contaminated by paints or glazes applied to its surface. Painted or glazed masonry samples were collected using a hand drill using a standard drill bit, which was decontaminated with a PODF and alcohol wipe prior to use and between sample locations. Prior to sample collection a new pair of disposable latex or nitrile gloves was used at each sample location. For each substrate, three grab samples were collected from randomly selected locations, composited and analyzed for TCLP metals. Analysis was performed by York Analytical using EPA Methods SW-846 6010B/1311 and 7470/1311. The results of analysis, along with the results of previous sampling events, are summarized in Table 8. Sample locations from this investigation are depicted in Figure 13 of Attachment A. The complete laboratory data package is provided in Attachment C. The complete data package associated with prior sampling for the 2003 BBL investigation is available from Greeley & Hansen.

Findings

As demonstrated in Table 8, the masonry samples are not RCRA regulated wastes and can therefore be managed as construction and demolition (C&D) debris.

Recommendations for Known Hazardous Materials

As detailed above, the hazardous materials assessment of SBMTS confirmed the presence of hazardous materials that will require special handling during demolition. Remedial action and engineering controls will need to be implemented to provide for the safe handling of materials and to protect site workers. The scope of remedial action shall include abatement of asbestos-containing transite, caulks, gaskets, braided wire jacket, tars, insulation blocks, vibration dampers, and pipe insulation; spot removal of lead, PCB and cadmium containing paints as necessary to control emissions during demolition activities; removal of universal and other regulated waste by an appropriately licensed waste hauler; and recycling of painted scrap metal and lead jointed piping in accordance with a C7 notification filed with the New York State Department of Environmental Conservation.

The presence of lead, PCB and cadmium containing paints and lead jointed pipe will require health and safety protocols and engineering controls to protect site workers and the surrounding environment. It is recommended that any demolition affecting painted surfaces or lead jointed pipe be considered a lead project and be conducted under an approved OSHA 1926.62 compliant Lead Control Plan. Paints containing heavy metals and PCBs should be abated from surfaces prior to cutting. Additionally, loose and peeling paints should be removed from the surface of equipment prior to demolition. Demolition areas impacting lead containing paints or lead jointed pipe should be posted as a lead work area. Plastic sheeting should be used to protect the floors and equipment within the work areas. Cutting via hot methods should be avoided altogether, even after paint has been removed. Lead, PCB and cadmium awareness training should be provided to all demolition workers and inspectors, and exposure and area monitoring should be conducted during all activities that have the potential to generate dusts.

Specific means and methods for the asbestos abatement should be reviewed with a licensed asbestos project designer.

The TSCA regulated PCB containing oil in the water pump in Pump Room No. 2 should be sampled in accordance with the recommendations below to determine whether it is also RCRA regulated. The oil should be drained from the water pump, containerized and both the oil and pump should be disposed of as either TSCA regulated or TSCA and RCRA regulated waste based on the analytical results at an appropriately permitted facility.

All universal waste (HID bulbs, fluorescent bulbs, HID and fluorescent ballasts, lead acid batteries, thermostats) must be recycled at an appropriately permitted facility. The circuit board is a hazardous waste and must be recycled at a registered electronic waste recycling facility. The refrigerator is considered non-hazardous regulated waste and should be inspected for CFCs or other potentially regulated refrigerants, PCB capacitors and mercury containing components prior to disposal, and recycled in accordance with local regulations, which may require the evacuation of refrigerants by a technician licensed in accordance with 40 CFR 82.161.

The rock salt within the pile and 55-gallon drum should be used if at all possible, or disposed of at an appropriately permitted solid waste landfill as non-hazardous regulated waste. Bird excrement poses a health risk and will require health and safety protocols to protect site workers. Should bird excrement be removed prior to site activity, it should be containerized and disposed of at an appropriately permitted solid waste landfill.

The containerized paints and polish (Behr Premium Ceiling Paint, Flitz Metal Polish and Americas Finest Latex Enamel) are non-hazardous regulated waste. The containers and their contents must be disposed of at an appropriately permitted solid waste landfill. Gasoline is a hazardous waste and must be recycled or disposed of at an appropriately permitted facility.

The two 3 ft. diameter tires are non-hazardous regulated waste and should be recycled in accordance with local regulations.

Other Miscellaneous and Potentially Hazardous Materials

During the investigation a number of items were inaccessible and could not be confirmed as non-hazardous. These items are noted in Figures 15 through 18 of Attachment A and include the following:

Pier Level

- Painted Surfaces -
 - Analysis for lead and PCBs in paint if not previously tested (see Tables 1 through 3).
- Concrete Floors -

- Pump Room No. 2 - If staining is observed on the concrete floor of Pump Room No. 2, one grab sample of each stain should be analyzed for PCBs in accordance with USEPA's Draft Standard Operating Procedure for Sampling Concrete in the Field. If there is no visible staining, one composite sample of 5 grab samples of the floor should be analyzed for PCBs.
- Masonry and Painted Walls -
 - One composite full core sample of painted masonry shall be collected and analyzed for TCLP metals.
- Wood -
 - One composite bulk sample of the wooden piles should be collected and analyzed for TCLP metals, TCLP semi-volatiles, TCLP pesticides, TCLP herbicides and total PCBs;
 - One composite full core sample of the wooden barge slip/bulkhead fenders should be collected and analyzed for TCLP metals, TCLP semi-volatiles, TCLP pesticides, TCLP herbicides and total PCBs;
 - One composite bulk sample of the green painted wooden barge slip should be collected and analyzed for TCLP metals, TCLP semi-volatiles, TCLP pesticides, TCLP herbicides and total PCBs.
- Suspect Asbestos Containing Materials -
 - Additional asbestos inspection is required. All suspect asbestos containing materials not previously sampled (see Table 5) shall be sampled.
- Caulks and Mastics -
 - In addition to asbestos, all caulks and mastics shall be sampled for total PCBs.
- Miscellaneous Oils and Grease -
 - Miscellaneous oils and grease in pumps/motors shall be sampled for total PCBs and TCLP metals;
 - Inventory contents of fuel oil in the storage tank and sample for total PCBs and TCLP metals;

- Inventory contents of boiler and sample for total PCBs and full RCRA characteristics (ignitability, reactivity, corrosivity and full TCLP);
 - Inventory contents of oil/water separator and sample for total PCBs and full RCRA characteristics (ignitability, reactivity, corrosivity and full TCLP);
 - Inventory contents of tanks in the Mechanical Room and sample for total PCBs and full RCRA characteristics (ignitability, reactivity, corrosivity and full TCLP);
 - One composite sample of miscellaneous oils in capstans shall be collected and analyzed for total PCBs and TCLP metals;
 - One oil sample from the water pump in Pump Room No. 1 for total PCBs and TCLP metals;
 - One oil sample from the water pump in Pump Room No. 2 for TCLP metals;
 - Tanks should be inspected for evidence of hazardous materials. If hazardous materials are suspected, sample for total PCBs and full RCRA characteristics (ignitability, reactivity, corrosivity and full TCLP). If sanitary waste is confirmed and there is no evidence of hazardous materials, waste should be disposed of at a publicly owned treatment works (POTW).
- Universal and Other Miscellaneous Regulated Materials -
 - Conduct additional survey for universal waste and other miscellaneous regulated materials throughout the facility;
 - Piping shall be inspected for lead joints.

Tipping Floor

Concrete Platforms (Eastern, Western and Southern Tipping Floor)

- Painted Surfaces -
 - Analysis for lead and PCBs in paint if not previously tested (see Tables 1 through 3).
- Suspect Asbestos Containing Materials -
 - Additional asbestos inspection is required. All suspect asbestos containing materials not previously sampled (see Table 5) shall be sampled.

- Caulks and Mastics -
 - In addition to asbestos, all caulks and mastics shall be sampled for total PCBs.
- Universal and Other Miscellaneous Regulated Materials -
 - Conduct additional survey for universal waste and other miscellaneous regulated materials throughout the facility.

South west corner of Fan Room No. 2 and south east corner of Fan Room No. 1

- Wall Mounted Heaters (2) -
 - Heaters should be inspected for mercury containing thermostats prior to disposal.

Meter Room

- Discarded Sangamo Electric EMC Transformers (3) -
 - While typically not fluid cooled, the absence of PCB containing fluids should be confirmed prior to disposal to determine the correct disposal method.

Open Area by Stair No.1

- One 55-Gal Drum of soil, concrete debris, ash, glass and plastic -
 - The contents of the drum shall be sampled for TCLP VOCs, TCLP SVOCs, TCLP metals, TCLP herbicides, TCLP pesticides, total PCBs and asbestos to classify the waste for disposal purposes.

Men's Toilet

- Refrigerator -
 - Non-hazardous regulated waste. The refrigerator should be inspected for CFCs or other potentially regulated refrigerants, PCB capacitors and mercury containing components prior to disposal and recycled in accordance with local regulations,

which may require the evacuation of refrigerants by a technician licensed in accordance with 40 CFR 82.161.

Interior of Hoppers

- Municipal Waste -
 - The contents of the hoppers should be investigated to ensure that the material is municipal waste. If suspect hazardous materials are identified, sampling shall be performed to determine the proper disposal methods.

Exterior

Roof

- Universal Waste and Other Miscellaneous Regulated Materials -
 - Drain pipe on the Tipping Level contained lead joints. This piping should be further investigated on roof level.

Underside of Ramp A

- Pipe Coating (paint) -
 - Where present, paint shall be sampled for lead and PCBs.
- Pipe Coating (mastic, caulking) -
 - Where present, suspect asbestos containing pipe coating shall be sampled for asbestos and total PCBs.
- Pipe Interior (suspect ACM) -
 - Inspect contents of pipe and sample suspect materials for asbestos.

Along Ramp A and Underground (as per drawings)

- "Electric Line" -
 - If confirmed, wires and carrier pipe should be investigated for possible asbestos and PCB containing materials prior to demolition.

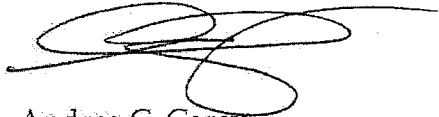
Entire Facility

- Items previously identified by the BBL 2003 Survey -
 - The facility in its entirety should be inspected for the presence of materials that were identified during the BBL survey but were not observed during the 2012 investigation. The materials, along with recommendations for further investigation and disposal methods, are listed in Table 6.
- Exit Signs -
 - The facility in its entirety should be inspected for the presence of exit signs. Exit signs shall be investigated to determine if the signs have the potential to contain radioactive material (tritium gas). If the sign has a totally enclosed void space/chamber that could contain gas, such signs shall be assumed to contain radioactive material, unless otherwise specified on a sign label. All exit signs that have the potential to contain radioactive gas shall be removed and placed in USDOT-approved containers. Exit signs that have the potential to contain radioactive gas shall be managed as a low-level radioactive waste due to the assumed presence of radioactive material (tritium) in accordance with 6 NYCRR Parts 381 and 382 and all other applicable federal, state, and local regulations. Exit signs that do not have the potential to contain radioactive gas shall be inspected for batteries. If batteries are present, they shall be recycled as universal waste at an appropriately permitted facility.
- Fire Extinguishers -
 - The facility in its entirety should be inspected for the presence of fire extinguishers. Fire extinguishers require special handling and shall be disposed of by a local fire extinguisher retailer.
- Smoke Detectors -
 - The facility in its entirety should be inspected for the presence of smoke detectors. All smoke detectors shall be removed and placed all smoke detectors in USDOT-approved containers. Batteries, if any, shall be removed from the smoke detectors

and recycled as universal waste at an appropriately permitted facility. The smoke detectors shall be managed as a low-level radioactive waste due to the assumed presence of radioactive material (americium 241) in accordance with 6 NYCRR Parts 381 and 382 and all other applicable federal, state, and local regulations, unless otherwise specified on a smoke detector label.

We trust the above meets your immediate needs and ask that you do not hesitate to contact us should you have any questions or concerns.

Very truly yours,
BIDWELL ENVIRONMENTAL, LLC



Andrea C. Carey
Project Manager

Table 1
Summary of PCI Joint Chip Analysis
Hazardous Materials Investigation
South Bronx Marine Transfer Station

Sample ID	Location	Sample Description	Color	Substrate	Condition	PCB (mg/kg)
SBMTS PC-1	Meter Room, Tipping Floor	Window Frame	Green	Metal	Poor	ND
SBMTS PC-2	Meter Room, Tipping Floor	Discarded Control Box Door	White	Metal	Poor	ND
SBMTS PC-3	Meter Room, Tipping Floor	Fire Alarm Control Box	Red, Factory Applied	Metal	Poor	ND
SBMTS PC-4	Meter Room, Tipping Floor	Ceiling	White	Concrete	Poor	ND
SBMTS PC-5	Switchboard Room, Tipping Floor	Electrical Box	Grey Over Green	Metal	Poor	ND
SBMTS PC-6	Switchboard Room, Tipping Floor	Switchboard	Black	Metal	Poor	4.98
SBMTS PC-7	Switchboard Room, Tipping Floor	Electrical Box	Grey, Factory Applied	Metal	Fair	ND
SBMTS PC-8	Storage Room, Tipping Floor	Wall	White	Concrete	Poor	ND
SBMTS PC-9	Storage Room, Tipping Floor	Vertical Pipe	Silver	Metal	Poor	ND
SBMTS PC-10	Storage Room, Tipping Floor	Wheel on Pipe	Orange	Metal	Fair	ND
SBMTS PC-11	Storage Room, Tipping Floor	Vertical Pipe	Silver	Metal	Fair	ND
SBMTS PC-12	Storage Room, Tipping Floor	Horizontal Pipe	Rust	Metal	Poor	ND
SBMTS PC-13	Storage Room, Tipping Floor	Hood	Green	Metal	Fair	ND
SBMTS PC-14	Lunch Room, Tipping Floor	Wall	Beige	Concrete	Poor	ND
SBMTS PC-15	Lunch Room, Tipping Floor	Window AC Unit Cover	Beige	Metal	Fair	ND
SBMTS PC-16	Lunch Room, Tipping Floor	Radiator	Silver	Metal	Poor	ND
SBMTS PC-17	Lunch Room, Tipping Floor	Wall Mounted Fan	White, Factory Applied	Metal	Good	ND
SBMTS PC-18	Lunch Room, Tipping Floor	Door	White	Metal	Poor	ND
SBMTS PC-19	Open Area, Tipping Floor	Corner Wall Support	Yellow	Metal	Poor	ND
SBMTS PC-20	Open Area, Tipping Floor	Pipe From Storage Room	Green, Spray Paint	Metal	Fair	ND
SBMTS PC-21	Open Area, Tipping Floor	Hopper	White Over Yellow	Metal	Poor	ND
SBMTS PC-22	Open Area, Tipping Floor	Hopper	Green	Metal	Poor	ND
SBMTS PC-23	Fan Room No. 2, Tipping Floor	Vertical I-beam	Yellow	Metal	Fair	ND
SBMTS PC-24	Fan Room No. 2, Tipping Floor	Vertical I-beam	Black	Metal	Fair	ND
SBMTS PC-25	Flat Roof Above Switchboard Room, Meter Room, Storage Room and Lunch Room	Roofing Tar	Silver	Tar	Fair	ND
SBMTS PC-26	Fan Room No. 2, Tipping Floor	Hopper Wall	Green Over Red	Metal	Poor	ND
SBMTS PC-27	Fan Room No. 1, Tipping Floor	Light Casing	Brown	Metal	Fair	ND
SBMTS PC-28	Weigh Booth, Access Ramp	Wall and Window Frames	Light Green Over Green	Metal	Poor	ND
SBMTS PC-29	Foreman's Office, Tipping Floor	Closet Door	Green Over Green	Metal	Poor	ND

Table 1

**Summary of PCB Paint Chip Analysis
Hazardous Materials Investigation
South Bronx Marine Transfer Station**

Sample ID	Location	Sample Description	Color	Substrate	Condition	PCB (mg/kg)
SBMTS PC-30	Foreman's Office, Tipping Floor	Electrical Box	Grey, Factory Applied	Metal	Fair	ND
SBMTS PC-31	Foreman's Office, Tipping Floor	Electrical Box Interior	White, Factory Applied	Metal	Fair	ND
SBMTS PC-32	Foreman's Office, Tipping Floor	Fire Alarm Annunciator	Beige	Metal	Poor	ND
SBMTS PC-33	Foreman's Office, Tipping Floor	Ventilation Unit	Brown	Metal	Fair	ND
SBMTS PC-34	Foreman's Office, Tipping Floor	Electrical Box	Grey/rust	Metal	Fair	ND
SBMTS PC-35	Foreman's Office, Tipping Floor	Electrical Box	Grey	Metal	Fair	ND
SBMTS PC-36	Foreman's Office, Tipping Floor	Ceiling and Wall	Grey	Concrete	Poor	ND
SBMTS PC-37	Foreman's Office, Tipping Floor	Ceiling and Wall	White	Concrete	Poor	ND
SBMTS PC-38	Foreman's Office, Tipping Floor	Door	Green Over Beige	Metal	Poor	ND
SBMTS PC-39	Open Area, Tipping Floor	Trash Receptacle	White	Wood	Poor	ND
SBMTS PC-40	Open Area, Tipping Floor	Support Beam	Orange, Spray Paint	Concrete	Fair	ND
SBMTS PC-41	Open Area, Tipping Floor	Corner Support for Beam	Beige	Metal	Fair	ND
SBMTS PC-42	Foreman's Office, Tipping Floor	Door	Grey	Metal	Poor	ND
SBMTS PC-43	Men's Toilet, Tipping Floor	Refrigerator	White	Plastic	Fair	ND
SBMTS PC-44	Men's Locker, Tipping Floor	Locker	Grey	Metal	Poor	ND
SBMTS PC-45	Men's Locker, Tipping Floor	Locker Interior	Dark Grey	Metal	Poor	ND
SBMTS PC-46	Men's Locker, Tipping Floor	Large Locker	Green	Metal	Poor	ND
SBMTS PC-47	Men's Locker, Tipping Floor	Locker	Beige	Metal	Poor	ND
SBMTS PC-48	Men's Locker, Tipping Floor	Locker	Silver	Metal	Poor	ND
SBMTS PC-49	Men's Locker, Tipping Floor	Locker	Dark Grey	Metal	Poor	ND
SBMTS PC-50	Men's Locker, Tipping Floor	Locker	White	Metal	Poor	ND
SBMTS PC-51	Ramp B	Wall	Green	Concrete	Fair	ND
SBMTS PC-52	Staircase No. 2 Connecting Tipping Floor and Pier Level	Staircase and Railings	Black Over White	Metal	Fair	ND
SBMTS PC-53	Foreman's Office, Tipping Floor	5x12 Inch Tile Glaze	Brown	Ceramic	Fair	ND

Notes:

- (1) Samples collected by Bidwell Environmental on November 14-17, 2012
 (2) The regulatory limit for defining TSCA-regulated PCBs is 50 mg/kg. However, any detected concentration of PCBs in paint has the potential to affect worker health and safety during certain construction activities and shall be addressed in the Contractor's health and safety protocol for the affected work

ND - Not Detected

Table 2
Summary of Lead Paint Chip Analysis
Hazardous Materials Investigation
South Bronx Marine Transfer Station

Sample ID	Location	Sample Description	Color	Substrate	Condition	Lead (mg/kg)
01*	Upper Level Inside, Wall #3	Vertical I-beam	Green	Metal	Fair	103,000
02*	Upper Level Inside, Wall #4	Horizontal I-beam	Green	Metal	Poor	74,300
03*	Upper Level Inside, Wall #3	Window Sill	Green	Metal	Fair	2,460
04*	Lower Level Inside, Wall #2	Cleat	Green	Metal	Poor	6,620
05*	Lower Level Inside, Inside Deck	Vertical I-beam	White	Metal	Poor	33
06*	Lower Level Inside, by the Dock	Horizontal I-beam	Brown	Metal	Fair	40
SBMTS PC-2	Meter Room, Tipping Floor	Discarded Control Box Door	White	Metal	Poor	103
SBMTS PC-3	Meter Room, Tipping Floor	Fire Alarm Control Box	Red, Factory Applied	Metal	Poor	383
SBMTS PC-4	Meter Room, Tipping Floor	Ceiling	White	Concrete	Poor	171
SBMTS PC-5	Switchboard Room, Tipping Floor	Electrical Box	Grey Over	Metal	Poor	42,000
SBMTS PC-6	Switchboard Room, Tipping Floor	Switchboard	Green	Metal	Poor	88
SBMTS PC-7	Switchboard Room, Tipping Floor	Electrical Box	Black	Metal	Fair	46
SBMTS PC-8	Storage Room, Tipping Floor	Wall	Grey, Factory Applied	Concrete	Poor	99
SBMTS PC-9	Storage Room, Tipping Floor	Vertical Pipe	White	Metal	Poor	70
SBMTS PC-10	Storage Room, Tipping Floor	Wheel on Pipe	Silver	Metal	Fair	100,000
SBMTS PC-11	Storage Room, Tipping Floor	Vertical Pipe	Orange	Metal	Fair	6,130
SBMTS PC-12	Storage Room, Tipping Floor	Horizontal Pipe	Silver	Metal	Poor	1,750
SBMTS PC-13	Storage Room, Tipping Floor	Hood	Rust	Metal	Fair	705
SBMTS PC-14	Lunch Room, Tipping Floor	Wall	Green	Metal	Poor	183
SBMTS PC-15	Lunch Room, Tipping Floor	Window AC Unit Cover	Beige	Concrete	Poor	9,300
SBMTS PC-16	Lunch Room, Tipping Floor	Radiator	Beige	Metal	Fair	4,720
SBMTS PC-17	Lunch Room, Tipping Floor	Wall Mounted Fan	Silver	Metal	Poor	264
SBMTS PC-18	Lunch Room, Tipping Floor	Door	White, Factory Applied	Metal	Good	68
SBMTS PC-19	Open Area, Tipping Floor	Corner Wall Support	Yellow	Metal	Poor	122,000

Table 2
Summary of Lead Paint Chip Analysis
Hazardous Materials Investigation
South Bronx Marine Transfer Station

Sample ID	Location	Sample Description	Color	Substrate	Condition	Lead (mg/kg)
SBMTS PC-20	Open Area, Tipping Floor	Pipe From Storage Room	Green, Spray Painted	Metal	Fair	2,240
SBMTS PC-21	Open Area, Tipping Floor	Hopper	White Over Yellow	Metal	Poor	11,300
SBMTS PC-22	Open Area, Tipping Floor	Hopper	Green	Metal	Poor	247,000
SBMTS PC-23	Fan Room No. 2, Tipping Floor	Vertical I-beam	Yellow	Metal	Fair	125,000
SBMTS PC-24	Fan Room No. 2, Tipping Floor	Vertical I-beam	Black	Metal	Fair	107
SBMTS PC-25	Flat Roof Above Switchboard Room, Meter Room, Storage Room and Lunch Room	Roofing Tar	Silver	Tar	Fair	18
SBMTS PC-26	Fan Room No. 2, Tipping Floor	Hopper Wall	Green Over Red	Metal	Poor	333,000
SBMTS PC-27	Fan Room No. 1, Tipping Floor	Light Casing	Brown	Metal	Fair	31,000
SBMTS PC-28	Weigh Booth, Access Ramp	Wall and Window Frames	Light Green Over Green	Metal	Poor	33,800
SBMTS PC-30	Foreman's Office, Tipping Floor	Electrical Box	Grey, Factory Applied	Metal	Fair	77
SBMTS PC-31	Foreman's Office, Tipping Floor	Electrical Box Interior	White, Factory Applied	Metal	Fair	47
SBMTS PC-32	Foreman's Office, Tipping Floor	Fire Alarm Annunciator	Beige	Metal	Poor	57
SBMTS PC-33	Foreman's Office, Tipping Floor	Ventilation Unit	Brown	Metal	Fair	20
SBMTS PC-34	Foreman's Office, Tipping Floor	Electrical Box	Grey/rust	Metal	Fair	46
SBMTS PC-35	Foreman's Office, Tipping Floor	Electrical Box	Grey	Metal	Fair	14
SBMTS PC-39	Open Area, Tipping Floor	Trash Receptacle	White	Wood	Poor	152
SBMTS PC-40	Open Area, Tipping Floor	Support Beam	Orange, Spray Painted	Concrete	Fair	61,000
SBMTS PC-41	Open Area, Tipping Floor	Corner Support for Beam	Beige	Metal	Fair	125,000
SBMTS PC-42	Foreman's Office, Tipping Floor	Door	Grey	Metal	Poor	721
SBMTS PC-43	Men's Toilet, Tipping Floor	Refrigerator	White	Plastic	Fair	170

Table 2
Summary of Lead in Paint Chip Analysis
Hazardous Materials Investigation
South Bronx Marine Transfer Station

Sample ID	Location	Sample Description	Color	Substrate	Condition	Lead (mg/kg)
SBMTS PC-44	Men's Locker, Tipping Floor	Locker	Grey	Metal	Poor	264
SBMTS PC-45	Men's Locker, Tipping Floor	Locker Interior	Dark Grey	Metal	Poor	33
SBMTS PC-46	Men's Locker, Tipping Floor	Large Locker	Green	Metal	Poor	16,100
SBMTS PC-47	Men's Locker, Tipping Floor	Locker	Beige	Metal	Poor	163
SBMTS PC-48	Men's Locker, Tipping Floor	Locker	Silver	Metal	Poor	183
SBMTS PC-49	Men's Locker, Tipping Floor	Locker	Dark Grey	Metal	Poor	100
SBMTS PC-50	Men's Locker, Tipping Floor	Locker	White	Metal	Poor	74
SBMTS PC-51	Ramp B	Wall	Green	Concrete	Fair	80

Notes:

- (1) The HUD action level used to define lead based paints is 1 mg/cm² (XRF data) or 5000 mg/kg (paint chip data). However, any detected concentration of lead in paint has the potential to affect worker health and safety during certain construction activities and shall be addressed in the Contractor's health and safety protocol for the affected work
- (2) Samples collected by Bidwell Environmental on November 14-17th, 2012
- (3) Samples SBMTS PC-1, 29, 36, 37, 38, 52 and 53 were not analyzed for lead as they had previously been analyzed by XRF. The corresponding sample numbers from Table 3 are given below:

- SBMTS PC-1 = 5
- SBMTS PC-29 = 7
- SBMTS PC-36 = 12
- SBMTS PC-37 = 10
- SBMTS PC-38 = 13
- SBMTS PC-52 = 73
- SBMTS PC-53 = 15

(4) Upper Level and Lower Level referred to in the BBL Investigation are the Tipping Floor and Pier Level, respectively
 * - Samples collected by ATC Associates Inc. in March, 2003 as part of BBL's Building Materials and Equipment Investigation

Table 3
Summary of Lead XRF Analysis
Hazardous Materials Investigation
South Bronx Marine Transfer Station

Sample ID	Location	Wall Component	Substrate	Condition	Color	Result (mg/cm ²)
4*	Office Building Security Room	1 Door Case	Metal	Fair	Green	1
5*	Office Building Security Room	1 Window Sash	Metal	Fair	Green	-0
6*	Office Building Security Room	2 Radiator	Metal	Fair	Green	0.2
7*	Office Building Security Room	3 Door	Metal	Fair	Green	-0.1
8*	Office Building Security Room	1 Wall	Concrete	Fair	Beige	-0.3
9*	Office Building Security Room	2 Wall	Concrete	Fair	Beige	0.1
10*	Office Building Security Room	3 Wall	Concrete	Fair	White	0.3
11*	Office Building Security Room	4 Wall	Concrete	Fair	White	0.2
12*	Office Building Security Room	5 Ceiling	Concrete	Fair	Beige	-0
13*	Hallway	1 Door	Metal	Fair	Green	0.2
14*	Hallway	1 Door Case	Metal	Fair	Green	0.2
15*	Hallway	1 Wall	Concrete	Fair	Beige	0.1
16*	Hallway	2 Wall	Concrete	Fair	Beige	-0
17*	Hallway	3 Wall	Concrete	Fair	Beige	0.3
18*	Hallway	4 Wall	Concrete	Fair	Beige	0.2
19*	Hallway	5 Ceiling	Concrete	Fair	Beige	0.1
20*	Bathroom	1 Door Case	Metal	Fair	Green	0.4
21*	Bathroom	1 Wall	Concrete	Fair	Beige	0.3
22*	Bathroom	2 Wall	Concrete	Fair	Beige	-0.2
23*	Bathroom	3 Wall	Concrete	Fair	Beige	0.3
24*	Bathroom	4 Wall	Concrete	Fair	Beige	0.4
25*	Bathroom	5 Ceiling	Concrete	Poor	Beige	0.3
26*	Bathroom	3 Window Sill	Metal	Poor	Green	79.9
27*	Bathroom	3 Window Case	Metal	Poor	Green	79.9
28*	Bathroom	3 Window Sash	Metal	Poor	Green	8.4
29*	Bathroom	3 Radiator	Metal	Poor	Green	0.6
30*	Locker Room	1 Door Case	Metal	Fair	Green	-0.3
31*	Locker Room	1 Wall	Concrete	Fair	Green	0.2
32*	Locker Room	2 Wall	Concrete	Fair	Beige	0.1

Table 3
Summary of L₁ XRF Analysis
Hazardous Materials Investigation
South Bronx Marine Transfer Station

Sample ID	Location	Wall	Component	Substrate	Condition	Color	Result (mg/cm ²)
33*	Locker Room	3	Wall	Concrete	Fair	Beige	0.3
34*	Locker Room	4	Wall	Concrete	Fair	Beige	0.2
35*	Locker Room	5	Ceiling	Concrete	Fair	Beige	-0
36*	Locker Room	3	Window Sill	Metal	Poor	Green	8.6
37*	Locker Room	3	Window Case	Metal	Poor	Green	3.7
38*	Locker Room	3	Window Sash	Metal	Fair	Green	79.9
39*	Locker Room	3	Radiator	Metal	Poor	Green	0.6
40*	Upper Level Inside	4	Support Beam Vertical	Metal	Poor	Rusted	0.7
41*	Upper Level Inside	4	Support Beam Horizontal	Metal	Poor	Rusted	0.4
42*	Upper Level Inside	3	Window Sill	Metal	Poor	Rusted	-0
43*	Upper Level Inside	1	Window Case	Metal	Poor	Rusted	0.3
44*	Upper Level Inside	3	Support Beam Vertical	Metal	Poor	Rusted	0.7
45*	Upper Level Inside	3	Support Beam Horizontal	Metal	Poor	Rusted	0.5
46*	Upper Level Inside	3	Parapet Wall	Metal	Poor	Rusted	8
47*	Upper Level Inside	2	Support I Beam Vertical	Metal	Fair	Green	79.9
48*	Upper Level Inside	2	Support I Beam Horizontal	Metal	Fair	Green	79.9
49*	Upper Level Inside	2	Support I Beam Vertical	Metal	Fair	Yellow	6
50*	Upper Level Inside	2	Door Case	Metal	Poor	Green	-0.1
51*	Machine Room #1	1	Door	Metal	Poor	Rusted	0.3
52*	Machine Room #1	1	Door Case	Metal	Poor	Green	-0
53*	Lower Level Inside	1	Door Case	Metal	Poor	Rusted	0.3
54*	Lower Level Inside	1	Railing	Metal	Poor	Rusted	0.6
55*	Lower Level Inside	1	Railing	Metal	Poor	Rusted	-0.1
56*	Pump Room #2	1	Door	Metal	Poor	Green	-0.1
57*	Pump Room #2	1	Door Case	Metal	Poor	Green	0.3
58*	Pump Room #2	1	Equipment (Motor)	Metal	Poor	Green	-0.2
59*	Lower Level Inside	2	Door	Metal	Fair	Black	0
60*	Lower Level Inside	2	Door Case	Metal	Fair	Black	-0.1
61*	Lower Level Inside	2	Railing	Metal	Poor	Rusted	0.6

Table 3
Summary of Lead XRF Analysis
Hazardous Materials Investigation
South Bronx Marine Transfer Station

Sample ID	Location	Wall	Component	Substrate	Condition	Color	Result (mg/cm ²)
62*	Lower Level Inside	2	Support I Beam Vertical	Metal	Poor	White	0
63*	Lower Level Inside	2	Support I Beam Horizontal	Metal	Fair	Black	-0.1
64*	Lower Level Inside	2	Parapet	Wood	Poor	Brown	0
65*	Lower Level Inside	2	Cleat	Wood	Poor	Rusted	-0.2
66*	Lower Level Inside	4	Support Column I	Metal	Poor	White	-0.1
67*	Lower Level Inside	4	Railing	Metal	Poor	Rusted	0.5
68*	Lower Level Inside	3	Support I Beam Vertical	Metal	Poor	Rusted	0.4
69*	Lower Level Inside	3	Support I Beam Horizontal	Metal	Poor	Rusted	0.6
70*	Exterior Lower Level	1	Wall	Concrete	Poor	White	-0.4
71*	Exterior Lower Level	1	Door	Metal	Poor	Rusted	-0.3
72*	Exterior Lower Level	1	Door Case	Metal	Poor	Rusted	0.2
73*	Exterior Lower Level	1	Handrail	Metal	Fair	Black	0.3
74*	Exterior Lower Level	12	Stringer	Metal	Fair	Black	0.7
75*	Exterior Lower Level	2	Wall	Concrete	Poor	White	0.1
76*	Exterior Lower Level	2	Cleat	Metal	Poor	Green	7.7
77*	Exterior Lower Level	2	Anchor Bell	Metal	Poor	Green	-0.3
78*	Exterior Lower Level	2	Handrail	Metal	Fair	Black	0.1
79*	Exterior Lower Level	2	Stringer	Metal	Fair	Black	0
80*	Exterior Lower Level	1	Door	Metal	Fair	Green	-0.2
81*	Exterior Lower Level	1	Door Case	Metal	Fair	Green	-0
82*	Exterior Lower Level	1	Anchor Bell	Metal	Poor	Green	0.7
83*	Exterior Lower Level	1	Cleat	Metal	Poor	Green	0.7

Notes:

- (1) The HUD action level used to define lead based paints is 1 mg/cm² (XRF data) or 5000 mg/kg (paint chip data). However, any detected concentration of lead in paint has the potential to affect worker health and safety during certain construction activities and shall be addressed in the Contractor's health and safety protocol for the affected work
- (2) Upper Level, Lower Level and Office Building Security Room referred to in the BBL Investigation are the Tipping Floor, Pier Level and Foreman's Office, respectively

* - Samples collected by ATC Associates Inc. in March, 2003 as part of BBL's Building Materials and Equipment Investigation

Table 4
Summary of Cadmium Paint Chip Analysis
Hazardous Materials Investigation
South Bronx Marine Transfer Station

Sample ID	Location	Sample Description	Color	Substrate	Condition	Cadmium (mg/kg)
01*	Upper Level Inside, Wall #3	Vertical I-beam	Green	Metal	Fair	8.66
02*	Upper Level Inside, Wall #4	Horizontal I-beam	Green	Metal	Poor	8.72
03*	Upper Level Inside, Wall #3	Window Sill	Green	Metal	Fair	7.47
04*	Lower Level Inside, Wall #2	Cleat	Green	Metal	Poor	3.59
05*	Lower Level Inside, Inside Dock	Vertical I-beam	White	Metal	Poor	1.44
06*	Lower Level Inside, by the Dock	Horizontal I-beam	Brown	Metal	Fair	2.01

Notes:

- (1) Upper Level and Lower Level referred to in the BBL Investigation are the Tipping Floor and Pier Level, respectively
 * - Samples collected by ATC Associates Inc. in March, 2003 as part of BBL's Building Materials and Equipment Investigation

Table 5
Summary of Asbestos Analysis
Hazardous Materials Investigation
South Bronx Marine Transfer Station

Sample ID	Area	Sample Location	Material Description	Analytical Results (%)		
				PLM	TEM	TEM
Sample #1*	Upper Level Perimeter, Southwest Storage		Gray Corrugated Transite Panels	18		NA
Sample #2*	Upper Level Perimeter, Southwest Storage		Gray Corrugated Transite Panels	NA**		NA
Sample #3*	Upper Level Perimeter, Southwest Storage		Gray Corrugated Transite Panels	NA**		NA
Sample #4*	Upper Level Perimeter		Gray Flat Transite Panels	19		NA
Sample #5*	Upper Level Perimeter		Gray Flat Transite Panels	NA**		NA
Sample #6*	Upper Level Perimeter		Gray Flat Transite Panels	NA**		NA
Sample #7*	Lower Level Perimeter		Gray Flat Transite Panel Caulking	<1		9
Sample #8*	Lower Level Perimeter		Gray Flat Transite Panel Caulking	Trace		NA
Sample #9*	Lower Level Perimeter		Gray Flat Transite Panel Caulking	ND		NA
Sample #10*	Upper Level Perimeter		Green Corrugated panels	Trace		Trace
Sample #11*	Upper Level Perimeter		Green Corrugated panels	Trace		Trace
Sample #12*	Upper Level Perimeter		Green Corrugated panels	Trace		Trace
Sample #13*	Upper Level, Pump Room Electrical Room		Brown Horse Hair	ND		NA
Sample #14*	Upper Level, Pump Room Electrical Room		Brown Horse Hair	ND		NA
Sample #15*	Upper Level, Pump Room Electrical Room		Brown Horse Hair	ND		NA
Sample #16*	Upper Level, Pump Room Electrical Room		Black Wrapping Paper of Horse Hair Insulation	Trace		Trace
Sample #17*	Upper Level, Pump Room Electrical Room		Black Wrapping Paper of Horse Hair Insulation	Trace		Trace
Sample #18*	Upper Level, Pump Room Electrical Room		Black Wrapping Paper of Horse Hair Insulation	Trace		Trace
Sample #19*	Upper Level, Pump Room Electrical Room		Tan Fiberglass Elbows	ND		NA
Sample #20*	Upper Level, Pump Room Electrical Room		Tan Fiberglass Elbows	ND		NA
Sample #21*	Upper Level, Pump Room Electrical Room		Tan Fiberglass Elbows	ND		NA
Sample #22*	Upper Level, Pump Room Electrical Room		Yellow/White/Gray Fiberglass Insulation Wrapping Paper	ND		NA
Sample #23*	Upper Level, Pump Room Electrical Room		Yellow/White/Gray Fiberglass Insulation Wrapping Paper	ND		NA

Table 5
Summary of Asbestos Analysis
Hazardous Materials Investigation
South Bronx Marine Transfer Station

Sample ID	Area	Sample Location	Material Description	Analytical Results (%)	
				PLM	TEM
Sample #24*	Upper Level, Pump Room	Electrical Room	Yellow/White/Gray Fiberglass Insulation Wrapping Paper	ND	NA
Sample #25*	Lower Level, Pump Room		Off White Door Window Putty	0.1	0.1
Sample #26*	Lower Level, Pump Room		Off White Door Window Putty	0.1	0.1
Sample #27*	Lower Level, Pump Room		Off White Door Window Putty	0.1	0.1
Sample #28*	Upper Level, Main Office		Tan Ceramic Tile Mortar	ND	NA
Sample #29*	Upper Level, Main Office		Tan Ceramic Tile Mortar	ND	NA
Sample #30*	Upper Level, Main Office		Tan Ceramic Tile Mortar	ND	NA
Sample #31*	Upper Level, Main Office		White Window Putty	0.3	0.3
Sample #32*	Upper Level, Main Office		White Window Putty	ND	NA
Sample #33*	Upper Level, Main Office		White Window Putty	ND	NA
Sample #34*	Upper Level, Main Office		12' x 12' Brown Floor Tile	Trace	Trace
Sample #35*	Upper Level, Main Office		12' x 12' Brown Floor Tile	Trace	Trace
Sample #36*	Upper Level, Main Office		12' x 12' Brown Floor Tile	Trace	Trace
Sample #37*	Upper Level, Main Office		Black Mastic Under 12' x 12' Brown Floor Tile	Trace	Trace
Sample #38*	Upper Level, Main Office		Black Mastic Under 12' x 12' Brown Floor Tile	0.1	0.1
Sample #39*	Upper Level, Main Office		Black Mastic Under 12' x 12' Brown Floor Tile	Trace	Trace
SBMTS ASB-1	Ramp B	Eastern Wall, Lower Pipe Elbow	Black Tar	NA	ND
SBMTS ASB-2	Ramp B	Eastern Wall, Lower Pipe Elbow	Black Tar	NA	ND
SBMTS ASB-3	Ramp B	Eastern Wall, Lower Pipe	Black Pipe Wrapping	ND	NA
SBMTS ASB-4	Ramp B	Eastern Wall, Lower Pipe	Black Pipe Wrapping	ND	NA
SBMTS ASB-5	Ramp B	Eastern Wall, Lower Pipe	White Pipe Gasket	80	NA
SBMTS ASB-6	Ramp B	Eastern Wall, Lower Pipe	White Pipe Gasket	80	NA
SBMTS ASB-7	Ramp B	Eastern Wall, Lower Pipe	Fibrous Pipe Insulation	ND	NA
SBMTS ASB-8	Ramp B	Eastern Wall, Lower Pipe	Fibrous Pipe Insulation	ND	NA

Table 5
Summary of Asbestos Analysis
Hazardous Materials Investigation
South Bronx Marine Transfer Station

Sample ID	Area	Sample Location	Material Description	Analytical Results (%)	
				PLM	TEM
SBMTS ASB-9	Ramp B	Eastern Wall, Lower Pipe	Black Pipe Insulation Wrapping	NA	ND
SBMTS ASB-10	Ramp B	Eastern Wall, Lower Pipe	Black Pipe Insulation Wrapping	NA	ND
SBMTS ASB-11	Ramp B	Eastern Wall, Upper Pipe	Orange 8 Inch Gasket	NA	ND
SBMTS ASB-12	Ramp B	Eastern Wall, Upper Pipe	Orange 8 Inch Gasket	NA	ND
SBMTS ASB-13	Ramp B	Eastern Wall, Upper Pipe	Orange Pipe Sealant	NA	ND
SBMTS ASB-14	Ramp B	Eastern Wall, Upper Pipe	Orange Pipe Sealant	NA	ND
SBMTS ASB-15	Ramp B	Eastern Wall, Upper Pipe	White String Sealant	ND	NA
SBMTS ASB-16	Ramp B	Eastern Wall, Upper Pipe	White String Sealant	ND	NA
SBMTS ASB-17	Ramp B	Eastern Wall, Electrical Panel	Orange and Black Wire Jacket	NA	ND
SBMTS ASB-18	Ramp B	Eastern Wall, Electrical Panel	Orange and Black Wire Jacket	NA	ND
SBMTS ASB-19	Access Ramp	Western Wall, Top of Ramp Electrical Panel	White Rope Gasket	100	NA
SBMTS ASB-20	Access Ramp	Western Wall, Top of Ramp Electrical Panel	White Rope Gasket	100	NA
SBMTS ASB-21	Ramp B	Western Wall, Electrical Panel	Black Wire Jacket	NA	ND
SBMTS ASB-22	Ramp B	Western Wall, Electrical Panel	Black Wire Jacket	NA	ND
SBMTS ASB-23	Ramp B	Western Wall, Electrical Panel	White Braided Wire Jacket	19.1	NA
SBMTS ASB-24	Ramp B	Western Wall, Electrical Panel	White Braided Wire Jacket	22.2	NA
SBMTS ASB-25	Ramp B	Eastern Wall on Lower Portion of the Ramp	Black Tar	NA	ND
SBMTS ASB-26	Ramp B	Eastern Wall on Lower Portion of the Ramp	Black Tar	NA	ND
SBMTS ASB-27	Ramp B	Eastern Wall	Black Expansion Sealant	ND	NA
SBMTS ASB-28	Ramp B	Eastern Wall	Black Expansion Sealant	ND	NA
SBMTS ASB-29	Ramp B	Floor	White Expansion Sealant	NA	ND
SBMTS ASB-30	Ramp B	Floor	White Expansion Sealant	NA	ND
SBMTS ASB-31	Access Ramp	Floor	Black Tar	NA	ND
SBMTS ASB-32	Access Ramp	Floor	Black Tar	NA	ND

Table 5
Summary of Asbestos Analysis
Hazardous Materials Investigation
South Bronx Marine Transfer Station

Sample ID	Area	Sample Location	Material Description	Analytical Results (%)	
				PLM	TEM
SBMTS ASB-33	Access Ramp	Eastern Wall	Black Tar Over Joint	NA	3.3
SBMTS ASB-34	Access Ramp	Eastern Wall	Black Tar Over Joint	NA	3.5
SBMTS ASB-35	Access Ramp	Western Wall, Electrical Panel	White Caulk	NA	1.7
SBMTS ASB-36	Access Ramp	Western Wall, Electrical Panel	White Caulk	NA	1.3
SBMTS ASB-37	Access Ramp	Weigh Booth	Window Caulk	NA	Trace
SBMTS ASB-38	Access Ramp	Weigh Booth	Window Caulk	NA	Trace
SBMTS ASB-39	Access Ramp	Weigh Booth	White Window Glazing	NA	Trace
SBMTS ASB-40	Access Ramp	Weigh Booth	White Window Glazing	NA	Trace
SBMTS ASB-41	Access Ramp	Weigh Booth Wall Interior	Insulation	ND	NA
SBMTS ASB-42	Access Ramp	Weigh Booth Wall Interior	Insulation	ND	NA
SBMTS ASB-43	Foreman's Office, Tipping Floor	East Wall Window	White Glazing	NA	Trace
SBMTS ASB-44	Foreman's Office, Tipping Floor	East Wall Window	White Glazing	NA	Trace
SBMTS ASB-45	Foreman's Office, Tipping Floor	East Wall Window	White Glazing	NA	Trace
SBMTS ASB-46	Foreman's Office, Tipping Floor	East Wall Window	White Glazing	NA	Trace
SBMTS ASB-47	Foreman's Office, Tipping Floor	East Wall Window	White Glazing	NA	Trace
SBMTS ASB-48	Foreman's Office, Tipping Floor	East Wall	Mortar	ND	NA
SBMTS ASB-49	Meter Room, Tipping Floor	East Wall	Mortar	ND	NA
SBMTS ASB-50	Meter Room, Tipping Floor	West Wall	5 x 12 inch Ceramic Wall Tile	ND	NA
SBMTS ASB-51	Open Area, Tipping Floor	West Wall	5 x 12 inch Ceramic Wall Tile	ND	NA
SBMTS ASB-52	Open Area, Tipping Floor	South of Foreman's Office, Secured by Pillar	Brown Fire Hose	ND	NA
SBMTS ASB-53	Storage Room, Tipping Floor	South of Foreman's Office, Secured by Pillar	Brown Fire Hose	ND	NA
SBMTS ASB-54	Storage Room, Tipping Floor	Wall Between Storage and Lunch Rooms	Sheet Rock	ND	NA
SBMTS ASB-55	Fan Room No. 1, Tipping Floor	Wall Between Storage and Lunch Rooms	Sheet Rock	ND	NA
SBMTS ASB-56	Fan Room No. 1, Tipping Floor	Door Frame	Black Caulk	NA	3.9
		Door Frame	Black Caulk	NA	3.9

Table 5
Summary of Asbestos Analysis
Hazardous Materials Investigation
South Bronx Marine Transfer Station

Sample ID	Area	Sample Location	Material Description	Analytical Results (%)	
				PLM	TEM
SBMTS ASB-57	Ramp A	Western Wall, Electrical Pipe Access Panel	Grey Caulk	NA	ND
SBMTS ASB-58	Ramp A	Western Wall, Electrical Pipe Access Panel	Grey Caulk	NA	ND
SBMTS ASB-59	Foreman's Office, Tipping Floor	East Wall	Caulking Under Window Frame	NA	2.2
SBMTS ASB-60	Foreman's Office, Tipping Floor	East Wall	Caulking Under Window Frame	NA	2.5
SBMTS ASB-61	Storage Room, Tipping Floor	Wall Between Storage and Lunch Rooms	Paper Covering Sheet Rock	ND	NA
SBMTS ASB-62	Storage Room, Tipping Floor	Wall Between Storage and Lunch Rooms	Paper Covering Sheet Rock	ND	NA
SBMTS ASB-63	Storage Room, Tipping Floor	Floor	Discarded Gasket	ND	NA
SBMTS ASB-64	Storage Room, Tipping Floor	Floor	Discarded Gasket	ND	NA
SBMTS ASB-65	Storage Room, Tipping Floor	North West Corner of Room, Going Through the Meter Room Wall	White Braided Wire Jacket	ND	NA
SBMTS ASB-66	Storage Room, Tipping Floor	North West Corner of Room, Going Through the Meter Room Wall	White Braided Wire Jacket	ND	NA
SBMTS ASB-67	Meter Room, Tipping Floor	Discarded Transformers	Black Insulation Paper	ND	NA
SBMTS ASB-68	Meter Room, Tipping Floor	Discarded Transformers	Black Insulation Paper	ND	NA
SBMTS ASB-69	Switchboard Room, Tipping Floor	West Side of Control Panel	Black Insulation Block	12.1	NA
SBMTS ASB-70	Switchboard Room, Tipping Floor	West Side of Control Panel	Black Insulation Block	14.3	NA
SBMTS ASB-71	Switchboard Room, Tipping Floor	Control Panel of Capstan No. 1	Black Insulation Block	ND	NA
SBMTS ASB-72	Switchboard Room, Tipping Floor	Control Panel of Capstan No. 1	Black Insulation Block	ND	NA
SBMTS ASB-73	Switchboard Room, Tipping Floor	Main Feed into Circuit Breaker	Black Wire Jacket	NA	ND
SBMTS ASB-74	Switchboard Room, Tipping Floor	Main Feed into Circuit Breaker	Black Wire Jacket	NA	ND
SBMTS ASB-75	Switchboard Room, Tipping Floor	Air Compressor Switchboard	Black Wire Jacket	NA	ND
SBMTS ASB-76	Switchboard Room, Tipping Floor	Air Compressor Switchboard	Black Wire Jacket	NA	ND
SBMTS ASB-77	Fan Room No. 1, Tipping Floor	Air Fan	Black Wire Jacket	NA	NA
SBMTS ASB-78	Fan Room No. 1, Tipping Floor	Air Fan	Black Vibration Damper	ND	NA

Table 5
Summary of Asbestos Analysis
Hazardous Materials Investigation
South Bronx Marine Transfer Station

Sample ID	Area	Sample Location	Material Description	PLM	Analytical Results (%)	TEM
SBMTS ASB-79	Fan Room No. 1, Tipping Floor	Air Fan	White Vibration Damper	80		NA
SBMTS ASB-80	Fan Room No. 1, Tipping Floor	Air Fan	White Vibration Damper	80		NA
SBMTS ASB-81	Foreman's Office, Tipping Floor	Switchboard on Wall in North East Corner	Orange Insulation Board	ND		NA
SBMTS ASB-82	Foreman's Office, Tipping Floor	Switchboard on Wall in North East Corner	Orange Insulation Board	ND		NA
SBMTS ASB-83	Foreman's Office, Tipping Floor	Electrical Panel on West Wall	White Wire Jacket	NA		ND
SBMTS ASB-84	Foreman's Office, Tipping Floor	Electrical Panel on West Wall	White Wire Jacket	NA		ND
SBMTS ASB-85	Hallway, Tipping Floor	Electrical Panel in Wall	White Braided Wire Jacket	ND		NA
SBMTS ASB-86	Hallway, Tipping Floor	Electrical Panel in Wall	White Braided Wire Jacket	ND		NA
SBMTS ASB-87	Men's Toilet, Tipping Floor	Floor	Damaged, Discarded Pipe Insulation	9.9		NA
SBMTS ASB-88	Women's Toilet, Tipping Floor	Floor	Damaged, Discarded Pipe Insulation	Trace		NA
SBMTS ASB-89	Shower, Tipping Floor	Inside Wall	Damaged, Discarded Pipe Insulation	50		NA
SBMTS ASB-90	Flat Roof	Roof Above Switchboard Room	Black Tar Above Samples SBMTS ASB-92,93	NA		ND
SBMTS ASB-91	Flat Roof	Roof Above Switchboard Room	Black Tar Above Samples SBMTS ASB-92,93	NA		ND
SBMTS ASB-92	Flat Roof	Roof Above Switchboard Room	Black Tar Paper, Above Samples SBMTS ASB-94,95	NA		ND
SBMTS ASB-93	Flat Roof	Roof Above Switchboard Room	Black Tar Paper, Above Samples SBMTS ASB-94,95	NA		ND
SBMTS ASB-94	Flat Roof	Roof Above Switchboard Room	Black Tar, Bottom Layer of Roofing Material	NA		ND
SBMTS ASB-95	Flat Roof	Roof Above Switchboard Room	Black Tar, Bottom Layer of Roofing Material	NA		ND

Table 5
Summary of Asbestos Analysis
Hazardous Materials Investigation
South Bronx Marine Transfer Station

Sample ID	Area	Sample Location	Material Description	Analytical Results (%)	
				PLIM	TEM
SBMTS ASB-96	Flat Roof	Roof Above Switchboard Room	Rollod Roofing Above SBMTS ASB- NA 91,92	NA	ND
SBMTS ASB-97	Flat Roof	Roof Above Switchboard Room	Rollod Roofing Above SBMTS ASB- NA 91,92	NA	ND
SBMTS ASB-98	Flat Roof	Roof Above Switchboard Room	Black Tar Above Samples SBMTS ASB-96,97	NA	ND
SBMTS ASB-99	Flat Roof	Roof Above Switchboard Room	Black Tar Above Samples SBMTS ASB-96,97	NA	ND
SBMTS ASB-100	Flat Roof	Roof Above Switchboard Room	Top Layer of Rolled Roofing Above SBMTS ASB-98,98	NA	ND
SBMTS ASB-101	Flat Roof	Roof Above Switchboard Room	Top Layer of Rolled Roofing Above SBMTS ASB-98,98	NA	ND
SBMTS ASB-102	Flat Roof	Roof Above Storage Room	Black Fabric Below Flashing	NA	ND
SBMTS ASB-103	Flat Roof	Roof Above Storage Room	Black Fabric Below Flashing	NA	ND
SBMTS ASB-104	Flat Roof	Roof Above Storage Room	Black Tar Above Flashing	NA	3.3
SBMTS ASB-105	Flat Roof	Roof Above Storage Room	Black Tar Above Flashing	NA	3.3
SBMTS ASB-106	Open Area, Tipping Floor	Lighting Conduit on Wall	Red Wire Jacket	NA	ND
SBMTS ASB-107	Open Area, Tipping Floor	Lighting Conduit on Wall	Red Wire Jacket	NA	ND

Notes:

- (1) Materials containing 1% asbestos or more are considered asbestos containing materials
- (2) Samples collected by Bidwell Environmental on November 15-17th, 2012
- (3) Upper Level and Lower Level referred to in the BBL Investigation are the Tipping Floor and Pier Level, respectively
- * - Samples collected by ATC Associates Inc. in March, 2003 as part of BBL's Building Materials and Equipment Investigation
- ** - Sample not analyzed due to previous sample of the same homogenous area testing positive as asbestos containing material.

ND - No Asbestos Detected
 NA - Not Analyzed

Table 6
Inventory of Universal Waste and Other Miscellaneous Regulated Materials
Hazardous Materials Investigation
South Bronx Marine Transfer Station

<i>Location/Item</i>	<i>Description</i>	<i>Waste Classification</i>
Tippling Floor Level		
HID Lighting	Mercury-containing bulbs (11 bulbs)	Universal waste. HID lighting must be recycled at an appropriately permitted facility.
Fluorescent Lighting	Mercury-containing bulbs (6 bulbs)	Universal waste. Fluorescent lighting must be recycled at an appropriately permitted facility.
HID and Fluorescent Lighting Ballasts	PCB containing (or otherwise regulated) (14 ballasts)	Non-hazardous TSCA regulated waste (if PCBs). Non-hazardous regulated waste (if no PCBs). Ballasts must be disposed of at an appropriately permitted facility.
Refrigerator	Refrigerator potentially containing CFCs or other potentially regulated refrigerants, PCB capacitors and mercury containing components (1 refrigerator)	Non-hazardous regulated waste. The refrigerator should be inspected for CFCs or other potentially regulated refrigerants, PCB capacitors and mercury containing components prior to disposal and recycled in accordance with local regulations, which may require the evacuation of refrigerants by a technician licensed in accordance with 40 CFR 82.161.
55 Gallon Damaged Drum	Drum in the open area by Stair No. 1 contains soil, concrete debris, ash, glass and plastic. The base of the drum is entirely corroded and will release debris if moved.	Pending inspection and waste classification sampling.
55 Gallon Damaged Drum	Drum in Fan Room No. 1 contains rock salt (1/4 full*)	Non-hazardous regulated solid waste. Rock salt should be used or disposed of at an appropriately permitted solid waste landfill.
Sangamo Electric EMC Transformer Discarded in Meter Room	Typically not fluid cooled, but should be inspected to confirm the absence of fluids prior to disposal. Fluid if present may contain PCBs (3 transformers).	Non-regulated waste if non-fluid containing. If fluid containing, pending verification of the absence of PCBs in fluid.

Table 6
Inventory of Universal Waste and Other Miscellaneous Regulated Materials
Hazardous Materials Investigation
South Bronx Marine Transfer Station

<i>Location/Item</i>	<i>Description</i>	<i>Waste Classification</i>
Tipping Floor Level		
Behr Premium Plus No. 558 Ultra Ceiling Paint	2 gallon container (1 container). MSDS is provided in Attachment E.	Non-hazardous regulated waste. This container and its contents must be disposed of in a appropriately permitted solid waste landfill.
Flitz Metal Polish	1 gallon container (1 container). MSDS is provided in Attachment E.	Non-hazardous regulated waste. This container and its contents must be disposed of at an appropriately permitted solid waste landfill.
Americas Finest Latex Semi-Gloss HM1403 Off White Enamel	5 gallon container (1 container). MSDS is provided in Attachment E.	Non-hazardous regulated waste. This container and its contents must be disposed of at an appropriately permitted solid waste landfill.
Tire	3 ft. diameter tire (2 tires).	Non-hazardous regulated waste. Tires should be recycled in accordance with local regulations.
Batteries	Lead Acid (3 batteries)	Universal waste. Batteries must be recycled at an appropriately permitted facility.
Lead Jointed Pipe	Two pipe systems (drain pipe in the south east corner of the Storage Room and water pipes within the southern wall of the Men's Toilet).	Scrap metal exempt from hazardous waste regulations. Removal of this pipe should be considered lead work, and should be performed by appropriately trained personnel in accordance with lead control protocol. Removed piping should be recycled in accordance with NYSDEC regulations.
Gasoline	5 gallon container (1 container, 1/4 full*).	Hazardous waste. Gasoline must be recycled or disposed of at an appropriately permitted facility.

Table 6
Inventory of Universal Waste and Other Miscellaneous Regulated Materials
Hazardous Materials Investigation
South Bronx Marine Transfer Station

<i>Location/Item</i>	<i>Description</i>	<i>Waste Classification</i>
Tipping Floor Level	Heating Unit Thermostats	Non-regulated waste if no mercury containing thermostats. Universal waste if mercury containing. Mercury containing thermostats must be recycled at an appropriately permitted facility.
Thermostat	Mercury containing (2)	Universal waste. Thermostats must be recycled at an appropriately permitted facility.
Circuit Board	Electronic waste (1 circuit board)	Hazardous waste. Electronic waste must be recycled at a registered electronic waste recycling facility.
Rock Salt	A pile of rock salt (approximately 4.5 cubic yards)	Non-hazardous regulated solid waste. Rock salt should be used or disposed of at an appropriately permitted solid waste landfill.
Miscellaneous Municipal Waste	The interior of the eastern and western hoppers contains presumed municipal waste including, plastics, glass, metal and paper	Regulated solid waste pending the absence of hazardous materials. Waste should be disposed of at an appropriately permitted facility.
Bird Excrement	Observed on both floors and select structural components. Not regulated, but may pose health hazards during construction**	Non-hazardous regulated solid waste. If removed prior to demolition activities, bird excrement should be disposed of at an appropriately permitted solid waste landfill.
Pier Level	Misc. Oil and Grease separator and miscellaneous capstans, pumps, motors and tanks	Pending inspection and waste classification sampling. Disposal method shall depend on whether the material is hazardous or non-hazardous.

Table 6
Inventory of Universal Waste and Other Miscellaneous Regulated Materials
Hazardous Materials Investigation
South Bronx Marine Transfer Station

Location/Item	Description	Waste Classification
Pier Level		
Misc. Tanks in Mechanical Equipment Room	Tanks are unlabeled. May contain sanitary wastes.	Pending inspection. Disposal method shall depend on whether the material is confirmed sanitary waste or potential hazardous material.
Items Identified by BBL Survey But Not Observed During the 2012 Investigation		
HID Lighting	Mercury-containing bulbs (118 bulbs**)	Universal waste. HID lighting must be disposed of at an appropriately permitted facility.
Fluorescent Lighting	Mercury-containing bulbs (2 bulbs**)	Universal waste. Fluorescent lighting must be disposed of at an appropriately permitted facility.
HID and Fluorescent Lighting Ballast	PCB containing (or otherwise regulated) ballasts (119 ballasts**)	Non-hazardous TSCA regulated waste (if PCBs). Non-hazardous regulated waste (if no PCBs). Ballasts must be disposed of at an appropriately permitted facility.
Drinking Water Fountain	Fountain potentially containing CFCs or other potentially regulated refrigerants (1 fountain**)	Non-hazardous regulated waste. The refrigerator should be inspected for CFCs or other potentially regulated refrigerants prior to disposal and recycled in accordance with local regulations, which may require the evacuation of refrigerants by a technician licensed in accordance with 40 CFR 82.161.
Refrigerator	Refrigerators potentially containing CFCs or other potentially regulated refrigerants, PCB capacitors and mercury containing components (3 refrigerators**)	Non-hazardous regulated waste. The refrigerator should be inspected for CFCs or other potentially regulated refrigerants, PCB capacitors and

Table 6
Inventory of Universal Waste and Other Miscellaneous Regulated Materials
Hazardous Materials Investigation
South Bronx Marine Transfer Station

Location/Item	Description	Waste Classification
<p>Items Identified by BBL Survey But Not Observed During the 2012 Investigation</p>		
Fire Extinguisher	1 fire extinguisher**	Requires special handling and shall be disposed of by a local fire extinguisher retailer.
Wall Paint	5 gallon container (1 container, 50% full)**	Pending inspection and waste classification. Disposal method shall depend on whether the material is hazardous or non-hazardous.
Unlabeled Solid****	5 gallon container (1 container)**	Pending inspection and waste classification. Disposal method shall depend on whether the material is hazardous or non-hazardous.
Paint	1 quart container (3 containers)**	Pending inspection and waste classification. Disposal method shall depend on whether the material is hazardous or non-hazardous.
Oil-like Liquid	1 gallon open container (1 container)**	Pending inspection and waste classification. Disposal method shall depend on whether the material is hazardous or non-hazardous.

Notes:

(1) Empty containers are not listed

* - The approximate quantity of material remaining within each container (expressed as a fraction of the total container's capacity) was estimated based on visual observation and/or lifting/tilting each container.

** - Identified by Blasland, Bouck & Lee, Inc. in February, 2003 as part of BBL's Building Materials and Equipment Investigation.

Table 6
Inventory of Universal Waste and Other Miscellaneous Regulated Materials
Hazardous Materials Investigation
South Bronx Marine Transfer Station

** - Identified by Blasland, Bouck & Lee, Inc. in February, 2003 as part of BBL's Building Materials and Equipment Investigation to have an estimated capacity of 2,750 gallons, and according to petrometer reading, contained approximately 7 inches (120 gallons) of product.

**** - Manufactured by "National Starch and Chemical Company".

Table 7
Summary of PCB Analysis
Hazardous Materials Investigation
South Bronx Marine Transfer Station

Sample ID	Location	Sample Description	Substrate	PCB (mg/kg)
SBRONX-SLIP-C1*	Barge Slip Level	Catwalk	Wood	ND
SBRONX-SLIP-C2*	Barge Slip Level	Catwalk	Wood	ND
SBRONX-SLIP-C3*	Barge Slip Level	Deck	Wood	ND
SBRONX-SLIP-C6*	Mechanical Equipment Room, Barge Slip Level	Floor	Concrete	ND
SBRONX-SLIP-OIL-1*	Barge Slip Level	Capstan	Oil	ND
SBRONX-SLIP-OIL-2*	East Pump Room (Pump Room No. 2), Barge Slip Level	Inactive Water Pump	Oil	387
SBRONX-TIP-C1*	Tipping Floor	Floor	Concrete	ND
SBRONX-TIP-C2*	Tipping Floor	Floor	Concrete	ND
SBRONX-TIP-A1*	Tipping Floor	Wall	Transite	ND
SBRONX-TIP-A2*	Tipping Floor	Wall	Transite	ND
SBMTS CON-1	Ramp A, Ramp B, Access Ramp	Floor	Concrete	ND
SBMTS CON-2	Pump Room No. 1, Pier Level	Floor	Concrete	ND
SBMTS WD-1	Ramp A	Utility Pole	Wood	ND
SBMTS CLK-1	Eastern Wall, Ramp B	Lower Pipe Elbow Covering	Tar	ND
SBMTS CLK-2	Eastern Wall, Ramp B	Black Lower Pipe Wrapping	Paper Wrapping	ND
SBMTS CLK-3	Eastern Wall, Ramp B	Black Lower Pipe Insulation	Pipe Insulation	ND
SBMTS CLK-4	Eastern Wall, Ramp B	Wrapping	Wrapping	ND
SBMTS CLK-6	Eastern Wall, Ramp B	Orange Upper Pipe Sealant	Caulk	ND
SBMTS CLK-7	Eastern Wall, Ramp B	Black Tar	Tar	ND
SBMTS CLK-8	Floor, Ramp B	Black Expansion Sealant	Caulk	0.918
SBMTS CLK-9	Floor, Access Ramp	White Expansion Sealant	Caulk	ND
SBMTS CLK-10	Eastern Wall, Access Ramp	Black Tar	Tar	ND
SBMTS CLK-11	Western Wall, Access Ramp	Black Tar Over Joint	Tar	ND
SBMTS CLK-12	Weigh Booth, Access Ramp	Electrical Panel	Caulk	ND
SBMTS CLK-13	Weigh Booth, Access Ramp	Window Caulk	Caulk	ND
SBMTS CLK-14	Foreman's Office Eastern Wall, Tipping Floor	Window Glaze	Glaze	ND
SBMTS CLK-15	Foreman's Office Eastern Wall, Tipping Floor	East Wall Window Glaze	Glaze	ND
SBMTS CLK-16	Fan Room No. 1, Tipping Floor	East Wall Window Glaze	Glaze	ND
		Door Frame Black Sealant	Caulk	ND

Table 7
Summary of PCB Analysis
Hazardous Materials Investigation
South Bronx Marine Transfer Station

<i>Sample ID</i>	<i>Location</i>	<i>Sample Description</i>	<i>Substrate</i>	<i>PCB (mg/kg)</i>
SBMITS CLK-17	Western Wall, Ramp A	Electrical Pipe Access Panel	Caulk	ND
SBMITS CLK-18	Foreman's Office Eastern Wall, Tipping Floor	Caulk Under Window Frame	Caulk	ND

Notes:

- (1) The regulatory limit for defining TSCA-regulated PCBs is 50 mg/kg. The water pump is therefore considered a PCB Article.
- (2) Samples collected by Bidwell Environmental on November 14-17th, 2012
- (3) SBMITS CLK-5 was not analyzed as it was not a suspected PCB containing material
- (4) Barge Slip Level referred to in the BBL Investigation is the Pier Level
- * - Samples collected by ATC Associates Inc. in March, 2003 as part of BBL's Building Materials and Equipment Investigation
- ** - There is a similar Water Pump in Barge Slip Level West Pump Room (Pump Room No. 1) that is presumed to also contain TSCA-regulated PCBs.
- ND - Not Detected

Table 8
Summary of RCRA Hazardous Waste Analysis
Hazardous Materials Investigation
South Bronx Marine Transfer Station

Sample ID	Location	Component	Substrate	Results
SBRONX-SLIP-C4*	Barge Slip Level	**	**	Non-hazardous
SBRONX-SLIP-C5*	Barge Slip Level	**	**	Non-hazardous
SBRONX-SLIP-C7*	Barge Slip Level	**	**	Non-hazardous
SBRONX-TIP-C3*	Tipping Floor Level	Floor	Concrete	Non-hazardous
SBMTS CON-1	Ramp A, Ramp B, Access Ramp	Floor	Concrete	Non-hazardous ¹
SBMTS CON-2	Pump Room No. 1, Pier Level	Floor	Concrete	Non-hazardous
SBMTS WD-1	Ramp A	Utility Pole	Wood	Non-hazardous ²
SBMTS BULK-1	Tipping Floor Interior	Wall	Masonry	Non-hazardous
SBMTS BULK-2	Building Exterior	Wall	Masonry	Non-hazardous

Notes:

(1) Samples collected by Bidwell Environmental on November 14th and 16th, 2012

(2) Barge Slip Level referred to in the BBL Investigation is the Pier Level

* - Samples collected by Blasland, Bouck & Lee, Inc. in March, 2003 as part of BBL's Building Materials and Equipment Investigation

** - Samples are detailed within the report, but it is not specified which sample corresponds to which description. The 3 samples are:

- concrete floor
- masonry wall
- wooden catwalk

¹ Non-hazardous classification is based on TCLP concentrations (Metals) below the regulatory limit for defining hazardous waste and the absence of detectable concentrations of other contaminants of concern (SVOCs).

² Non-hazardous classification is based on TCLP concentrations (Metals and SVOCs) below the regulatory limit for defining hazardous waste. No other contaminants of concern (Pesticides, Herbicides and VOCs) were detected at concentrations exceeding 20 times the EPA limit for characteristic hazardous waste.

Table 9
Areas Requiring Further Investigation
Hazardous Materials Investigation
South Bronx Marine Transfer Station

<i>Location</i>	<i>Material Description</i>	<i>Sampling Requirements</i>
Pier Level	Painted Surfaces	Lead and PCBs in paint if not previously tested (see Tables 1 through 3).
	Concrete Floors - Pump Room No. 2	If staining is observed on the concrete floor of Pump Room No. 2, one grab sample of each stain should be analyzed for PCBs in accordance with USEPA's Draft Standard Operating Procedure For Sampling Concrete in the Field. If there is no visible staining, one composite sample of 5 grab samples of the concrete floor of Pump Room No. 2 should be analyzed for PCBs.
	Masonry and Painted Walls	One composite full core sample of the painted masonry shall be collected and analyzed for TCLP metals.
	Wood	<ul style="list-style-type: none"> • One bulk composite sample of the wooden piles for analysis of TCLP metals, TCLP semi-volatiles, TCLP pesticides, TCLP herbicides and total PCBs. • One composite full core sample of the wooden barge slip/bulkhead fenders for analysis of TCLP metals, TCLP semi-volatiles, TCLP pesticides, TCLP herbicides and total PCBs. • One bulk sample of the green painted wooden barge slip for analysis of TCLP metals, TCLP semi-volatiles, TCLP pesticides, TCLP herbicides and total PCBs.
	Suspect Asbestos Containing Materials	Additional asbestos inspection required. All suspect asbestos containing materials not previously sampled (see Table 5) shall be sampled.
	Caulks and Mastics	In addition to asbestos, all caulks and mastics shall be sampled for total PCBs.
	Universal and Other Misc. Regulated Waste	<ul style="list-style-type: none"> • Miscellaneous oils and grease in pumps/motors shall be tested for total PCBs and TCLP metals

**Table 9
 Areas Requiring Further Investigation
 Hazardous Materials Investigation
 South Bronx Marine Transfer Station**

Location	Material Description	Sampling Requirements
Pier Level		<ul style="list-style-type: none"> • Inventory contents of fuel oil in storage tank and sample for total PCBs and TCLP metals. • Inventory contents of oil/water separator and sample for total PCBs and full RCRA characteristics (ignitability, reactivity, corrosivity and full TCLP). • Inventory contents of boiler and sample for total PCBs and full RCRA characteristics (ignitability, reactivity, corrosivity and full TCLP). • Inventory contents of tanks in Mechanical Room and sample for total PCBs and full RCRA characteristics (ignitability, reactivity, corrosivity and full TCLP). • One composite sample of miscellaneous oils in Capstans shall be collected and analyzed for total PCBs and TCLP metals. • One oil sample from Water Pump in Pump Room No. 1 for total PCBs and TCLP metals. • One oil sample from Water Pump in Pump Room No. 2 for TCLP metals. • Tanks should be inspected for evidence of hazardous materials. If hazardous materials are suspected, sample for total PCBs and full RCRA characteristics (ignitability, reactivity, corrosivity and full TCLP). If sanitary waste is confirmed and there is no evidence of hazardous materials, waste should be disposed of at a publicly owned treatment works. • Conduct survey for universal waste and other potentially regulated materials throughout. • Piping shall be inspected for lead joints.

Table 9
Areas Requiring Further Investigation
Hazardous Materials Investigation
South Bronx Marine Transfer Station

<i>Location</i>	<i>Material Description</i>	<i>Sampling Requirements</i>
Tippling Floor		
Concrete Platforms (Eastern, Western and Southern Tippling Floor)	Painted Surfaces	Lead and PCBs in paint if not previously tested (see Tables 1 through 3). Additional asbestos inspection required. All suspect asbestos containing materials not previously sampled (see Table 5) shall be sampled.
	Suspect Asbestos Containing Materials	In addition to asbestos, all caulks and mastics shall be sampled for total PCBs.
	Caulks and Mastics	
	Universal and Other Misc. Regulated Material	Conduct universal waste and other potentially regulated materials survey throughout.
South west corner of Fan Room No. 2 and south east corner of Fan Room No. 1	Wall Mounted Heaters (2)	Heaters should be investigated for mercury containing thermostats prior to disposal.
Meter Room	Discarded Sangamo Electric EMC Transformers (3)	While typically not fluid cooled, the absence of PCB containing fluids should be confirmed prior to disposal to determine the correct disposal method.
Open Area by Stair No.1	One 55-Gal Drum of soil, concrete debris, ash, glass and plastic	The contents of the drum shall be sampled for TCLP VOCs, TCLP SVOCs, TCLP metals, TCLP herbicides, TCLP pesticides, total PCBs and asbestos to classify the waste for disposal purposes.
Men's Toilet	Refrigerator (1)	Non-hazardous regulated waste. The refrigerator should be inspected for CFCs or other potentially regulated refrigerants, PCB capacitors and mercury containing components prior to disposal and recycled in accordance with local regulations, which may require the evacuation of refrigerants by a technician licensed in accordance with 40 CFR 82.161.

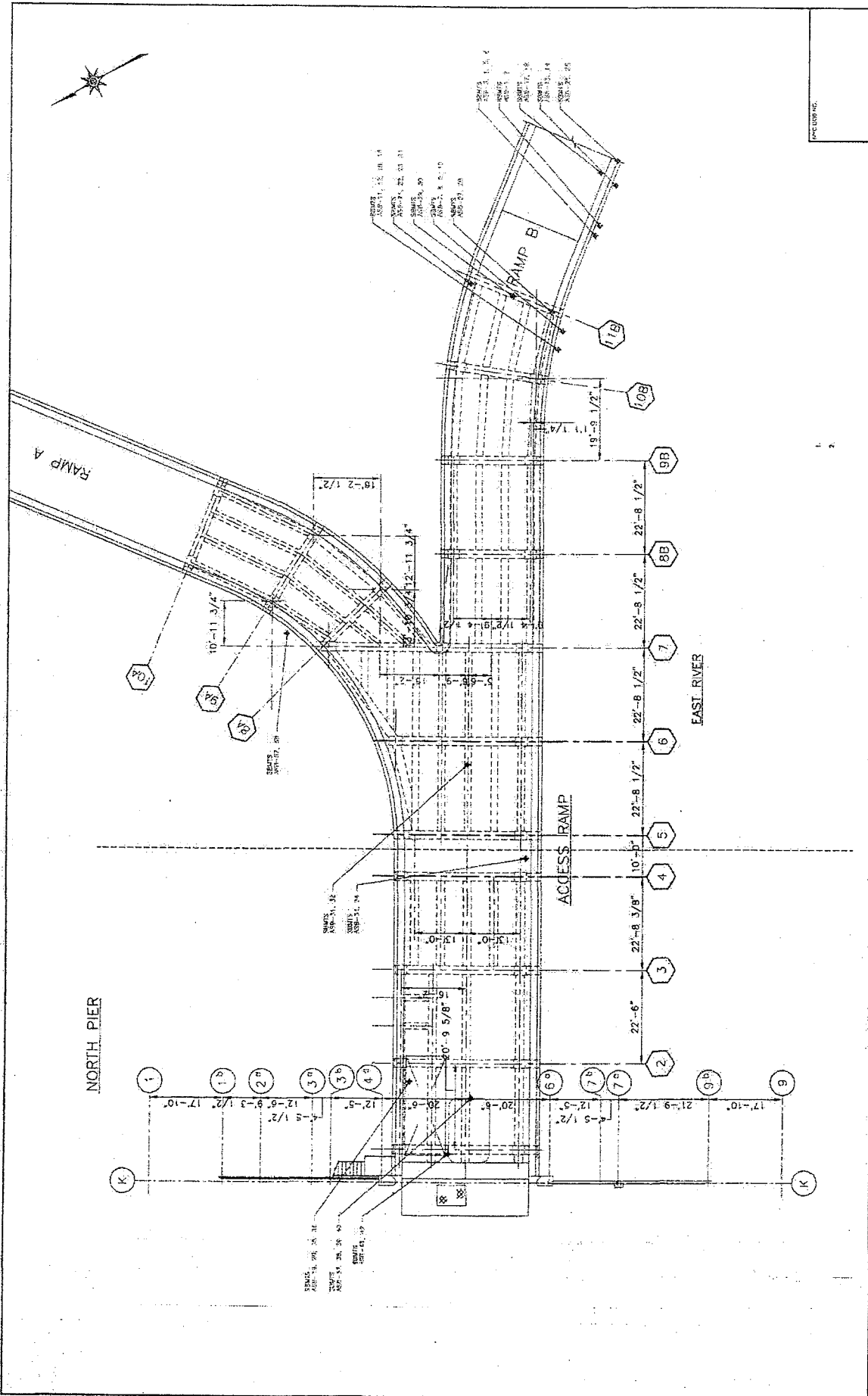
Table 9
Areas Requiring Other Investigation
Hazardous Materials Investigation
South Bronx Marine Transfer Station

<i>Location</i>	<i>Material Description</i>	<i>Sampling Requirements</i>
Tipping Floor		
Interior of Hoppers	Municipal Waste	The contents of the hoppers should be investigated to ensure that the material is municipal waste. If suspect hazardous materials are identified, sampling shall be performed to determine the proper disposal methods.
Exterior		
Roof	Universal Waste and Other Miscellaneous Regulated Waste	Drain pipe on Tipping Floor contained lead joints. This piping should be further investigated on roof.
Underside of Ramp A	Pipe Coating (paint) and Interior	Where present, paint shall be sampled for lead and total PCBs.
	Pipe Coating (mastic, caulking)	Where present, suspect pipe coating shall be sampled for asbestos and total PCBs.
Along Ramp A and Underground (as per drawings)	Pipe Interior (suspect ACM) "Electric Line"	Inspect contents of pipe and sample suspect materials for asbestos. If confirmed, wires and carrier pipe should be investigated for possible asbestos and PCB containing materials prior to demolition.
Entire Facility	Items previously identified by the BBL 2003 Survey	The facility in its entirety should be inspected for the presence of materials that were identified during the BBL survey but were not observed during the 2012 investigation. The materials are listed in Table 6.
	Exit Signs	The facility in its entirety should be inspected for the presence of exit signs. Exit signs shall be investigated to determine if the signs have the potential to contain radioactive material (tritium gas). If the sign has a totally enclosed void space/chamber that could contain gas, such signs shall

Table 9
Areas Requiring Further Investigation
Hazardous Materials Investigation
South Bronx Marine Transfer Station

<i>Location</i>	<i>Material Description</i>	<i>Sampling Requirements</i>
Entire Facility		<p>be assumed to contain radioactive material, unless otherwise specified on a sign label. All Exit signs that have the potential to contain radioactive gas shall be removed and placed in USDOT-approved containers. Exit signs that have the potential to contain radioactive gas shall be managed as a low-level radioactive waste due to the assumed presence of radioactive material (tritium) in accordance with 6 NYCRR Parts 381 and 382 and all other applicable federal, state, and local regulations. Exit signs that do not have the potential to contain radioactive gas shall be inspected for batteries. If batteries are present, they shall be recycled as universal waste at an appropriately permitted facility.</p>
Fire Extinguishers		<p>The facility in its entirety should be inspected for the presence of fire extinguishers. Fire extinguishers require special handling and shall be disposed of by a local fire extinguisher retailer.</p>
Smoke Detectors		<p>The facility in its entirety should be inspected for the presence of smoke detectors. All smoke detectors shall be removed and placed in USDOT-approved containers. Batteries, if any, shall be removed from the smoke detectors and recycled as universal waste at an appropriately permitted facility. The smoke detectors shall be managed as a low-level radioactive waste due to the assumed presence of radioactive material (americium 241) in accordance with 6 NYCRR Parts 381 and 382 and all other applicable federal, state, and local regulations, unless otherwise specified on a smoke detector label.</p>

Attachment A
Sample Locations



PROJECT NO.
 DATE
 DRAWN BY
 CHECKED BY
 APPROVED BY

FIGURE 4
 RAMP ASBESTOS SAMPLE LOCATIONS

FOR NEW YORK CITY
 DEPARTMENT OF SANITATION
 100 W. 125th Street
 NEW YORK, NY 10027
 MARINE TRANSFER STATION

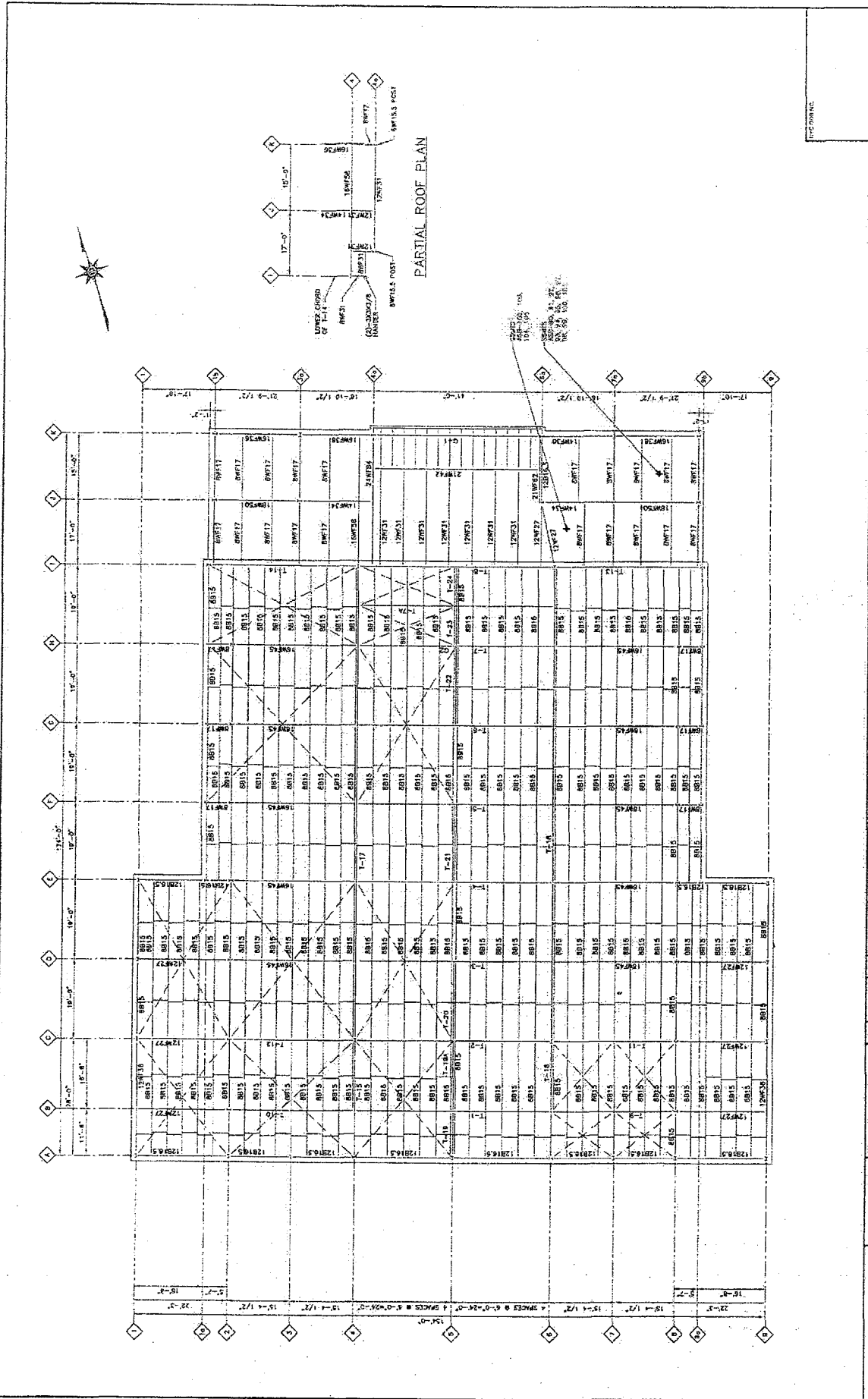
NEW YORK CITY DEPARTMENT OF
 PUBLIC WORKS
 100 W. 125th Street
 NEW YORK, NY 10027

NO.	DATE	REVISION

NO.	DATE	REVISION

APPROVED: _____
 DESIGNED BY: _____
 DRAWN BY: _____
 CHECKED BY: _____

CHEBELLY AND HANSEN
 111 BROADWAY, SUITE 2101
 NEW YORK, NEW YORK 10005



PARTIAL ROOF PLAN

FOR NEW YORK CITY
DEPARTMENT OF SANITATION
MARINE TRANSFER STATION
SOUTH BRONX
MARINE TRANSFER STATION

SCALE: NOT

DATE: 10/10/00

DRAWN BY: J.M.

CHECKED BY: J.M.

DESIGNED BY: J.M.

DATE: 10/10/00

PROJECT: MARINE TRANSFER STATION

SHEET NO. OF 100

DATE: 10/10/00

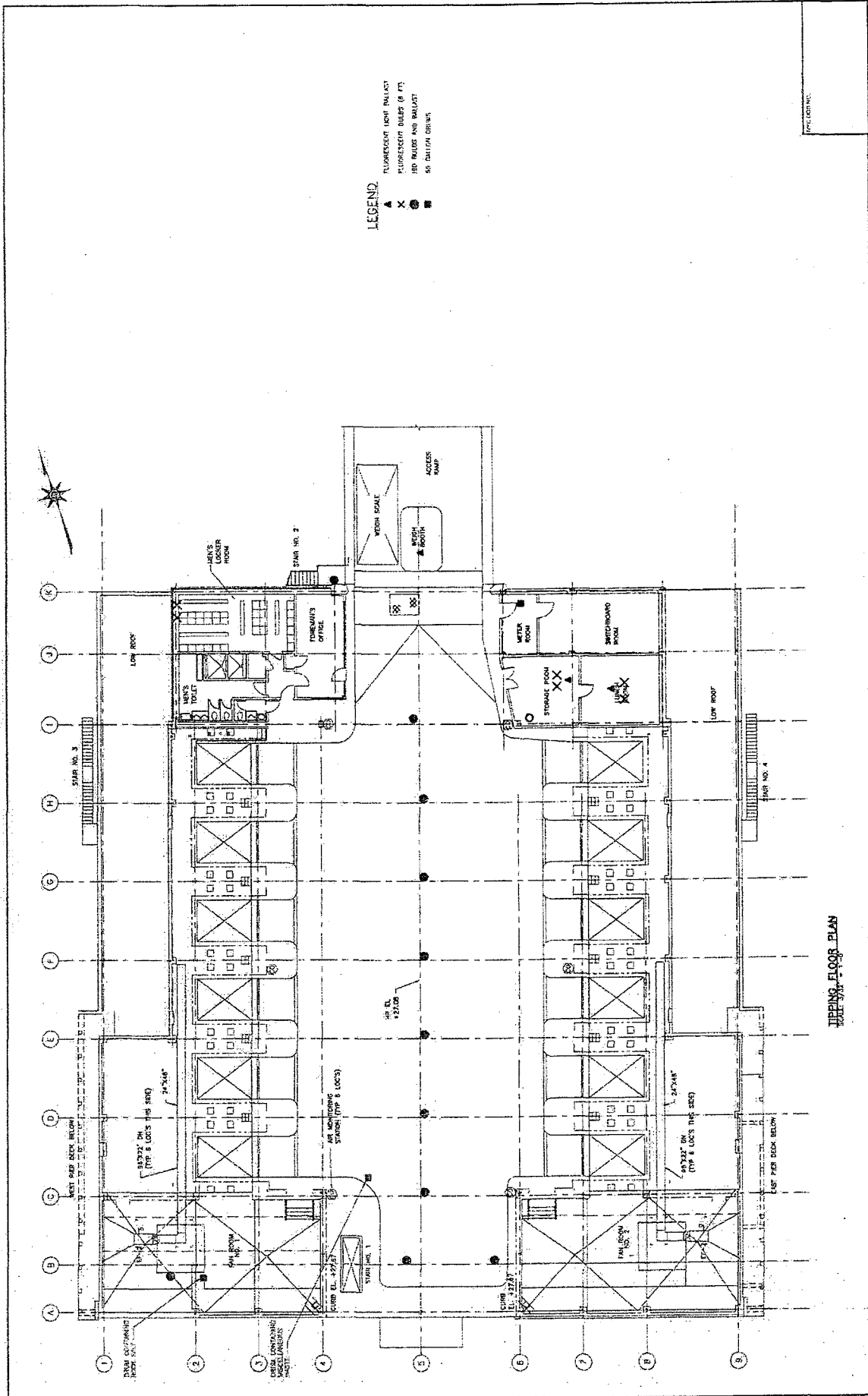
DRAWN BY: J.M.

CHECKED BY: J.M.

DESIGNED BY: J.M.

DATE: 10/10/00

PROJECT: MARINE TRANSFER STATION



LEGEND

FLUORESCENT LIGHT BALLAST
 ▲
 FLOORING BULLET (6 FT)
 X
 100 BULBS AND BALLAST
 ●
 50 BULB BRIMS
 ■

FIGURE 7
 SHEET NO. 1 OF 10
 DATE: 02/28/2010

TIPPING FLOOR - UNIVERSAL WASTE
 AND OTHER MISCELLANEOUS REGULATED
 MATERIALS - LIGHTING AND DRUMS

FOR NEW YORK CITY
 DEPARTMENT OF SANITATION
 100 SOUTH BROAD
 MARINE TRANSFER STATION



NEW YORK CITY DEPARTMENT OF
 DESIGN + CONSTRUCTION

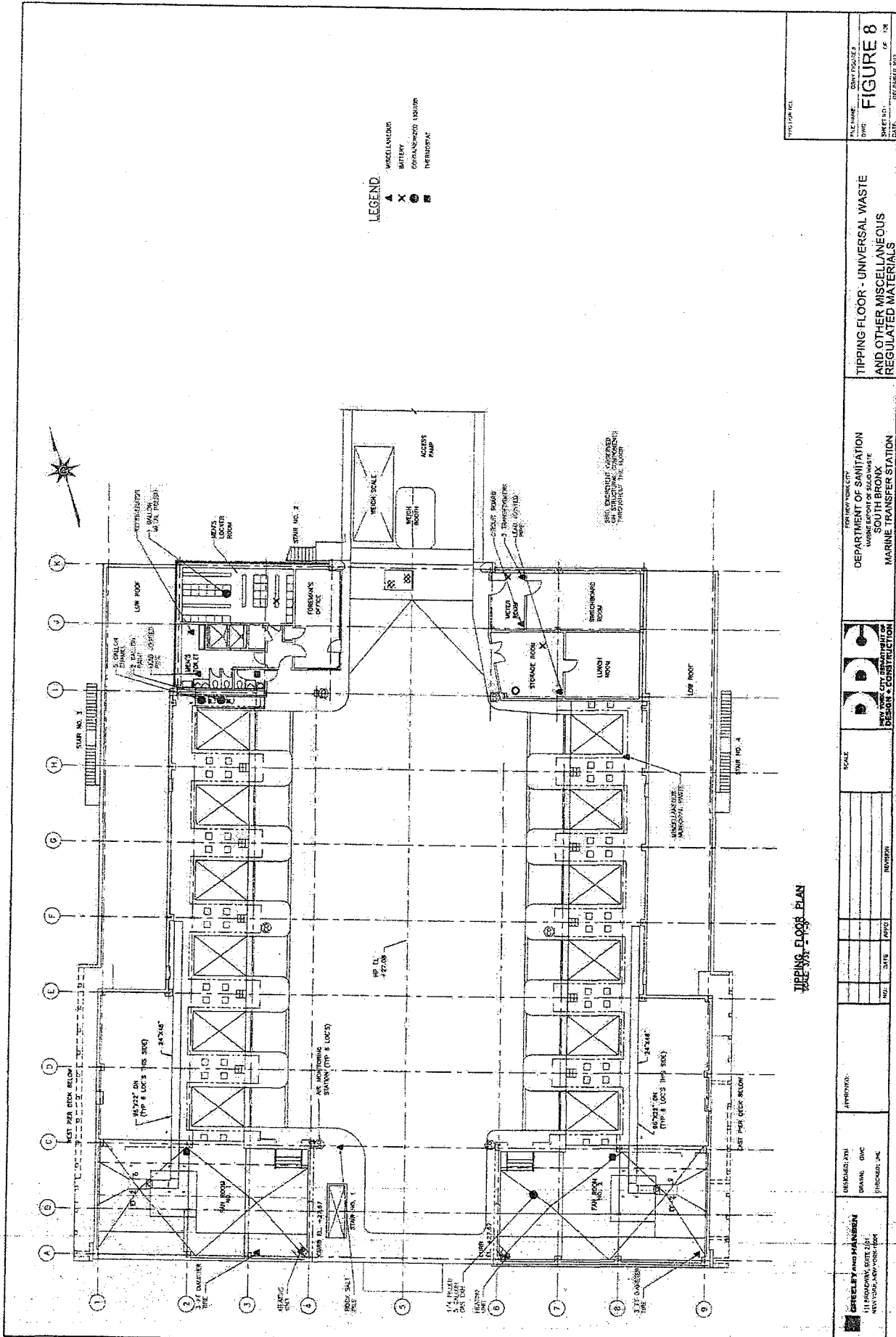
SCALE: _____
 REVISION: _____

APPROVED BY: _____
 DATE: _____

DESIGNED BY: _____
 CHECKED BY: _____

DOUGLAS H. HARRIS
 ARCHITECT
 100 SOUTH BROAD
 NEW YORK, NY 10002

TIPPING FLOOR PLAN



LEGEND

- ▲ MISCELLANEOUS
- WATER
- CONFINED LIQUOR
- THERMOPILE

FILE NAME: DRAWING NO. 2
 DATE: 11/15/12
FIGURE 8
 SHEET NO. OF 10
 DATE: 11/15/12
 REVISION: 2012

TIPPING FLOOR - UNIVERSAL WASTE
 AND OTHER MISCELLANEOUS
 REGULATED MATERIALS

NEW YORK CITY
 DEPARTMENT OF SANITATION
 WASTE EXPORT OR SOLID WASTE
 SOUTH BRONX
 MARINE TRANSFER STATION



SCALE: 1/8" = 1'-0"

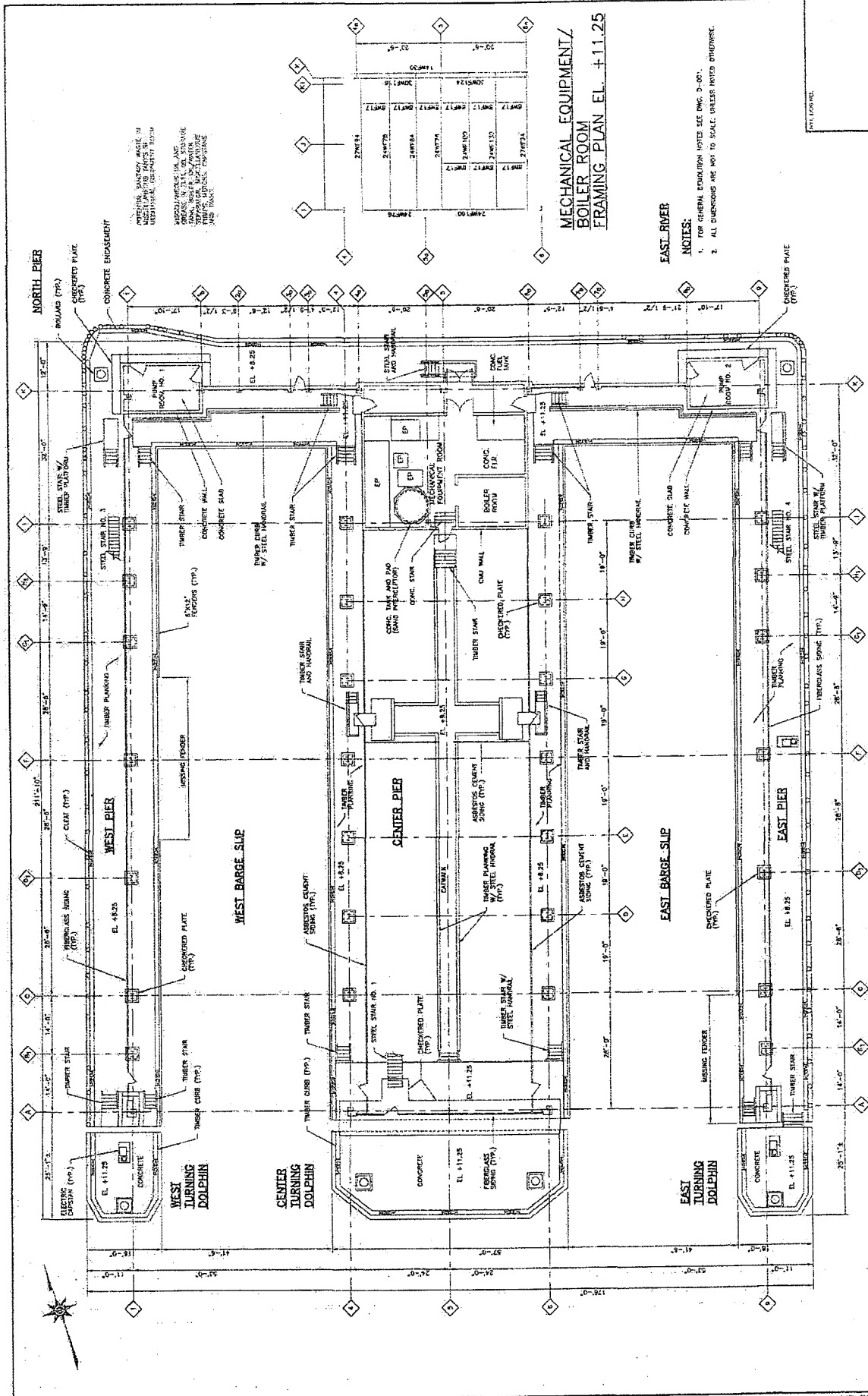
NO.	DATE	APPRO.	REVISION

APPROVED:

DESIGNED: PJA
 DRAWING: GVC
 PROJECT: MC

GREENE AND PARTNERS
 ARCHITECTS
 100 NASSAU ST.
 NEW YORK, NY 10038

DATE: 11/15/12



**MECHANICAL EQUIPMENT/
BOILER ROOM
FRAMING PLAN EL. +11.25**

EAST RIVER

NOTES:

1. FOR GENERAL DIMENSIONS REFER TO DWG. D-107.
2. ALL DIMENSIONS ARE NOT TO SCALE UNLESS NOTED OTHERWISE.

	PROJECT: PIER LEVEL - UNIVERSAL WASTE AND OTHER MISCELLANEOUS REGULATED MATERIALS
	SHEET NO.: FIGURE 9 OF 17
DATE: DECEMBER 1977	DRAWN BY: ...
CHECKED BY: ...	SCALE: NOT TO SCALE
APPROVED BY: ...	DEPARTMENT OF SANITATION SOUTH BROOK MARINE TRANSFER STATION
DATE: ...	NEW YORK CITY DEPARTMENT OF DESIGN & CONSTRUCTION

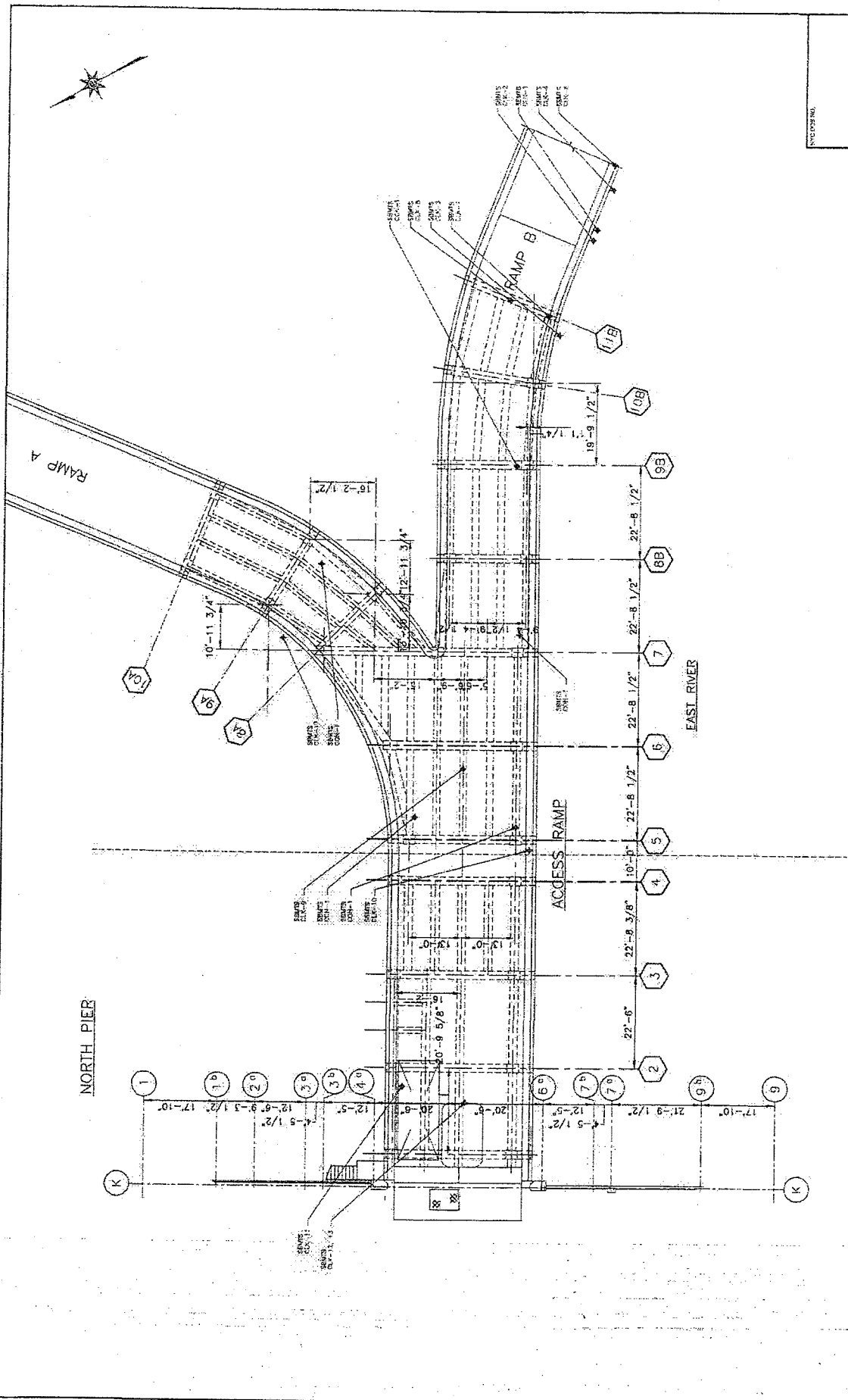
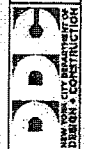


FIGURE 10
 SHEET NO. OF 708
 DATE: DECEMBER 23, 1968

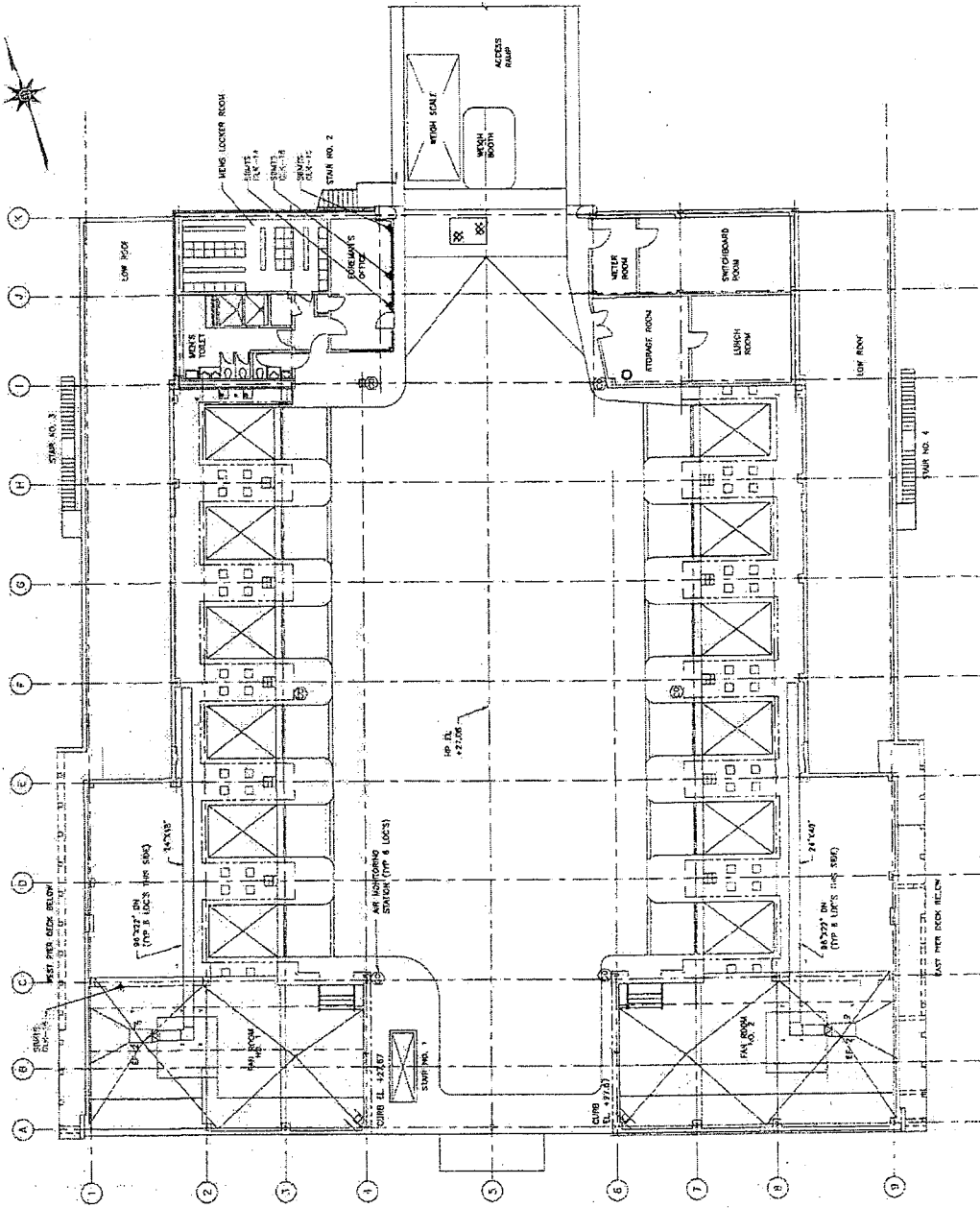
RAMP PCB SAMPLES
 DEPARTMENT OF SANITATION
 MARINE DIVISION OF SOLID WASTE
 SOUTH BRONX
 MARINE TRANSFER STATION



NO.	DATE	APPROV.	REVISION

DESIGNED BY: JTH
 DRAWN BY: OHC
 CHECKED BY: JKS

GEORGE W. HARTWIG
 1110 BROADWAY, SUITE 1201
 NEW YORK, N.Y. 10018



TIPPING FLOOR PLAN

NYC DOR NO.

FILE NAME: DRY-1304M-11
 DATE: 07/11/12
 SHEET NO.: 11 OF 11
 DATE: 07/11/12

TIPPING FLOOR
 PCB SAMPLES

DEPARTMENT OF SANITATION
 SOUTH BRONX
 MARINE TRANSFER STATION

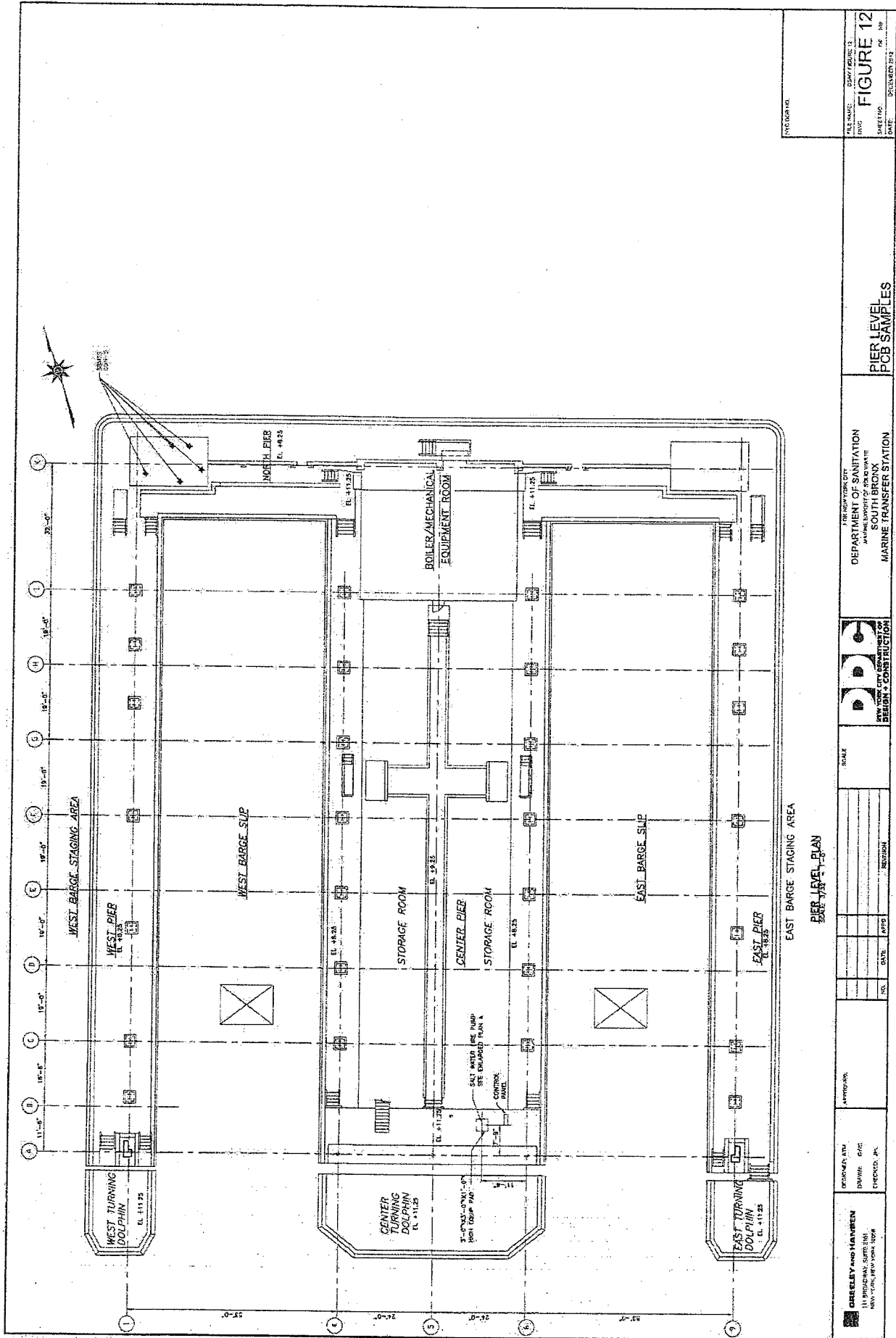


SCALE	REVISION

NO.	DATE	BY	CHKD

DESIGNED BY: [Blank]
 CHECKED BY: [Blank]

CREWLEY AND HARBEN
 ARCHITECTS
 150-10 101ST AVE, SUITE 200
 JAMAICA, NY 11434



INCORPORATE

FILE NAME: 10047100103
 TITLE: FIGURE 12
 SHEETING: PCB
 DATE: 02/08/2013

PIER LEVEL
 PCB SAMPLES

NEW YORK CITY
 DEPARTMENT OF SANITATION
 AS A DIVISION OF THE DEPARTMENT OF
 SOUTH BRONX
 MARINE TRANSFER STATION



NO.	DATE	BY	REVISION

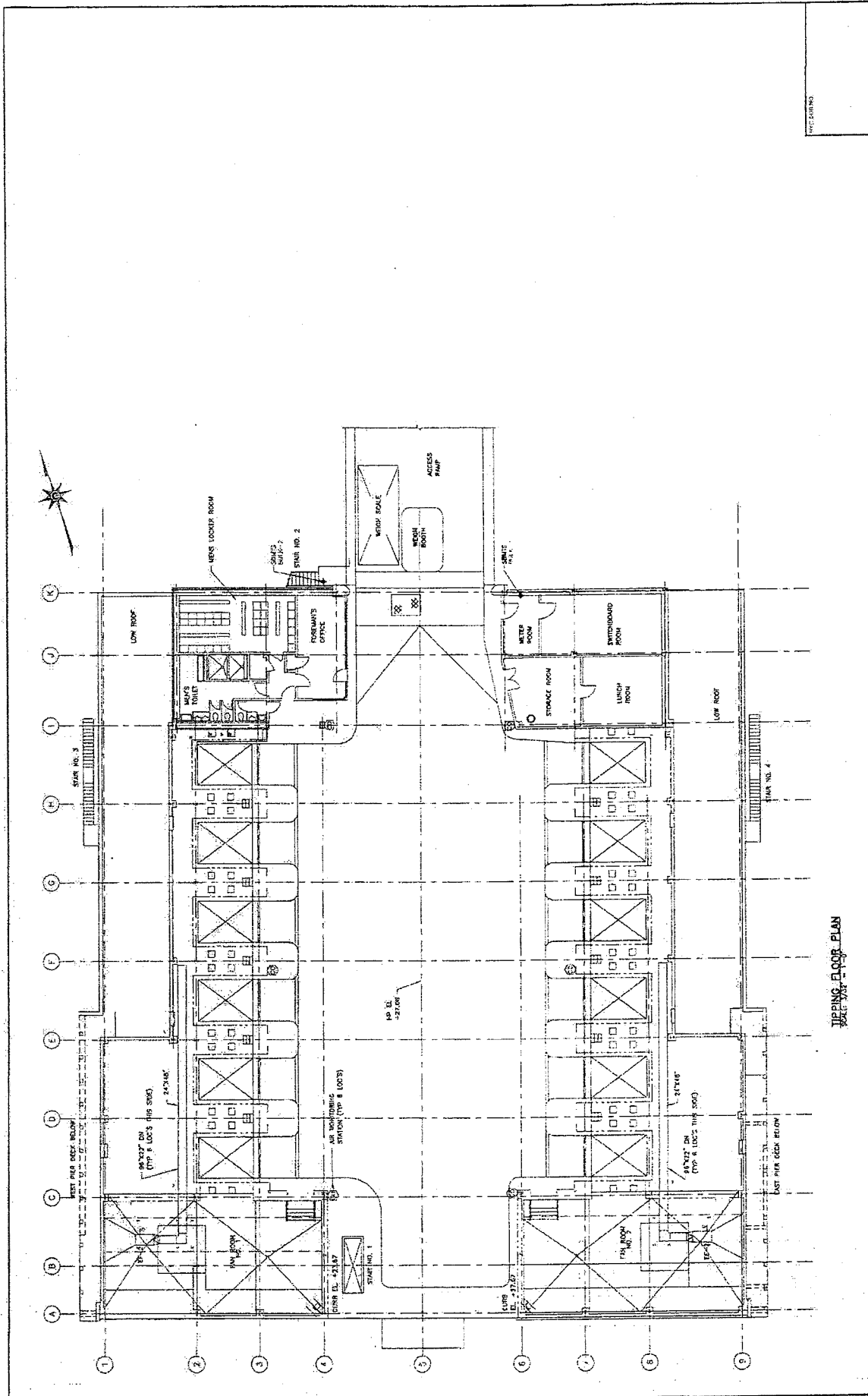
SCALE

PIER LEVEL PLAN

APPROVAL

DESIGNED BY: []
 DRAWN BY: []
 CHECKED BY: []

DEELEY and HARTEN
 111 WILHELMUS STREET, 8TH FLOOR
 NEW YORK, NEW YORK 10038



<p>FOR NEW YORK CITY DEPARTMENT OF SANITATION MARINE DEPT. OF SOLID WASTE SOUTH BROOKLYN MARINE TRANSFER STATION</p>		<p>SCALE</p>		<p>APPROVED:</p>		<p>DATE</p>	
<p>FIGURE 13</p>		<p>TIPPING FLOOR PLAN</p>		<p>DESIGNED BY: GREGORY AND HANSEN</p>		<p>DATE</p>	
<p>TITLE: TIPPING FLOOR PLAN</p>		<p>SCALE: AS SHOWN</p>		<p>DRAWN BY: GYC</p>		<p>DATE: 02/20/82</p>	
<p>FIG. NO.: 13</p>		<p>SCALE: AS SHOWN</p>		<p>CHECKED BY: GYC</p>		<p>DATE: 02/20/82</p>	
<p>DATE: 02/20/82</p>		<p>SCALE: AS SHOWN</p>		<p>DATE: 02/20/82</p>		<p>DATE: 02/20/82</p>	

GREGORY AND HANSEN
 111 BROADWAY, SUITE 201
 NEW YORK, N.Y. 10005



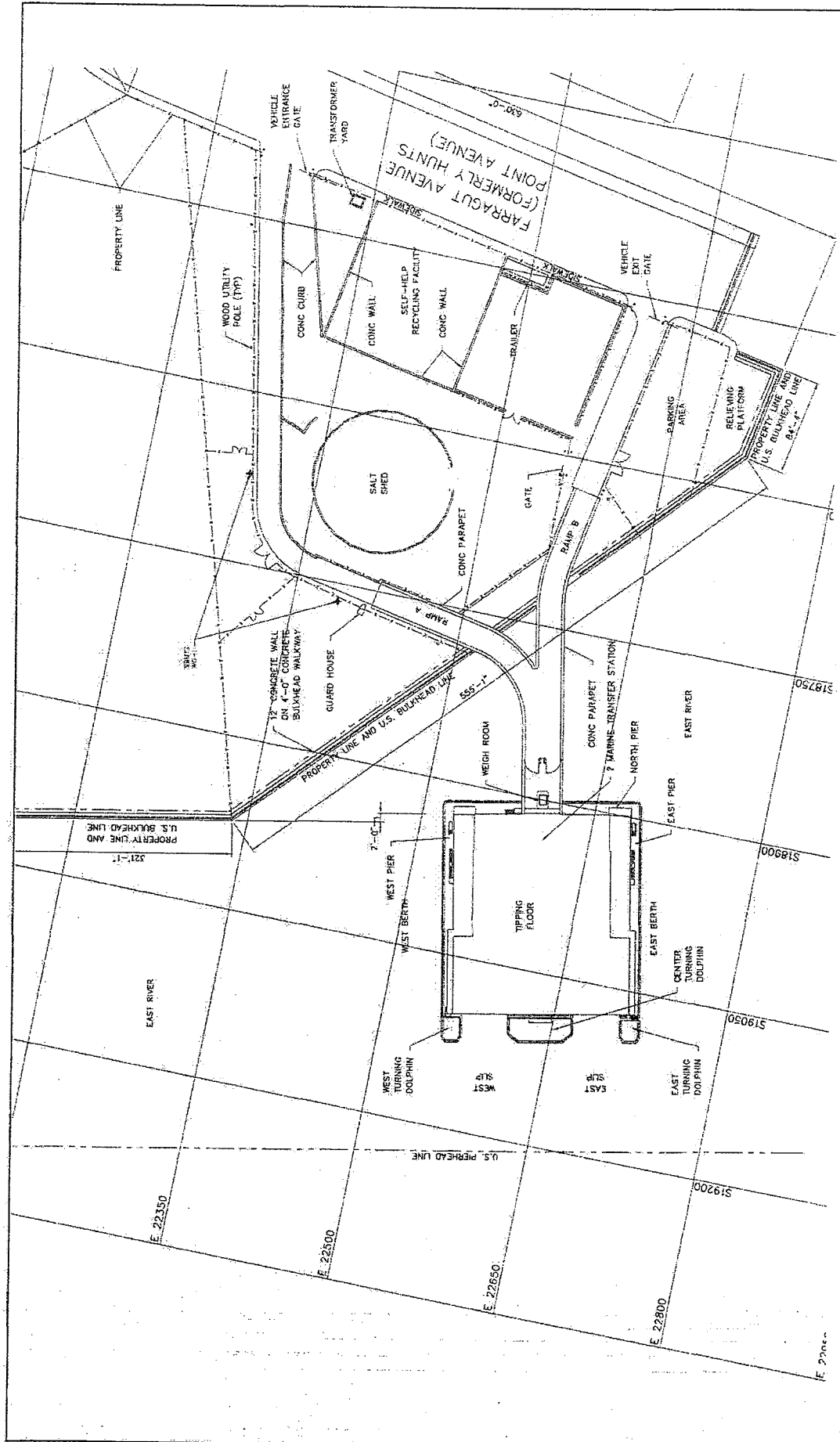


FIGURE 14

SHEET NO. OF 12
DATE: REGULAR BNY

RAMP WOOD SAMPLES

FOR NEW YORK CITY
DEPARTMENT OF SANITATION
OFFICE OF THE SUPERVISOR
SOUTH BRONX
MARINE TRANSFER STATION

SITE PLAN

SCALE

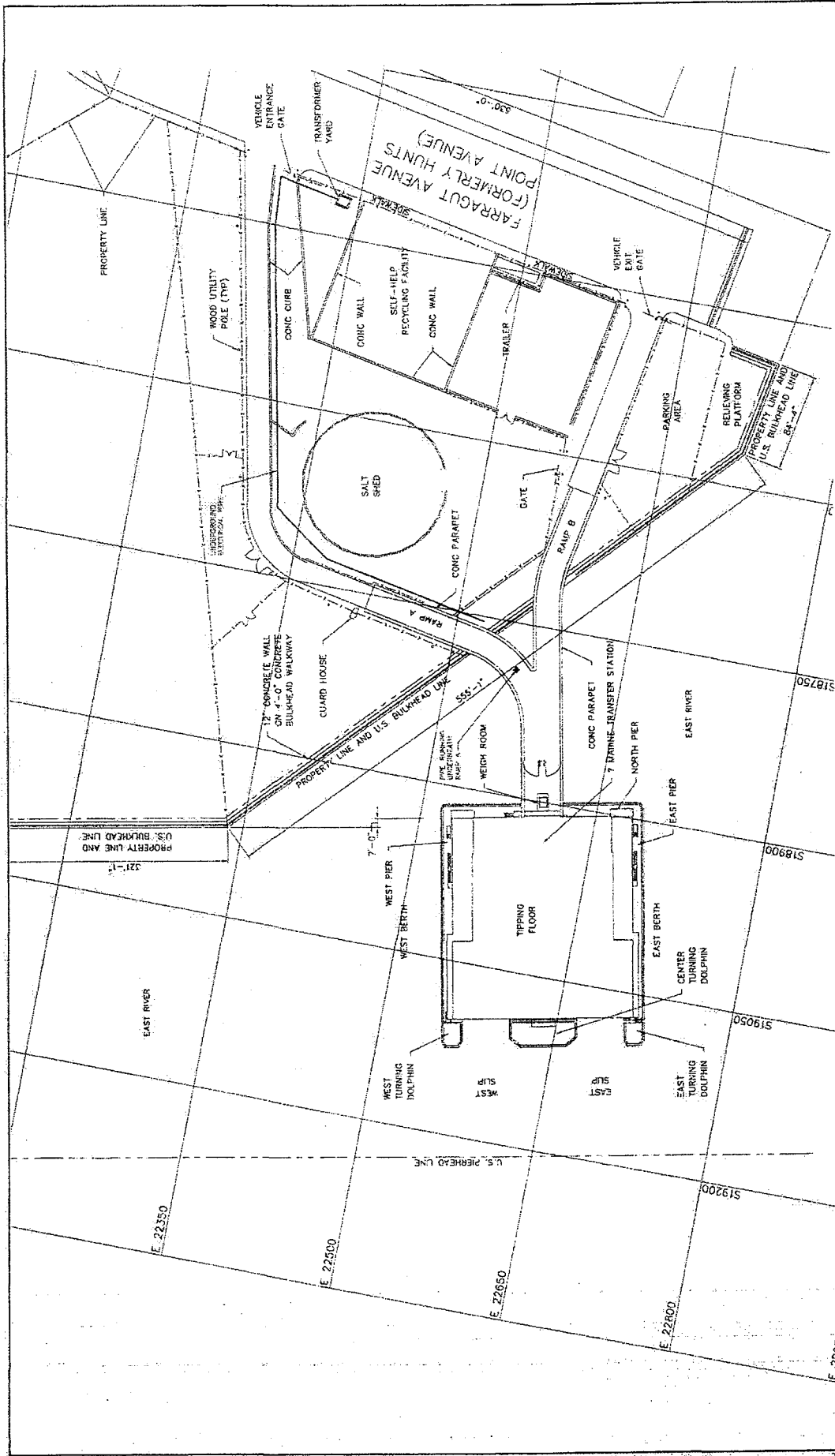
NO.	DATE	APP'D	REVISION

DESIGNED BY: **GRIGLEY AND HANSEN**
115 WASHINGTON STREET 2ND FLOOR
NEW YORK, N.Y. 10013

PREPARED BY: **GRIGLEY AND HANSEN**
DRAWN BY: **GRIGLEY AND HANSEN**
CHECKED BY: **GRIGLEY AND HANSEN**

APPROVED: _____

DATE: _____



TEL: 212-224-1100
 DWG: 15
 SHEET NO. OF 15
 DATE: 05/20/07

FIGURE 15

AREAS REQUIRING FURTHER INVESTIGATION, RAMP AND ROADWAY

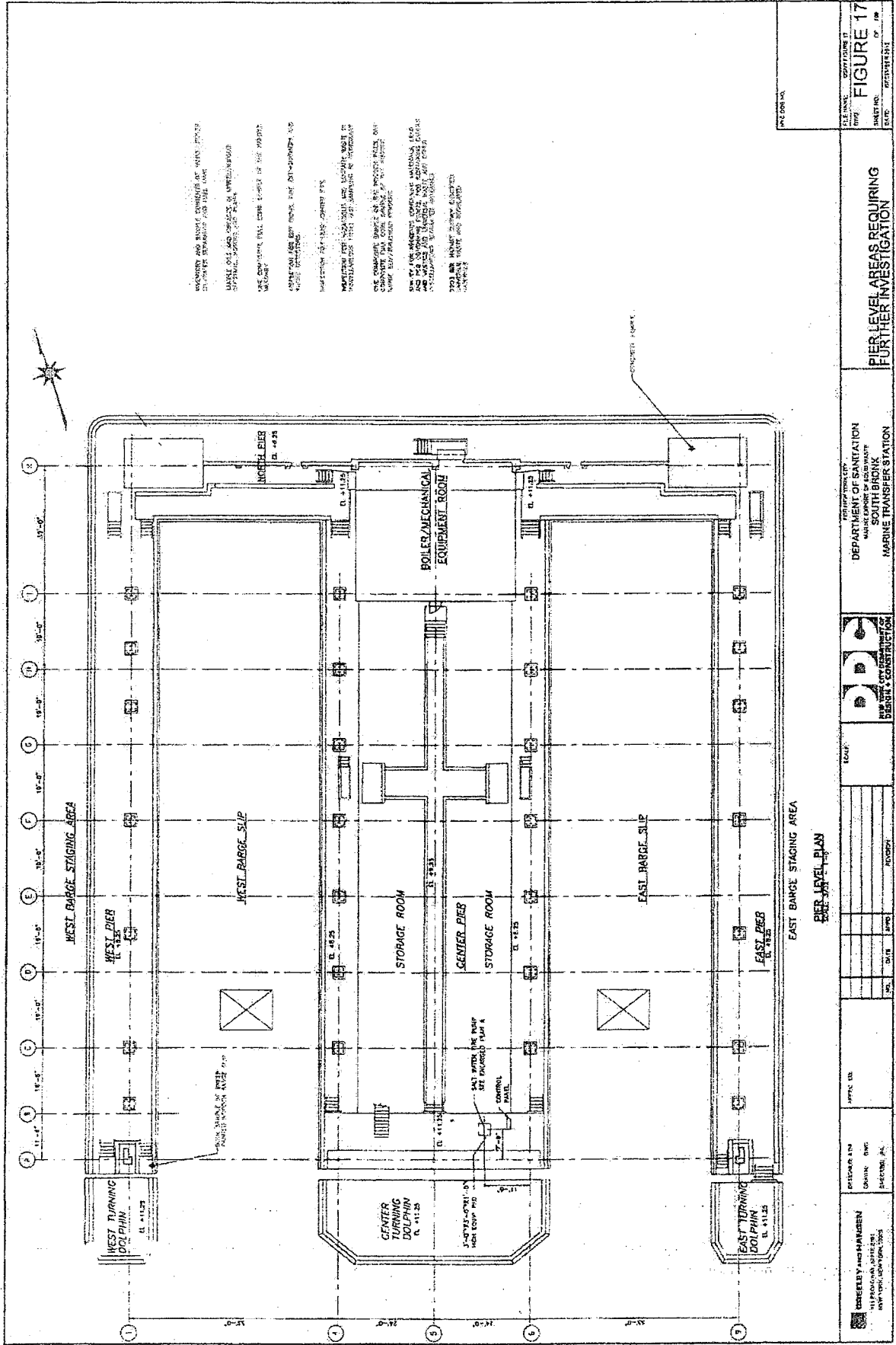
FOR NEW YORK CITY
 DEPARTMENT OF SANITATION
 (under contract to South Bronx)
 SOUTH BRONX
 MARINE TRANSFER STATION


 NEW YORK CITY DEPARTMENT OF
 DESIGN + CONSTRUCTION

NO.	DATE	BY	REVISION

APPROVED: _____
 DESIGNED BY: _____
 DRAWN BY: _____
 CHECKED BY: _____

CHEELEY and HANDEEN
 111 Broadway, Suite 300
 New York, New York 10038



INDICATED AND THESE CONDITIONS AT THESE POINTS
 ON THESE DRAWINGS AND THIS CASE
 APPROVED FOR THE PROJECT

UNLESS OTHERWISE NOTED, ALL DIMENSIONS ARE IN FEET AND INCHES.
 ONE INCH EQUALS FOUR FEET.

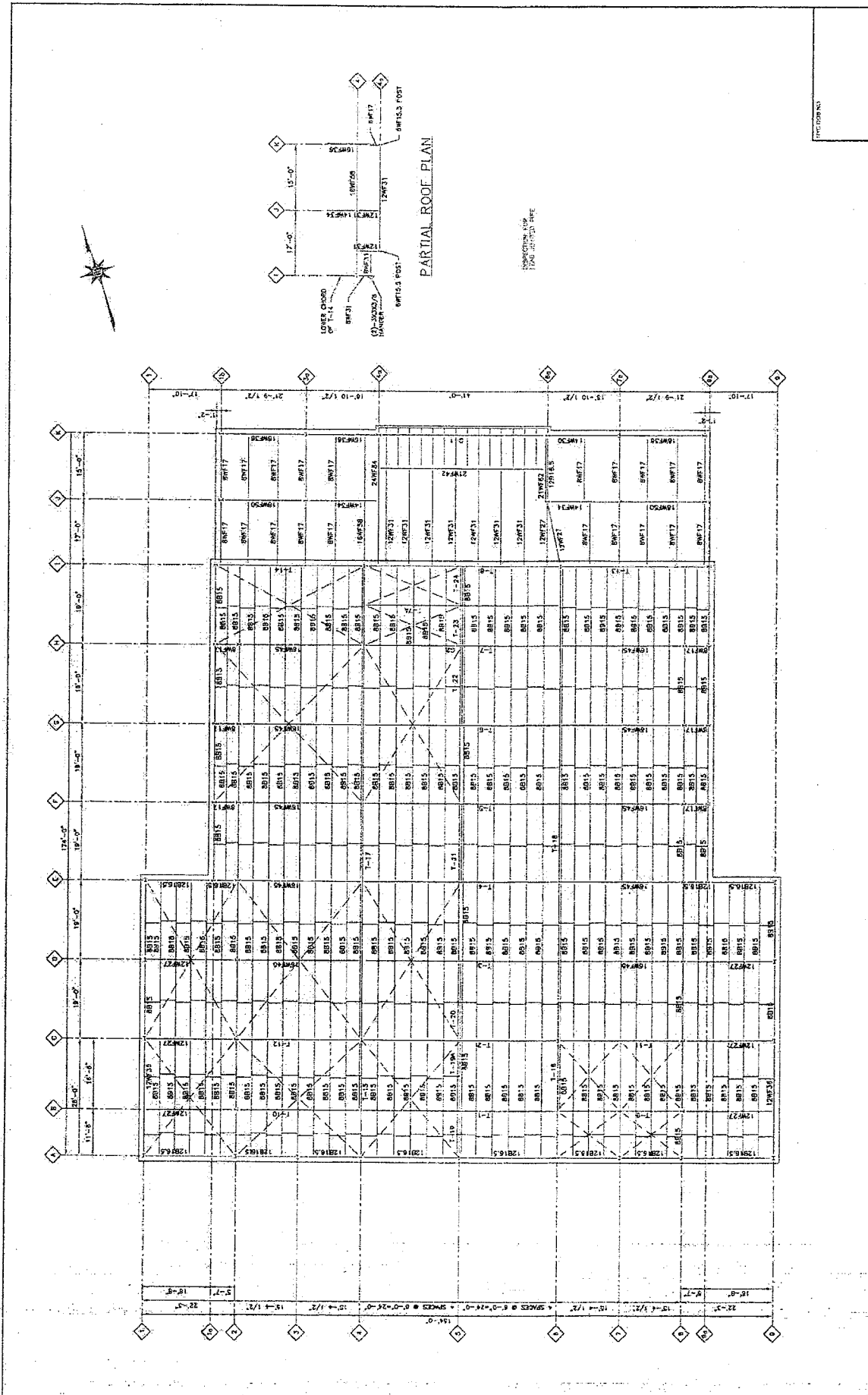
CONSTRUCTION AND MATERIALS SHALL BE AS SHOWN ON THESE DRAWINGS.
 UNLESS OTHERWISE NOTED, ALL DIMENSIONS ARE IN FEET AND INCHES.
 ONE INCH EQUALS FOUR FEET.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE APPROPRIATE AGENCIES.
 ALL WORK SHALL BE IN ACCORDANCE WITH THE LATEST EDITIONS OF THE BUILDING CODES AND ALL APPLICABLE REGULATIONS.

THIS PLAN IS FOR INFORMATION ONLY AND IS NOT TO BE USED FOR CONSTRUCTION.
 FOR MORE INFORMATION, CONTACT THE ARCHITECT.

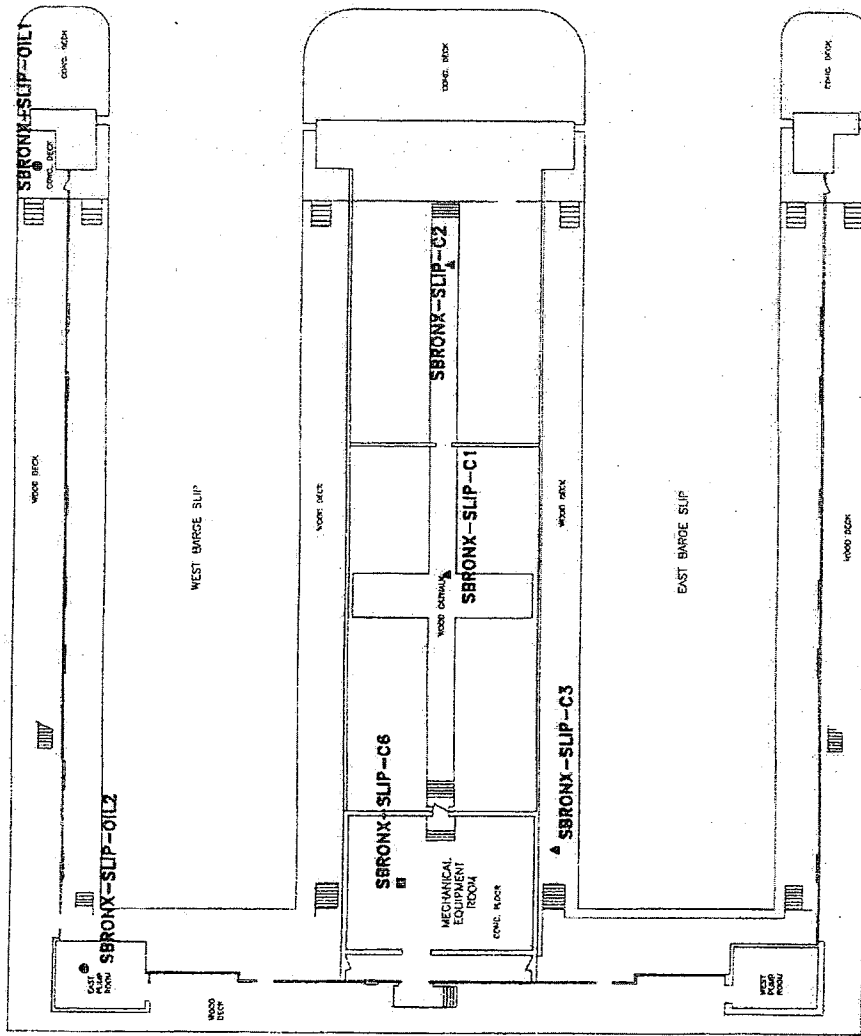
	DEPARTMENT OF SANITATION MARINE TRANSFER STATION SOUTH BRONX	PROJECT NO. 17 SHEET NO. 17 DATE:
	PIER LEVEL AREAS REQUIRING FURTHER INVESTIGATION	FIGURE 17
PREPARED BY: CHECKED BY: DATE:	REVIEWED BY: DATE:	SCALE:

6500 YORK STREET, 4TH FLOOR, NEW YORK, NY 10018



<p>FOR NEW YORK CITY DEPARTMENT OF SANITATION MARINE TRANSFER STATION SOUTH BRONX MARINE TRANSFER STATION</p>		<p>FIGURE 18 SHEET NO. 18 DATE: DECEMBER 1912</p>	
<p>DESIGNED BY: G.M.C. DRAWN BY: G.M.C. CHECKED BY: G.M.C.</p>		<p>APPROVED: _____ DATE: _____</p>	
<p>GREGORY AND HANSEN 111 BROADWAY, SUITE 1011 NEW YORK, N.Y. 10005</p>		<p>NEW YORK CITY DEPARTMENT OF DESIGN & CONSTRUCTION</p>	

Attachment B
Sample Locations from 2003 Survey



LEGEND:

- ▲ SBRONX-SLIP-C1 APPROXIMATE LOCATION OF WOOD CORE SAMPLE
- SBRONX-SLIP-C6 APPROXIMATE LOCATION OF CONCRETE CORE SAMPLE
- SBRONX-SLIP-OIL1 APPROXIMATE LOCATION OF EQUIPMENT OIL SAMPLE

NOTES:

1. THE BASE MAP IS BASED ON VISUAL OBSERVATIONS MADE BY BLASLAND, BUCK & LEE, INC. (BBL) DURING FEBRUARY 27 AND MARCH 13, 2003 SITE VISITS AND REPRESENTS THE APPROXIMATE LAYOUT OF THE SOUTH BRONX MARINE TRANSFER STATION ONLY. AS OF MARCH 2003, A BASE MAP FOR THE SOUTH BRONX MARINE TRANSFER STATION WAS NOT AVAILABLE.
2. SAMPLE LOCATIONS ARE APPROXIMATE AND ARE BASED ON FIELD MEASUREMENTS OBTAINED BY BBL ON MARCH 13, 2003.
3. SAMPLES COLLECTED BY BBL ON MARCH 13, 2003.
4. SAMPLES ANALYZED FOR TOTAL PCBs BY ACCUTEST LABORATORIES OF DAYTON, OH USING USEPA SW-846 METHOD 8082.

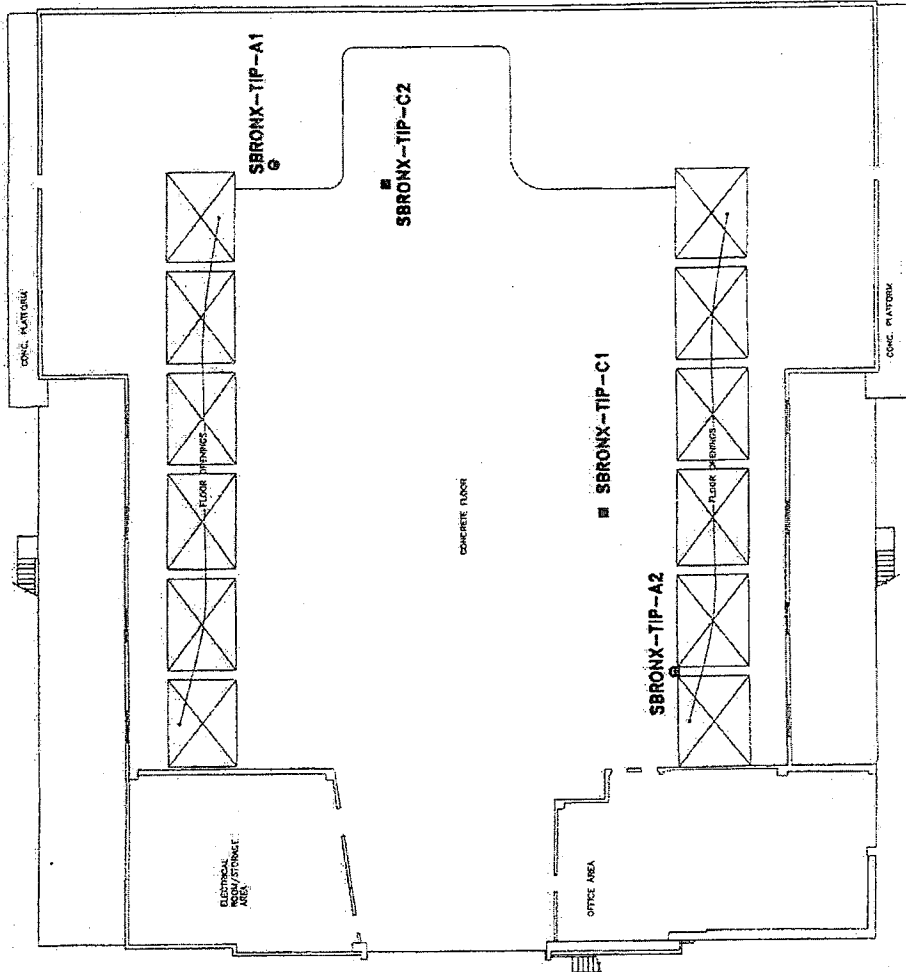
NOT TO SCALE

NEW YORK CITY DEPARTMENT OF SANITATION
 NEW YORK, NEW YORK
 CONVERSION OF EIGHT MARINE
 TRANSFER STATIONS
 SOUTH BRONX MTS -
 BARGE SLIP LEVEL -
 PCB SAMPLE LOCATIONS

BBL
 BLASLAND, BUCK & LEE, INC.
 100 WEST 30TH STREET
 NEW YORK, NY 10001

FIGURE 1

REVISIONS:
 1. DATE: 07-18-03
 2. BY: J. P. [unreadable]
 3. APPROVED: [unreadable]
 4. REVISION: [unreadable]



LEGEND:

- SBRONX-TIP-C1 APPROXIMATE LOCATION OF CONCRETE CORE SAMPLE
- SBRONX-TIP-A1 APPROXIMATE LOCATION OF WALL SAMPLE

NOTES:

1. THE BASE MAP IS BASED ON VISUAL OBSERVATIONS MADE BY BLASLAND, BOUCK & LEE, INC. (BBL) DURING FEBRUARY 27 AND MARCH 13, 2003 SITE VISITS AND REPRESENTS THE APPROXIMATE LAYOUT OF THE SOUTH BRONX MARINE TRANSFER STATION ONLY. AS OF MARCH 2003, A BASE MAP FOR THE SOUTH BRONX MARINE TRANSFER STATION WAS NOT AVAILABLE.
2. SAMPLE LOCATIONS ARE APPROXIMATE AND ARE BASED ON FIELD MEASUREMENTS OBTAINED BY BBL ON MARCH 13, 2003.
3. SAMPLES COLLECTED BY BBL ON MARCH 13, 2003.
4. SAMPLES ANALYZED FOR TOTAL PCBs BY ACCUTEST LABORATORIES OF DAYTON, NJ USING USEPA SW-846 METHOD 8062.

NOT TO SCALE

NEW YORK CITY DEPARTMENT OF SANITATION
NEW YORK, NEW YORK

CONVERSION OF EIGHT MARINE
TRANSFER STATIONS

SOUTH BRONX MTS -

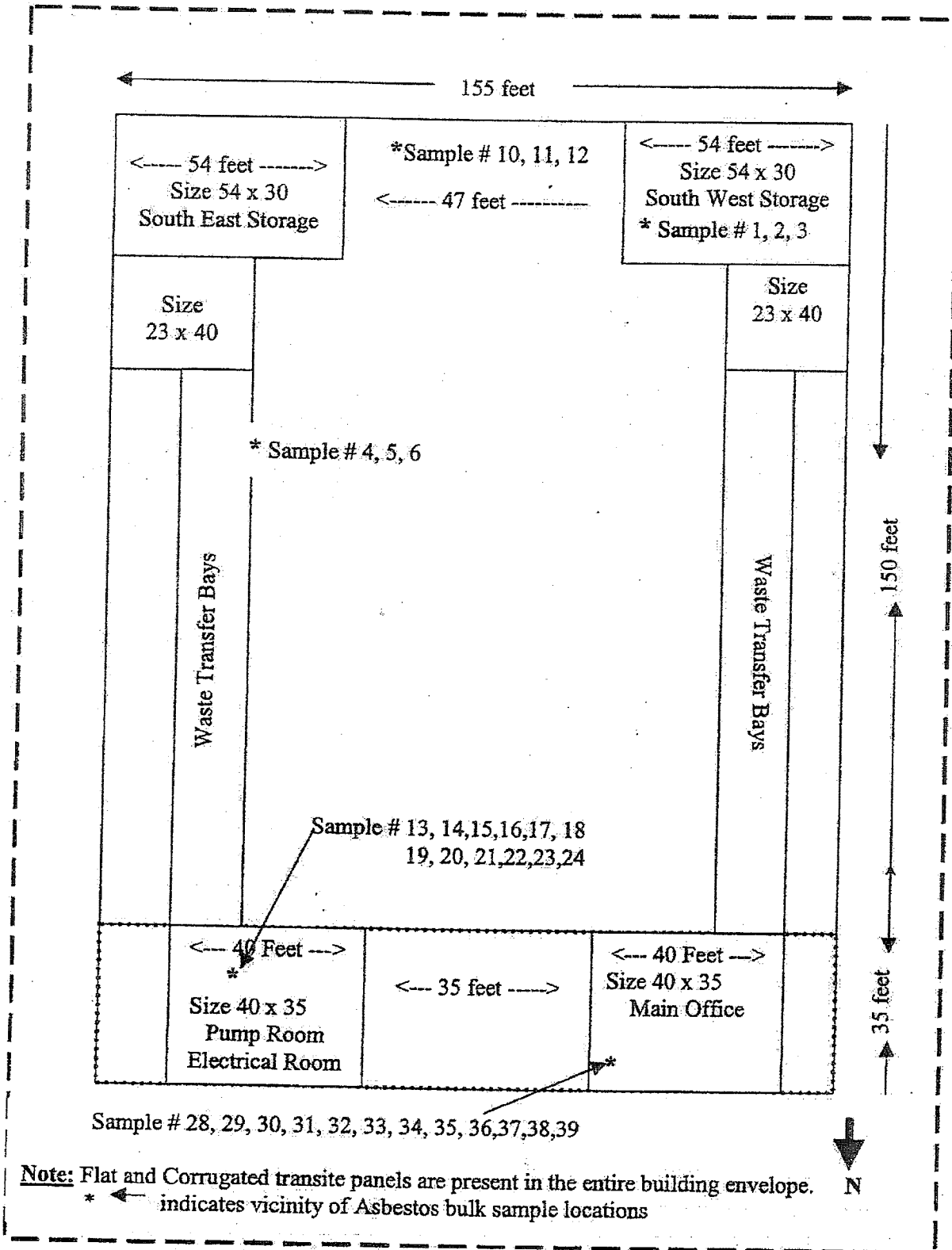
PCB SAMPLE LOCATIONS

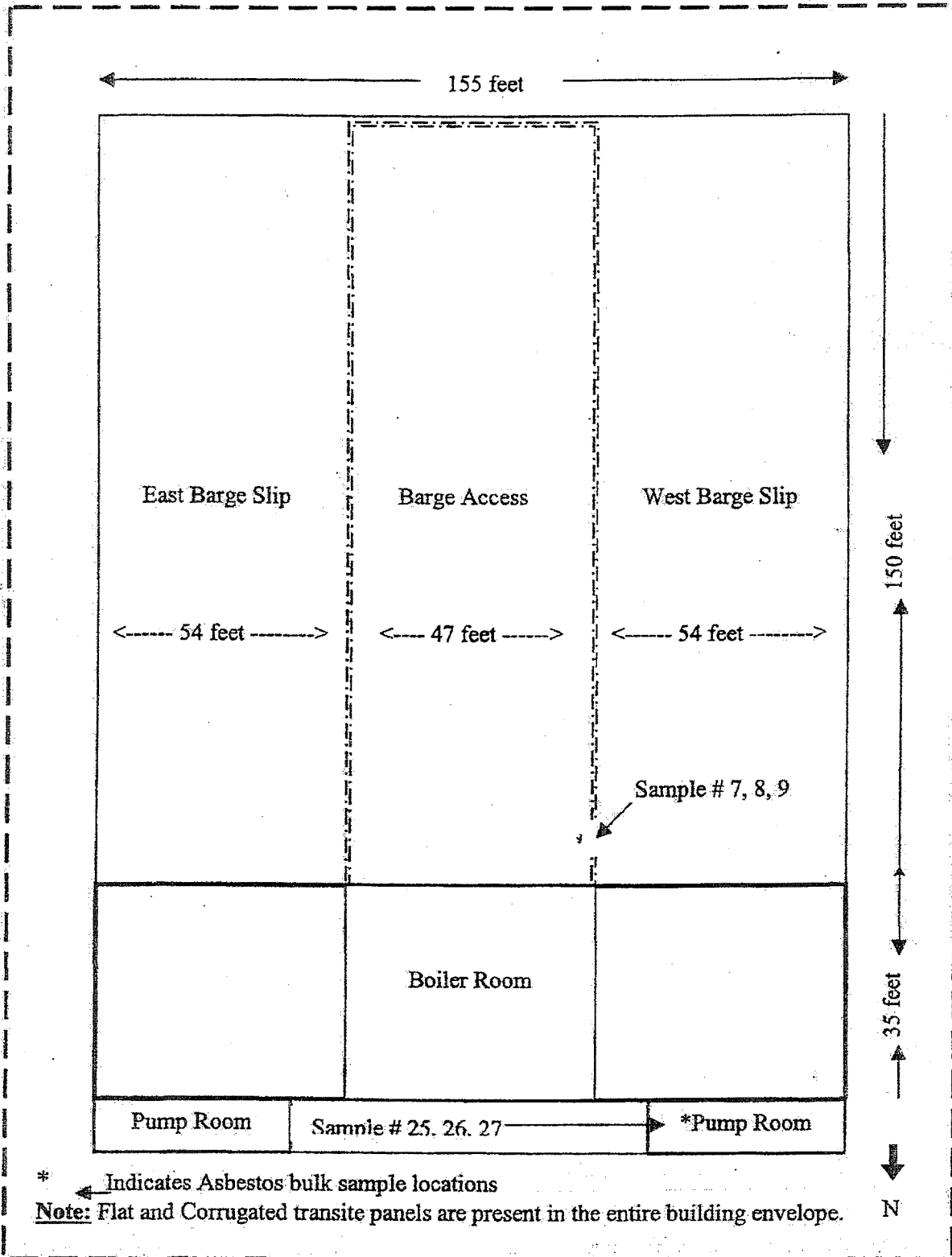
BBL
BLASLAND, BOUCK & LEE, INC.
100 WEST 30TH STREET, 10TH FLOOR
NEW YORK, NY 10001-2208
TEL: 212-692-1000 FAX: 212-692-1001

FIGURE

2

DESIGNED BY
R. J. BLASLAND
CHECKED BY
R. J. BLASLAND
DATE
3/13/03

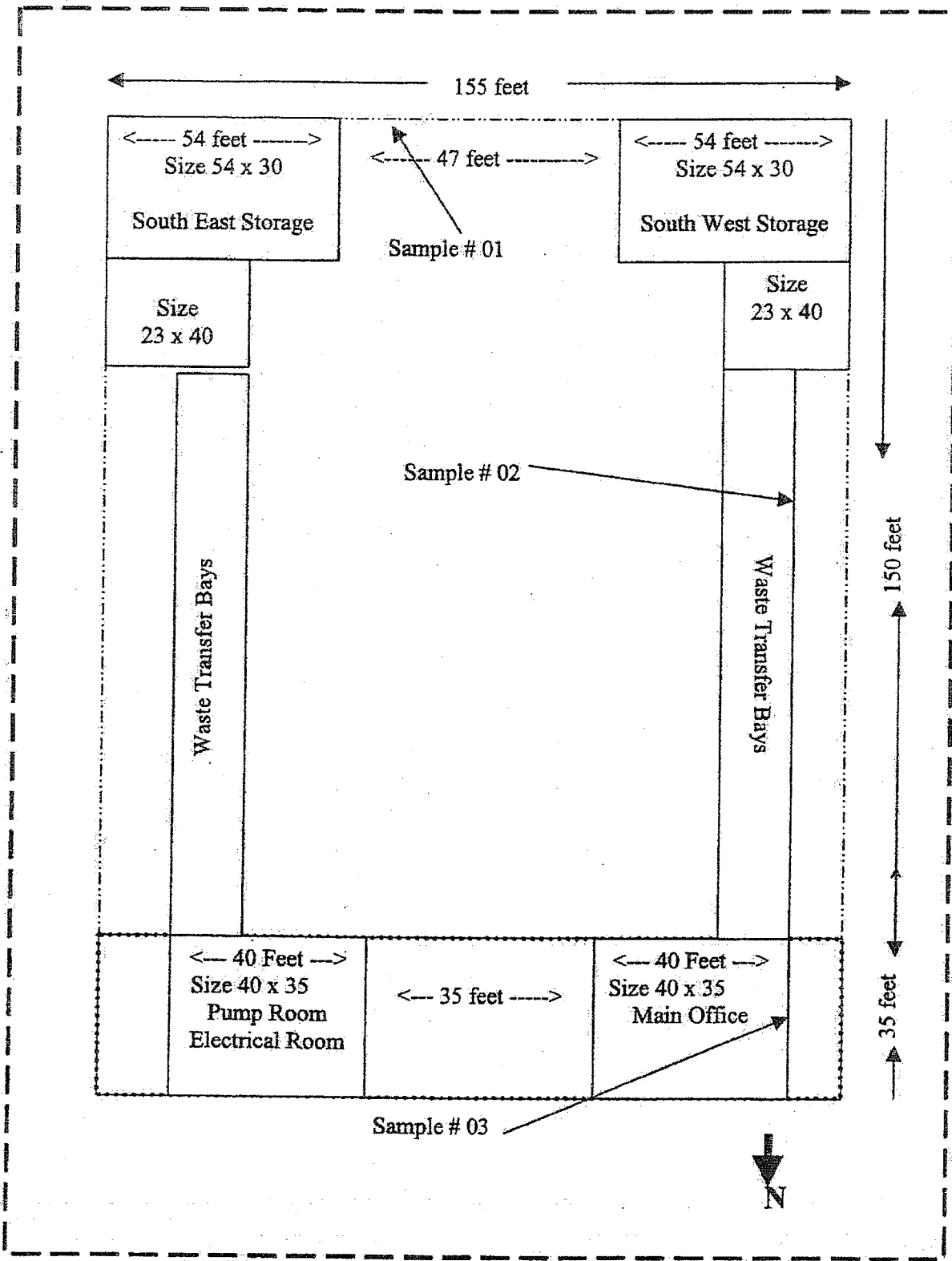




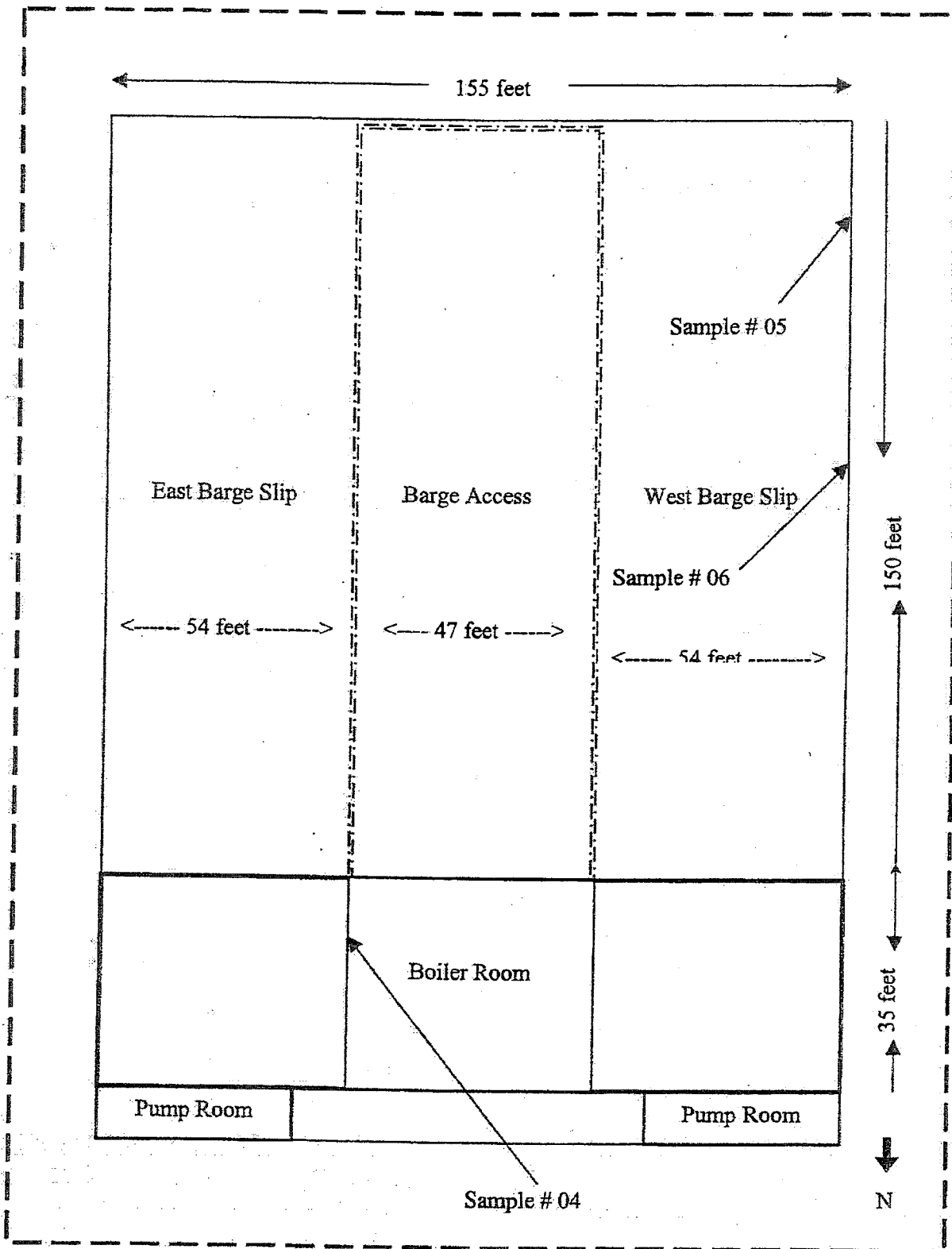
* Indicates Asbestos bulk sample locations

Note: Flat and Corrugated transite panels are present in the entire building envelope.

DOS South Bronx Transfer Station
Upper Level
A-1 Lead Paint Chip sample location plan



DOS South Bronx Transfer Station
Lower Level
A-2 Lead Paint Chip sample location plan



Attachment C

York Analytical Data Packages

YORK

ANALYTICAL LABORATORIES, INC.

Technical Report

prepared for:

Bidwell Environmental, LLC
1353 Kings Highway / P.O. Box 266
Sugar Loaf NY, 10981
Attention: M. Wellock

Report Date: 12/03/2012
Client Project ID: South Bronx Marine Transfer Station
York Project (SDG) No.: 12K0580

CT License No. PH-0723

New Jersey License No. CT-005



New York License No. 10854

PA License No. 68-04440

120 RESEARCH DRIVE

STRATFORD, CT 06615

(203) 325-1371

FAX (203) 357-0166

Report Date: 12/03/2012
Client Project ID: South Bronx Marine Transfer Station
York Project (SDG) No.: 12K0580

Bidwell Environmental, LLC
1353 Kings Highway / P.O. Box 266
Sugar Loaf NY, 10981
Attention: M. Wellock

Purpose and Results

This report contains the analytical data for the sample(s) identified on the attached chain-of-custody received in our laboratory on November 19, 2012 and listed below. The project was identified as your project: **South Bronx Marine Transfer Station**.

The analyses were conducted utilizing appropriate EPA, Standard Methods, and ASTM methods as detailed in the data summary tables.

All samples were received in proper condition meeting the customary acceptance requirements for environmental samples except those indicated under the Notes section of this report.

All analyses met the method and laboratory standard operating procedure requirements except as indicated by any data flags, the meaning of which are explained in the attachment to this report, and case narrative if applicable.

The results of the analyses, which are all reported on dry weight basis (soils) unless otherwise noted, are detailed in the following pages.

Please contact Client Services at 203.325.1371 with any questions regarding this report.

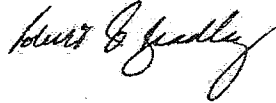
<u>York Sample ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Date Collected</u>	<u>Date Received</u>
12K0580-01	SBMTS PC-1	Paint Chips	11/14/2012	11/19/2012
12K0580-02	SBMTS PC-2	Paint Chips	11/14/2012	11/19/2012
12K0580-03	SBMTS PC-3	Paint Chips	11/14/2012	11/19/2012
12K0580-04	SBMTS PC-4	Paint Chips	11/17/2012	11/19/2012
12K0580-05	SBMTS PC-5	Paint Chips	11/14/2012	11/19/2012
12K0580-06	SBMTS PC-6	Paint Chips	11/14/2012	11/19/2012
12K0580-07	SBMTS PC-7	Paint Chips	11/14/2012	11/19/2012
12K0580-08	SBMTS PC-8	Paint Chips	11/14/2012	11/19/2012
12K0580-09	SBMTS PC-9	Paint Chips	11/14/2012	11/19/2012
12K0580-10	SBMTS PC-10	Paint Chips	11/14/2012	11/19/2012
12K0580-11	SBMTS PC-11	Paint Chips	11/14/2012	11/19/2012
12K0580-12	SBMTS PC-12	Paint Chips	11/14/2012	11/19/2012
12K0580-13	SBMTS PC-13	Paint Chips	11/14/2012	11/19/2012
12K0580-14	SBMTS PC-14	Paint Chips	11/14/2012	11/19/2012
12K0580-15	SBMTS PC-15	Paint Chips	11/14/2012	11/19/2012
12K0580-16	SBMTS PC-16	Paint Chips	11/14/2012	11/19/2012
12K0580-17	SBMTS PC-17	Paint Chips	11/14/2012	11/19/2012
12K0580-18	SBMTS PC-18	Paint Chips	11/14/2012	11/19/2012
12K0580-19	SBMTS PC-19	Paint Chips	11/14/2012	11/19/2012
12K0580-20	SBMTS PC-20	Paint Chips	11/14/2012	11/19/2012
12K0580-21	SBMTS PC-21	Paint Chips	11/14/2012	11/19/2012
12K0580-22	SBMTS PC-22	Paint Chips	11/14/2012	11/19/2012
12K0580-23	SBMTS PC-23	Paint Chips	11/14/2012	11/19/2012

<u>York Sample ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Date Collected</u>	<u>Date Received</u>
12K0580-24	SBMTS PC-24	Paint Chips	11/14/2012	11/19/2012
12K0580-25	SBMTS PC-25	Paint Chips	11/17/2012	11/19/2012
12K0580-26	SBMTS PC-26	Paint Chips	11/14/2012	11/19/2012
12K0580-27	SBMTS PC-27	Paint Chips	11/14/2012	11/19/2012
12K0580-28	SBMTS PC-28	Paint Chips	11/14/2012	11/19/2012
12K0580-29	SBMTS PC-29	Paint Chips	11/14/2012	11/19/2012
12K0580-30	SBMTS PC-30	Paint Chips	11/14/2012	11/19/2012
12K0580-31	SBMTS PC-31	Paint Chips	11/14/2012	11/19/2012
12K0580-32	SBMTS PC-32	Paint Chips	11/14/2012	11/19/2012
12K0580-33	SBMTS PC-33	Paint Chips	11/14/2012	11/19/2012
12K0580-34	SBMTS PC-34	Paint Chips	11/14/2012	11/19/2012
12K0580-35	SBMTS PC-35	Paint Chips	11/14/2012	11/19/2012
12K0580-36	SBMTS PC-36	Paint Chips	11/14/2012	11/19/2012
12K0580-37	SBMTS PC-37	Paint Chips	11/14/2012	11/19/2012
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12K0580-43	SBMTS PC-43	Paint Chips	11/15/2012	11/19/2012
12K0580-44	SBMTS PC-44	Paint Chips	11/14/2012	11/19/2012
12K0580-45	SBMTS PC-45	Paint Chips	11/15/2012	11/19/2012
12K0580-46	SBMTS PC-46	Paint Chips	11/15/2012	11/19/2012
12K0580-47	SBMTS PC-47	Paint Chips	11/16/2012	11/19/2012
12K0580-48	SBMTS PC-48	Paint Chips	11/15/2012	11/19/2012
12K0580-49	SBMTS PC-49	Paint Chips	11/15/2012	11/19/2012
12K0580-50	SBMTS PC-50	Paint Chips	11/15/2012	11/19/2012
12K0580-51	SBMTS PC-51	Paint Chips	11/16/2012	11/19/2012
12K0580-52	SBMTS PC-52	Paint Chips	11/16/2012	11/19/2012
12K0580-53	SBMTS PC-53	Paint Chips	11/16/2012	11/19/2012
12K0580-54	SBMTS CLK-1	Solid	11/15/2012	11/19/2012
12K0580-55	SBMTS CLK-2	Solid	11/15/2012	11/19/2012
12K0580-56	SBMTS CLK-3	Solid	11/15/2012	11/19/2012
12K0580-57	SBMTS CLK-4	Caulk	11/15/2012	11/19/2012
12K0580-59	SBMTS CLK-6	Solid	11/15/2012	11/19/2012
12K0580-60	SBMTS CLK-7	Caulk	11/15/2012	11/19/2012
12K0580-61	SBMTS CLK-8	Caulk	11/15/2012	11/19/2012
12K0580-62	SBMTS CLK-9	Solid	11/15/2012	11/19/2012
12K0580-63	SBMTS CLK-10	Caulk	11/15/2012	11/19/2012
12K0580-64	SBMTS CLK-11	Caulk	11/15/2012	11/19/2012
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12K0580-67	SBMTS CLK-14	Caulk	11/15/2012	11/19/2012
12K0580-68	SBMTS CLK-15	Caulk	11/15/2012	11/19/2012
12K0580-69	SBMTS CLK-16	Caulk	11/15/2012	11/19/2012
12K0580-70	SBMTS CLK-17	Caulk	11/15/2012	11/19/2012
12K0580-71	SBMTS CLK-18	Caulk	11/16/2012	11/19/2012
12K0580-72	SBMTS CON-1	Concrete	11/14/2012	11/19/2012
12K0580-73	SBMTS CON-2	Concrete	11/14/2012	11/19/2012
12K0580-74	SBMTS WD-1	Solid	11/16/2012	11/19/2012
12K0580-75	SBMTS BULK-1	Solid	11/16/2012	11/19/2012
12K0580-76	SBMTS BULK-2	Solid	11/16/2012	11/19/2012

General Notes for York Project (SDG) No.: 12K0580

1. The RLs and MDLs (Reporting Limit and Method Detection Limit respectively) reported are adjusted for any dilution necessary due to the levels of target and/or non-target analytes and matrix interference. The RL(REPORTING LIMIT) is based upon the lowest standard utilized for the calibration where applicable.
2. Samples are retained for a period of thirty days after submittal of report, unless other arrangements are made.
3. York's liability for the above data is limited to the dollar value paid to York for the referenced project.
4. This report shall not be reproduced without the written approval of York Analytical Laboratories, Inc.
5. All samples were received in proper condition for analysis with proper documentation, unless otherwise noted.
6. All analyses conducted met method or Laboratory SOP requirements. See the Qualifiers and/or Narrative sections for further information.
7. It is noted that no analyses reported herein were subcontracted to another laboratory, unless noted in the report.
8. This report reflects results that relate only to the samples submitted on the attached chain-of-custody form(s) received by York.

Approved By:



Date: 12/03/2012

Robert Q. Bradley
Laboratory Director

YORK

YORK

ANALYTICAL LABORATORIES, INC.

Sample Information

Client Sample ID: SBMTS-PC-1

York Sample ID: 12K0580-01

York Project (SDG) No.
12K0580

Client Project ID
South Bronx Marine Transfer Station

Matrix
Paint Chips

Collection Date/Time
November 14, 2012 3:00 pm

Date Received
11/19/2012

Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:15	11/29/2012 13:58	JW
11104-28-2	Aroclor 1221	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:15	11/29/2012 13:58	JW
11141-16-5	Aroclor 1232	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:15	11/29/2012 13:58	JW
53469-21-9	Aroclor 1242	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:15	11/29/2012 13:58	JW
12672-29-6	Aroclor 1248	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:15	11/29/2012 13:58	JW
11097-69-1	Aroclor 1254	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:15	11/29/2012 13:58	JW
11096-82-5	Aroclor 1260	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:15	11/29/2012 13:58	JW
1336-36-3	Total PCBs	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:15	11/29/2012 13:58	JW
Surrogate Recoveries		Result	Acceptance Range								
877-09-8	Surrogate: Tetrachloro- <i>m</i> -xylene	105 %	30-150								
2051-24-3	Surrogate: Decachlorobiphenyl	106 %	30-150								

Total Solids

Log-in Notes:

Sample Notes:

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	% Solids	100		%	0.100	0.100	1	SM 2540G	11/21/2012 06:10	11/21/2012 06:10	AA

Sample Information

Client Sample ID: SBMTS-PC-2

York Sample ID: 12K0580-02

York Project (SDG) No.
12K0580

Client Project ID
South Bronx Marine Transfer Station

Matrix
Paint Chips

Collection Date/Time
November 14, 2012 3:00 pm

Date Received
11/19/2012

Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:15	11/29/2012 14:17	JW
11104-28-2	Aroclor 1221	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:15	11/29/2012 14:17	JW
11141-16-5	Aroclor 1232	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:15	11/29/2012 14:17	JW
53469-21-9	Aroclor 1242	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:15	11/29/2012 14:17	JW
12672-29-6	Aroclor 1248	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:15	11/29/2012 14:17	JW
11097-69-1	Aroclor 1254	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:15	11/29/2012 14:17	JW
11096-82-5	Aroclor 1260	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:15	11/29/2012 14:17	JW
1336-36-3	Total PCBs	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:15	11/29/2012 14:17	JW
Surrogate Recoveries		Result	Acceptance Range								
877-09-8	Surrogate: Tetrachloro- <i>m</i> -xylene	78.1 %	30-150								
2051-24-3	Surrogate: Decachlorobiphenyl	81.6 %	30-150								

YORK

ANALYTICAL LABORATORIES, INC.

Sample Information

Client Sample ID: SBMTS PC-2

York Sample ID: 12K0580-02

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

12K0580

South Bronx Marine Transfer Station

Paint Chips

November 14, 2012 3:00 pm

11/19/2012

Lead by EPA 6010

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3050B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-92-1	Lead	103		mg/kg dry	1.70	3.00	1	EPA SW846-6010B	11/26/2012 09:59	11/26/2012 12:20	MW

Total Solids

Log-in Notes:

Sample Notes:

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	% Solids	100		%	0.100	0.100	1	SM 2540G	11/21/2012 06:10	11/21/2012 06:10	AA

Sample Information

Client Sample ID: SBMTS PC-3

York Sample ID: 12K0580-03

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

12K0580

South Bronx Marine Transfer Station

Paint Chips

November 14, 2012 3:00 pm

11/19/2012

Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:15	11/29/2012 14:55	JW
11104-28-2	Aroclor 1221	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:15	11/29/2012 14:55	JW
11141-16-5	Aroclor 1232	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:15	11/29/2012 14:55	JW
53469-21-9	Aroclor 1242	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:15	11/29/2012 14:55	JW
12672-29-6	Aroclor 1248	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:15	11/29/2012 14:55	JW
11097-69-1	Aroclor 1254	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:15	11/29/2012 14:55	JW
11096-82-5	Aroclor 1260	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:15	11/29/2012 14:55	JW
1336-36-3	Total PCBs	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:15	11/29/2012 14:55	JW

Surrogate Recoveries

Result

Acceptance Range

877-09-8 Surrogate: Tetrachloro-m-xylene

56.7 %

30-150

2051-24-3 Surrogate: Decachlorobiphenyl

54.2 %

30-150

Lead by EPA 6010

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3050B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-92-1	Lead	383		mg/kg dry	1.70	3.00	1	EPA SW846-6010B	11/26/2012 09:59	11/26/2012 12:25	MW

Total Solids

Log-in Notes:

Sample Notes:

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	% Solids	100		%	0.100	0.100	1	SM 2540G	11/21/2012 06:10	11/21/2012 06:10	AA

YORK

ANALYTICAL LABORATORIES, INC.

Sample Information

Client Sample ID: SBMTS PC-4

York Sample ID: 12K0580-04

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

12K0580

South Bronx Marine Transfer Station

Paint Chips

November 17, 2012 3:00 pm

11/19/2012

Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:15	11/29/2012 15:15	JW
11104-28-2	Aroclor 1221	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:15	11/29/2012 15:15	JW
11141-16-5	Aroclor 1232	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:15	11/29/2012 15:15	JW
53469-21-9	Aroclor 1242	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:15	11/29/2012 15:15	JW
12672-29-6	Aroclor 1248	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:15	11/29/2012 15:15	JW
11097-69-1	Aroclor 1254	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:15	11/29/2012 15:15	JW
11096-82-5	Aroclor 1260	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:15	11/29/2012 15:15	JW
1336-36-3	Total PCBs	ND		ng/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:15	11/29/2012 15:15	JW

Surrogate Recoveries

Result

Acceptance Range

877-09-8 Surrogate: Tetrachloro-m-xylene

113 %

30-150

2051-24-3 Surrogate: Decachlorobiphenyl

105 %

30-150

Lead by EPA 6010

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3050B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-92-1	Lead	171		mg/kg dry	1.70	3.00	1	EPA SW 846-6010B	11/26/2012 09:59	11/26/2012 12:30	MW

Total Solids

Log-in Notes:

Sample Notes:

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	% Solids	100		%	0.100	0.100	1	SM 2540G	11/21/2012 06:10	11/21/2012 06:10	AA

Sample Information

Client Sample ID: SBMTS PC-5

York Sample ID: 12K0580-05

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

12K0580

South Bronx Marine Transfer Station

Paint Chips

November 14, 2012 3:00 pm

11/19/2012

Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:15	11/29/2012 15:34	JW
11104-28-2	Aroclor 1221	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:15	11/29/2012 15:34	JW
11141-16-5	Aroclor 1232	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:15	11/29/2012 15:34	JW
53469-21-9	Aroclor 1242	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:15	11/29/2012 15:34	JW
12672-29-6	Aroclor 1248	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:15	11/29/2012 15:34	JW
11097-69-1	Aroclor 1254	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:15	11/29/2012 15:34	JW
11096-82-5	Aroclor 1260	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:15	11/29/2012 15:34	JW

120 RESEARCH DRIVE

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(203) 325-1371

FAX (203) 357-0166

YORK

ANALYTICAL LABORATORIES, INC.

Sample Information

Client Sample ID: SBMTS PC-5

York Sample ID: 12K0580-05

York Project (SDG) No.
12K0580

Client Project ID
South Bronx Marine Transfer Station

Matrix **Collection Date/Time**
Paint Chips November 14, 2012 3:00 pm

Date Received
11/19/2012

Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
1336-36-3	Total PCBs	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:15	11/29/2012 15:34	JW
	Surrogate Recoveries	Result						Acceptance Range			
877-09-8	Surrogate: Tetrachloro-m-xylene	112 %						30-150			
2051-24-3	Surrogate: Decachlorobiphenyl	109 %						30-150			

Lead by EPA 6010

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3050B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-92-1	Lead	42000		mg/kg dry	1.70	3.00	1	EPA SW846-6010B	11/26/2012 09:59	11/26/2012 12:35	MW

Total Solids

Log-in Notes:

Sample Notes:

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	% Solids	100		%	0.100	0.100	1	SM 2540G	11/21/2012 06:10	11/21/2012 06:10	AA

Sample Information

Client Sample ID: SBMTS PC-6

York Sample ID: 12K0580-06

York Project (SDG) No.
12K0580

Client Project ID
South Bronx Marine Transfer Station

Matrix **Collection Date/Time**
Paint Chips November 14, 2012 3:00 pm

Date Received
11/19/2012

Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:15	11/29/2012 15:34	JW
11104-28-2	Aroclor 1221	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:15	11/29/2012 15:34	JW
11141-16-5	Aroclor 1232	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:15	11/29/2012 15:34	JW
53469-21-9	Aroclor 1242	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:15	11/29/2012 15:34	JW
12672-29-6	Aroclor 1248	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:15	11/29/2012 15:34	JW
11097-69-1	Aroclor 1254	4.98		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:15	11/29/2012 15:34	JW
11096-82-5	Aroclor 1260	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:15	11/29/2012 15:34	JW
1336-36-3	Total PCBs	4.98		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:15	11/29/2012 15:34	JW
	Surrogate Recoveries	Result						Acceptance Range			
877-09-8	Surrogate: Tetrachloro-m-xylene	83.6 %						30-150			
2051-24-3	Surrogate: Decachlorobiphenyl	88.1 %						30-150			

Lead by EPA 6010

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3050B

No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
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YORK

ANALYTICAL LABORATORIES, INC.

Sample Information

Client Sample ID: SBMTS-PC-6

York Sample ID: 12K0580-06

York Project (SDG) No.
12K0580

Client Project ID
South Bronx Marine Transfer Station

Matrix
Paint Chips

Collection Date/Time
November 14, 2012 3:00 pm

Date Received
11/19/2012

Lead by EPA 6010

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3050B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-92-1	Lead	87.7		mg/kg dry	1.70	3.00	1	EPA SW846-6010B	11/26/2012 09:59	11/26/2012 12:42	MW

Total Solids

Log-in Notes:

Sample Notes:

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	% Solids	100		%	0.100	0.100	1	SM 2540G	11/21/2012 06:10	11/21/2012 06:10	AA

Sample Information

Client Sample ID: SBMTS-PC-7

York Sample ID: 12K0580-07

York Project (SDG) No.
12K0580

Client Project ID
South Bronx Marine Transfer Station

Matrix
Paint Chips

Collection Date/Time
November 14, 2012 3:00 pm

Date Received
11/19/2012

Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:15	11/29/2012 16:14	JW
11104-28-2	Aroclor 1221	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:15	11/29/2012 16:14	JW
11141-16-5	Aroclor 1232	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:15	11/29/2012 16:14	JW
53469-21-9	Aroclor 1242	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:15	11/29/2012 16:14	JW
12672-29-6	Aroclor 1248	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:15	11/29/2012 16:14	JW
11097-69-1	Aroclor 1254	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:15	11/29/2012 16:14	JW
11096-82-5	Aroclor 1260	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:15	11/29/2012 16:14	JW
1336-36-3	Total PCBs	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:15	11/29/2012 16:14	JW

Surrogate Recoveries

Result

Acceptance Range

877-09-8 Surrogate: Tetrachloro-m-xylene

73.1 %

30-150

2051-24-3 Surrogate: Decachlorobiphenyl

71.1 %

30-150

Lead by EPA 6010

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3050B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-92-1	Lead	45.7		mg/kg dry	1.70	3.00	1	EPA SW846-6010B	11/26/2012 09:59	11/26/2012 12:47	MW

Total Solids

Log-in Notes:

Sample Notes:

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	% Solids	100		%	0.100	0.100	1	SM 2540G	11/21/2012 06:10	11/21/2012 06:10	AA

YORK

ANALYTICAL LABORATORIES, INC.

Sample Information

Client Sample ID: SBMTS PC-8

York Sample ID: 12K0580-08

York Project (SDG) No.
12K0580

Client Project ID
South Bronx Marine Transfer Station

Matrix
Paint Chips

Collection Date/Time
November 14, 2012 3:00 pm

Date Received
11/19/2012

Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:15	11/29/2012 16:47	JW
11104-28-2	Aroclor 1221	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:15	11/29/2012 16:47	JW
11141-16-5	Aroclor 1232	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:15	11/29/2012 16:47	JW
53469-21-9	Aroclor 1242	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:15	11/29/2012 16:47	JW
12672-29-6	Aroclor 1248	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:15	11/29/2012 16:47	JW
11097-69-1	Aroclor 1254	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:15	11/29/2012 16:47	JW
11096-82-5	Aroclor 1260	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:15	11/29/2012 16:47	JW
1336-36-3	Total PCBs	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:15	11/29/2012 16:47	JW
Surrogate Recoveries		Result	Acceptance Range								
877-09-8	Surrogate: Tetrachloro- <i>m</i> -xylene	90.5 %	30-150								
2051-24-3	Surrogate: Decachlorobiphenyl	73.1 %	30-150								

Lead by EPA 6010

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3050B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-92-1	Lead	99.1		mg/kg dry	1.70	3.00	1	EPA SW846-6010B	11/26/2012 09:59	11/26/2012 12:51	MW

Total Solids

Log-in Notes:

Sample Notes:

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	% Solids	100		%	0.100	0.100	1	SM 2540G	11/21/2012 06:10	11/21/2012 06:10	AA

Sample Information

Client Sample ID: SBMTS PC-9

York Sample ID: 12K0580-09

York Project (SDG) No.
12K0580

Client Project ID
South Bronx Marine Transfer Station

Matrix
Paint Chips

Collection Date/Time
November 14, 2012 3:00 pm

Date Received
11/19/2012

Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:15	11/29/2012 17:07	JW
11104-28-2	Aroclor 1221	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:15	11/29/2012 17:07	JW
11141-16-5	Aroclor 1232	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:15	11/29/2012 17:07	JW
53469-21-9	Aroclor 1242	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:15	11/29/2012 17:07	JW
12672-29-6	Aroclor 1248	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:15	11/29/2012 17:07	JW
11097-69-1	Aroclor 1254	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:15	11/29/2012 17:07	JW
11096-82-5	Aroclor 1260	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:15	11/29/2012 17:07	JW

120 RESEARCH DRIVE

STRATFORD, CT 06615

(203) 325-1371

FAX (203) 357-0166

YORK

ANALYTICAL LABORATORIES, INC.
3800 PARK AVENUE, SUITE 200, STRATFORD, CT 06615

Sample Information

Client Sample ID: SBMTS PC-9 **York Sample ID:** 12K0580-09
York Project (SDG) No. 12K0580 **Client Project ID** South Bronx Marine Transfer Station **Matrix** Paint Chips **Collection Date/Time** November 14, 2012 3:00 pm **Date Received** 11/19/2012

Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
1336-36-3	Total PCBs	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:15	11/29/2012 17:07	JW
Surrogate Recoveries		Result			Acceptance Range						
877-09-8	Surrogate: Tetrachloro-m-xylene	71.6 %			30-150						
2051-24-3	Surrogate: Decachlorobiphenyl	63.7 %			30-150						

Lead by EPA 6010

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3050B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-92-1	Lead	70.2		mg/kg dry	1.70	3.00	1	EPA SW846-6010B	11/26/2012 09:59	11/26/2012 12:56	MW

Total Solids

Log-in Notes:

Sample Notes:

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	% Solids	100		%	0.100	0.100	1	SM 2540G	11/21/2012 06:10	11/21/2012 06:10	AA

Sample Information

Client Sample ID: SBMTS PC-10 **York Sample ID:** 12K0580-10
York Project (SDG) No. 12K0580 **Client Project ID** South Bronx Marine Transfer Station **Matrix** Paint Chips **Collection Date/Time** November 14, 2012 3:00 pm **Date Received** 11/19/2012

Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:15	11/29/2012 17:27	JW
11104-28-2	Aroclor 1221	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:15	11/29/2012 17:27	JW
11141-16-5	Aroclor 1252	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:15	11/29/2012 17:27	JW
53469-21-9	Aroclor 1242	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:15	11/29/2012 17:27	JW
12672-29-6	Aroclor 1248	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:15	11/29/2012 17:27	JW
11097-69-1	Aroclor 1254	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:15	11/29/2012 17:27	JW
11096-82-5	Aroclor 1260	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:15	11/29/2012 17:27	JW
1336-36-3	Total PCBs	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:15	11/29/2012 17:27	JW
Surrogate Recoveries		Result			Acceptance Range						
877-09-8	Surrogate: Tetrachloro-m-xylene	117 %			30-150						
2051-24-3	Surrogate: Decachlorobiphenyl	114 %			30-150						

Lead by EPA 6010

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3050B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst

YORK

ANALYTICAL LABORATORIES, INC.

Sample Information

Client Sample ID: SBMTS PC-10 **York Sample ID:** 12K0580-10

York Project (SDG) No. 12K0580 **Client Project ID** South Bronx Marine Transfer Station **Matrix** Paint Chips **Collection Date/Time** November 14, 2012 3:00 pm **Date Received** 11/19/2012

Lead by EPA 6010

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3050B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-92-1	Lead	100000		mg/kg dry	1.70	3.00	1	EPA SW846-6010B	11/26/2012 09:59	11/26/2012 13:01	MW

Total Solids

Log-in Notes:

Sample Notes:

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	% Solids	100		%	0.100	0.100	1	SM 2540G	11/21/2012 06:30	11/21/2012 06:10	AA

Sample Information

Client Sample ID: SBMTS PC-11 **York Sample ID:** 12K0580-11

York Project (SDG) No. 12K0580 **Client Project ID** South Bronx Marine Transfer Station **Matrix** Paint Chips **Collection Date/Time** November 14, 2012 3:00 pm **Date Received** 11/19/2012

Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		mg/kg dry	1.28	1.28	1	EPA SW 846-8082	11/28/2012 07:15	11/29/2012 15:04	JW
11104-28-2	Aroclor 1221	ND		mg/kg dry	1.28	1.28	1	EPA SW 846-8082	11/28/2012 07:15	11/29/2012 15:04	JW
11141-16-5	Aroclor 1232	ND		mg/kg dry	1.28	1.28	1	EPA SW 846-8082	11/28/2012 07:15	11/29/2012 15:04	JW
53469-21-9	Aroclor 1242	ND		mg/kg dry	1.28	1.28	1	EPA SW 846-8082	11/28/2012 07:15	11/29/2012 15:04	JW
12672-29-6	Aroclor 1248	ND		mg/kg dry	1.28	1.28	1	EPA SW 846-8082	11/28/2012 07:15	11/29/2012 15:04	JW
11097-69-1	Aroclor 1254	ND		mg/kg dry	1.28	1.28	1	EPA SW 846-8082	11/28/2012 07:15	11/29/2012 15:04	JW
11096-82-5	Aroclor 1260	ND		mg/kg dry	1.28	1.28	1	EPA SW 846-8082	11/28/2012 07:15	11/29/2012 15:04	JW
1336-36-3	Total PCBs	ND		mg/kg dry	1.28	1.28	1	EPA SW 846-8082	11/28/2012 07:15	11/29/2012 15:04	JW

Surrogate Recoveries

	Surrogate	Result	Acceptance Range
877-09-8	Surrogate: Tetrachloro-m-xylene	113 %	30-150
2051-24-3	Surrogate: Decachlorobiphenyl	112 %	30-150

Lead by EPA 6010

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3050B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-92-1	Lead	6130		mg/kg dry	1.70	3.00	1	EPA SW846-6010B	11/26/2012 09:59	11/26/2012 13:08	MW

Total Solids

Log-in Notes:

Sample Notes:

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	% Solids	100		%	0.100	0.100	1	SM 2540G	11/21/2012 06:10	11/21/2012 06:10	AA

YORK

ANALYTICAL LABORATORIES, INC.

Sample Information

Client Sample ID: SBMTS PC-12

York Sample ID: 12K0580-12

York Project (SDG) No.
12K0580

Client Project ID
South Bronx Marine Transfer Station

Matrix
Paint Chips

Collection Date/Time
November 14, 2012 3:00 pm

Date Received
11/19/2012

Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:15	11/29/2012 15:19	JW
11104-28-2	Aroclor 1221	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:15	11/29/2012 15:19	JW
11141-16-5	Aroclor 1232	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:15	11/29/2012 15:19	JW
53469-21-9	Aroclor 1242	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:15	11/29/2012 15:19	JW
12672-29-6	Aroclor 1248	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:15	11/29/2012 15:19	JW
11097-69-1	Aroclor 1254	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:15	11/29/2012 15:19	JW
11096-82-5	Aroclor 1260	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:15	11/29/2012 15:19	JW
1336-36-3	Total PCBs	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:15	11/29/2012 15:19	JW

Surrogate Recoveries

Surrogate	Result	Acceptance Range
877-09-8 Surrogate: Tetrachloro-m-xylene	87.6 %	30-150
2051-24-3 Surrogate: Decachlorobiphenyl	94.5 %	30-150

Lead by EPA 6010

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3050B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-92-1	Lead	1750		mg/kg dry	1.70	3.00	1	EPA SW846-6010B	11/26/2012 09:59	11/26/2012 13:25	MW

Total Solids

Log-in Notes:

Sample Notes:

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	% Solids	100		%	0.100	0.100	1	SM 2540G	11/21/2012 06:16	11/21/2012 06:16	AA

Sample Information

Client Sample ID: SBMTS PC-13

York Sample ID: 12K0580-13

York Project (SDG) No.
12K0580

Client Project ID
South Bronx Marine Transfer Station

Matrix
Paint Chips

Collection Date/Time
November 14, 2012 3:00 pm

Date Received
11/19/2012

Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:15	11/29/2012 15:35	JW
11104-28-2	Aroclor 1221	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:15	11/29/2012 15:35	JW
11141-16-5	Aroclor 1232	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:15	11/29/2012 15:35	JW
53469-21-9	Aroclor 1242	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:15	11/29/2012 15:35	JW
12672-29-6	Aroclor 1248	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:15	11/29/2012 15:35	JW
11097-69-1	Aroclor 1254	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:15	11/29/2012 15:35	JW
11096-82-5	Aroclor 1260	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:15	11/29/2012 15:35	JW

YORK

ANALYTICAL LABORATORIES, INC.

Sample Information

Client Sample ID: SBMTS PC-13 **York Sample ID:** 12K0580-13
York Project (SDG) No. 12K0580 **Client Project ID** South Bronx Marine Transfer Station **Matrix** Paint Chips **Collection Date/Time** November 14, 2012 3:00 pm **Date Received** 11/19/2012

Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
1336-36-3	Total PCBs	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:15	11/29/2012 15:35	JW
Surrogate Recoveries		Result		Acceptance Range							
877-09-8	Surrogate: Tetrachloro-m-xylene	117%		30-150							
2051-24-3	Surrogate: Decachlorobiphenyl	115%		30-150							

Lead by EPA 6010

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3050B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-92-1	Lead	705		mg/kg dry	1.70	3.00	1	EPA SW846-6010B	11/26/2012 09:59	11/26/2012 13:30	MW

Total Solids

Log-in Notes:

Sample Notes:

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	% Solids	100		%	0.100	0.100	1	SM 2540G	11/21/2012 06:10	11/21/2012 06:10	AA

Sample Information

Client Sample ID: SBMTS PC-14 **York Sample ID:** 12K0580-14
York Project (SDG) No. 12K0580 **Client Project ID** South Bronx Marine Transfer Station **Matrix** Paint Chips **Collection Date/Time** November 14, 2012 3:00 pm **Date Received** 11/19/2012

Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:15	11/29/2012 15:51	JW
11104-28-2	Aroclor 1221	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:15	11/29/2012 15:51	JW
11141-16-5	Aroclor 1232	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:15	11/29/2012 15:51	JW
53469-21-9	Aroclor 1242	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:15	11/29/2012 15:51	JW
12672-29-6	Aroclor 1248	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:15	11/29/2012 15:51	JW
11097-69-1	Aroclor 1254	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:15	11/29/2012 15:51	JW
11096-82-5	Aroclor 1260	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:15	11/29/2012 15:51	JW
1336-36-3	Total PCBs	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:15	11/29/2012 15:51	JW
Surrogate Recoveries		Result		Acceptance Range							
877-09-8	Surrogate: Tetrachloro-m-xylene	123%		30-150							
2051-24-3	Surrogate: Decachlorobiphenyl	115%		30-150							

Lead by EPA 6010

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3050B

S No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst

YORK

ANALYTICAL LABORATORIES, INC.
WEAVER ROAD, STRATFORD, CT 06615

Sample Information

Client Sample ID: SBMTS PC-14

York Sample ID: 12K0580-14

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

12K0580

South Bronx Marine Transfer Station

Paint Chips

November 14, 2012 3:00 pm

11/19/2012

Lead by EPA 6010

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3050B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-92-1	Lead	183		mg/kg dry	1.70	3.00	1	EPA SW846-6010B	11/26/2012 09:59	11/26/2012 13:35	MW

Total Solids

Log-in Notes:

Sample Notes:

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	% Solids	100		%	0.100	0.100	1	SM 2540G	11/21/2012 06:10	11/21/2012 06:10	AA

Sample Information

Client Sample ID: SBMTS PC-15

York Sample ID: 12K0580-15

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

12K0580

South Bronx Marine Transfer Station

Paint Chips

November 14, 2012 3:00 pm

11/19/2012

Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		mg/kg dry	1.70	1.70	1	EPA SW 846-8082	11/28/2012 07:15	11/29/2012 23:22	JW
11104-28-2	Aroclor 1221	ND		mg/kg dry	1.70	1.70	1	EPA SW 846-8082	11/28/2012 07:15	11/29/2012 23:22	JW
11141-16-5	Aroclor 1232	ND		mg/kg dry	1.70	1.70	1	EPA SW 846-8082	11/28/2012 07:15	11/29/2012 23:22	JW
53469-21-9	Aroclor 1242	ND		mg/kg dry	1.70	1.70	1	EPA SW 846-8082	11/28/2012 07:15	11/29/2012 23:22	JW
12672-29-6	Aroclor 1248	ND		mg/kg dry	1.70	1.70	1	EPA SW 846-8082	11/28/2012 07:15	11/29/2012 23:22	JW
11097-69-1	Aroclor 1254	ND		mg/kg dry	1.70	1.70	1	EPA SW 846-8082	11/28/2012 07:15	11/29/2012 23:22	JW
11096-82-5	Aroclor 1260	ND		mg/kg dry	1.70	1.70	1	EPA SW 846-8082	11/28/2012 07:15	11/29/2012 23:22	JW
1336-36-3	Total PCBs	ND		mg/kg dry	1.70	1.70	1	EPA SW 846-8082	11/28/2012 07:15	11/29/2012 23:22	JW

Surrogate Recoveries

Result

Acceptance Range

877-09-8 Surrogate: Tetrachloro-m-xylene

100%

30-150

2051-24-3 Surrogate: Decachlorobiphenyl

91.5%

30-150

Lead by EPA 6010

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3050B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-92-1	Lead	9300		mg/kg dry	1.70	3.00	1	EPA SW846-6010B	11/26/2012 09:59	11/26/2012 13:39	MW

Total Solids

Log-in Notes:

Sample Notes:

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	% Solids	100		%	0.100	0.100	1	SM 2540G	11/21/2012 06:10	11/21/2012 06:10	AA

YORK

ANALYTICAL LABORATORIES, INC.

Sample Information

Client Sample ID: SBMTS PC-16

York Sample ID: 12K0580-16

York Project (SDG) No. 12K0580	Client Project ID South Bronx Marine Transfer Station	Matrix Paint Chips	Collection Date/Time November 14, 2012 3:00 pm	Date Received 11/19/2012
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Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:15	11/29/2012 23:42	JW
11104-28-2	Aroclor 1221	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:15	11/29/2012 23:42	JW
11141-16-5	Aroclor 1232	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:15	11/29/2012 23:42	JW
53469-21-9	Aroclor 1242	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:15	11/29/2012 23:42	JW
12672-29-6	Aroclor 1248	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:15	11/29/2012 23:42	JW
11097-69-1	Aroclor 1254	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:15	11/29/2012 23:42	JW
11096-82-5	Aroclor 1260	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:15	11/29/2012 23:42	JW
1336-36-3	Total PCBs	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:15	11/29/2012 23:42	JW

Surrogate Recoveries

	Surrogate	Result	Acceptance Range
877-09-8	Surrogate: Tetrachloro-m-xylene	102 %	30-150
2051-24-3	Surrogate: Decachlorobiphenyl	103 %	30-150

Lead by EPA 6010

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3050B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-92-1	Lead	4720		mg/kg dry	1.70	3.00	1	EPA SW846-6010B	11/26/2012 16:11	11/27/2012 00:34	MW

Total Solids

Log-in Notes:

Sample Notes:

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	% Solids	100		%	0.100	0.100	1	SM 2540G	11/21/2012 06:10	11/21/2012 06:10	AA

Sample Information

Client Sample ID: SBMTS PC-17

York Sample ID: 12K0580-17

York Project (SDG) No. 12K0580	Client Project ID South Bronx Marine Transfer Station	Matrix Paint Chips	Collection Date/Time November 14, 2012 3:00 pm	Date Received 11/19/2012
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Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:15	11/30/2012 00:01	JW
11104-28-2	Aroclor 1221	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:15	11/30/2012 00:01	JW
11141-16-5	Aroclor 1232	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:15	11/30/2012 00:01	JW
53469-21-9	Aroclor 1242	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:15	11/30/2012 00:01	JW
12672-29-6	Aroclor 1248	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:15	11/30/2012 00:01	JW
	Aroclor 1254	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:15	11/30/2012 00:01	JW
11096-82-5	Aroclor 1260	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:15	11/30/2012 00:01	JW

YORK

ANALYTICAL LABORATORIES, INC.

Sample Information

Client Sample ID: SBMTS PC-17

York Sample ID: 12K0580-17

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

12K0580

South Bronx Marine Transfer Station

Paint Chips

November 14, 2012 3:00 pm

11/19/2012

Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
1336-36-3	Total PCBs	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:15	11/30/2012 09:01	JW
	Surrogate Recoveries	Result									
877-09-8	Surrogate: Tetrachloro-m-xylene	91.0 %									
2051-24-3	Surrogate: Decachlorobiphenyl	78.6 %									

Lead by EPA 6010

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3050B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-92-1	Lead	264		ug/kg dry	1.70	3.00	1	EPA SW846-6010B	11/26/2012 16:11	11/27/2012 09:39	MW

Total Solids

Log-in Notes:

Sample Notes:

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	% Solids	100		%	0.100	0.100	1	SM 2540G	11/21/2012 06:10	11/21/2012 06:10	AA

Sample Information

Client Sample ID: SBMTS PC-18

York Sample ID: 12K0580-18

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

12K0580

South Bronx Marine Transfer Station

Paint Chips

November 14, 2012 3:00 pm

11/19/2012

Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/30/2012 09:21	JW
11104-28-2	Aroclor 1221	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/30/2012 09:21	JW
11141-16-5	Aroclor 1232	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/30/2012 09:21	JW
53469-21-9	Aroclor 1242	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/30/2012 09:21	JW
12672-29-6	Aroclor 1248	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/30/2012 09:21	JW
11097-69-1	Aroclor 1254	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/30/2012 09:21	JW
11096-82-5	Aroclor 1260	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/30/2012 09:21	JW
1336-36-3	Total PCBs	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/30/2012 09:21	JW
	Surrogate Recoveries	Result									
877-09-8	Surrogate: Tetrachloro-m-xylene	73.1 %									
2051-24-3	Surrogate: Decachlorobiphenyl	69.7 %									

Lead by EPA 6010

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3050B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
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YORK

ANALYTICAL LABORATORIES, INC.

Sample Information

Client Sample ID: SBMTS PC-18

York Sample ID: 12K0580-18

York Project (SDG) No.
12K0580

Client Project ID
South Bronx Marine Transfer Station

Matrix
Paint Chips

Collection Date/Time
November 14, 2012 3:00 pm

Date Received
11/19/2012

Lead by EPA 6010

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3050B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-92-1	Lead	68.1		mg/kg dry	1.70	3.00	1	EPA SW846-6010B	11/26/2012 16:11	11/27/2012 00:44	MW

Total Solids

Log-in Notes:

Sample Notes:

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	% Solids	100		%	0.100	0.100	1	SM 2540G	11/21/2012 06:12	11/21/2012 06:12	AA

Sample Information

Client Sample ID: SBMTS PC-19

York Sample ID: 12K0580-19

York Project (SDG) No.
12K0580

Client Project ID
South Bronx Marine Transfer Station

Matrix
Paint Chips

Collection Date/Time
November 14, 2012 3:00 pm

Date Received
11/19/2012

Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/30/2012 00:41	JW
11104-28-2	Aroclor 1221	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/30/2012 00:41	JW
11141-16-5	Aroclor 1232	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/30/2012 00:41	JW
53469-21-9	Aroclor 1242	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/30/2012 00:41	JW
12672-29-6	Aroclor 1248	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/30/2012 00:41	JW
11097-69-1	Aroclor 1254	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/30/2012 00:41	JW
11096-82-5	Aroclor 1260	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/30/2012 00:41	JW
1336-36-3	Total PCBs	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/30/2012 00:41	JW

Surrogate Recoveries

Surrogate	Result	Acceptance Range
877-09-8 Surrogate: Tetrachloro-m-xylene	82.1%	30-150
2051-24-3 Surrogate: Decachlorobiphenyl	82.1%	30-150

Lead by EPA 6010

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3050B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-92-1	Lead	122000		mg/kg dry	17.0	30.0	10	EPA SW846-6010B	11/26/2012 16:11	11/27/2012 00:48	MW

Total Solids

Log-in Notes:

Sample Notes:

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	% Solids	100		%	0.100	0.100	1	SM 2540G	11/21/2012 06:12	11/21/2012 06:12	AA

YORK

ANALYTICAL LABORATORIES, INC.

Sample Information

Client Sample ID: SBMTS PC-20

York Sample ID: 12K0580-20

York Project (SDG) No.
12K0580

Client Project ID
South Bronx Marine Transfer Station

Matrix
Paint Chips

Collection Date/Time
November 14, 2012 3:00 pm

Date Received
11/19/2012

Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		mg/kg dry	0.850	0.850	1	EPA SW 846-8082	11/28/2012 07:20	11/30/2012 01:00	JW
11104-28-2	Aroclor 1221	ND		mg/kg dry	0.850	0.850	1	EPA SW 846-8082	11/28/2012 07:20	11/30/2012 01:00	JW
11141-16-5	Aroclor 1232	ND		mg/kg dry	0.850	0.850	1	EPA SW 846-8082	11/28/2012 07:20	11/30/2012 01:00	JW
53469-21-9	Aroclor 1242	ND		mg/kg dry	0.850	0.850	1	EPA SW 846-8082	11/28/2012 07:20	11/30/2012 01:00	JW
12672-29-6	Aroclor 1248	ND		mg/kg dry	0.850	0.850	1	EPA SW 846-8082	11/28/2012 07:20	11/30/2012 01:00	JW
11097-69-1	Aroclor 1254	ND		mg/kg dry	0.850	0.850	1	EPA SW 846-8082	11/28/2012 07:20	11/30/2012 01:00	JW
11096-82-5	Aroclor 1260	ND		mg/kg dry	0.850	0.850	1	EPA SW 846-8082	11/28/2012 07:20	11/30/2012 01:00	JW
1336-36-3	Total PCBs	ND		mg/kg dry	0.850	0.850	1	EPA SW 846-8082	11/28/2012 07:20	11/30/2012 01:00	JW
Surrogate Recoveries		Result			Acceptance Range						
877-09-8	Surrogate: Tetrachloro-m-xylene	94.5 %			30-150						
2051-24-3	Surrogate: Decachlorobiphenyl	80.1 %			30-150						

Lead by EPA 6010

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3050B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-92-1	Lead	2240		mg/kg dry	1.70	3.00	1	EPA SW846-6010B	11/26/2012 16:31	11/27/2012 00:56	MW

Total Solids

Log-in Notes:

Sample Notes:

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	% Solids	100		%	0.100	0.100	1	SM 2540G	11/21/2012 06:12	11/21/2012 06:12	AA

Sample Information

Client Sample ID: SBMTS PC-21

York Sample ID: 12K0580-21

York Project (SDG) No.
12K0580

Client Project ID
South Bronx Marine Transfer Station

Matrix
Paint Chips

Collection Date/Time
November 14, 2012 3:00 pm

Date Received
11/19/2012

Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/30/2012 01:20	JW
11104-28-2	Aroclor 1221	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/30/2012 01:20	JW
11141-16-5	Aroclor 1232	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/30/2012 01:20	JW
53469-21-9	Aroclor 1242	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/30/2012 01:20	JW
12672-29-6	Aroclor 1248	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/30/2012 01:20	JW
11097-69-1	Aroclor 1254	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/30/2012 01:20	JW
11096-82-5	Aroclor 1260	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/30/2012 01:20	JW

YORK

ANALYTICAL LABORATORIES, INC.
120 RESEARCH DRIVE • STRATFORD, CT 06615 • (203) 325-1371 • FAX (203) 357-0166

Sample Information

Client Sample ID: SBMTS PC-21

York Sample ID: 12K0580-21

York Project (SDG) No.
12K0580

Client Project ID
South Bronx Marine Transfer Station

Matrix
Paint Chips

Collection Date/Time
November 14, 2012 3:00 pm

Date Received
11/19/2012

Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
1336-36-3	Total PCBs	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/30/2012 01:20	JW
Surrogate Recoveries		Result			Acceptance Range						
877-09-8	Surrogate: Tetrachloro-m-xylene	96.5 %			30-150						
2051-24-3	Surrogate: Decachlorobiphenyl	97.0 %			30-150						

Lead by EPA 6010

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3050B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-92-1	Lead	11300		mg/kg dry	1.70	3.00	1	EPA SW846-6010B	11/26/2012 16:11	11/27/2012 01:01	MW

Total Solids

Log-in Notes:

Sample Notes:

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	% Solids	100		%	0.100	0.100	1	SM 2540G	11/21/2012 06:12	11/21/2012 06:12	AA

Sample Information

Client Sample ID: SBMTS PC-22

York Sample ID: 12K0580-22

York Project (SDG) No.
12K0580

Client Project ID
South Bronx Marine Transfer Station

Matrix
Paint Chips

Collection Date/Time
November 14, 2012 3:00 pm

Date Received
11/19/2012

Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/30/2012 01:40	JW
11104-28-2	Aroclor 1221	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/30/2012 01:40	JW
11141-16-5	Aroclor 1232	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/30/2012 01:40	JW
53469-21-9	Aroclor 1242	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/30/2012 01:40	JW
12672-29-6	Aroclor 1248	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/30/2012 01:40	JW
11097-69-1	Aroclor 1254	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/30/2012 01:40	JW
11096-82-5	Aroclor 1260	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/30/2012 01:40	JW
1336-36-3	Total PCBs	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/30/2012 01:40	JW
Surrogate Recoveries		Result			Acceptance Range						
877-09-8	Surrogate: Tetrachloro-m-xylene	94.5 %			30-150						
2051-24-3	Surrogate: Decachlorobiphenyl	90.5 %			30-150						

Lead by EPA 6010

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3050B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
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YORK

ANALYTICAL LABORATORIES, INC.
120 RESEARCH DRIVE STRATFORD, CT 06615 (203) 325-1371 FAX (203) 357-0166

Sample Information

Client Sample ID: SBMTS PC-22

York Sample ID: 12K0580-22

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

12K0580

South Bronx Marine Transfer Station

Paint Chips

November 14, 2012 3:00 pm

11/19/2012

Lead by EPA 6010

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3050B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-92-1	Lead	247000		mg/kg dry	170	300	100	EPA SW846-6010B	11/26/2012 16:11	11/27/2012 01:08	MW

Total Solids

Log-in Notes:

Sample Notes:

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	% Solids	100		%	0.100	0.100	1	SM 2540G	11/21/2012 06:12	11/21/2012 06:12	AA

Sample Information

Client Sample ID: SBMTS PC-23

York Sample ID: 12K0580-23

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

12K0580

South Bronx Marine Transfer Station

Paint Chips

November 14, 2012 3:00 pm

11/19/2012

Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/30/2012 01:59	JW
11104-28-2	Aroclor 1221	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/30/2012 01:59	JW
11141-16-5	Aroclor 1232	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/30/2012 01:59	JW
53469-21-9	Aroclor 1242	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/30/2012 01:59	JW
12672-29-6	Aroclor 1248	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/30/2012 01:59	JW
11097-69-1	Aroclor 1254	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/30/2012 01:59	JW
11096-82-5	Aroclor 1260	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/30/2012 01:59	JW
1336-36-3	Total PCBs	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/30/2012 01:59	JW

Surrogate Recoveries

Result

Acceptance Range

877-09-8 Surrogate: Tetrachloro-m-xylene

97.0 %

30-150

2051-24-3 Surrogate: Decachlorobiphenyl

98.5 %

30-150

Lead by EPA 6010

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3050B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-92-1	Lead	125000		mg/kg dry	17.0	30.0	10	EPA SW846-6010B	11/26/2012 16:11	11/27/2012 01:15	MW

Total Solids

Log-in Notes:

Sample Notes:

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	% Solids	100		%	0.100	0.100	1	SM 2540G	11/21/2012 06:12	11/21/2012 06:12	AA

YORK

ANALYTICAL LABORATORIES, INC.

Sample Information

Client Sample ID: SBMTS PC-24

York Sample ID: 12K0580-24

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

12K0580

South Bronx Marine Transfer Station

Paint Chips

November 14, 2012 3:00 pm

11/19/2012

Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/30/2012 02:39	JW
11104-28-2	Aroclor 1221	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/30/2012 02:39	JW
11141-16-5	Aroclor 1232	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/30/2012 02:39	JW
53469-21-9	Aroclor 1242	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/30/2012 02:39	JW
12672-29-6	Aroclor 1248	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/30/2012 02:39	JW
11097-69-1	Aroclor 1254	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/30/2012 02:39	JW
11096-82-5	Aroclor 1260	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/30/2012 02:39	JW
1336-36-3	Total PCBs	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/30/2012 02:39	JW
Surrogate Recoveries:		Result	Acceptance Range								
877-09-8	Surrogate: Tetrachloro-m-xylene	95.5 %	30-150								
2051-24-3	Surrogate: Decachlorobiphenyl	96.5 %	30-150								

Lead by EPA 6010

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3050B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-92-1	Lead	107		mg/kg dry	1.70	3.00	1	EPA SW846-6010B	11/26/2012 16:11	11/27/2012 01:35	MW

Total Solids

Log-in Notes:

Sample Notes:

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids:	% Solids	100		%	0.100	0.100	1	SM 2540G	11/21/2012 06:12	11/21/2012 06:12	AA

Sample Information

Client Sample ID: SBMTS PC-25

York Sample ID: 12K0580-25

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

12K0580

South Bronx Marine Transfer Station

Paint Chips

November 17, 2012 3:00 pm

11/19/2012

Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/30/2012 02:39	JW
11104-28-2	Aroclor 1221	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/30/2012 02:39	JW
11141-16-5	Aroclor 1232	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/30/2012 02:39	JW
53469-21-9	Aroclor 1242	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/30/2012 02:39	JW
12672-29-6	Aroclor 1248	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/30/2012 02:39	JW
11097-69-1	Aroclor 1254	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/30/2012 02:39	JW
11096-82-5	Aroclor 1260	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/30/2012 02:39	JW

YORK

ANALYTICAL LABORATORIES, INC.

Sample Information

Client Sample ID: SBMTS PC-25

York Sample ID: 12K0580-25

York Project (SDG) No.
12K0580

Client Project ID
South Bronx Marine Transfer Station

Matrix
Paint Chips

Collection Date/Time
November 17, 2012 3:00 pm

Date Received
11/19/2012

Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
1336-36-3	Total PCBs	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/30/2012 02:39	JW
Surrogate Recoveries		Result			Acceptance Range						
877-09-8	Surrogate: Tetrachloro-m-xylene	81.1 %			30-150						
2051-24-3	Surrogate: Decachlorobiphenyl	69.7 %			30-150						

Lead by EPA 6010

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3050B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-92-1	Lead	18.1		mg/kg dry	1.70	3.00	1	EPA SW 846-6010B	11/26/2012 16:31	11/27/2012 01:40	MW

Total Solids

Log-in Notes:

Sample Notes:

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	% Solids	100		%	0.100	0.100	1	SM 2540G	11/21/2012 06:12	11/21/2012 06:12	AA

Sample Information

Client Sample ID: SBMTS PC-26

York Sample ID: 12K0580-26

York Project (SDG) No.
12K0580

Client Project ID
South Bronx Marine Transfer Station

Matrix
Paint Chips

Collection Date/Time
November 14, 2012 3:00 pm

Date Received
11/19/2012

Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/30/2012 03:18	JW
11104-28-2	Aroclor 1221	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/30/2012 03:18	JW
11141-16-5	Aroclor 1232	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/30/2012 03:18	JW
53469-21-9	Aroclor 1242	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/30/2012 03:18	JW
12672-29-6	Aroclor 1248	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/30/2012 03:18	JW
11097-69-1	Aroclor 1254	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/30/2012 03:18	JW
11096-82-5	Aroclor 1260	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/30/2012 03:18	JW
1336-36-3	Total PCBs	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/30/2012 03:18	JW
Surrogate Recoveries		Result			Acceptance Range						
877-09-8	Surrogate: Tetrachloro-m-xylene	89.1 %			30-150						
2051-24-3	Surrogate: Decachlorobiphenyl	84.1 %			30-150						

Lead by EPA 6010

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3050B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
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YORK

ANALYTICAL LABORATORIES, INC.

Sample Information

Client Sample ID: SBMTS PC-26

York Sample ID: 12K0580-26

York Project (SDG) No.
12K0580

Client Project ID
South Bronx Marine Transfer Station

Matrix
Paint Chips

Collection Date/Time
November 14, 2012 3:00 pm

Date Received
11/19/2012

Lead by EPA 6010

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3050B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-92-1	Lead	333000		mg/kg dry	170	300	100	EPA SW846-6010B	11/26/2012 16:11	11/27/2012 01:44	MW

Total Solids

Log-in Notes:

Sample Notes:

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	% Solids	100		%	0.100	0.100	1	SM 2540G	11/21/2012 06:12	11/21/2012 06:12	AA

Sample Information

Client Sample ID: SBMTS PC-27

York Sample ID: 12K0580-27

York Project (SDG) No.
12K0580

Client Project ID
South Bronx Marine Transfer Station

Matrix
Paint Chips

Collection Date/Time
November 14, 2012 3:00 pm

Date Received
11/19/2012

Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/30/2012 03:38	JW
11104-28-2	Aroclor 1221	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/30/2012 03:38	JW
13141-16-5	Aroclor 1232	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/30/2012 03:38	JW
53469-21-9	Aroclor 1242	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/30/2012 03:38	JW
12672-29-6	Aroclor 1248	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/30/2012 03:38	JW
11097-69-1	Aroclor 1254	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/30/2012 03:38	JW
11096-82-5	Aroclor 1260	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/30/2012 03:38	JW
1336-36-3	Total PCBs	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/30/2012 03:38	JW

Surrogate Recoveries

Result

Acceptance Range

877-09-8 *Surrogate: Tetrachloro-m-xylene*

62.2 %

30-150

2051-24-3 *Surrogate: Decachlorobiphenyl*

59.2 %

30-150

Lead by EPA 6010

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3050B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-92-1	Lead	31000		mg/kg dry	17.0	30.0	10	EPA SW846-6010B	11/26/2012 16:11	11/27/2012 01:52	MW

Total Solids

Log-in Notes:

Sample Notes:

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	% Solids	100		%	0.100	0.100	1	SM 2540G	11/21/2012 06:12	11/21/2012 06:12	AA

YORK

ANALYTICAL LABORATORIES, INC.

Sample Information

Client Sample ID: SBMTS PC-28

York Sample ID: 12K0580-28

York Project (SDG) No.
12K0580

Client Project ID
South Bronx Marine Transfer Station

Matrix
Paint Chips

Collection Date/Time
November 14, 2012 3:00 pm

Date Received
11/19/2012

Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/30/2012 03:57	JW
11104-28-2	Aroclor 1221	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/30/2012 03:57	JW
11141-16-5	Aroclor 1232	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/30/2012 03:57	JW
53469-21-9	Aroclor 1242	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/30/2012 03:57	JW
12672-29-6	Aroclor 1248	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/30/2012 03:57	JW
11097-69-1	Aroclor 1254	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/30/2012 03:57	JW
11096-82-5	Aroclor 1260	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/30/2012 03:57	JW
1336-36-3	Total PCBs	ND		ng/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/30/2012 03:57	JW

Surrogate Recoveries

Result

Acceptance Range

877-09-8 Surrogate: Tetrachloro-m-xylene 59.2%

30-150

2051-24-3 Surrogate: Decachlorobiphenyl 56.7%

30-150

Lead by EPA 6010

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3050B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-92-1	Lead	33800		mg/kg dry	17.0	30.0	10	EPA SW846-6010B	11/26/2012 16:14	11/27/2012 02:10	MW

Total Solids

Log-in Notes:

Sample Notes:

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	% Solids	100		%	0.100	0.100	1	SM 2540G	11/21/2012 06:12	11/21/2012 06:12	AA

Sample Information

Client Sample ID: SBMTS PC-29

York Sample ID: 12K0580-29

York Project (SDG) No.
12K0580

Client Project ID
South Bronx Marine Transfer Station

Matrix
Paint Chips

Collection Date/Time
November 14, 2012 3:00 pm

Date Received
11/19/2012

Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/30/2012 04:17	JW
11104-28-2	Aroclor 1221	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/30/2012 04:17	JW
11141-16-5	Aroclor 1232	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/30/2012 04:17	JW
53469-21-9	Aroclor 1242	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/30/2012 04:17	JW
12672-29-6	Aroclor 1248	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/30/2012 04:17	JW
11097-69-1	Aroclor 1254	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/30/2012 04:17	JW
11096-82-5	Aroclor 1260	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/30/2012 04:17	JW

YORK

ANALYTICAL LABORATORIES, INC.

Sample Information

Client Sample ID: SBMTS PC-29

York Sample ID: 12K0580-29

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

12K0580

South Bronx Marine Transfer Station

Paint Chips

November 14, 2012 3:00 pm

11/19/2012

Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
1336-36-3	Total PCBs	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/30/2012 04:17	JW
	Surrogate Recoveries	Result						Acceptance Range			
877-09-8	Surrogate: Tetrachloro-m-xylene	65.2%						30-150			
2051-24-3	Surrogate: Decachlorobiphenyl	76.6%						30-150			

Total Solids

Log-in Notes:

Sample Notes:

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	% Solids	100		%	0.100	0.100	1	SM 2540G	11/21/2012 06:12	11/21/2012 06:12	AA

Sample Information

Client Sample ID: SBMTS PC-30

York Sample ID: 12K0580-30

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

12K0580

South Bronx Marine Transfer Station

Paint Chips

November 14, 2012 3:00 pm

11/19/2012

Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/30/2012 04:37	JW
11104-28-2	Aroclor 1221	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/30/2012 04:37	JW
11141-16-5	Aroclor 1232	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/30/2012 04:37	JW
53469-21-9	Aroclor 1242	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/30/2012 04:37	JW
12672-29-6	Aroclor 1248	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/30/2012 04:37	JW
11097-69-1	Aroclor 1254	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/30/2012 04:37	JW
11096-82-5	Aroclor 1260	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/30/2012 04:37	JW
1336-36-3	Total PCBs	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/30/2012 04:37	JW
	Surrogate Recoveries	Result						Acceptance Range			
877-09-8	Surrogate: Tetrachloro-m-xylene	94.0%						30-150			
2051-24-3	Surrogate: Decachlorobiphenyl	88.1%						30-150			

Lead by EPA 6010

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3050B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-92-1	Lead	77.1		mg/kg dry	1.70	3.00	1	EPA SW846-6010B	11/26/2012 16:14	11/27/2012 02:32	MW

Total Solids

Log-in Notes:

Sample Notes:

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
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YORK

ANALYTICAL LABORATORIES, INC.

Sample Information

Client Sample ID: SBMTS PC-30

York Sample ID: 12K0580-30

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

12K0580

South Bronx Marine Transfer Station

Paint Chips

November 14, 2012 3:00 pm

11/19/2012

Total Solids

Log-in Notes:

Sample Notes:

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	% Solids	100		%	0.100	0.100	1	SM 2540G	11/21/2012 06:12	11/21/2012 06:12	AA

Sample Information

Client Sample ID: SBMTS PC-31

York Sample ID: 12K0580-31

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

12K0580

South Bronx Marine Transfer Station

Paint Chips

November 14, 2012 3:00 pm

11/19/2012

Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/29/2012 18:47	JW
11104-28-2	Aroclor 1221	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/29/2012 18:47	JW
11141-16-5	Aroclor 1232	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/29/2012 18:47	JW
53469-21-9	Aroclor 1242	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/29/2012 18:47	JW
12672-29-6	Aroclor 1248	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/29/2012 18:47	JW
11097-69-1	Aroclor 1254	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/29/2012 18:47	JW
11096-82-5	Aroclor 1260	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/29/2012 18:47	JW
1336-36-3	Total PCBs	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/29/2012 18:47	JW
	Surrogate Recoveries	Result			Acceptance Range						
877-09-8	Surrogate: Tetrachloro- <i>m</i> -xylene	63.7%			30-150						
2051-24-3	Surrogate: Decachlorobiphenyl	59.7%			30-150						

Lead by EPA 6010

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3050B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-92-1	Lead	46.7		mg/kg dry	1.70	3.00	1	EPA SW 846-6010B	11/26/2012 16:14	11/27/2012 02:49	MW

Total Solids

Log-in Notes:

Sample Notes:

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	% Solids	100		%	0.100	0.100	1	SM 2540G	11/21/2012 06:12	11/21/2012 06:12	AA

Sample Information

Client Sample ID: SBMTS PC-32

York Sample ID: 12K0580-32

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

12K0580

South Bronx Marine Transfer Station

Paint Chips

November 14, 2012 3:00 pm

11/19/2012

YORK

ANALYTICAL LABORATORIES, INC.

Sample Information

Client Sample ID: SBMTS PC-32

York Sample ID: 12K0580-32

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

12K0580

South Bronx Marine Transfer Station

Paint Chips

November 14, 2012 3:00 pm

11/19/2012

Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		mg/kg dry	0.638	0.638	1	EPA SW 846-8082	11/28/2012 07:20	11/29/2012 19:07	JW
11104-28-2	Aroclor 1221	ND		mg/kg dry	0.638	0.638	1	EPA SW 846-8082	11/28/2012 07:20	11/29/2012 19:07	JW
11141-16-5	Aroclor 1232	ND		mg/kg dry	0.638	0.638	1	EPA SW 846-8082	11/28/2012 07:20	11/29/2012 19:07	JW
53469-21-9	Aroclor 1242	ND		mg/kg dry	0.638	0.638	1	EPA SW 846-8082	11/28/2012 07:20	11/29/2012 19:07	JW
12672-29-6	Aroclor 1248	ND		mg/kg dry	0.638	0.638	1	EPA SW 846-8082	11/28/2012 07:20	11/29/2012 19:07	JW
11097-69-1	Aroclor 1254	ND		mg/kg dry	0.638	0.638	1	EPA SW 846-8082	11/28/2012 07:20	11/29/2012 19:07	JW
11096-82-5	Aroclor 1260	ND		mg/kg dry	0.638	0.638	1	EPA SW 846-8082	11/28/2012 07:20	11/29/2012 19:07	JW
1336-36-3	Total PCBs	ND		mg/kg dry	0.638	0.638	1	EPA SW 846-8082	11/28/2012 07:20	11/29/2012 19:07	JW
	Surrogate Recoveries	Result									
877-09-8	Surrogate: Tetrachloro-m-xylene	77.6%									
2051-24-3	Surrogate: Decachlorobiphenyl	74.6%									

Lead by EPA 6010

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3050B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-92-1	Lead	57.0		mg/kg dry	1.70	3.00	1	EPA SW846-6010B	11/26/2012 16:14	11/27/2012 02:54	MW

Total Solids

Log-in Notes:

Sample Notes:

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	% Solids	100		%	0.100	0.100	1	SM 2540G	11/21/2012 06:12	11/21/2012 06:12	AA

Sample Information

Client Sample ID: SBMTS PC-33

York Sample ID: 12K0580-33

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

12K0580

South Bronx Marine Transfer Station

Paint Chips

November 14, 2012 3:00 pm

11/19/2012

Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/29/2012 19:26	JW
11104-28-2	Aroclor 1221	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/29/2012 19:26	JW
11141-16-5	Aroclor 1232	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/29/2012 19:26	JW
53469-21-9	Aroclor 1242	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/29/2012 19:26	JW
12672-29-6	Aroclor 1248	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/29/2012 19:26	JW
11097-69-1	Aroclor 1254	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/29/2012 19:26	JW
11096-82-5	Aroclor 1260	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/29/2012 19:26	JW

YORK

ANALYTICAL LABORATORIES, INC.

Sample Information

Client Sample ID: SBMTS PC-33 **York Sample ID:** 12K0580-33
York Project (SDG) No.: 12K0580 **Client Project ID:** South Bronx Marine Transfer Station **Matrix:** Paint Chips **Collection Date/Time:** November 14, 2012 3:00 pm **Date Received:** 11/19/2012

Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
1336-36-3	Total PCBs	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/29/2012 19:26	JW
Surrogate Recoveries		Result	Acceptance Range								
877-09-8	Surrogate: Tetrachloro-m-xylene	96.5 %	50-150								
2051-24-3	Surrogate: Decachlorobiphenyl	100 %	30-150								

Lead by EPA 6010

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3050B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-92-1	Lead	20.1		mg/kg dry	1.70	3.00	1	EPA SW846-6010B	11/26/2012 16:14	11/27/2012 02:58	MW

Total Solids

Log-in Notes:

Sample Notes:

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	% Solids	100		%	0.100	0.100	1	SM 2540G	11/21/2012 06:12	11/21/2012 06:12	AA

Sample Information

Client Sample ID: SBMTS PC-34 **York Sample ID:** 12K0580-34
York Project (SDG) No.: 12K0580 **Client Project ID:** South Bronx Marine Transfer Station **Matrix:** Paint Chips **Collection Date/Time:** November 14, 2012 3:00 pm **Date Received:** 11/19/2012

Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/29/2012 19:46	JW
11104-28-2	Aroclor 1221	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/29/2012 19:46	JW
11141-16-5	Aroclor 1232	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/29/2012 19:46	JW
53469-21-9	Aroclor 1242	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/29/2012 19:46	JW
12672-29-6	Aroclor 1248	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/29/2012 19:46	JW
11097-69-1	Aroclor 1254	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/29/2012 19:46	JW
11096-82-5	Aroclor 1260	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/29/2012 19:46	JW
1336-36-3	Total PCBs	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/29/2012 19:46	JW
Surrogate Recoveries		Result	Acceptance Range								
877-09-8	Surrogate: Tetrachloro-m-xylene	72.1 %	30-150								
2051-24-3	Surrogate: Decachlorobiphenyl	68.2 %	30-150								

Lead by EPA 6010

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3050B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
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YORK

ANALYTICAL LABORATORIES, INC.

Sample Information

Client Sample ID: SBMTS PC-34

York Sample ID: 12K0580-34

York Project (SDG) No.
12K0580

Client Project ID
South Bronx Marine Transfer Station

Matrix **Collection Date/Time**
Paint Chips November 14, 2012 3:00 pm

Date Received
11/19/2012

Lead by EPA 6010

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3050B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-92-1	Lead	46.0		mg/kg dry	1.70	3.00	1	EPA SW846-6010B	11/26/2012 16:14	11/27/2012 03:03	MW

Total Solids

Log-in Notes:

Sample Notes:

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	% Solids	100		%	0.100	0.100	1	SM 2540G	11/21/2012 06:12	11/21/2012 06:12	AA

Sample Information

Client Sample ID: SBMTS PC-35

York Sample ID: 12K0580-35

York Project (SDG) No.
12K0580

Client Project ID
South Bronx Marine Transfer Station

Matrix **Collection Date/Time**
Paint Chips November 14, 2012 3:00 pm

Date Received
11/19/2012

Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/29/2012 20:25	JW
11104-28-2	Aroclor 1221	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/29/2012 20:25	JW
11141-16-5	Aroclor 1232	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/29/2012 20:25	JW
53469-21-9	Aroclor 1242	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/29/2012 20:25	JW
12672-29-6	Aroclor 1248	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/29/2012 20:25	JW
11097-69-1	Aroclor 1254	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/29/2012 20:25	JW
11096-82-5	Aroclor 1260	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/29/2012 20:25	JW
1336-36-3	Total PCBs	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/29/2012 20:25	JW

Surrogate Recoveries

Result

Acceptance Range

877-09-8 *Surrogate: Tetrachloro-m-xylene*

57.2 %

30-150

2051-24-3 *Surrogate: Decachlorobiphenyl*

67.2 %

30-150

Lead by EPA 6010

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3050B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-92-1	Lead	13.9		mg/kg dry	1.70	3.00	1	EPA SW846-6010B	11/26/2012 16:14	11/27/2012 03:03	MW

Total Solids

Log-in Notes:

Sample Notes:

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	% Solids	100		%	0.100	0.100	1	SM 2540G	11/21/2012 06:12	11/21/2012 06:12	AA

YORK

ANALYTICAL LABORATORIES, INC.

Sample Information

Client Sample ID: SBMTS PC-36

York Sample ID: 12K0580-36

York Project (SDG) No.
12K0580

Client Project ID
South Bronx Marine Transfer Station

Matrix
Paint Chips

Collection Date/Time
November 14, 2012 3:00 pm

Date Received
11/19/2012

Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/29/2012 20:45	JW
11104-28-2	Aroclor 1221	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/29/2012 20:45	JW
11141-16-5	Aroclor 1252	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/29/2012 20:45	JW
53469-21-9	Aroclor 1242	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/29/2012 20:45	JW
12672-29-6	Aroclor 1248	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/29/2012 20:45	JW
11097-69-1	Aroclor 1254	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/29/2012 20:45	JW
11096-82-5	Aroclor 1260	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/29/2012 20:45	JW
1336-36-3	Total PCBs	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/29/2012 20:45	JW

Surrogate Recoveries

Result

Acceptance Range

877-09-8 Surrogate: Tetrachloro-m-xylene

94.0 %

30-150

2051-24-3 Surrogate: Decachlorobiphenyl

95.0 %

30-150

Total Solids

Log-in Notes:

Sample Notes:

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	% Solids	100		%	0.100	0.100	1	SM.2540G	11/21/2012 06:12	11/21/2012 06:12	AA

Sample Information

Client Sample ID: SBMTS PC-37

York Sample ID: 12K0580-37

York Project (SDG) No.
12K0580

Client Project ID
South Bronx Marine Transfer Station

Matrix
Paint Chips

Collection Date/Time
November 14, 2012 3:00 pm

Date Received
11/19/2012

Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/29/2012 21:05	JW
11104-28-2	Aroclor 1221	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/29/2012 21:05	JW
11141-16-5	Aroclor 1232	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/29/2012 21:05	JW
53469-21-9	Aroclor 1242	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/29/2012 21:05	JW
12672-29-6	Aroclor 1248	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/29/2012 21:05	JW
11097-69-1	Aroclor 1254	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/29/2012 21:05	JW
11096-82-5	Aroclor 1260	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/29/2012 21:05	JW
1336-36-3	Total PCBs	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:20	11/29/2012 21:05	JW

Surrogate Recoveries

Result

Acceptance Range

877-09-8 Surrogate: Tetrachloro-m-xylene

55.7 %

30-150

2051-24-3 Surrogate: Decachlorobiphenyl

51.7 %

30-150

YORK

ANALYTICAL LABORATORIES, INC.
2000 WASHINGTON AVENUE, SUITE 200, STRATFORD, CT 06615

Sample Information

Client Sample ID: SBMTS PC-37

York Sample ID: 12K0580-37

York Project (SDG) No.
12K0580

Client Project ID
South Bronx Marine Transfer Station

Matrix
Paint Chips

Collection Date/Time
November 14, 2012 3:00 pm

Date Received
11/19/2012

Total Solids

Log-in Notes:

Sample Notes:

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	% Solids	100		%	0.100	0.100	1	SM 2540G	11/21/2012 06:12	11/21/2012 06:12	AA

Sample Information

Client Sample ID: SBMTS PC-38

York Sample ID: 12K0580-38

York Project (SDG) No.
12K0580

Client Project ID
South Bronx Marine Transfer Station

Matrix
Paint Chips

Collection Date/Time
November 14, 2012 3:00 pm

Date Received
11/19/2012

Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3545A

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:21	11/28/2012 17:38	JW
11104-28-2	Aroclor 1221	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:21	11/28/2012 17:38	JW
11141-16-5	Aroclor 1232	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:21	11/28/2012 17:38	JW
11141-16-9	Aroclor 1242	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:21	11/28/2012 17:38	JW
12072-29-6	Aroclor 1248	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:21	11/28/2012 17:38	JW
11097-69-1	Aroclor 1254	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:21	11/28/2012 17:38	JW
11096-82-5	Aroclor 1260	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:21	11/28/2012 17:38	JW
1336-36-3	Total PCBs	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:21	11/28/2012 17:38	JW

Surrogate Recoveries

Result

Acceptance Range

877-09-8	Surrogate: Tetrachloro-m-xylene	83.1 %		30-150
2051-24-3	Surrogate: Decachlorobiphenyl	89.1 %		30-150

Total Solids

Log-in Notes:

Sample Notes:

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	% Solids	100		%	0.100	0.100	1	SM 2540G	11/21/2012 06:14	11/21/2012 06:14	AA

Sample Information

Client Sample ID: SBMTS PC-39

York Sample ID: 12K0580-39

York Project (SDG) No.
12K0580

Client Project ID
South Bronx Marine Transfer Station

Matrix
Paint Chips

Collection Date/Time
November 14, 2012 3:00 pm

Date Received
11/19/2012

Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3545A

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:21	11/28/2012 17:57	JW
11104-28-2	Aroclor 1221	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:21	11/28/2012 17:57	JW

YORK

ANALYTICAL LABORATORIES, INC.
120 RESEARCH DRIVE
STRATFORD, CT 06615

Sample Information

Client Sample ID: SBMTS PC-39

York Sample ID: 12K0580-39

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

12K0580

South Bronx Marine Transfer Station

Paint Chips

November 14, 2012 3:00 pm

11/19/2012

Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3545A

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
11141-16-5	Aroclor 1232	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:21	11/28/2012 17:57	JW
53469-21-9	Aroclor 1242	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:21	11/28/2012 17:57	JW
12672-29-6	Aroclor 1248	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:21	11/28/2012 17:57	JW
11097-69-1	Aroclor 1254	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:21	11/28/2012 17:57	JW
11096-82-5	Aroclor 1260	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:21	11/28/2012 17:57	JW
1336-36-3	Total PCBs	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:21	11/28/2012 17:57	JW
Surrogate Recoveries		Result	Acceptance Range								
877-09-8	Surrogate: Tetrachloro-m-xylene	84.1 %	30-150								
2051-24-3	Surrogate: Decachlorobiphenyl	95.5 %	30-150								

Lead by EPA 6010

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3050B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-92-1	Lead	152		mg/kg dry	1.70	3.00	1	EPA SW846-6010B	11/26/2012 16:14	11/27/2012 05:13	MW

Total Solids

Log-in Notes:

Sample Notes:

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	% Solids	100		%	0.100	0.100	1	SM 2540G	11/21/2012 06:14	11/21/2012 06:14	AA

Sample Information

Client Sample ID: SBMTS PC-40

York Sample ID: 12K0580-40

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

12K0580

South Bronx Marine Transfer Station

Paint Chips

November 14, 2012 3:00 pm

11/19/2012

Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3545A

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:21	11/28/2012 18:17	JW
11104-28-2	Aroclor 1221	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:21	11/28/2012 18:17	JW
11141-16-5	Aroclor 1232	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:21	11/28/2012 18:17	JW
53469-21-9	Aroclor 1242	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:21	11/28/2012 18:17	JW
12672-29-6	Aroclor 1248	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:21	11/28/2012 18:17	JW
11097-69-1	Aroclor 1254	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:21	11/28/2012 18:17	JW
11096-82-5	Aroclor 1260	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:21	11/28/2012 18:17	JW
1336-36-3	Total PCBs	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:21	11/28/2012 18:17	JW
Surrogate Recoveries		Result	Acceptance Range								

YORK

ANALYTICAL LABORATORIES, INC.

Sample Information

Client Sample ID: SBMTS PC-40

York Sample ID: 12K0580-40

York Project (SDG) No.
12K0580

Client Project ID
South Bronx Marine Transfer Station

Matrix
Paint Chips

Collection Date/Time
November 14, 2012 3:00 pm

Date Received
11/19/2012

Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3545A

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
877-09-8	Surrogate: Tetrachloro-m-xylene	80.6%			30-150						
2051-24-3	Surrogate: Decachlorobiphenyl	86.1%			30-150						

Lead by EPA 6010

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3050B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-92-1	Lead	61000		mg/kg dry	17.0	30.0	10	EPA SW846-6010B	11/26/2012 16:14	11/27/2012 03:18	MW

Total Solids

Log-in Notes:

Sample Notes:

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	% Solids	100		%	0.100	0.100	1	SM 2540G	11/21/2012 06:14	11/21/2012 06:14	AA

Sample Information

Client Sample ID: SBMTS PC-41

York Sample ID: 12K0580-41

York Project (SDG) No.
12K0580

Client Project ID
South Bronx Marine Transfer Station

Matrix
Paint Chips

Collection Date/Time
November 14, 2012 3:00 pm

Date Received
11/19/2012

Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3545A

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		mg/kg dry	0.567	0.567	1	EPA SW 846-8082	11/28/2012 07:21	11/28/2012 18:36	JW
11104-28-2	Aroclor 1221	ND		mg/kg dry	0.567	0.567	1	EPA SW 846-8082	11/28/2012 07:21	11/28/2012 18:36	JW
11141-16-5	Aroclor 1232	ND		mg/kg dry	0.567	0.567	1	EPA SW 846-8082	11/28/2012 07:21	11/28/2012 18:36	JW
53469-21-9	Aroclor 1242	ND		mg/kg dry	0.567	0.567	1	EPA SW 846-8082	11/28/2012 07:21	11/28/2012 18:36	JW
12672-29-6	Aroclor 1248	ND		mg/kg dry	0.567	0.567	1	EPA SW 846-8082	11/28/2012 07:21	11/28/2012 18:36	JW
11097-69-1	Aroclor 1254	ND		mg/kg dry	0.567	0.567	1	EPA SW 846-8082	11/28/2012 07:21	11/28/2012 18:36	JW
11096-82-5	Aroclor 1260	ND		mg/kg dry	0.567	0.567	1	EPA SW 846-8082	11/28/2012 07:21	11/28/2012 18:36	JW
1336-36-3	Total PCBs	ND		mg/kg dry	0.567	0.567	1	EPA SW 846-8082	11/28/2012 07:21	11/28/2012 18:36	JW

Surrogate Recoveries

Result

Acceptance Range

877-09-8 Surrogate: Tetrachloro-m-xylene 82.1%

30-150

2051-24-3 Surrogate: Decachlorobiphenyl 91.5%

30-150

Lead by EPA 6010

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3050B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-92-1	Lead	125000		mg/kg dry	17.0	30.0	10	EPA SW846-6010B	11/26/2012 16:14	11/27/2012 03:25	MW

Total Solids

Log-in Notes:

Sample Notes:

YORK

ANALYTICAL LABORATORIES, INC.
120 RESEARCH DRIVE
STRATFORD, CT 06615
(203) 325-1374

Sample Information

Client Sample ID: SBMTS PC-41

York Sample ID: 12K0580-41

York Project (SDG) No. 12K0580 Client Project ID South Bronx Marine Transfer Station Matrix Paint Chips Collection Date/Time November 14, 2012 3:00 pm Date Received 11/19/2012

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	% Solids	100		%	0.100	0.100	1	SM 2540G	11/21/2012 06:14	11/21/2012 06:14	AA

Sample Information

Client Sample ID: SBMTS PC-42

York Sample ID: 12K0580-42

York Project (SDG) No. 12K0580 Client Project ID South Bronx Marine Transfer Station Matrix Paint Chips Collection Date/Time November 14, 2012 3:00 pm Date Received 11/19/2012

Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3545A

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		mg/kg dry	0.567	0.567	1	EPA SW 846-8082	11/28/2012 07:21	11/28/2012 18:56	JW
11104-28-2	Aroclor 1221	ND		mg/kg dry	0.567	0.567	1	EPA SW 846-8082	11/28/2012 07:21	11/28/2012 18:56	JW
11141-16-5	Aroclor 1232	ND		mg/kg dry	0.567	0.567	1	EPA SW 846-8082	11/28/2012 07:21	11/28/2012 18:56	JW
53469-21-9	Aroclor 1242	ND		mg/kg dry	0.567	0.567	1	EPA SW 846-8082	11/28/2012 07:21	11/28/2012 18:56	JW
12672-29-6	Aroclor 1248	ND		mg/kg dry	0.567	0.567	1	EPA SW 846-8082	11/28/2012 07:21	11/28/2012 18:56	JW
11097-69-1	Aroclor 1254	ND		mg/kg dry	0.567	0.567	1	EPA SW 846-8082	11/28/2012 07:21	11/28/2012 18:56	JW
11096-82-5	Aroclor 1260	ND		mg/kg dry	0.567	0.567	1	EPA SW 846-8082	11/28/2012 07:21	11/28/2012 18:56	JW
1336-36-3	Total PCBs	ND		mg/kg dry	0.567	0.567	1	EPA SW 846-8082	11/28/2012 07:21	11/28/2012 18:56	JW

Surrogate Recoveries

Result

Acceptance Range

877-09-8 Surrogate: Tetrachloro-m-xylene 80.1 %
2051-24-3 Surrogate: Decachlorobiphenyl 90.5 %

Lead by EPA 6010

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3050B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-92-1	Lead	721		mg/kg dry	1.70	3.00	1	EPA SW846-6010B	11/26/2012 16:14	11/27/2012 03:32	MW

Total Solids

Log-in Notes:

Sample Notes:

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	% Solids	100		%	0.100	0.100	1	SM 2540G	11/21/2012 06:14	11/21/2012 06:14	AA

Sample Information

Client Sample ID: SBMTS PC-43

York Sample ID: 12K0580-43

York Project (SDG) No. 12K0580 Client Project ID South Bronx Marine Transfer Station Matrix Paint Chips Collection Date/Time November 15, 2012 3:00 pm Date Received 11/19/2012

Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

120 RESEARCH DRIVE

STRATFORD, CT 06615

(203) 325-1374

FAX (203) 357-0166

YORK

ANALYTICAL LABORATORIES, INC.

Sample Information

Client Sample ID: SBMTS PC-43

York Sample ID: 12K0580-43

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

12K0580

South Bronx Marine Transfer Station

Paint Chips

November 15, 2012 3:00 pm

11/19/2012

Sample Prepared by Method: EPA 3545A

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:21	11/28/2012 19:16	JW
11104-28-2	Aroclor 1221	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:21	11/28/2012 19:16	JW
11141-16-5	Aroclor 1232	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:21	11/28/2012 19:16	JW
53469-21-9	Aroclor 1242	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:21	11/28/2012 19:16	JW
12672-29-6	Aroclor 1248	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:21	11/28/2012 19:16	JW
11097-69-1	Aroclor 1254	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:21	11/28/2012 19:16	JW
11096-82-5	Aroclor 1260	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:21	11/28/2012 19:16	JW
1336-36-3	Total PCBs	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:21	11/28/2012 19:16	JW
Surrogate Recoveries		Result	Acceptance Range								
877-09-8	Surrogate: Tetrachloro-m-cylene	81.6%	30-150								
2051-24-3	Surrogate: Decachlorobiphenyl	99.5%	30-150								

Lead by EPA 6010

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3050B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
	Lead	170		mg/kg dry	1.70	3.00	1	EPA SW846-6010B	11/26/2012 16:14	11/27/2012 03:37	MW

Total Solids

Log-in Notes:

Sample Notes:

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	% Solids	100		%	0.100	0.100	1	SM 2540G	11/21/2012 06:14	11/21/2012 06:14	AA

Sample Information

Client Sample ID: SBMTS PC-44

York Sample ID: 12K0580-44

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

12K0580

South Bronx Marine Transfer Station

Paint Chips

November 14, 2012 3:00 pm

11/19/2012

Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3545A

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		mg/kg dry	0.567	0.567	1	EPA SW 846-8082	11/28/2012 07:21	11/28/2012 19:35	JW
11104-28-2	Aroclor 1221	ND		mg/kg dry	0.567	0.567	1	EPA SW 846-8082	11/28/2012 07:21	11/28/2012 19:35	JW
11141-16-5	Aroclor 1232	ND		mg/kg dry	0.567	0.567	1	EPA SW 846-8082	11/28/2012 07:21	11/28/2012 19:35	JW
53469-21-9	Aroclor 1242	ND		mg/kg dry	0.567	0.567	1	EPA SW 846-8082	11/28/2012 07:21	11/28/2012 19:35	JW
12672-29-6	Aroclor 1248	ND		mg/kg dry	0.567	0.567	1	EPA SW 846-8082	11/28/2012 07:21	11/28/2012 19:35	JW
11097-69-1	Aroclor 1254	ND		mg/kg dry	0.567	0.567	1	EPA SW 846-8082	11/28/2012 07:21	11/28/2012 19:35	JW
11096-82-5	Aroclor 1260	ND		mg/kg dry	0.567	0.567	1	EPA SW 846-8082	11/28/2012 07:21	11/28/2012 19:35	JW
1336-36-3	Total PCBs	ND		mg/kg dry	0.567	0.567	1	EPA SW 846-8082	11/28/2012 07:21	11/28/2012 19:35	JW

YORK

ANALYTICAL LABORATORIES, INC.
2000 WEST 10TH AVENUE, SUITE 100, DENVER, CO 80202

Sample Information

Client Sample ID: SBMTS PC-44 **York Sample ID:** 12K0580-44
York Project (SDG) No. 12K0580 **Client Project ID** South Bronx Marine Transfer Station **Matrix** Paint Chips **Collection Date/Time** November 14, 2012 3:00 pm **Date Received** 11/19/2012

Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3545A

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
Surrogate Recoveries		Result			Acceptance Range						
877-09-8	Surrogate: Tetrachloro-m-xylene	83.1%									
2051-24-3	Surrogate: Decachlorobiphenyl	98.5%									

Lead by EPA 6010

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3050B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-92-1	Lead	264		mg/kg dry	1.70	3.00	1	EPA SW846-6010B	11/26/2012 16:14	11/27/2012 03:54	MW

Total Solids

Log-in Notes:

Sample Notes:

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	% Solids	100		%	0.100	0.100	1	SM 2540G	11/21/2012 06:14	11/21/2012 06:14	AA

Sample Information

Client Sample ID: SBMTS PC-45 **York Sample ID:** 12K0580-45
York Project (SDG) No. 12K0580 **Client Project ID** South Bronx Marine Transfer Station **Matrix** Paint Chips **Collection Date/Time** November 15, 2012 3:00 pm **Date Received** 11/19/2012

Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		mg/kg dry	0.464	0.464	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 14:57	JW
11104-28-2	Aroclor 1221	ND		mg/kg dry	0.464	0.464	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 14:57	JW
11141-16-5	Aroclor 1232	ND		mg/kg dry	0.464	0.464	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 14:57	JW
53469-21-9	Aroclor 1242	ND		mg/kg dry	0.464	0.464	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 14:57	JW
12672-29-6	Aroclor 1248	ND		mg/kg dry	0.464	0.464	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 14:57	JW
11097-69-1	Aroclor 1254	ND		mg/kg dry	0.464	0.464	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 14:57	JW
11096-82-5	Aroclor 1260	ND		mg/kg dry	0.464	0.464	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 14:57	JW
1336-36-3	Total PCBs	ND		mg/kg dry	0.464	0.464	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 14:57	JW
Surrogate Recoveries		Result			Acceptance Range						
877-09-8	Surrogate: Tetrachloro-m-xylene	74.6%									
2051-24-3	Surrogate: Decachlorobiphenyl	69.2%									

Lead by EPA 6010

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3050B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-92-1	Lead	32.9		mg/kg dry	1.70	3.00	1	EPA SW846-6010B	11/26/2012 16:14	11/27/2012 03:59	MW

YORK

ANALYTICAL LABORATORIES, INC.

Sample Information

Client Sample ID: SBMTS PC-45 **York Sample ID:** 12K0580-45
York Project (SDG) No. 12K0580 **Client Project ID** South Bronx Marine Transfer Station **Matrix** Paint Chips **Collection Date/Time** November 15, 2012 3:00 pm **Date Received** 11/19/2012

Total Solids Log-in Notes: Sample Notes:
 Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	% Solids	100		%	0.100	0.100	1	SM 2540G	11/21/2012 06:14	11/21/2012 06:14	AA

Sample Information

Client Sample ID: SBMTS PC-46 **York Sample ID:** 12K0580-46
York Project (SDG) No. 12K0580 **Client Project ID** South Bronx Marine Transfer Station **Matrix** Paint Chips **Collection Date/Time** November 15, 2012 3:00 pm **Date Received** 11/19/2012

Polychlorinated Biphenyls (PCB) Log-in Notes: Sample Notes:
 Sample Prepared by Method: EPA 3550B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		mg/kg dry	0.567	0.567	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 15:17	JW
11104-28-2	Aroclor 1221	ND		mg/kg dry	0.567	0.567	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 15:17	JW
11141-16-5	Aroclor 1232	ND		mg/kg dry	0.567	0.567	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 15:17	JW
12672-29-6	Aroclor 1242	ND		mg/kg dry	0.567	0.567	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 15:17	JW
12672-29-6	Aroclor 1248	ND		mg/kg dry	0.567	0.567	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 15:17	JW
11097-69-1	Aroclor 1254	ND		mg/kg dry	0.567	0.567	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 15:17	JW
11096-82-5	Aroclor 1260	ND		mg/kg dry	0.567	0.567	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 15:17	JW
1336-36-3	Total PCBs	ND		mg/kg dry	0.567	0.567	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 15:17	JW
Surrogate Recoveries		Result	Acceptance Range								
877-09-8	Surrogate: Tetrachloro-m-xylene	108 %	30-150								
2051-24-3	Surrogate: Decachlorobiphenyl	98.5 %	30-150								

Lead by EPA 6010 Log-in Notes: Sample Notes:
 Sample Prepared by Method: EPA 3050B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-92-1	Lead	16100		mg/kg dry	1.70	3.00	1	EPA SW846-6010B	11/26/2012 16:14	11/27/2012 04:03	MW

Total Solids Log-in Notes: Sample Notes:
 Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	% Solids	100		%	0.100	0.100	1	SM 2540G	11/21/2012 06:14	11/21/2012 06:14	AA

Sample Information

Client Sample ID: SBMTS PC-47 **York Sample ID:** 12K0580-47
York Project (SDG) No. 12K0580 **Client Project ID** South Bronx Marine Transfer Station **Matrix** Paint Chips **Collection Date/Time** November 16, 2012 3:00 pm **Date Received** 11/19/2012

YORK

ANALYTICAL LABORATORIES, INC.
120 RESEARCH DRIVE STRATFORD, CT 06615 (203) 325-1971 FAX (203) 357-0166

Sample Information

Client Sample ID: SBMTS PC-47

York Sample ID: 12K0580-47

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

12K0580

South Bronx Marine Transfer Station

Paint Chips

November 16, 2012 3:00 pm

11/19/2012

Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		mg/kg dry	0.567	0.567	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 15:37	JW
11104-28-2	Aroclor 1221	ND		mg/kg dry	0.567	0.567	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 15:37	JW
11141-16-5	Aroclor 1232	ND		mg/kg dry	0.567	0.567	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 15:37	JW
53469-21-9	Aroclor 1242	ND		mg/kg dry	0.567	0.567	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 15:37	JW
12672-29-6	Aroclor 1248	ND		mg/kg dry	0.567	0.567	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 15:37	JW
11097-69-1	Aroclor 1254	ND		mg/kg dry	0.567	0.567	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 15:37	JW
11096-82-5	Aroclor 1260	ND		mg/kg dry	0.567	0.567	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 15:37	JW
1336-36-3	Total PCBs	ND		mg/kg dry	0.567	0.567	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 15:37	JW
Surrogate Recoveries		Result	Acceptance Range								
877-09-8	Surrogate: Tetrachloro-m-xylene	84.1 %	30-150								
2051-24-5	Surrogate: Decachlorobiphenyl	73.6 %	30-150								

Lead by EPA 6010

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3050B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-92-1	Lead	163		mg/kg dry	1.70	3.00	1	EPA SW846-6010B	11/26/2012 16:14	11/27/2012 04:11	MW

Total Solids

Log-in Notes:

Sample Notes:

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	% Solids	100		%	0.100	0.100	1	SM 2540G	11/21/2012 06:14	11/21/2012 06:14	AA

Sample Information

Client Sample ID: SBMTS PC-48

York Sample ID: 12K0580-48

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

12K0580

South Bronx Marine Transfer Station

Paint Chips

November 15, 2012 3:00 pm

11/19/2012

Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		mg/kg dry	0.567	0.567	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 15:56	JW
11104-28-2	Aroclor 1221	ND		mg/kg dry	0.567	0.567	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 15:56	JW
11141-16-5	Aroclor 1232	ND		mg/kg dry	0.567	0.567	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 15:56	JW
53469-21-9	Aroclor 1242	ND		mg/kg dry	0.567	0.567	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 15:56	JW
12672-29-6	Aroclor 1248	ND		mg/kg dry	0.567	0.567	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 15:56	JW
11097-69-1	Aroclor 1254	ND		mg/kg dry	0.567	0.567	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 15:56	JW
11096-82-5	Aroclor 1260	ND		mg/kg dry	0.567	0.567	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 15:56	JW

YORK

ANALYTICAL LABORATORIES, INC.

Sample Information

Client Sample ID: SBMTS PC-48

York Sample ID: 12K0580-48

York Project (SDG) No.
12K0580

Client Project ID
South Bronx Marine Transfer Station

Matrix Paint Chips
Collection Date/Time November 15, 2012 3:00 pm

Date Received
11/19/2012

Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
1336-36-3	Total PCBs	ND		mg/kg dry	0.567	0.567	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 15:56	JW
Surrogate Recoveries		Result	Acceptance Range								
877-09-8	Surrogate: Tetrachloro-m-xylene	104 %	30-150								
2051-24-3	Surrogate: Decachlorobiphenyl	98.5 %	30-150								

Lead by EPA 6010

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3050B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-92-1	Lead	183		mg/kg dry	1.70	3.00	1	EPA SW846-6010B	11/26/2012 16:14	11/27/2012 04:16	MW

Total Solids

Log-in Notes:

Sample Notes:

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	% Solids	100		%	0.100	0.100	1	SM 2540G	11/21/2012 06:14	11/21/2012 06:14	AA

Sample Information

Client Sample ID: SBMTS PC-49

York Sample ID: 12K0580-49

York Project (SDG) No.
12K0580

Client Project ID
South Bronx Marine Transfer Station

Matrix Paint Chips
Collection Date/Time November 15, 2012 3:00 pm

Date Received
11/19/2012

Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-13-2	Aroclor 1016	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 16:16	JW
11104-28-2	Aroclor 1221	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 16:16	JW
11141-16-5	Aroclor 1232	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 16:16	JW
53469-21-9	Aroclor 1242	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 16:16	JW
12672-29-6	Aroclor 1248	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 16:16	JW
11097-69-1	Aroclor 1254	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 16:16	JW
11096-82-5	Aroclor 1260	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 16:16	JW
1336-36-3	Total PCBs	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 16:16	JW
Surrogate Recoveries		Result	Acceptance Range								
877-09-8	Surrogate: Tetrachloro-m-xylene	103 %	30-150								
2051-24-3	Surrogate: Decachlorobiphenyl	97.5 %	30-150								

Lead by EPA 6010

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3050B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
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YORK

ANALYTICAL LABORATORIES, INC.

Sample Information

Client Sample ID: SBMTS PC-49

York Sample ID: 12K0580-49

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

12K0580

South Bronx Marine Transfer Station

Paint Chips

November 15, 2012 3:00 pm

11/19/2012

Lead by EPA 6010

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3050B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-92-1	Lead	99.8		mg/kg dry	1.70	3.00	1	EPA SW846-6010B	11/26/2012 16:14	11/27/2012 04:20	MW

Total Solids

Log-in Notes:

Sample Notes:

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	% Solids	100		%	0.100	0.100	1	SM 2540G	11/21/2012 06:14	11/21/2012 06:14	AA

Sample Information

Client Sample ID: SBMTS PC-50

York Sample ID: 12K0580-50

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

12K0580

South Bronx Marine Transfer Station

Paint Chips

November 15, 2012 3:00 pm

11/19/2012

Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 16:36	JW
11104-28-2	Aroclor 1221	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 16:36	JW
11141-16-5	Aroclor 1232	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 16:36	JW
53469-21-9	Aroclor 1242	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 16:36	JW
12672-29-6	Aroclor 1248	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 16:36	JW
11097-69-1	Aroclor 1254	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 16:36	JW
11096-82-5	Aroclor 1260	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 16:36	JW
1336-36-3	Total PCBs	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 16:36	JW

Surrogate Recoveries

Result

Acceptance Range

877-09-8 Surrogate: Tetrachloro-m-xylene 99.5 %

30-150

2051-24-3 Surrogate: Decachlorobiphenyl 92.5 %

30-150

Lead by EPA 6010

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3050B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-92-1	Lead	73.9		mg/kg dry	1.70	3.00	1	EPA SW846-6010B	11/26/2012 16:14	11/27/2012 04:25	MW

Total Solids

Log-in Notes:

Sample Notes:

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	% Solids	100		%	0.100	0.100	1	SM 2540G	11/21/2012 06:14	11/21/2012 06:14	AA

YORK

ANALYTICAL LABORATORIES, INC.

Sample Information

Client Sample ID: SBMTS PC-51

York Sample ID: 12K0580-51

York Project (SDG) No.
12K0580

Client Project ID
South Bronx Marine Transfer Station

Matrix
Paint Chips

Collection Date/Time
November 16, 2012 3:00 pm

Date Received
11/19/2012

Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 16:55	JW
11104-28-2	Aroclor 1221	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 16:55	JW
11141-16-5	Aroclor 1232	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 16:55	JW
53469-21-9	Aroclor 1242	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 16:55	JW
12672-29-6	Aroclor 1248	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 16:55	JW
11097-69-1	Aroclor 1254	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 16:55	JW
11096-82-5	Aroclor 1260	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 16:55	JW
1336-36-3	Total PCBs	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 16:55	JW
Surrogate Recoveries		Result	Acceptance Range								
877-09-8	Surrogate: Tetrachloro-m-xylene	86.1 %	30-150								
2051-24-3	Surrogate: Decachlorobiphenyl	80.1 %	30-150								

Lead by EPA 6010

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3050B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-92-1	Lead	80.1		mg/kg dry	1.70	3.00	1	EPA SW846-6010B	11/26/2012 16:14	11/27/2012 04:30	MW

Total Solids

Log-in Notes:

Sample Notes:

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	% Solids	100		%	0.100	0.100	1	SM 2540G	11/21/2012 06:14	11/21/2012 06:14	AA

Sample Information

Client Sample ID: SBMTS PC-52

York Sample ID: 12K0580-52

York Project (SDG) No.
12K0580

Client Project ID
South Bronx Marine Transfer Station

Matrix
Paint Chips

Collection Date/Time
November 16, 2012 3:00 pm

Date Received
11/19/2012

Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		mg/kg dry	0.567	0.567	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 17:15	JW
11104-28-2	Aroclor 1221	ND		mg/kg dry	0.567	0.567	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 17:15	JW
11141-16-5	Aroclor 1232	ND		mg/kg dry	0.567	0.567	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 17:15	JW
53469-21-9	Aroclor 1242	ND		mg/kg dry	0.567	0.567	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 17:15	JW
12672-29-6	Aroclor 1248	ND		mg/kg dry	0.567	0.567	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 17:15	JW
11097-69-1	Aroclor 1254	ND		mg/kg dry	0.567	0.567	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 17:15	JW
11096-82-5	Aroclor 1260	ND		mg/kg dry	0.567	0.567	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 17:15	JW

YORK

ANALYTICAL LABORATORIES, INC.
120 RESEARCH DRIVE STRATFORD, CT 06615 TEL: (203) 357-1371 FAX: (203) 357-0166

Sample Information

Client Sample ID: SBMTS PC-52

York Sample ID: 12K0580-52

York Project (SDG) No:
12K0580

Client Project ID:
South Bronx Marine Transfer Station

Matrix:
Paint Chips

Collection Date/Time:
November 16, 2012 3:00 pm

Date Received:
11/19/2012

Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
1336-36-3	Total PCBs	ND		mg/kg dry	0.567	0.567	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 17:35	JW
Surrogate Recoveries		Result	Acceptance Range								
877-09-8	Surrogate: Tetrachloro-m-xylene	84.6 %	30-150								
2051-24-3	Surrogate: Decachlorobiphenyl	80.6 %	30-150								

Total Solids

Log-in Notes:

Sample Notes:

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	% Solids	100		%	0.100	0.100	1	SM 2540G	11/21/2012 06:14	11/21/2012 06:14	AA

Sample Information

Client Sample ID: SBMTS PC-53

York Sample ID: 12K0580-53

York Project (SDG) No:
12K0580

Client Project ID:
South Bronx Marine Transfer Station

Matrix:
Paint Chips

Collection Date/Time:
November 16, 2012 3:00 pm

Date Received:
11/19/2012

Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 17:35	JW
11104-28-2	Aroclor 1221	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 17:35	JW
11141-16-5	Aroclor 1232	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 17:35	JW
53469-21-9	Aroclor 1242	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 17:35	JW
12672-29-6	Aroclor 1248	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 17:35	JW
11097-69-1	Aroclor 1254	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 17:35	JW
11096-82-5	Aroclor 1260	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 17:35	JW
1336-36-3	Total PCBs	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 17:35	JW
Surrogate Recoveries		Result	Acceptance Range								
877-09-8	Surrogate: Tetrachloro-m-xylene	77.6 %	30-150								
2051-24-3	Surrogate: Decachlorobiphenyl	68.7 %	30-150								

Total Solids

Log-in Notes:

Sample Notes:

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	% Solids	100		%	0.100	0.100	1	SM 2540G	11/21/2012 06:14	11/21/2012 06:14	AA

YORK

ANALYTICAL LABORATORIES, INC.

Sample Information

Client Sample ID: SBMTS CLK-1

York Sample ID: 12K0580-54

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

12K0580

South Bronx Marine Transfer Station

Solid

November 15, 2012 3:00 pm

11/19/2012

Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 17:54	JW
11104-28-2	Aroclor 1221	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 17:54	JW
11141-16-5	Aroclor 1232	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 17:54	JW
53469-21-9	Aroclor 1242	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 17:54	JW
12672-29-6	Aroclor 1248	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 17:54	JW
11097-69-1	Aroclor 1254	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 17:54	JW
11096-82-5	Aroclor 1260	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 17:54	JW
1336-36-3	Total PCBs	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 17:54	JW
Surrogate Recoveries		Result	Acceptance Range								
877-09-8	Surrogate: Tetrachloro-m-xylene	90.0 %	30-150								
2051-24-3	Surrogate: Decachlorobiphenyl	68.7 %	30-150								

Total Solids

Log-in Notes:

Sample Notes:

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	% Solids	100		%	0.100	0.100	1	SM 2540G	11/21/2012 06:19	11/21/2012 06:19	AA

Sample Information

Client Sample ID: SBMTS CLK-2

York Sample ID: 12K0580-55

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

12K0580

South Bronx Marine Transfer Station

Solid

November 15, 2012 3:00 pm

11/19/2012

Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 18:34	JW
11104-28-2	Aroclor 1221	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 18:34	JW
11141-16-5	Aroclor 1232	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 18:34	JW
53469-21-9	Aroclor 1242	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 18:34	JW
12672-29-6	Aroclor 1248	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 18:34	JW
11097-69-1	Aroclor 1254	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 18:34	JW
11096-82-5	Aroclor 1260	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 18:34	JW
1336-36-3	Total PCBs	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 18:34	JW
Surrogate Recoveries		Result	Acceptance Range								
87	Surrogate: Tetrachloro-m-xylene	88.1 %	30-150								
20	Surrogate: Decachlorobiphenyl	70.1 %	30-150								

YORK

ANALYTICAL LABORATORIES, INC.

Sample Information

Client Sample ID: SBMTS CLK-2

York Sample ID: 12K0580-55

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

12K0580

South Bronx Marine Transfer Station

Solid

November 15, 2012 3:00 pm

11/19/2012

Total Solids

Log-in Notes:

Sample Notes:

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	% Solids	100		%	0.100	0.100	1	SM 2540G	11/21/2012 06:19	11/21/2012 06:19	AA

Sample Information

Client Sample ID: SBMTS CLK-3

York Sample ID: 12K0580-56

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

12K0580

South Bronx Marine Transfer Station

Solid

November 15, 2012 3:00 pm

11/19/2012

Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		mg/kg dry	0.567	0.567	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 18:53	JW
11104-28-2	Aroclor 1221	ND		mg/kg dry	0.567	0.567	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 18:53	JW
11141-16-5	Aroclor 1232	ND		mg/kg dry	0.567	0.567	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 18:53	JW
53469-21-9	Aroclor 1242	ND		mg/kg dry	0.567	0.567	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 18:53	JW
12672-29-6	Aroclor 1248	ND		mg/kg dry	0.567	0.567	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 18:53	JW
11097-69-1	Aroclor 1254	ND		mg/kg dry	0.567	0.567	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 18:53	JW
11096-82-5	Aroclor 1260	ND		mg/kg dry	0.567	0.567	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 18:53	JW
1336-36-3	Total PCBs	ND		mg/kg dry	0.567	0.567	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 18:53	JW
Surrogate Recoveries		Result	Acceptance Range								
877-09-8	Surrogate: Tetrachloro-m-xylene	76.1%	30-150								
2051-24-3	Surrogate: Decachlorobiphenyl	57.2%	30-150								

Total Solids

Log-in Notes:

Sample Notes:

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	% Solids	100		%	0.100	0.100	1	SM 2540G	11/21/2012 06:19	11/21/2012 06:19	AA

Sample Information

Client Sample ID: SBMTS CLK-4

York Sample ID: 12K0580-57

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

12K0580

South Bronx Marine Transfer Station

Cauk

November 15, 2012 3:00 pm

11/19/2012

Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		mg/kg dry	0.567	0.567	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 19:13	JW
11104-28-2	Aroclor 1221	ND		mg/kg dry	0.567	0.567	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 19:13	JW

YORK

ANALYTICAL LABORATORIES, INC.

Sample Information

Client Sample ID: SBMTS CLK-4

York Sample ID: 12K0580-57

York Project (SDG) No.
12K0580

Client Project ID
South Bronx Marine Transfer Station

Matrix
Caulk

Collection Date/Time
November 15, 2012 3:00 pm

Date Received
11/19/2012

Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
11141-16-5	Aroclor 1232	ND		mg/kg dry	0.567	0.567	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 19:13	JW
53469-21-9	Aroclor 1242	ND		mg/kg dry	0.567	0.567	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 19:13	JW
12672-29-6	Aroclor 1248	ND		mg/kg dry	0.567	0.567	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 19:13	JW
11097-69-1	Aroclor 1254	ND		mg/kg dry	0.567	0.567	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 19:13	JW
11096-82-5	Aroclor 1260	ND		mg/kg dry	0.567	0.567	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 19:13	JW
1336-36-3	Total PCBs	ND		mg/kg dry	0.567	0.567	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 19:13	JW
Surrogate Recoveries		Result			Acceptance Range						
877-09-8	Surrogate: Tetrachloro-m-xylene	73.1%			30-150						
2051-24-3	Surrogate: Decachlorobiphenyl	58.2%			30-150						

Total Solids

Log-in Notes:

Sample Notes:

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
	% Solids	100		%	0.100	0.100	1	SM 2540G	11/21/2012 06:14	11/21/2012 06:14	AA

Sample Information

Client Sample ID: SBMTS CLK-6

York Sample ID: 12K0580-59

York Project (SDG) No.
12K0580

Client Project ID
South Bronx Marine Transfer Station

Matrix
Solid

Collection Date/Time
November 15, 2012 3:00 pm

Date Received
11/19/2012

Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 19:32	JW
11104-28-2	Aroclor 1221	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 19:32	JW
11141-16-5	Aroclor 1232	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 19:32	JW
53469-21-9	Aroclor 1242	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 19:32	JW
12672-29-6	Aroclor 1248	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 19:32	JW
11097-69-1	Aroclor 1254	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 19:32	JW
11096-82-5	Aroclor 1260	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 19:32	JW
1336-36-3	Total PCBs	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 19:32	JW
Surrogate Recoveries		Result			Acceptance Range						
877-09-8	Surrogate: Tetrachloro-m-xylene	107%			30-150						
2051-24-3	Surrogate: Decachlorobiphenyl	98.0%			30-150						

Solids

Log-in Notes:

Sample Notes:

YORK

ANALYTICAL LABORATORIES, INC.

Sample Information

Client Sample ID: SBMTS CLK-6 York Sample ID: 12K0580-59
York Project (SDG) No. 12K0580 Client Project ID South Bronx Marine Transfer Station Matrix Solid Collection Date/Time November 15, 2012 3:00 pm Date Received 11/19/2012

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	% Solids	100		%	0.100	0.100	1	SM 2540G	11/21/2012 06:19	11/21/2012 06:19	AA

Sample Information

Client Sample ID: SBMTS CLK-7 York Sample ID: 12K0580-60
York Project (SDG) No. 12K0580 Client Project ID South Bronx Marine Transfer Station Matrix Caulk Collection Date/Time November 15, 2012 3:00 pm Date Received 11/19/2012

Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 19:52	JW
11104-28-2	Aroclor 1221	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 19:52	JW
11141-16-5	Aroclor 1232	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 19:52	JW
53469-21-9	Aroclor 1242	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 19:52	JW
12672-29-6	Aroclor 1248	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 19:52	JW
11097-69-1	Aroclor 1254	0.918		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 19:52	JW
11096-82-5	Aroclor 1260	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 19:52	JW
1336-36-3	Total PCBs	0.918		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 19:52	JW
Surrogate Recoveries		Result	Acceptance Range								
877-09-8	Surrogate: Tetrachloro-m-xylene	86.6 %	30-150								
2051-24-3	Surrogate: Decachlorobiphenyl	63.2 %	30-150								

Total Solids

Log-in Notes:

Sample Notes:

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	% Solids	100		%	0.100	0.100	1	SM 2540G	11/21/2012 06:14	11/21/2012 06:14	AA

Sample Information

Client Sample ID: SBMTS CLK-8 York Sample ID: 12K0580-61
York Project (SDG) No. 12K0580 Client Project ID South Bronx Marine Transfer Station Matrix Caulk Collection Date/Time November 15, 2012 3:00 pm Date Received 11/19/2012

Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		mg/kg dry	0.464	0.464	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 20:12	JW
11104-28-2	Aroclor 1221	ND		mg/kg dry	0.464	0.464	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 20:12	JW
11141-16-5	Aroclor 1232	ND		mg/kg dry	0.464	0.464	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 20:12	JW

YORK

ANALYTICAL LABORATORIES, INC.

Sample Information

Client Sample ID: SBMTS CLK-8

York Sample ID: 12K0580-61

York Project (SDG) No:
12K0580

Client Project ID
South Bronx Marine Transfer Station

Matrix
Caulk

Collection Date/Time
November 15, 2012 3:00 pm

Date Received
11/19/2012

Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
53469-21-9	Aroclor 1242	ND		mg/kg dry	0.464	0.464	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 20:12	JW
12672-29-6	Aroclor 1248	ND		mg/kg dry	0.464	0.464	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 20:12	JW
11097-69-1	Aroclor 1254	ND		mg/kg dry	0.464	0.464	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 20:12	JW
11096-82-5	Aroclor 1260	ND		mg/kg dry	0.464	0.464	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 20:12	JW
1336-36-3	Total PCBs	ND		mg/kg dry	0.464	0.464	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 20:12	JW
Surrogate Recoveries		Result			Acceptance Range						
877-09-8	Surrogate: Tetrachloro-m-xylene	80.1 %			30-150						
2051-24-3	Surrogate: Decachlorobiphenyl	65.2 %			30-150						

Total Solids

Log-in Notes:

Sample Notes:

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	% Solids	100		%	0.100	0.100	1	SM 2540G	11/21/2012 06:14	11/21/2012 06:14	AA

Sample Information

Client Sample ID: SBMTS CLK-9

York Sample ID: 12K0580-62

York Project (SDG) No:
12K0580

Client Project ID
South Bronx Marine Transfer Station

Matrix
Solid

Collection Date/Time
November 15, 2012 3:00 pm

Date Received
11/19/2012

Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		mg/kg dry	0.464	0.464	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 20:31	JW
11104-28-2	Aroclor 1221	ND		mg/kg dry	0.464	0.464	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 20:31	JW
11141-16-5	Aroclor 1232	ND		mg/kg dry	0.464	0.464	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 20:31	JW
53469-21-9	Aroclor 1242	ND		mg/kg dry	0.464	0.464	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 20:31	JW
12672-29-6	Aroclor 1248	ND		mg/kg dry	0.464	0.464	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 20:31	JW
11097-69-1	Aroclor 1254	ND		mg/kg dry	0.464	0.464	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 20:31	JW
11096-82-5	Aroclor 1260	ND		mg/kg dry	0.464	0.464	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 20:31	JW
1336-36-3	Total PCBs	ND		mg/kg dry	0.464	0.464	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 20:31	JW
Surrogate Recoveries		Result			Acceptance Range						
877-09-8	Surrogate: Tetrachloro-m-xylene	107 %			30-150						
2051-24-3	Surrogate: Decachlorobiphenyl	89.1 %			30-150						

Total Solids

Log-in Notes:

Sample Notes:

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
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YORK

ANALYTICAL LABORATORIES, INC.
120 RESEARCH DRIVE STRATFORD, CT 06615 (203) 326-1371 FAX (203) 357-0166

Sample Information

Client Sample ID: SBMTS CLK-9

York Sample ID: 12K0580-62

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

12K0580

South Bronx Marine Transfer Station

Solid

November 15, 2012 3:00 pm

11/19/2012

Total Solids

Log-in Notes:

Sample Notes:

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	% Solids	100		%	0.100	0.100	1	SM 2540G	11/21/2012 06:19	11/21/2012 06:19	AA

Sample Information

Client Sample ID: SBMTS CLK-10

York Sample ID: 12K0580-63

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

12K0580

South Bronx Marine Transfer Station

Caulk

November 15, 2012 3:00 pm

11/19/2012

Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		mg/kg dry	0.464	0.464	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 20:51	JW
11104-28-2	Aroclor 1221	ND		mg/kg dry	0.464	0.464	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 20:51	JW
11141-16-5	Aroclor 1232	ND		mg/kg dry	0.464	0.464	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 20:51	JW
53469-21-9	Aroclor 1242	ND		mg/kg dry	0.464	0.464	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 20:51	JW
12672-29-6	Aroclor 1248	ND		mg/kg dry	0.464	0.464	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 20:51	JW
11097-69-1	Aroclor 1254	ND		mg/kg dry	0.464	0.464	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 20:51	JW
11096-82-5	Aroclor 1260	ND		mg/kg dry	0.464	0.464	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 20:51	JW
1336-36-3	Total PCBs	ND		mg/kg dry	0.464	0.464	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 20:51	JW
Surrogate Recoveries		Result	Acceptance Range								
877-09-8	Surrogate: Tetrachloro-m-xylene	101%	30-150								
2051-24-3	Surrogate: Decachlorobiphenyl	77.1%	30-150								

Total Solids

Log-in Notes:

Sample Notes:

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	% Solids	100		%	0.100	0.100	1	SM 2540G	11/21/2012 06:14	11/21/2012 06:14	AA

Sample Information

Client Sample ID: SBMTS CLK-11

York Sample ID: 12K0580-64

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

12K0580

South Bronx Marine Transfer Station

Caulk

November 15, 2012 3:00 pm

11/19/2012

Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 21:10	JW

YORK

ANALYTICAL LABORATORIES, INC.

Sample Information

Client Sample ID: SBMTS CLK-11

York Sample ID: 12K0580-64

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

12K0580

South Bronx Marine Transfer Station

Caulk

November 15, 2012 3:00 pm

11/19/2012

Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
11104-28-2	Aroclor 1221	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 21:10	JW
11141-16-5	Aroclor 1232	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 21:10	JW
53469-21-9	Aroclor 1242	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 21:10	JW
12672-29-6	Aroclor 1248	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 21:10	JW
11097-69-1	Aroclor 1254	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 21:10	JW
11096-82-5	Aroclor 1260	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 21:10	JW
1336-36-3	Total PCBs	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 21:10	JW
	Surrogate Recoveries	Result			Acceptance Range						
877-09-8	Surrogate: Tetrachloro-m-xylene	113 %			30-150						
2051-24-3	Surrogate: Decachlorobiphenyl	89.1 %			30-150						

Total Solids

Log-in Notes:

Sample Notes:

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
	% Solids	100		%	0.100	0.100	1	SM 2540G	11/21/2012 06:19	11/21/2012 06:19	AA

Sample Information

Client Sample ID: SBMTS CLK-12

York Sample ID: 12K0580-65

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

12K0580

South Bronx Marine Transfer Station

Caulk

November 15, 2012 3:00 pm

11/19/2012

Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 21:30	JW
11104-28-2	Aroclor 1221	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 21:30	JW
11141-16-5	Aroclor 1232	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 21:30	JW
53469-21-9	Aroclor 1242	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 21:30	JW
12672-29-6	Aroclor 1248	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 21:30	JW
11097-69-1	Aroclor 1254	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 21:30	JW
11096-82-5	Aroclor 1260	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 21:30	JW
1336-36-3	Total PCBs	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 15:25	11/30/2012 21:30	JW
	Surrogate Recoveries	Result			Acceptance Range						
877-09-8	Surrogate: Tetrachloro-m-xylene	92.5 %			30-150						
2051-24-3	Surrogate: Decachlorobiphenyl	75.6 %			30-150						

Total Solids

Log-in Notes:

Sample Notes:

120 RESEARCH DRIVE

STRATFORD, CT 06615

(203) 325-1371

FAX (203) 357-0166

YORK

ANALYTICAL LABORATORIES, INC.
120 RESEARCH DRIVE
STRATFORD, CT 06615
(203) 325-1371

Sample Information

Client Sample ID: SBMTS CLK-12

York Sample ID: 12K0580-65

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

12K0580

South Bronx Marine Transfer Station

Caulk

November 15, 2012 3:00 pm

11/19/2012

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	% Solids	100		%	0.100	0.100	1	SM 2540G	11/21/2012 06:19	11/21/2012 06:19	AA

Sample Information

Client Sample ID: SBMTS CLK-13

York Sample ID: 12K0580-66

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

12K0580

South Bronx Marine Transfer Station

Caulk

November 15, 2012 3:00 pm

11/19/2012

Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3545A

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 15:35	11/29/2012 21:24	JW
11104-28-2	Aroclor 1221	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 15:35	11/29/2012 21:24	JW
11141-16-5	Aroclor 1232	ND		ng/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 15:35	11/29/2012 21:24	JW
53469-21-9	Aroclor 1242	ND		ng/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 15:35	11/29/2012 21:24	JW
12672-29-6	Aroclor 1248	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 15:35	11/29/2012 21:24	JW
11097-69-1	Aroclor 1254	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 15:35	11/29/2012 21:24	JW
11096-82-5	Aroclor 1260	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 15:35	11/29/2012 21:24	JW
1336-36-3	Total PCBs	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 15:35	11/29/2012 21:24	JW

Surrogate Recoveries

Result

Acceptance Range

877-09-8 Surrogate: Tetrachloro-m-xylene 84.1 %

30-150

2051-24-3 Surrogate: Decachlorobiphenyl 95.5 %

30-150

Total Solids

Log-in Notes:

Sample Notes:

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	% Solids	100		%	0.100	0.100	1	SM 2540G	11/21/2012 06:19	11/21/2012 06:19	AA

Sample Information

Client Sample ID: SBMTS CLK-14

York Sample ID: 12K0580-67

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

12K0580

South Bronx Marine Transfer Station

Caulk

November 15, 2012 3:00 pm

11/19/2012

Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3545A

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 15:35	11/29/2012 21:44	JW
11104-28-2	Aroclor 1221	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 15:35	11/29/2012 21:44	JW
11141-16-5	Aroclor 1232	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 15:35	11/29/2012 21:44	JW

YORK

ANALYTICAL LABORATORIES, INC.

Sample Information

Client Sample ID: SBMTS CLK-14

York Sample ID: 12K0580-67

York Project (SDG) No.
12K0580

Client Project ID
South Bronx Marine Transfer Station

Matrix
Caulk

Collection Date/Time
November 15, 2012 3:00 pm

Date Received
11/19/2012

Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3545A

CAS No.	Parameter	Result	Flag	Units	MDL	RI	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
53469-21-9	Aroclor 1242	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 15:35	11/29/2012 21:44	JW
12672-29-6	Aroclor 1248	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 15:35	11/29/2012 21:44	JW
11097-69-1	Aroclor 1254	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 15:35	11/29/2012 21:44	JW
11096-82-5	Aroclor 1260	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 15:35	11/29/2012 21:44	JW
1336-36-3	Total PCBs	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 15:35	11/29/2012 21:44	JW
Surrogate Recoveries		Result			Acceptance Range						
877-09-8	Surrogate: Tetrachloro-m-xylene	94.5%			30-150						
2051-24-3	Surrogate: Decachlorobiphenyl	112%			30-150						

Total Solids

Log-in Notes:

Sample Notes:

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	MDL	RI	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	% Solids	100		%	0.100	0.100	1	SM.2540G	11/21/2012 06:19	11/21/2012 06:19	AA

Sample Information

Client Sample ID: SBMTS CLK-15

York Sample ID: 12K0580-68

York Project (SDG) No.
12K0580

Client Project ID
South Bronx Marine Transfer Station

Matrix
Caulk

Collection Date/Time
November 15, 2012 3:00 pm

Date Received
11/19/2012

Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3545A

CAS No.	Parameter	Result	Flag	Units	MDL	RI	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		mg/kg dry	0.567	0.567	1	EPA SW 846-8082	11/28/2012 15:35	11/29/2012 22:04	JW
11104-28-2	Aroclor 1221	ND		mg/kg dry	0.567	0.567	1	EPA SW 846-8082	11/28/2012 15:35	11/29/2012 22:04	JW
11141-16-5	Aroclor 1232	ND		mg/kg dry	0.567	0.567	1	EPA SW 846-8082	11/28/2012 15:35	11/29/2012 22:04	JW
53469-21-9	Aroclor 1242	ND		mg/kg dry	0.567	0.567	1	EPA SW 846-8082	11/28/2012 15:35	11/29/2012 22:04	JW
12672-29-6	Aroclor 1248	ND		mg/kg dry	0.567	0.567	1	EPA SW 846-8082	11/28/2012 15:35	11/29/2012 22:04	JW
11097-69-1	Aroclor 1254	ND		mg/kg dry	0.567	0.567	1	EPA SW 846-8082	11/28/2012 15:35	11/29/2012 22:04	JW
11096-82-5	Aroclor 1260	ND		mg/kg dry	0.567	0.567	1	EPA SW 846-8082	11/28/2012 15:35	11/29/2012 22:04	JW
1336-36-3	Total PCBs	ND		mg/kg dry	0.567	0.567	1	EPA SW 846-8082	11/28/2012 15:35	11/29/2012 22:04	JW
Surrogate Recoveries		Result			Acceptance Range						
877-09-8	Surrogate: Tetrachloro-m-xylene	79.1%			30-150						
2051-24-3	Surrogate: Decachlorobiphenyl	97.5%			30-150						

Total Solids

Log-in Notes:

Sample Notes:

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	MDL	RI	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
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YORK

ANALYTICAL LABORATORIES, INC.
120 RESEARCH DRIVE STRATFORD, CT 06615 (203) 325-1371 FAX (203) 357-0166

Sample Information

Client Sample ID: SBMTS CLK-15

York Sample ID: 12K0580-68

York Project (SDG) No.
12K0580

Client Project ID
South Bronx Marine Transfer Station

Matrix
Caulk

Collection Date/Time
November 15, 2012 3:00 pm

Date Received
11/19/2012

Total Solids

Log-in Notes:

Sample Notes:

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	% Solids	100		%	0.100	0.100	1	SM 2540G	11/21/2012 06:19	11/21/2012 06:19	AA

Sample Information

Client Sample ID: SBMTS CLK-16

York Sample ID: 12K0580-69

York Project (SDG) No.
12K0580

Client Project ID
South Bronx Marine Transfer Station

Matrix
Caulk

Collection Date/Time
November 15, 2012 3:00 pm

Date Received
11/19/2012

Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3545A

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		mg/kg dry	0.567	0.567	1	EPA SW 846-8082	11/28/2012 15:35	11/29/2012 22:23	JW
11104-28-2	Aroclor 1221	ND		mg/kg dry	0.567	0.567	1	EPA SW 846-8082	11/28/2012 15:35	11/29/2012 22:23	JW
11141-16-5	Aroclor 1252	ND		mg/kg dry	0.567	0.567	1	EPA SW 846-8082	11/28/2012 15:35	11/29/2012 22:23	JW
53469-21-9	Aroclor 1242	ND		mg/kg dry	0.567	0.567	1	EPA SW 846-8082	11/28/2012 15:35	11/29/2012 22:23	JW
12672-29-6	Aroclor 1248	ND		mg/kg dry	0.567	0.567	1	EPA SW 846-8082	11/28/2012 15:35	11/29/2012 22:23	JW
11097-69-1	Aroclor 1254	ND		mg/kg dry	0.567	0.567	1	EPA SW 846-8082	11/28/2012 15:35	11/29/2012 22:23	JW
11096-82-5	Aroclor 1260	ND		mg/kg dry	0.567	0.567	1	EPA SW 846-8082	11/28/2012 15:35	11/29/2012 22:23	JW
1336-36-3	Total PCBs	ND		mg/kg dry	0.567	0.567	1	EPA SW 846-8082	11/28/2012 15:35	11/29/2012 22:23	JW
Surrogate Recoveries		Result	Acceptance Range								
877-09-8	Surrogate: Tetrachloro-m-xylene	72.6 %	30-150								
2051-24-3	Surrogate: Decachlorobiphenyl	89.6 %	30-150								

Total Solids

Log-in Notes:

Sample Notes:

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	% Solids	100		%	0.100	0.100	1	SM 2540G	11/21/2012 06:19	11/21/2012 06:19	AA

Sample Information

Client Sample ID: SBMTS CLK-17

York Sample ID: 12K0580-70

York Project (SDG) No.
12K0580

Client Project ID
South Bronx Marine Transfer Station

Matrix
Caulk

Collection Date/Time
November 15, 2012 3:00 pm

Date Received
11/19/2012

Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3545A

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		mg/kg dry	1.28	1.28	1	EPA SW 846-8082	11/28/2012 15:35	11/29/2012 22:43	JW

YORK

ANALYTICAL LABORATORIES, INC.

Sample Information

Client Sample ID: SBMTS CLK-17

York Sample ID: 12K0580-70

York Project (SDG) No.
12K0580

Client Project ID
South Bronx Marine Transfer Station

Matrix
Caulk

Collection Date/Time
November 15, 2012 3:00 pm

Date Received
11/19/2012

Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3545A

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
11104-28-2	Aroclor 1221	ND		mg/kg dry	1.28	1.28	1	EPA SW 846-8082	11/28/2012 15:35	11/29/2012 22:43	JW
11141-16-5	Aroclor 1232	ND		mg/kg dry	1.28	1.28	1	EPA SW 846-8082	11/28/2012 15:35	11/29/2012 22:43	JW
53469-21-9	Aroclor 1242	ND		mg/kg dry	1.28	1.28	1	EPA SW 846-8082	11/28/2012 15:35	11/29/2012 22:43	JW
12672-29-6	Aroclor 1248	ND		mg/kg dry	1.28	1.28	1	EPA SW 846-8082	11/28/2012 15:35	11/29/2012 22:43	JW
11097-69-1	Aroclor 1254	ND		mg/kg dry	1.28	1.28	1	EPA SW 846-8082	11/28/2012 15:35	11/29/2012 22:43	JW
11096-82-5	Aroclor 1260	ND		mg/kg dry	1.28	1.28	1	EPA SW 846-8082	11/28/2012 15:35	11/29/2012 22:43	JW
1336-36-3	Total PCBs	ND		mg/kg dry	1.28	1.28	1	EPA SW 846-8082	11/28/2012 15:35	11/29/2012 22:43	JW

Surrogate Recoveries

Result

Acceptance Range

877-09-8 *Surrogate: Tetrachloro-m-xylene* 65.2%

30-150

2051-24-3 *Surrogate: Decachlorobiphenyl* 70.1%

30-150

Total Solids

Log-in Notes:

Sample Notes:

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
	% Solids	100		%	0.100	0.100	1	SM 2540G	11/21/2012 06:19	11/21/2012 06:19	AA

Sample Information

Client Sample ID: SBMTS CLK-18

York Sample ID: 12K0580-71

York Project (SDG) No.
12K0580

Client Project ID
South Bronx Marine Transfer Station

Matrix
Caulk

Collection Date/Time
November 16, 2012 3:00 pm

Date Received
11/19/2012

Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3545A

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		mg/kg dry	0.567	0.567	1	EPA SW 846-8082	11/28/2012 15:35	11/29/2012 23:03	JW
11104-28-2	Aroclor 1221	ND		mg/kg dry	0.567	0.567	1	EPA SW 846-8082	11/28/2012 15:35	11/29/2012 23:03	JW
11141-16-5	Aroclor 1232	ND		mg/kg dry	0.567	0.567	1	EPA SW 846-8082	11/28/2012 15:35	11/29/2012 23:03	JW
53469-21-9	Aroclor 1242	ND		mg/kg dry	0.567	0.567	1	EPA SW 846-8082	11/28/2012 15:35	11/29/2012 23:03	JW
12672-29-6	Aroclor 1248	ND		mg/kg dry	0.567	0.567	1	EPA SW 846-8082	11/28/2012 15:35	11/29/2012 23:03	JW
11097-69-1	Aroclor 1254	ND		mg/kg dry	0.567	0.567	1	EPA SW 846-8082	11/28/2012 15:35	11/29/2012 23:03	JW
11096-82-5	Aroclor 1260	ND		mg/kg dry	0.567	0.567	1	EPA SW 846-8082	11/28/2012 15:35	11/29/2012 23:03	JW
1336-36-3	Total PCBs	ND		mg/kg dry	0.567	0.567	1	EPA SW 846-8082	11/28/2012 15:35	11/29/2012 23:03	JW

Surrogate Recoveries

Result

Acceptance Range

877-09-8 *Surrogate: Tetrachloro-m-xylene* 76.6%

30-150

2051-24-3 *Surrogate: Decachlorobiphenyl* 89.1%

30-150

Solids

Log-in Notes:

Sample Notes:

YORK

ANALYTICAL LABORATORIES, INC.

Sample Information

Client Sample ID: SBMTS CLK-18

York Sample ID: 12K0580-71

York Project (SDG) No.
12K0580

Client Project ID
South Bronx Marine Transfer Station

Matrix
Caulk

Collection Date/Time
November 16, 2012 3:00 pm

Date Received
11/19/2012

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	% Solids	100		%	0.100	0.100	1	SM 2540G	11/21/2012 06:19	11/21/2012 06:19	AA

Sample Information

Client Sample ID: SBMTS CON-1

York Sample ID: 12K0580-72

York Project (SDG) No.
12K0580

Client Project ID
South Bronx Marine Transfer Station

Matrix
Concrete

Collection Date/Time
November 14, 2012 3:00 pm

Date Received
11/19/2012

Semi-Volatiles, 8270 Target List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
83-32-9	Acenaphthene	ND		ug/kg dry	60.3	167	1	EPA SW-846 8270C	11/28/2012 07:10	11/29/2012 03:24	SR
208-96-8	Acenaphthylene	ND		ug/kg dry	80.0	167	1	EPA SW-846 8270C	11/28/2012 07:10	11/29/2012 03:24	SR
62-53-3	Aniline	ND		ug/kg dry	95.3	167	1	EPA SW-846 8270C	11/28/2012 07:10	11/29/2012 03:24	SR
120-12-7	Anthracene	ND		ug/kg dry	91.0	167	1	EPA SW-846 8270C	11/28/2012 07:10	11/29/2012 03:24	SR
56-55-3	Benzo(a)anthracene	ND		ug/kg dry	62.3	167	1	EPA SW-846 8270C	11/28/2012 07:10	11/29/2012 03:24	SR
50-32-8	Benzo(a)pyrene	ND		ug/kg dry	66.0	167	1	EPA SW-846 8270C	11/28/2012 07:10	11/29/2012 03:24	SR
205-99-2	Benzo(b)fluoranthene	ND		ug/kg dry	140	167	1	EPA SW-846 8270C	11/28/2012 07:10	11/29/2012 03:24	SR
191-24-2	Benzo(g,h,i)perylene	ND		ug/kg dry	55.3	167	1	EPA SW-846 8270C	11/28/2012 07:10	11/29/2012 03:24	SR
100-51-6	Benzyl alcohol	ND		ug/kg dry	167	167	1	EPA SW-846 8270C	11/28/2012 07:10	11/29/2012 03:24	SR
207-08-9	Benzo(k)fluoranthene	ND		ug/kg dry	167	167	1	EPA SW-846 8270C	11/28/2012 07:10	11/29/2012 03:24	SR
85-68-7	Benzyl butyl phthalate	ND		ug/kg dry	92.0	167	1	EPA SW-846 8270C	11/28/2012 07:10	11/29/2012 03:24	SR
101-55-3	4-Bromophenyl phenyl ether	ND		ug/kg dry	80.3	167	1	EPA SW-846 8270C	11/28/2012 07:10	11/29/2012 03:24	SR
59-50-7	4-Chloro-3-methylphenol	ND		ug/kg dry	112	167	1	EPA SW-846 8270C	11/28/2012 07:10	11/29/2012 03:24	SR
106-47-8	4-Chloroaniline	ND		ug/kg dry	43.3	167	1	EPA SW-846 8270C	11/28/2012 07:10	11/29/2012 03:24	SR
111-91-1	Bis(2-chloroethoxy)methane	ND		ug/kg dry	57.3	167	1	EPA SW-846 8270C	11/28/2012 07:10	11/29/2012 03:24	SR
111-44-4	Bis(2-chloroethyl)ether	ND		ug/kg dry	85.0	167	1	EPA SW-846 8270C	11/28/2012 07:10	11/29/2012 03:24	SR
108-60-1	Bis(2-chloroisopropyl)ether	ND		ug/kg dry	58.7	167	1	EPA SW-846 8270C	11/28/2012 07:10	11/29/2012 03:24	SR
117-81-7	Bis(2-ethylhexyl)phthalate	ND		ug/kg dry	115	167	1	EPA SW-846 8270C	11/28/2012 07:10	11/29/2012 03:24	SR
91-58-7	2-Chloronaphthalene	ND		ug/kg dry	90.0	167	1	EPA SW-846 8270C	11/28/2012 07:10	11/29/2012 03:24	SR
95-57-8	2-Chlorophenol	ND		ug/kg dry	55.0	167	1	EPA SW-846 8270C	11/28/2012 07:10	11/29/2012 03:24	SR
7005-72-3	4-Chlorophenyl phenyl ether	ND		ug/kg dry	97.7	167	1	EPA SW-846 8270C	11/28/2012 07:10	11/29/2012 03:24	SR
218-01-9	Chrysene	ND		ug/kg dry	76.7	167	1	EPA SW-846 8270C	11/28/2012 07:10	11/29/2012 03:24	SR
53-70-3	Dibenzo(a,h)anthracene	ND		ug/kg dry	67.0	167	1	EPA SW-846 8270C	11/28/2012 07:10	11/29/2012 03:24	SR
132-64-9	Dibenzofuran	ND		ug/kg dry	77.7	167	1	EPA SW-846 8270C	11/28/2012 07:10	11/29/2012 03:24	SR
84-74-2	Di-n-butyl phthalate	ND		ug/kg dry	67.7	167	1	EPA SW-846 8270C	11/28/2012 07:10	11/29/2012 03:24	SR
95-50-1	1,2-Dichlorobenzene	ND		ug/kg dry	109	167	1	EPA SW-846 8270C	11/28/2012 07:10	11/29/2012 03:24	SR

YORK

ANALYTICAL LABORATORIES, INC.

Sample Information

Client Sample ID: SBMTS CON-1

York Sample ID: 12K0580-72

York Project (SDG) No.
12K0580

Client Project ID
South Bronx Marine Transfer Station

Matrix
Concrete

Collection Date/Time
November 14, 2012 3:00 pm

Date Received
11/19/2012

Semi-Volatiles, 8270 Target List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
106-46-7	1,4-Dichlorobenzene	ND		ug/kg dry	103	167	1	EPA SW-846 8270C	11/28/2012 07:10	11/29/2012 03:24	SR
541-73-1	1,3-Dichlorobenzene	ND		ug/kg dry	52.7	167	1	EPA SW-846 8270C	11/28/2012 07:10	11/29/2012 03:24	SR
91-94-1	3,3'-Dichlorobenzidine	ND		ug/kg dry	87.3	167	1	EPA SW-846 8270C	11/28/2012 07:10	11/29/2012 03:24	SR
120-83-2	2,4-Dichlorophenol	ND		ug/kg dry	136	167	1	EPA SW-846 8270C	11/28/2012 07:10	11/29/2012 03:24	SR
84-66-2	Diethyl phthalate	ND		ug/kg dry	105	167	1	EPA SW-846 8270C	11/28/2012 07:10	11/29/2012 03:24	SR
105-67-9	2,4-Dimethylphenol	ND		ug/kg dry	117	167	1	EPA SW-846 8270C	11/28/2012 07:10	11/29/2012 03:24	SR
131-11-3	Dimethyl phthalate	ND		ug/kg dry	74.3	167	1	EPA SW-846 8270C	11/28/2012 07:10	11/29/2012 03:24	SR
534-52-1	4,6-Dinitro-2-methylphenol	ND		ug/kg dry	210	333	1	EPA SW-846 8270C	11/28/2012 07:10	11/29/2012 03:24	SR
88-74-4	2-Nitroaniline	ND		ug/kg dry	145	167	1	EPA SW-846 8270C	11/28/2012 07:10	11/29/2012 03:24	SR
51-28-5	2,4-Dinitrophenol	ND		ug/kg dry	140	333	1	EPA SW-846 8270C	11/28/2012 07:10	11/29/2012 03:24	SR
606-20-2	2,6-Dinitrotoluene	ND		ug/kg dry	85.7	167	1	EPA SW-846 8270C	11/28/2012 07:10	11/29/2012 03:24	SR
121-14-2	2,4-Dinitrotoluene	ND		ug/kg dry	73.7	167	1	EPA SW-846 8270C	11/28/2012 07:10	11/29/2012 03:24	SR
206-44-0	Di-n-octyl phthalate	ND		ug/kg dry	167	167	1	EPA SW-846 8270C	11/28/2012 07:10	11/29/2012 03:24	SR
	Fluoranthene	ND		ug/kg dry	97.7	167	1	EPA SW-846 8270C	11/28/2012 07:10	11/29/2012 03:24	SR
86-73-7	Fluorene	ND		ug/kg dry	80.0	167	1	EPA SW-846 8270C	11/28/2012 07:10	11/29/2012 03:24	SR
118-74-1	Hexachlorobenzene	ND		ug/kg dry	98.3	167	1	EPA SW-846 8270C	11/28/2012 07:10	11/29/2012 03:24	SR
87-68-3	Hexachlorobutadiene	ND		ug/kg dry	56.3	167	1	EPA SW-846 8270C	11/28/2012 07:10	11/29/2012 03:24	SR
77-47-4	Hexachlorocyclopentadiene	ND		ug/kg dry	124	167	1	EPA SW-846 8270C	11/28/2012 07:10	11/29/2012 03:24	SR
67-72-1	Hexachloroethane	ND		ug/kg dry	47.7	167	1	EPA SW-846 8270C	11/28/2012 07:10	11/29/2012 03:24	SR
193-39-5	Indeno(1,2,3-cd)pyrene	ND		ug/kg dry	76.0	167	1	EPA SW-846 8270C	11/28/2012 07:10	11/29/2012 03:24	SR
78-59-1	Isophorone	ND		ug/kg dry	57.3	167	1	EPA SW-846 8270C	11/28/2012 07:10	11/29/2012 03:24	SR
91-57-6	2-Methylsophthalene	ND		ug/kg dry	128	167	1	EPA SW-846 8270C	11/28/2012 07:10	11/29/2012 03:24	SR
95-48-7	2-Methylphenol	ND		ug/kg dry	63.3	167	1	EPA SW-846 8270C	11/28/2012 07:10	11/29/2012 03:24	SR
100-01-6	3- & 4-Methylphenols	ND		ug/kg dry	72.3	167	1	EPA SW-846 8270C	11/28/2012 07:10	11/29/2012 03:24	SR
91-20-3	Naphthalene	ND		ug/kg dry	41.0	167	1	EPA SW-846 8270C	11/28/2012 07:10	11/29/2012 03:24	SR
99-09-2	3-Nitroaniline	ND		ug/kg dry	166	167	1	EPA SW-846 8270C	11/28/2012 07:10	11/29/2012 03:24	SR
100-01-6	4-Nitroaniline	ND		ug/kg dry	69.0	167	1	EPA SW-846 8270C	11/28/2012 07:10	11/29/2012 03:24	SR
98-95-3	Nitrobenzene	ND		ug/kg dry	49.0	167	1	EPA SW-846 8270C	11/28/2012 07:10	11/29/2012 03:24	SR
100-02-7	4-Nitrophenol	ND		ug/kg dry	62.7	167	1	EPA SW-846 8270C	11/28/2012 07:10	11/29/2012 03:24	SR
88-75-5	2-Nitrophenol	ND		ug/kg dry	45.3	167	1	EPA SW-846 8270C	11/28/2012 07:10	11/29/2012 03:24	SR
621-64-7	N-nitroso-di-n-propylamine	ND		ug/kg dry	55.7	167	1	EPA SW-846 8270C	11/28/2012 07:10	11/29/2012 03:24	SR
62-75-9	N-Nitrosodimethylamine	ND		ug/kg dry	68.3	167	1	EPA SW-846 8270C	11/28/2012 07:10	11/29/2012 03:24	SR
	N-Nitrosodiphenylamine	ND		ug/kg dry	75.3	167	1	EPA SW-846 8270C	11/28/2012 07:10	11/29/2012 03:24	SR
87-86-5	Pentachlorophenol	ND		ug/kg dry	126	167	1	EPA SW-846 8270C	11/28/2012 07:10	11/29/2012 03:24	SR

YORK

ANALYTICAL LABORATORIES, INC.

Sample Information

Client Sample ID: SBMTS CON-1

York Sample ID: 12K0580-72

York Project (SDG) No.
12K0580

Client Project ID
South Bronx Marine Transfer Station

Matrix
Concrete

Collection Date/Time
November 14, 2012 3:00 pm

Date Received
11/19/2012

Semi-Volatiles, 8270 Target List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
85-01-8	Phenanthrene	ND		ug/kg dry	87.0	167	1	EPA SW-846 8270C	11/28/2012 07:10	11/29/2012 03:24	SR
108-95-2	Phenol	ND		ug/kg dry	72.0	167	1	EPA SW-846 8270C	11/28/2012 07:10	11/29/2012 03:24	SR
129-00-0	Pyrene	ND		ug/kg dry	68.0	167	1	EPA SW-846 8270C	11/28/2012 07:10	11/29/2012 03:24	SR
110-86-1	Pyridine	ND		ug/kg dry	117	167	1	EPA SW-846 8270C	11/28/2012 07:10	11/29/2012 03:24	SR
120-82-1	1,2,4-Trichlorobenzene	ND		ug/kg dry	60.3	167	1	EPA SW-846 8270C	11/28/2012 07:10	11/29/2012 03:24	SR
95-95-4	2,4,5-Trichlorophenol	ND		ug/kg dry	129	167	1	EPA SW-846 8270C	11/28/2012 07:10	11/29/2012 03:24	SR
88-06-2	2,4,6-Trichlorophenol	ND		ug/kg dry	84.7	167	1	EPA SW-846 8270C	11/28/2012 07:10	11/29/2012 03:24	SR

Surrogate Recoveries

Result

Acceptance Range

5175-83-7	Surrogate: 2,4,6-Tribromophenol	8.43 %	S-04	15-110
321-60-8	Surrogate: 2-Fluorobiphenyl	64.1 %		30-130
367-12-4	Surrogate: 2-Fluorophenol	%	S-04	13-110
4165-60-0	Surrogate: Nitrobenzene-d5	56.0 %		30-130
4165-62-2	Surrogate: Phenol-d5	42.6 %		15-110
1718-51-0	Surrogate: Terphenyl-d14	65.7 %		30-130

Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3545A

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:21	11/28/2012 19:55	JW
11104-28-2	Aroclor 1221	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:21	11/28/2012 19:55	JW
11141-16-5	Aroclor 1232	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:21	11/28/2012 19:55	JW
53469-21-9	Aroclor 1242	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:21	11/28/2012 19:55	JW
12672-29-6	Aroclor 1248	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:21	11/28/2012 19:55	JW
11097-69-1	Aroclor 1254	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:21	11/28/2012 19:55	JW
11096-82-5	Aroclor 1260	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:21	11/28/2012 19:55	JW
1336-36-3	Total PCBs	ND		mg/kg dry	0.510	0.510	1	EPA SW 846-8082	11/28/2012 07:21	11/28/2012 19:55	JW

Surrogate Recoveries

Result

Acceptance Range

877-09-8	Surrogate: Tetrachloro-m-xylene	86.1 %		30-150
2051-24-3	Surrogate: Decachlorobiphenyl	95.0 %		30-150

YORK

ANALYTICAL LABORATORIES, INC.

Sample Information

Client Sample ID: SBMTS CON-1

York Sample ID: 12K0580-72

York Project (SDG) No.
12K0580

Client Project ID
South Bronx Marine Transfer Station

Matrix
Concrete

Collection Date/Time
November 14, 2012 3:00 pm

Date Received
11/19/2012

TCLP Extraction for METALS EPA 1311

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA SW 846-1311 TCLP ext. for metals

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
	TCLP Extraction	Completed		N/A	1.00	1.00	1	EPA SW846-1311	11/21/2012 14:16	11/26/2012 11:16	AD

Metals, TCLP RCRA

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3010A

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7440-38-2	Arsenic	ND		mg/L	0.004	0.010	1	EPA SW846-6010B/1311	11/26/2012 12:01	11/26/2012 13:56	MW
7440-39-3	Barium	0.288		mg/L	0.002	0.010	1	EPA SW846-6010B/1311	11/26/2012 12:01	11/26/2012 13:56	MW
7440-43-9	Cadmium	ND		mg/L	0.002	0.003	1	EPA SW846-6010B/1311	11/26/2012 12:01	11/26/2012 13:56	MW
7440-47-3	Chromium	0.097		mg/L	0.002	0.005	1	EPA SW846-6010B/1311	11/26/2012 12:01	11/26/2012 13:56	MW
7439-92-1	Lead	0.003		mg/L	0.002	0.003	1	EPA SW846-6010B/1311	11/26/2012 12:01	11/26/2012 13:56	MW
7782-49-2	Selenium	ND		mg/L	0.007	0.010	1	EPA SW846-6010B/1311	11/26/2012 12:01	11/26/2012 13:56	MW
7440-22-4	Silver	ND		mg/L	0.002	0.005	1	EPA SW846-6010B/1311	11/26/2012 12:01	11/26/2012 13:56	MW

Mercury, TCLP

Log-in Notes:

Sample Notes:

Prepared by Method: EPA SW846-7470

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-97-6	Mercury	ND		mg/L	0.0000390	0.000200	1	EPA SW846-7470/1311	11/28/2012 15:26	11/28/2012 15:26	AA

Total Solids

Log-in Notes:

Sample Notes:

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	% Solids	100		%	0.100	0.100	1	SM 2540G	11/21/2012 06:19	11/21/2012 06:19	AA

Sample Information

Client Sample ID: SBMTS CON-2

York Sample ID: 12K0580-73

York Project (SDG) No.
12K0580

Client Project ID
South Bronx Marine Transfer Station

Matrix
Concrete

Collection Date/Time
November 14, 2012 3:00 pm

Date Received
11/19/2012

Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3545A

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		mg/kg dry	0.567	0.567	1	EPA SW 846-8082	11/28/2012 07:21	11/28/2012 20:14	JW
11104-28-2	Aroclor 1221	ND		mg/kg dry	0.567	0.567	1	EPA SW 846-8082	11/28/2012 07:21	11/28/2012 20:14	JW
11141-16-5	Aroclor 1232	ND		mg/kg dry	0.567	0.567	1	EPA SW 846-8082	11/28/2012 07:21	11/28/2012 20:14	JW
53469-21-9	Aroclor 1242	ND		mg/kg dry	0.567	0.567	1	EPA SW 846-8082	11/28/2012 07:21	11/28/2012 20:14	JW
12675-13-6	Aroclor 1248	ND		mg/kg dry	0.567	0.567	1	EPA SW 846-8082	11/28/2012 07:21	11/28/2012 20:14	JW
12676-14-1	Aroclor 1254	ND		mg/kg dry	0.567	0.567	1	EPA SW 846-8082	11/28/2012 07:21	11/28/2012 20:14	JW

YORK

ANALYTICAL LABORATORIES, INC.
120 RESEARCH DRIVE STRATFORD, CT 06615 (203) 325-1371 FAX (203) 357-0166

Sample Information

Client Sample ID: SBMTS CON-2

York Sample ID: 12K0580-73

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

12K0580

South Bronx Marine Transfer Station

Concrete

November 14, 2012 3:00 pm

11/19/2012

Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3545A

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
11096-82-5	Aroclor 1260	ND		mg/kg dry	0.567	0.567	1	EPA SW 846-8082	11/28/2012 07:21	11/28/2012 20:14	JW
1336-36-3	Total PCBs	ND		mg/kg dry	0.567	0.567	1	EPA SW 846-8082	11/28/2012 07:21	11/28/2012 20:14	JW
Surrogate Recoveries		Result			Acceptance Range						
877-09-8	Surrogate: Tetrachloro-m-xylene	73.1 %			30-150						
2051-24-3	Surrogate: Decachlorobiphenyl	82.6 %			30-150						

TCLP Extraction for METALS EPA 1311

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA SW 846-1311 TCLP ext. for metals

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
	TCLP Extraction	Completed		N/A	1.00	1.00	1	EPA SW846-1311	11/21/2012 14:16	11/26/2012 11:16	AD

Metals, TCLP RCRA

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3010A

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7440-38-2	Arsenic	ND		mg/L	0.004	0.010	1	EPA SW846-6010B/1311	11/26/2012 12:01	11/26/2012 14:04	MW
7440-39-3	Barium	0.578		mg/L	0.002	0.010	1	EPA SW846-6010B/1311	11/26/2012 12:01	11/26/2012 14:04	MW
7440-43-9	Cadmium	ND		mg/L	0.002	0.003	1	EPA SW846-6010B/1311	11/26/2012 12:01	11/26/2012 14:04	MW
7440-47-3	Chromium	0.015		mg/L	0.002	0.005	1	EPA SW846-6010B/1311	11/26/2012 12:01	11/26/2012 14:04	MW
7439-92-1	Lead	0.005		mg/L	0.002	0.003	1	EPA SW846-6010B/1311	11/26/2012 12:01	11/26/2012 14:04	MW
7782-49-2	Selenium	ND		mg/L	0.007	0.010	1	EPA SW846-6010B/1311	11/26/2012 12:01	11/26/2012 14:04	MW
7440-22-4	Silver	ND		mg/L	0.002	0.005	1	EPA SW846-6010B/1311	11/26/2012 12:01	11/26/2012 14:04	MW

Mercury, TCLP

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA SW846-7470

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-97-6	Mercury	ND		mg/L	0.0000390	0.000200	1	EPA SW846-7470/1311	11/28/2012 15:26	11/28/2012 15:26	AA

Total Solids

Log-in Notes:

Sample Notes:

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	% Solids	100		%	0.100	0.100	1	SM 2540G	11/21/2012 06:19	11/21/2012 06:15	AA

Sample Information

Client Sample ID: SBMTS WD-1

York Sample ID: 12K0580-74

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

12K0580

South Bronx Marine Transfer Station

Solid

November 16, 2012 3:00 pm

11/19/2012

Semi-Volatiles, 8270 Target List

Log-in Notes:

Sample Notes:

YORK

ANALYTICAL LABORATORIES, INC.

Sample Information

Client Sample ID: SBMTS WD-1

York Sample ID: 12K0580-74

York Project (SDG) No.
12K0580

Client Project ID
South Bronx Marine Transfer Station

Matrix
Solid

Collection Date/Time
November 16, 2012 3:00 pm

Date Received
11/19/2012

Sample Prepared by Method: EPA 3550B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
83-32-9	Accenaphthene	ND		ug/kg dry	1510	4170	25	EPA SW-846 8270C	11/28/2012 07:10	11/29/2012 13:39	SR
208-96-8	Accenaphthylene	ND		ug/kg dry	2000	4170	25	EPA SW-846 8270C	11/28/2012 07:10	11/29/2012 13:39	SR
62-53-3	Aniline	ND		ug/kg dry	2380	4170	25	EPA SW-846 8270C	11/28/2012 07:10	11/29/2012 13:39	SR
120-12-7	Anthracene	ND		ug/kg dry	2280	4170	25	EPA SW-846 8270C	11/28/2012 07:10	11/29/2012 13:39	SR
56-55-3	Benzo(a)anthracene	ND		ug/kg dry	1560	4170	25	EPA SW-846 8270C	11/28/2012 07:10	11/29/2012 13:39	SR
50-32-8	Benzo(a)pyrene	ND		ug/kg dry	1650	4170	25	EPA SW-846 8270C	11/28/2012 07:10	11/29/2012 13:39	SR
205-99-2	Benzo(b)fluoranthene	ND		ug/kg dry	3490	4170	25	EPA SW-846 8270C	11/28/2012 07:10	11/29/2012 13:39	SR
191-24-2	Benzo(g,h,i)perylene	ND		ug/kg dry	1380	4170	25	EPA SW-846 8270C	11/28/2012 07:10	11/29/2012 13:39	SR
100-51-6	Benzyl alcohol	ND		ug/kg dry	4170	4170	25	EPA SW-846 8270C	11/28/2012 07:10	11/29/2012 13:39	SR
207-08-9	Benzo(k)fluoranthene	ND		ug/kg dry	4170	4170	25	EPA SW-846 8270C	11/28/2012 07:10	11/29/2012 13:39	SR
85-68-7	Benzyl butyl phthalate	ND		ug/kg dry	2300	4170	25	EPA SW-846 8270C	11/28/2012 07:10	11/29/2012 13:39	SR
101-55-3	4-Bromophenyl phenyl ether	ND		ug/kg dry	2010	4170	25	EPA SW-846 8270C	11/28/2012 07:10	11/29/2012 13:39	SR
59-50-7	4-Chloro-3-methylphenol	ND		ug/kg dry	2810	4170	25	EPA SW-846 8270C	11/28/2012 07:10	11/29/2012 13:39	SR
106-47-8	4-Chloroaniline	ND		ug/kg dry	1080	4170	25	EPA SW-846 8270C	11/28/2012 07:10	11/29/2012 13:39	SR
111-44-4	Bis(2-chloroethoxy)methane	ND		ug/kg dry	1430	4170	25	EPA SW-846 8270C	11/28/2012 07:10	11/29/2012 13:39	SR
111-44-4	Bis(2-chloroethyl)ether	ND		ug/kg dry	2120	4170	25	EPA SW-846 8270C	11/28/2012 07:10	11/29/2012 13:39	SR
108-60-1	Bis(2-chloroisopropyl)ether	ND		ug/kg dry	1470	4170	25	EPA SW-846 8270C	11/28/2012 07:10	11/29/2012 13:39	SR
117-81-7	Bis(2-ethylhexyl)phthalate	ND		ug/kg dry	2880	4170	25	EPA SW-846 8270C	11/28/2012 07:10	11/29/2012 13:39	SR
91-58-7	2-Chloronaphthalene	ND		ug/kg dry	2250	4170	25	EPA SW-846 8270C	11/28/2012 07:10	11/29/2012 13:39	SR
95-57-8	2-Chlorophenol	ND		ug/kg dry	1380	4170	25	EPA SW-846 8270C	11/28/2012 07:10	11/29/2012 13:39	SR
7005-72-3	4-Chlorophenyl phenyl ether	ND		ug/kg dry	2440	4170	25	EPA SW-846 8270C	11/28/2012 07:10	11/29/2012 13:39	SR
218-01-9	Chrysene	ND		ug/kg dry	1920	4170	25	EPA SW-846 8270C	11/28/2012 07:10	11/29/2012 13:39	SR
53-70-3	Dibenzo(a,h)anthracene	ND		ug/kg dry	1680	4170	25	EPA SW-846 8270C	11/28/2012 07:10	11/29/2012 13:39	SR
132-64-9	Dibenzofuran	ND		ug/kg dry	1940	4170	25	EPA SW-846 8270C	11/28/2012 07:10	11/29/2012 13:39	SR
84-74-2	Di-n-butyl phthalate	ND		ug/kg dry	1690	4170	25	EPA SW-846 8270C	11/28/2012 07:10	11/29/2012 13:39	SR
95-50-1	1,2-Dichlorobenzene	ND		ug/kg dry	2720	4170	25	EPA SW-846 8270C	11/28/2012 07:10	11/29/2012 13:39	SR
106-46-7	1,4-Dichlorobenzene	ND		ug/kg dry	2570	4170	25	EPA SW-846 8270C	11/28/2012 07:10	11/29/2012 13:39	SR
541-73-1	1,3-Dichlorobenzene	ND		ug/kg dry	1320	4170	25	EPA SW-846 8270C	11/28/2012 07:10	11/29/2012 13:39	SR
91-94-1	3,3'-Dichlorobenzidine	ND		ug/kg dry	2180	4170	25	EPA SW-846 8270C	11/28/2012 07:10	11/29/2012 13:39	SR
120-83-2	2,4-Dichlorophenol	ND		ug/kg dry	3400	4170	25	EPA SW-846 8270C	11/28/2012 07:10	11/29/2012 13:39	SR
84-66-2	Diethyl phthalate	ND		ug/kg dry	2620	4170	25	EPA SW-846 8270C	11/28/2012 07:10	11/29/2012 13:39	SR
105-67-9	2,4-Dimethylphenol	ND		ug/kg dry	2920	4170	25	EPA SW-846 8270C	11/28/2012 07:10	11/29/2012 13:39	SR
131-11-3	Dimethyl phthalate	ND		ug/kg dry	1860	4170	25	EPA SW-846 8270C	11/28/2012 07:10	11/29/2012 13:39	SR
534-57-1	4,6-Dinitro-2-methylphenol	ND		ug/kg dry	5250	8330	25	EPA SW-846 8270C	11/28/2012 07:10	11/29/2012 13:39	SR
	2-Nitroaniline	ND		ug/kg dry	3630	4170	25	EPA SW-846 8270C	11/28/2012 07:10	11/29/2012 13:39	SR

YORK

ANALYTICAL LABORATORIES, INC.

Sample Information

Client Sample ID: SBMTS WD-1

York Sample ID: 12K0580-74

York Project (SDG) No.
12K0580

Client Project ID
South Bronx Marine Transfer Station

Matrix
Solid

Collection Date/Time
November 16, 2012 3:00 pm

Date Received
11/19/2012

Semi-Volatiles, 8270 Target List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
51-28-5	2,4-Dinitrophenol	ND		ug/kg dry	3500	8330	25	EPA SW-846 8270C	11/28/2012 07:10	11/29/2012 15:39	SR
606-20-2	2,6-Dinitrotoluene	ND		ug/kg dry	2140	4170	25	EPA SW-846 8270C	11/28/2012 07:10	11/29/2012 15:39	SR
121-14-2	2,4-Dinitrotoluene	ND		ug/kg dry	1840	4170	25	EPA SW-846 8270C	11/28/2012 07:10	11/29/2012 15:39	SR
117-84-0	Di-n-octyl phthalate	ND		ug/kg dry	4170	4170	25	EPA SW-846 8270C	11/28/2012 07:10	11/29/2012 15:39	SR
206-44-0	Fluoranthene	ND		ug/kg dry	2440	4170	25	EPA SW-846 8270C	11/28/2012 07:10	11/29/2012 15:39	SR
86-73-7	Fluorene	ND		ug/kg dry	2000	4170	25	EPA SW-846 8270C	11/28/2012 07:10	11/29/2012 15:39	SR
118-74-1	Hexachlorobenzene	ND		ug/kg dry	2460	4170	25	EPA SW-846 8270C	11/28/2012 07:10	11/29/2012 15:39	SR
87-68-3	Hexachlorobutadiene	ND		ug/kg dry	1410	4170	25	EPA SW-846 8270C	11/28/2012 07:10	11/29/2012 15:39	SR
77-47-4	Hexachlorocyclopentadiene	ND		ug/kg dry	3100	4170	25	EPA SW-846 8270C	11/28/2012 07:10	11/29/2012 15:39	SR
67-72-1	Hexachloroethane	ND		ug/kg dry	1190	4170	25	EPA SW-846 8270C	11/28/2012 07:10	11/29/2012 15:39	SR
193-59-5	Indeno(1,2,3-cd)pyrene	ND		ug/kg dry	1900	4170	25	EPA SW-846 8270C	11/28/2012 07:10	11/29/2012 15:39	SR
78-59-1	Isophorone	ND		ug/kg dry	1430	4170	25	EPA SW-846 8270C	11/28/2012 07:10	11/29/2012 15:39	SR
91-57-6	2-Methylnaphthalene	ND		ug/kg dry	3200	4170	25	EPA SW-846 8270C	11/28/2012 07:10	11/29/2012 15:39	SR
95-48-7	2-Methylphenol	ND		ug/kg dry	1580	4170	25	EPA SW-846 8270C	11/28/2012 07:10	11/29/2012 15:39	SR
100-01-6	3- & 4-Methylphenols	ND		ug/kg dry	1810	4170	25	EPA SW-846 8270C	11/28/2012 07:10	11/29/2012 15:39	SR
91-20-3	Naphthalene	ND		ug/kg dry	1020	4170	25	EPA SW-846 8270C	11/28/2012 07:10	11/29/2012 15:39	SR
99-09-2	3-Nitroaniline	ND		ug/kg dry	4140	4170	25	EPA SW-846 8270C	11/28/2012 07:10	11/29/2012 15:39	SR
100-01-6	4-Nitroaniline	ND		ug/kg dry	1720	4170	25	EPA SW-846 8270C	11/28/2012 07:10	11/29/2012 15:39	SR
98-95-3	Nitrobenzene	ND		ug/kg dry	1220	4170	25	EPA SW-846 8270C	11/28/2012 07:10	11/29/2012 15:39	SR
100-02-7	4-Nitrophenol	ND		ug/kg dry	1570	4170	25	EPA SW-846 8270C	11/28/2012 07:10	11/29/2012 15:39	SR
88-75-5	2-Nitrophenol	ND		ug/kg dry	1130	4170	25	EPA SW-846 8270C	11/28/2012 07:10	11/29/2012 15:39	SR
621-64-7	N-nitroso-di-n-propylamine	ND		ug/kg dry	1390	4170	25	EPA SW-846 8270C	11/28/2012 07:10	11/29/2012 15:39	SR
62-75-9	N-Nitrosodimethylamine	ND		ug/kg dry	1710	4170	25	EPA SW-846 8270C	11/28/2012 07:10	11/29/2012 15:39	SR
86-30-6	N-Nitrosodiphenylamine	ND		ug/kg dry	1880	4170	25	EPA SW-846 8270C	11/28/2012 07:10	11/29/2012 15:39	SR
87-86-5	Pentachlorophenol	253000	E	ug/kg dry	3140	4170	25	EPA SW-846 8270C	11/28/2012 07:10	11/29/2012 15:39	SR
85-01-8	Phenanthrene	ND		ug/kg dry	2180	4170	25	EPA SW-846 8270C	11/28/2012 07:10	11/29/2012 15:39	SR
108-95-2	Phenol	ND		ug/kg dry	1800	4170	25	EPA SW-846 8270C	11/28/2012 07:10	11/29/2012 15:39	SR
129-00-0	Pyrene	ND		ug/kg dry	1700	4170	25	EPA SW-846 8270C	11/28/2012 07:10	11/29/2012 15:39	SR
110-86-1	Pyridine	ND		ug/kg dry	2920	4170	25	EPA SW-846 8270C	11/28/2012 07:10	11/29/2012 15:39	SR
120-82-1	1,2,4-Trichlorobenzene	ND		ug/kg dry	1510	4170	25	EPA SW-846 8270C	11/28/2012 07:10	11/29/2012 15:39	SR
95-95-4	2,4,5-Trichlorophenol	ND		ug/kg dry	3230	4170	25	EPA SW-846 8270C	11/28/2012 07:10	11/29/2012 15:39	SR
88-06-2	2,4,6-Trichlorophenol	ND		ug/kg dry	2120	4170	25	EPA SW-846 8270C	11/28/2012 07:10	11/29/2012 15:39	SR
Surrogate Recoveries		Result	Acceptance Range								
5175-83-7	Surrogate: 2,4,6-Tribromophenol	97.7 %	15-110								

YORK

ANALYTICAL LABORATORIES, INC.

Sample Information

Client Sample ID: SBMTS WD-1

York Sample ID: 12K0580-74

York Project (SDG) No.
12K0580

Client Project ID
South Bronx Marine Transfer Station

Matrix
Solid

Collection Date/Time
November 16, 2012 3:00 pm

Date Received
11/19/2012

Semi-Volatiles, 8270 Target List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
321-60-8	Surrogate: 2-Fluorobiphenyl	70.7 %			30-130						
367-12-4	Surrogate: 2-Fluorophenol	40.9 %			15-110						
4165-60-0	Surrogate: Nitrobenzene-d5	55.3 %			30-130						
4165-62-2	Surrogate: Phenol-d5	59.0 %			15-110						
1718-51-0	Surrogate: Terphenyl-d14	92.1 %			30-130						

Pesticides, 8081 target list

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
72-54-8	4,4'-DDD	ND		ug/kg dry	20.6	20.6	5	EPA SW 846-8081	11/29/2012 15:20	11/30/2012 19:11	JW
72-55-9	4,4'-DDE	ND		ug/kg dry	20.6	20.6	5	EPA SW 846-8081	11/29/2012 15:20	11/30/2012 19:11	JW
50-29-3	4,4'-DDT	ND		ug/kg dry	20.6	20.6	5	EPA SW 846-8081	11/29/2012 15:20	11/30/2012 19:11	JW
309-00-2	Aldrin	ND		ug/kg dry	20.6	20.6	5	EPA SW 846-8081	11/29/2012 15:20	11/30/2012 19:11	JW
319-84-6	alpha-BHC	ND		ug/kg dry	20.6	20.6	5	EPA SW 846-8081	11/29/2012 15:20	11/30/2012 19:11	JW
7	beta-BHC	ND		ug/kg dry	20.6	20.6	5	EPA SW 846-8081	11/29/2012 15:20	11/30/2012 19:11	JW
742	gamma-Chlordane	ND		ug/kg dry	20.6	20.6	5	EPA SW 846-8081	11/29/2012 15:20	11/30/2012 19:11	JW
319-86-8	delta-BHC	ND		ug/kg dry	20.6	20.6	5	EPA SW 846-8081	11/29/2012 15:20	11/30/2012 19:11	JW
60-57-1	Dieldrin	ND		ug/kg dry	20.6	20.6	5	EPA SW 846-8081	11/29/2012 15:20	11/30/2012 19:11	JW
959-98-8	Endosulfan I	ND		ug/kg dry	20.6	20.6	5	EPA SW 846-8081	11/29/2012 15:20	11/30/2012 19:11	JW
33213-65-9	Endosulfan II	ND		ug/kg dry	20.6	20.6	5	EPA SW 846-8081	11/29/2012 15:20	11/30/2012 19:11	JW
1031-07-8	Endosulfan sulfate	ND		ug/kg dry	20.6	20.6	5	EPA SW 846-8081	11/29/2012 15:20	11/30/2012 19:11	JW
72-20-8	Endrin	ND		ug/kg dry	20.6	20.6	5	EPA SW 846-8081	11/29/2012 15:20	11/30/2012 19:11	JW
7421-93-4	Endrin aldehyde	ND		ug/kg dry	20.6	20.6	5	EPA SW 846-8081	11/29/2012 15:20	11/30/2012 19:11	JW
53494-70-5	Endrin ketone	ND		ug/kg dry	20.6	20.6	5	EPA SW 846-8081	11/29/2012 15:20	11/30/2012 19:11	JW
58-89-9	gamma-BHC (Lindane)	ND		ug/kg dry	20.6	20.6	5	EPA SW 846-8081	11/29/2012 15:20	11/30/2012 19:11	JW
76-44-8	Heptachlor	ND		ug/kg dry	20.6	20.6	5	EPA SW 846-8081	11/29/2012 15:20	11/30/2012 19:11	JW
1024-57-3	Heptachlor epoxide	ND		ug/kg dry	20.6	20.6	5	EPA SW 846-8081	11/29/2012 15:20	11/30/2012 19:11	JW
72-43-5	Methoxychlor	ND		ug/kg dry	103	103	5	EPA SW 846-8081	11/29/2012 15:20	11/30/2012 19:11	JW
5103-71-9	alpha-Chlordane	ND		ug/kg dry	20.6	20.6	5	EPA SW 846-8081	11/29/2012 15:20	11/30/2012 19:11	JW
8001-35-2	Toxaphene	ND		ug/kg dry	1040	1040	5	EPA SW 846-8081	11/29/2012 15:20	11/30/2012 19:11	JW
	Surrogate Recoveries	Result			Acceptance Range						
2051-24-3	Surrogate: Decachlorobiphenyl	107 %			30-150						
877-09-8	Surrogate: Tetrachloro-m-xylene	45.7 %			30-150						

YORK

ANALYTICAL LABORATORIES, INC.

Sample Information

Client Sample ID: SBMTS WD-1 **York Sample ID:** 12K0580-74
York Project (SDG) No.: 12K0580 **Client Project ID:** South Bronx Marine Transfer Station **Matrix:** Solid **Collection Date/Time:** November 16, 2012 3:00 pm **Date Received:** 11/19/2012

Herbicides, Target List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550B/8151A

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
94-75-7	2,4-D	ND		ug/kg dry	200	200	1	EPA SW846-8151B	11/27/2012 08:25	11/30/2012 14:43	JW
93-72-1	2,4,5-TP (Silvex)	ND		ug/kg dry	200	200	1	EPA SW846-8151B	11/27/2012 08:25	11/30/2012 14:43	JW
93-76-5	2,4,5-T	ND		ug/kg dry	200	200	1	EPA SW846-8151B	11/27/2012 08:25	11/30/2012 14:43	JW
Surrogate Recoveries		Result	Acceptance Range								
19719-28-9	Surrogate: 2,4-Dichlorophenylacetic acid	80.4 %	5.5-148								

Total Solids

Log-in Notes:

Sample Notes:

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	% Solids	100		%	0.100	0.100	1	SM 2540G	11/21/2012 06:19	11/21/2012 06:19	AA

Sample Information

Client Sample ID: SBMTS BULK-1 **York Sample ID:** 12K0580-75
York Project (SDG) No.: 12K0580 **Client Project ID:** South Bronx Marine Transfer Station **Matrix:** Solid **Collection Date/Time:** November 16, 2012 3:00 pm **Date Received:** 11/19/2012

TCLP Extraction for METALS EPA 1311

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA SW 846-1311 TCLP ext. for metals

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
	TCLP Extraction	Completed		N/A	1.00	1.00	1	EPA SW846-1311	11/21/2012 14:16	11/26/2012 11:16	AD

Metals, TCLP RCRA

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3010A

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7440-38-2	Arsenic	0.040		mg/L	0.004	0.010	1	EPA SW846-6010B/1311	11/26/2012 12:01	11/26/2012 14:12	MW
7440-39-3	Barium	0.222		mg/L	0.002	0.010	1	EPA SW846-6010B/1311	11/26/2012 12:01	11/26/2012 14:12	MW
7440-43-9	Cadmium	0.009		mg/L	0.002	0.003	1	EPA SW846-6010B/1311	11/26/2012 12:01	11/26/2012 14:12	MW
7440-47-3	Chromium	0.014		mg/L	0.002	0.005	1	EPA SW846-6010B/1311	11/26/2012 12:01	11/26/2012 14:12	MW
7439-92-1	Lead	0.025		mg/L	0.002	0.003	1	EPA SW846-6010B/1311	11/26/2012 12:01	11/26/2012 14:12	MW
7782-49-2	Selenium	ND		mg/L	0.007	0.010	1	EPA SW846-6010B/1311	11/26/2012 12:01	11/26/2012 14:12	MW
7440-22-4	Silver	ND		mg/L	0.002	0.005	1	EPA SW846-6010B/1311	11/26/2012 12:01	11/26/2012 14:12	MW

Mercury, TCLP

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA SW846-7470

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-97-6	Mercury	ND		mg/L	0.0000390	0.000200	1	EPA SW846-7470/1311	11/28/2012 15:26	11/28/2012 15:26	AA

Total Solids

Log-in Notes:

Sample Notes:

YORK

ANALYTICAL LABORATORIES, INC.

Sample Information

Client Sample ID: SBMTS BULK-1

York Sample ID: 12K0580-75

York Project (SDG) No.
12K0580

Client Project ID
South Bronx Marine Transfer Station

Matrix
Solid

Collection Date/Time
November 16, 2012 3:00 pm

Date Received
11/19/2012

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	% Solids	100		%	0.100	0.100	1	SM 2540G	11/21/2012 06:19	11/21/2012 06:19	AA

Sample Information

Client Sample ID: SBMTS BULK-2

York Sample ID: 12K0580-76

York Project (SDG) No.
12K0580

Client Project ID
South Bronx Marine Transfer Station

Matrix
Solid

Collection Date/Time
November 16, 2012 3:00 pm

Date Received
11/19/2012

TCLP Extraction for METALS EPA 1311

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA SW 846-1311 TCLP ext. for metals

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
	TCLP Extraction	Completed		N/A	1.00	1.00	1	EPA SW846-1311	11/21/2012 14:16	11/26/2012 11:16	AD

Metals, TCLP RCRA

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3010A

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
2	Arsenic	ND		mg/L	0.004	0.010	1	EPA SW846-6010B/1311	11/26/2012 12:01	11/26/2012 14:17	MW
7440-39-3	Barium	0.407		mg/L	0.002	0.010	1	EPA SW846-6010B/1311	11/26/2012 12:01	11/26/2012 14:17	MW
7440-45-9	Cadmium	0.004		mg/L	0.002	0.003	1	EPA SW846-6010B/1311	11/26/2012 12:01	11/26/2012 14:17	MW
7440-47-3	Chromium	ND		mg/L	0.002	0.005	1	EPA SW846-6010B/1311	11/26/2012 12:01	11/26/2012 14:17	MW
7439-92-1	Lead	0.216		mg/L	0.002	0.003	1	EPA SW846-6010B/1311	11/26/2012 12:01	11/26/2012 14:17	MW
7782-49-2	Selenium	ND		mg/L	0.007	0.010	1	EPA SW846-6010B/1311	11/26/2012 12:01	11/26/2012 14:17	MW
7440-22-4	Silver	ND		mg/L	0.002	0.005	1	EPA SW846-6010B/1311	11/26/2012 12:01	11/26/2012 14:17	MW

Mercury, TCLP

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA SW846-7470

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-97-6	Mercury	ND		mg/L	0.0000390	0.000200	1	EPA SW846-7470/1311	11/28/2012 15:26	11/28/2012 15:26	AA

Total Solids

Log-in Notes:

Sample Notes:

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	% Solids	100		%	0.100	0.100	1	SM 2540G	11/21/2012 06:19	11/21/2012 06:19	AA

YORK

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Analytical Batch Summary

Batch ID: BK20802

Preparation Method: % Solids Prep

Prepared By: AA

YORK Sample ID	Client Sample ID	Preparation Date
12K0580-01	SBMTS PC-1	11/21/12
12K0580-02	SBMTS PC-2	11/21/12
12K0580-03	SBMTS PC-3	11/21/12
12K0580-04	SBMTS PC-4	11/21/12
12K0580-05	SBMTS PC-5	11/21/12
12K0580-06	SBMTS PC-6	11/21/12
12K0580-07	SBMTS PC-7	11/21/12
12K0580-08	SBMTS PC-8	11/21/12
12K0580-09	SBMTS PC-9	11/21/12
12K0580-10	SBMTS PC-10	11/21/12
12K0580-11	SBMTS PC-11	11/21/12
12K0580-12	SBMTS PC-12	11/21/12
12K0580-13	SBMTS PC-13	11/21/12
12K0580-14	SBMTS PC-14	11/21/12
12K0580-15	SBMTS PC-15	11/21/12
12K0580-16	SBMTS PC-16	11/21/12
12K0580-17	SBMTS PC-17	11/21/12

Batch ID: BK20803

Preparation Method: % Solids Prep

Prepared By: AA

YORK Sample ID	Client Sample ID	Preparation Date
12K0580-18	SBMTS PC-18	11/21/12
12K0580-19	SBMTS PC-19	11/21/12
12K0580-20	SBMTS PC-20	11/21/12
12K0580-21	SBMTS PC-21	11/21/12
12K0580-22	SBMTS PC-22	11/21/12
12K0580-23	SBMTS PC-23	11/21/12
12K0580-24	SBMTS PC-24	11/21/12
12K0580-25	SBMTS PC-25	11/21/12
12K0580-26	SBMTS PC-26	11/21/12
12K0580-27	SBMTS PC-27	11/21/12
12K0580-28	SBMTS PC-28	11/21/12
12K0580-29	SBMTS PC-29	11/21/12
12K0580-30	SBMTS PC-30	11/21/12
12K0580-31	SBMTS PC-31	11/21/12
12K0580-32	SBMTS PC-32	11/21/12
12K0580-33	SBMTS PC-33	11/21/12
12K0580-34	SBMTS PC-34	11/21/12
12K0580-35	SBMTS PC-35	11/21/12
12K0580-36	SBMTS PC-36	11/21/12
12K0580-37	SBMTS PC-37	11/21/12

Batch ID: BK20804

Preparation Method: % Solids Prep

Prepared By: AA

YORK Sample ID	Client Sample ID	Preparation Date
12K0580-38	SBMTS PC-38	11/21/12
12K0580-39	SBMTS PC-39	11/21/12
12K0580-40	SBMTS PC-40	11/21/12

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0580-41	SBMTS PC-41	11/21/12
0580-42	SBMTS PC-42	11/21/12
12K0580-43	SBMTS PC-43	11/21/12
12K0580-44	SBMTS PC-44	11/21/12
12K0580-45	SBMTS PC-45	11/21/12
12K0580-46	SBMTS PC-46	11/21/12
12K0580-47	SBMTS PC-47	11/21/12
12K0580-48	SBMTS PC-48	11/21/12
12K0580-49	SBMTS PC-49	11/21/12
12K0580-50	SBMTS PC-50	11/21/12
12K0580-51	SBMTS PC-51	11/21/12
12K0580-52	SBMTS PC-52	11/21/12
12K0580-53	SBMTS PC-53	11/21/12
12K0580-57	SBMTS CLK-4	11/21/12
12K0580-60	SBMTS CLK-7	11/21/12
12K0580-61	SBMTS CLK-8	11/21/12
12K0580-63	SBMTS CLK-10	11/21/12

Batch ID: BK20805 Preparation Method: % Solids Prep Prepared By: AA

YORK Sample ID	Client Sample ID	Preparation Date
12K0580-54	SBMTS CLK-1	11/21/12
12K0580-55	SBMTS CLK-2	11/21/12
12K0580-56	SBMTS CLK-3	11/21/12
12K0580-59	SBMTS CLK-6	11/21/12
12K0580-62	SBMTS CLK-9	11/21/12
0580-64	SBMTS CLK-11	11/21/12
0580-65	SBMTS CLK-12	11/21/12
12K0580-66	SBMTS CLK-13	11/21/12
12K0580-67	SBMTS CLK-14	11/21/12
12K0580-68	SBMTS CLK-15	11/21/12
12K0580-69	SBMTS CLK-16	11/21/12
12K0580-70	SBMTS CLK-17	11/21/12
12K0580-71	SBMTS CLK-18	11/21/12
12K0580-72	SBMTS CON-1	11/21/12
12K0580-73	SBMTS CON-2	11/21/12
12K0580-74	SBMTS WD-1	11/21/12
12K0580-75	SBMTS BULK-1	11/21/12
12K0580-76	SBMTS BULK-2	11/21/12

Batch ID: BK20855 Preparation Method: EPA SW 846-1311 TCLP ext. for met Prepared By: JCC

YORK Sample ID	Client Sample ID	Preparation Date
12K0580-72	SBMTS CON-1	11/21/12
12K0580-73	SBMTS CON-2	11/21/12
12K0580-75	SBMTS BULK-1	11/21/12
12K0580-76	SBMTS BULK-2	11/21/12

Batch ID: BK20888 Preparation Method: EPA 3050B Prepared By: MW

YORK Sample ID	Client Sample ID	Preparation Date
80-02	SBMTS PC-2	11/26/12
12K0580-03	SBMTS PC-3	11/26/12

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12K0580-04	SBMTS PC-4	11/26/12
12K0580-05	SBMTS PC-5	11/26/12
12K0580-06	SBMTS PC-6	11/26/12
12K0580-07	SBMTS PC-7	11/26/12
12K0580-08	SBMTS PC-8	11/26/12
12K0580-09	SBMTS PC-9	11/26/12
12K0580-10	SBMTS PC-10	11/26/12
12K0580-11	SBMTS PC-11	11/26/12
12K0580-12	SBMTS PC-12	11/26/12
12K0580-13	SBMTS PC-13	11/26/12
12K0580-14	SBMTS PC-14	11/26/12
12K0580-15	SBMTS PC-15	11/26/12
BK20888-BLK1	Blank	11/26/12
BK20888-SRM1	Reference	11/26/12

Batch ID: BK20889

Preparation Method: EPA 3010A

Prepared By: MW

YORK Sample ID	Client Sample ID	Preparation Date
12K0580-72	SBMTS CON-1	11/26/12
12K0580-73	SBMTS CON-2	11/26/12
12K0580-75	SBMTS BULK-1	11/26/12
12K0580-76	SBMTS BULK-2	11/26/12
BK20889-BLK1	Blank	11/26/12
BK20889-BLK2	Blank	11/26/12
BK20889-SRM1	Reference	11/26/12

Batch ID: BK20911

Preparation Method: EPA 3050B

Prepared By: MW

YORK Sample ID	Client Sample ID	Preparation Date
12K0580-16	SBMTS PC-16	11/26/12
12K0580-17	SBMTS PC-17	11/26/12
12K0580-18	SBMTS PC-18	11/26/12
12K0580-19	SBMTS PC-19	11/26/12
12K0580-20	SBMTS PC-20	11/26/12
12K0580-21	SBMTS PC-21	11/26/12
12K0580-22	SBMTS PC-22	11/26/12
12K0580-23	SBMTS PC-23	11/26/12
12K0580-24	SBMTS PC-24	11/26/12
12K0580-25	SBMTS PC-25	11/26/12
12K0580-26	SBMTS PC-26	11/26/12
12K0580-27	SBMTS PC-27	11/26/12
BK20911-BLK1	Blank	11/26/12
BK20911-SRM1	Reference	11/26/12

Batch ID: BK20912

Preparation Method: EPA 3050B

Prepared By: MW

YORK Sample ID	Client Sample ID	Preparation Date
12K0580-28	SBMTS PC-28	11/26/12
12K0580-30	SBMTS PC-30	11/26/12
12K0580-31	SBMTS PC-31	11/26/12
12K0580-32	SBMTS PC-32	11/26/12
12K0580-33	SBMTS PC-33	11/26/12
12K0580-34	SBMTS PC-34	11/26/12

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0580-35	SBMTS PC-35	11/26/12
0580-39	SBMTS PC-39	11/26/12
12K0580-40	SBMTS PC-40	11/26/12
12K0580-41	SBMTS PC-41	11/26/12
12K0580-42	SBMTS PC-42	11/26/12
12K0580-43	SBMTS PC-43	11/26/12
12K0580-44	SBMTS PC-44	11/26/12
12K0580-45	SBMTS PC-45	11/26/12
12K0580-46	SBMTS PC-46	11/26/12
12K0580-47	SBMTS PC-47	11/26/12
12K0580-48	SBMTS PC-48	11/26/12
12K0580-49	SBMTS PC-49	11/26/12
12K0580-50	SBMTS PC-50	11/26/12
12K0580-51	SBMTS PC-51	11/26/12
BK20912-BLK1	Blank	11/26/12
BK20912-DUP1	Duplicate	11/26/12
BK20912-MS1	Matrix Spike	11/26/12
BK20912-SRM1	Reference	11/26/12

Batch ID: BK20929 Preparation Method: EPA 3550B/8151A Prepared By: TFD

YORK Sample ID	Client Sample ID	Preparation Date
12K0580-74	SBMTS WD-1	11/27/12
BK20929-BLK1	Blank	11/27/12
BK20929-BS1	LCS	11/27/12
BK20929-BSD1	LCS Dup	11/27/12

Batch ID: BK20989 Preparation Method: EPA 3550B Prepared By: CM

YORK Sample ID	Client Sample ID	Preparation Date
12K0580-72	SBMTS CON-1	11/28/12
12K0580-74	SBMTS WD-1	11/28/12
BK20989-BLK1	Blank	11/28/12
BK20989-BS1	LCS	11/28/12

Batch ID: BK20991 Preparation Method: EPA 3550B Prepared By: CC

YORK Sample ID	Client Sample ID	Preparation Date
12K0580-01	SBMTS PC-1	11/28/12
12K0580-02	SBMTS PC-2	11/28/12
12K0580-03	SBMTS PC-3	11/28/12
12K0580-04	SBMTS PC-4	11/28/12
12K0580-05	SBMTS PC-5	11/28/12
12K0580-06	SBMTS PC-6	11/28/12
12K0580-07	SBMTS PC-7	11/28/12
12K0580-08	SBMTS PC-8	11/28/12
12K0580-09	SBMTS PC-9	11/28/12
12K0580-10	SBMTS PC-10	11/28/12
12K0580-11	SBMTS PC-11	11/28/12
12K0580-12	SBMTS PC-12	11/28/12
12K0580-13	SBMTS PC-13	11/28/12
12K0580-14	SBMTS PC-14	11/28/12
12K0580-15	SBMTS PC-15	11/28/12

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12K0580-16	SBMTS PC-16	11/28/12
12K0580-17	SBMTS PC-17	11/28/12
BK20991-BLK1	Blank	11/28/12
BK20991-BS1	LCS	11/28/12
BK20991-BSD1	LCS Dup	11/28/12

Batch ID: BK20992 Preparation Method: EPA 3550B Prepared By: CC

YORK Sample ID	Client Sample ID	Preparation Date
12K0580-18	SBMTS PC-18	11/28/12
12K0580-19	SBMTS PC-19	11/28/12
12K0580-20	SBMTS PC-20	11/28/12
12K0580-21	SBMTS PC-21	11/28/12
12K0580-22	SBMTS PC-22	11/28/12
12K0580-23	SBMTS PC-23	11/28/12
12K0580-24	SBMTS PC-24	11/28/12
12K0580-25	SBMTS PC-25	11/28/12
12K0580-26	SBMTS PC-26	11/28/12
12K0580-27	SBMTS PC-27	11/28/12
12K0580-28	SBMTS PC-28	11/28/12
12K0580-29	SBMTS PC-29	11/28/12
12K0580-30	SBMTS PC-30	11/28/12
12K0580-31	SBMTS PC-31	11/28/12
12K0580-32	SBMTS PC-32	11/28/12
12K0580-33	SBMTS PC-33	11/28/12
12K0580-34	SBMTS PC-34	11/28/12
12K0580-35	SBMTS PC-35	11/28/12
12K0580-36	SBMTS PC-36	11/28/12
12K0580-37	SBMTS PC-37	11/28/12
BK20992-BLK1	Blank	11/28/12
BK20992-BS1	LCS	11/28/12
BK20992-BSD1	LCS Dup	11/28/12

Batch ID: BK20993 Preparation Method: EPA 3545A Prepared By: CM

YORK Sample ID	Client Sample ID	Preparation Date
12K0580-38	SBMTS PC-38	11/28/12
12K0580-39	SBMTS PC-39	11/28/12
12K0580-40	SBMTS PC-40	11/28/12
12K0580-41	SBMTS PC-41	11/28/12
12K0580-42	SBMTS PC-42	11/28/12
12K0580-43	SBMTS PC-43	11/28/12
12K0580-44	SBMTS PC-44	11/28/12
12K0580-72	SBMTS CON-1	11/28/12
12K0580-73	SBMTS CON-2	11/28/12
BK20993-BLK1	Blank	11/28/12
BK20993-BS2	LCS	11/28/12

Batch ID: BK21001 Preparation Method: EPA SW846-7470 Prepared By: AA

YORK Sample ID	Client Sample ID	Preparation Date
12K0580-72	SBMTS CON-1	11/28/12
12K0580-73	SBMTS CON-2	11/28/12

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0580-75	SBMTS BULK-1	11/28/12
0580-76	SBMTS BULK-2	11/28/12
BK21001-BLK1	Blank	11/28/12
BK21001-BS1	LCS	11/28/12

Batch ID: BK21040 Preparation Method: EPA 3550B Prepared By: CC

YORK Sample ID	Client Sample ID	Preparation Date
12K0580-45	SBMTS PC-45	11/28/12
12K0580-46	SBMTS PC-46	11/28/12
12K0580-47	SBMTS PC-47	11/28/12
12K0580-48	SBMTS PC-48	11/28/12
12K0580-49	SBMTS PC-49	11/28/12
12K0580-50	SBMTS PC-50	11/28/12
12K0580-51	SBMTS PC-51	11/28/12
12K0580-52	SBMTS PC-52	11/28/12
12K0580-53	SBMTS PC-53	11/28/12
12K0580-54	SBMTS CLK-1	11/28/12
12K0580-55	SBMTS CLK-2	11/28/12
12K0580-56	SBMTS CLK-3	11/28/12
12K0580-57	SBMTS CLK-4	11/28/12
12K0580-59	SBMTS CLK-6	11/28/12
12K0580-60	SBMTS CLK-7	11/28/12
12K0580-61	SBMTS CLK-8	11/28/12
12K0580-62	SBMTS CLK-9	11/28/12
12K0580-63	SBMTS CLK-10	11/28/12
0580-64	SBMTS CLK-11	11/28/12
0580-65	SBMTS CLK-12	11/28/12
BK21040-BLK1	Blank	11/28/12
BK21040-BS1	LCS	11/28/12
BK21040-BSD1	LCS Dup	11/28/12

Batch ID: BK21041 Preparation Method: EPA 3545A Prepared By: CM

YORK Sample ID	Client Sample ID	Preparation Date
12K0580-66	SBMTS CLK-13	11/28/12
12K0580-67	SBMTS CLK-14	11/28/12
12K0580-68	SBMTS CLK-15	11/28/12
12K0580-69	SBMTS CLK-16	11/28/12
12K0580-70	SBMTS CLK-17	11/28/12
12K0580-71	SBMTS CLK-18	11/28/12
BK21041-BLK1	Blank	11/28/12
BK21041-BS2	LCS	11/28/12
BK21041-BSD2	LCS Dup	11/28/12

Batch ID: BK21101 Preparation Method: EPA 3550B Prepared By: CM

YORK Sample ID	Client Sample ID	Preparation Date
12K0580-74	SBMTS WD-1	11/29/12
BK21101-BLK1	Blank	11/29/12
BK21101-BS1	LCS	11/29/12

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Semivolatile Organic Compounds by EPA Method 8270C - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	
		Limit							RPD	Limit
Batch BK20989 - EPA 3550B										
Prepared: 11/28/2012 Analyzed: 11/29/2012										
Blank (BK20989-BLK1)										
Acenaphthene	ND	167	ug/kg wet							
Acenaphthylene	ND	167	"							
Aniline	ND	167	"							
Anthracene	ND	167	"							
Benzo(a)anthracene	ND	167	"							
Benzo(a)pyrene	ND	167	"							
Benzo(b)fluoranthene	ND	167	"							
Benzo(g,h,i)perylene	ND	167	"							
Benzyl alcohol	ND	167	"							
Benzo(k)fluoranthene	ND	167	"							
Benzyl butyl phthalate	ND	167	"							
4-Bromophenyl phenyl ether	ND	167	"							
4-Chloro-3-methylphenol	ND	167	"							
4-Chloroaniline	ND	167	"							
Bis(2-chloroethoxy)methane	ND	167	"							
Bis(2-chloroethyl)ether	ND	167	"							
Bis(2-chloroisopropyl)ether	ND	167	"							
Bis(2-ethylhexyl)phthalate	ND	167	"							
2-Chloronaphthalene	ND	167	"							
2-Chlorophenol	ND	167	"							
4-Chlorophenyl phenyl ether	ND	167	"							
Chrysene	ND	167	"							
Dibenzo(a,h)anthracene	ND	167	"							
Dibenzofuran	ND	167	"							
Di-n-butyl phthalate	ND	167	"							
1,2-Dichlorobenzene	ND	167	"							
1,4-Dichlorobenzene	ND	167	"							
1,3-Dichlorobenzene	ND	167	"							
3,3'-Dichlorobenzidine	ND	167	"							
2,4-Dichlorophenol	ND	167	"							
Diethyl phthalate	ND	167	"							
2,4-Dimethylphenol	ND	167	"							
Dimethyl phthalate	ND	167	"							
2-Nitroaniline	ND	167	"							
4,6-Dinitro-2-methylphenol	ND	333	"							
2,4-Dinitrophenol	ND	333	"							
2,6-Dinitrotoluene	ND	167	"							
2,4-Dinitrotoluene	ND	167	"							
Di-n-octyl phthalate	ND	167	"							
Fluoranthene	ND	167	"							
Fluorene	ND	167	"							
Hexachlorobenzene	ND	167	"							
Hexachlorobutadiene	ND	167	"							
Hexachlorocyclopentadiene	ND	167	"							
Hexachloroethane	ND	167	"							
Indeno(1,2,3-cd)pyrene	ND	167	"							
Isophorone	ND	167	"							
2-Methylnaphthalene	ND	167	"							
2-Methylphenol	ND	167	"							
3- & 4-Methylphenols	ND	167	"							
Naphthalene	ND	167	"							
3-Nitroaniline	ND	167	"							
4-Nitroaniline	ND	167	"							
Nitrobenzene	ND	167	"							

YORK

ANALYTICAL LABORATORIES, INC.

Semivolatile Organic Compounds by EPA Method 8270C - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	
									RPD	Limit
Batch BK20989 - EPA 3550B										
Blank (BK20989-BLK1)										
Prepared: 11/28/2012 Analyzed: 11/29/2012										
4-Nitrophenol	ND	167	ug/kg wet							
2-Nitrophenol	ND	167	"							
N-nitroso-di-n-propylamine	ND	167	"							
N-Nitrosodimethylamine	ND	167	"							
N-Nitrosodiphenylamine	ND	167	"							
Pentachlorophenol	ND	167	"							
Phenanthrene	ND	167	"							
Phenol	ND	167	"							
Pyrene	ND	167	"							
Pyridine	ND	167	"							
1,2,4-Trichlorobenzene	ND	167	"							
2,4,5-Trichlorophenol	ND	167	"							
2,4,6-Trichlorophenol	ND	167	"							
<i>Surrogate: 2,4,6-Tribromophenol</i>	2360		"	2500		94.5	15-110			
<i>Surrogate: 2-Fluorobiphenyl</i>	1230		"	1670		73.6	30-130			
<i>Surrogate: 2-Fluorophenol</i>	1710		"	2510		68.4	15-110			
<i>Surrogate: Nitrobenzene-d5</i>	1390		"	1670		83.1	30-130			
<i>Surrogate: Phenol-d5</i>	1890		"	2500		75.6	15-110			
<i>Surrogate: Terphenyl-d14</i>	1350		"	1670		80.5	30-130			
LCS (BK20989-BS1)										
Prepared: 11/28/2012 Analyzed: 11/29/2012										
Benzo(a)anthracene	1210	167	ug/kg wet	1670		72.8	31.1-109			
Benzo(a)pyrene	1150	167	"	1670		69.0	31.1-106			
Aniline	945	167	"	1670		56.7	5.07-149			
Anthracene	1260	167	"	1670		75.7	31.5-107			
Benzo(a)anthracene	1080	167	"	1670		64.6	31.5-115			
Benzo(a)pyrene	1460	167	"	1670		87.5	29.1-138			
Benzo(b)fluoranthene	1330	167	"	1670		79.6	14.9-131			
Benzo(g,h,i)perylene	1100	167	"	1670		65.8	6.56-121			
Benzyl alcohol	1290	167	"	1670		77.5	25.4-119			
Benzo(k)fluoranthene	1280	167	"	1670		76.6	29.1-121			
Benzyl butyl phthalate	1140	167	"	1670		68.3	31.3-112			
4-Bromophenyl phenyl ether	1330	167	"	1670		79.7	25.2-115			
4-Chloro-3-methylphenol	1310	167	"	1670		78.8	29.5-124			
4-Chloroaniline	1330	167	"	1670		79.7	10-177			
Bis(2-chloroethoxy)ethane	1150	167	"	1670		68.9	27.9-111			
Bis(2-chloroethyl)ether	1240	167	"	1670		74.5	18-122			
Bis(2-chloroisopropyl)ether	936	167	"	1670		56.1	9.62-123			
Bis(2-ethylhexyl)phthalate	1010	167	"	1670		60.4	25-105			
2-Chloronaphthalene	1170	167	"	1670		70.3	31.7-108			
2-Chlorophenol	1240	167	"	1670		74.5	20.3-125			
4-Chlorophenyl phenyl ether	1190	167	"	1670		71.4	23.6-110			
Chrysene	1370	167	"	1670		82.2	27.4-117			
Dibenzo(a,h)anthracene	1200	167	"	1670		72.1	14.6-119			
Dibenzofuran	1260	167	"	1670		75.6	30.2-108			
Di-n-butyl phthalate	1200	167	"	1670		71.8	33.5-100			
1,2-Dichlorobenzene	1090	167	"	1670		65.3	22.8-114			
1,4-Dichlorobenzene	1040	167	"	1670		62.3	19.8-121			
1,3-Dichlorobenzene	1060	167	"	1670		63.7	20.6-119			
3,3'-Dichlorobenzidine	1040	167	"	1670		62.3	10-180			
2,4-Dichlorophenol	1210	167	"	1670		72.6	23.3-125			
Dibutyl phthalate	1390	167	"	1670		83.3	29.7-111			
Diethylphenol	1190	167	"	1670		71.2	29.8-115			
Diethyl phthalate	1300	167	"	1670		77.8	27-118			

YORK

ANALYTICAL LABORATORIES, INC.

Semivolatile Organic Compounds by EPA Method 8270C - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	
									RPD	Limit Flag
Batch BK20989 - EPA 3550B										
LCS (BK20989-BS1)						Prepared: 11/28/2012 Analyzed: 11/29/2012				
4,6-Dinitro-2-methylphenol	1100	333	ug/kg wet	1670		65.8	10-122			
2-Nitroaniline	1346	167	"	1670		80.3	40-140			
2,4-Dinitrophenol	838	333	"	1670		50.3	10-151			
2,6-Dinitrotoluene	1260	167	"	1670		75.3	26.1-119			
2,4-Dinitrotoluene	1470	167	"	1670		88.0	21.4-126			
Di-n-octyl phthalate	1420	167	"	1670		85.1	19-129			
Fluoranthene	1190	167	"	1670		71.4	31.3-110			
Fluorene	1270	167	"	1670		76.4	29.9-108			
Hexachlorobenzene	1240	167	"	1670		74.1	31.7-102			
Hexachlorobutadiene	1220	167	"	1670		73.4	10.1-134			
Hexachlorocyclopentadiene	902	167	"	1670		54.1	10-122			
Hexachloroethane	1060	167	"	1670		63.4	20.2-114			
Indeno(1,2,3-cd)pyrene	1240	167	"	1670		74.2	12.6-120			
Isophorone	1130	167	"	1670		67.9	27.2-115			
2-Methylnaphthalene	1240	167	"	1670		74.3	17.4-119			
2-Methylphenol	1220	167	"	1670		73.3	23.6-125			
3- & 4-Methylphenols	1120	167	"	1670		67.3	21.3-115			
Naphthalene	1150	167	"	1670		69.2	25.2-111			
3-Nitroaniline	1080	167	"	1670		64.8	9.73-147			
4-Nitroaniline	1360	167	"	1670		81.5	6.42-169			
Nitrobenzene	1190	167	"	1670		71.7	21.8-118			
4-Nitrophenol	1450	167	"	1670		86.8	10-136			
2-Nitrophenol	1200	167	"	1670		71.8	20.6-119			
N-nitroso-di-n-propylamine	1160	167	"	1670		69.8	25.3-118			
N-Nitrosodimethylamine	896	167	"	1670		53.8	10-142			
N-Nitrosodiphenylamine	1500	167	"	1670		90.3	35.8-132			
Pentachlorophenol	1360	167	"	1670		81.4	3.68-146			
Phenanthrene	1250	167	"	1670		74.9	31.2-105			
Phenol	1020	167	"	1670		61.4	23.2-117			
Pyrene	1190	167	"	1670		71.2	26.3-124			
Pyridine	673	167	"	1670		40.4	10-122			
1,2,4-Trichlorobenzene	1180	167	"	1670		70.8	19.3-128			
2,4,5-Trichlorophenol	1370	167	"	1670		82.0	19.5-131			
2,4,6-Trichlorophenol	1440	167	"	1670		86.3	24.2-123			
Surrogate: 2,4,6-Tribromophenol	2330		"	2500		93.3	15-110			
Surrogate: 2-Fluorobiphenyl	1230		"	1670		73.8	30-130			
Surrogate: 2-Fluorophenol	1670		"	2510		66.5	15-110			
Surrogate: Nitrobenzene-d5	1310		"	1670		78.5	30-130			
Surrogate: Phenol-d5	1760		"	2500		70.5	15-110			
Surrogate: Terphenyl-d14	1270		"	1670		75.9	30-130			

YORK

ANALYTICAL LABORATORIES, INC.

Organochlorine Pesticides by EPA SW 846-8081 - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BK21101 - EPA 3550B

Blank (BK21101-BLK1)

Prepared: 11/29/2012 Analyzed: 11/30/2012

4,4'-DDD	ND	0.330	ug/kg wet								
4,4'-DDE	ND	0.330	"								
4,4'-DDT	ND	0.330	"								
Aldrin	ND	0.330	"								
alpha-BHC	ND	0.330	"								
beta-BHC	ND	0.330	"								
gamma-Chlordane	ND	0.330	"								
delta-BHC	ND	0.330	"								
Dieldrin	ND	0.330	"								
Endosulfan I	ND	0.330	"								
Endosulfan II	ND	0.330	"								
Endosulfan sulfate	ND	0.330	"								
Endrin	ND	0.330	"								
Endrin aldehyde	ND	0.330	"								
Endrin ketone	ND	0.330	"								
gamma-BHC (Lindane)	ND	0.330	"								
Heptachlor	ND	0.330	"								
Heptachlor epoxide	ND	0.330	"								
Methoxychlor	ND	1.65	"								
alpha-Chlordane	ND	0.330	"								
Toxaphene	ND	16.7	"								
Surrogate: Decachlorobiphenyl	62.5		"	67.0		93.3	30-150				
Surrogate: Tetrachloro-m-xylene	57.2		"	67.0		85.4	30-150				

LCS (BK21101-BS1)

Prepared: 11/29/2012 Analyzed: 11/30/2012

4,4'-DDD	22.5	0.330	ug/kg wet	33.3		67.6	40-140				
4,4'-DDE	22.6	0.330	"	33.3		67.8	40-140				
4,4'-DDT	27.5	0.330	"	33.3		82.6	40-140				
Aldrin	22.2	0.330	"	33.3		66.7	40-140				
alpha-BHC	22.3	0.330	"	33.3		66.9	40-140				
beta-BHC	22.3	0.330	"	33.3		66.9	40-140				
gamma-Chlordane	22.2	0.330	"	33.3		66.7	40-140				
delta-BHC	22.8	0.330	"	33.3		68.4	40-140				
Dieldrin	22.5	0.330	"	33.3		67.4	40-140				
Endosulfan I	23.4	0.330	"	33.3		70.3	40-140				
Endosulfan II	25.6	0.330	"	33.3		76.8	40-140				
Endosulfan sulfate	24.3	0.330	"	33.3		72.8	40-140				
Endrin	23.1	0.330	"	33.3		69.4	40-140				
Endrin aldehyde	23.8	0.330	"	33.3		71.3	40-140				
Endrin ketone	22.8	0.330	"	33.3		68.4	40-140				
gamma-BHC (Lindane)	22.0	0.330	"	33.3		65.9	40-140				
Heptachlor	20.5	0.330	"	33.3		61.4	40-140				
Heptachlor epoxide	21.5	0.330	"	33.3		64.4	40-140				
Methoxychlor	23.8	1.65	"	33.3		71.3	40-140				
alpha-Chlordane	22.4	0.330	"	33.3		67.3	40-140				
Surrogate: Decachlorobiphenyl	44.1		"	67.0		65.8	30-150				
Surrogate: Tetrachloro-m-xylene	41.6		"	67.0		62.1	30-150				

YORK

ANALYTICAL LABORATORIES, INC.
2003 RESEARCH DRIVE STRATFORD, CT 06615

Polychlorinated Biphenyls (PCB) by EPA SW 846-8082/EPA Compendium Methods - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BK20991 - EPA 3550B											
Blank (BK20991-BLK1)										Prepared: 11/28/2012 Analyzed: 11/29/2012	
Aroclor 1016	ND	0.0170	mg/kg wet								
Aroclor 1221	ND	0.0170	"								
Aroclor 1232	ND	0.0170	"								
Aroclor 1242	ND	0.0170	"								
Aroclor 1248	ND	0.0170	"								
Aroclor 1254	ND	0.0170	"								
Aroclor 1260	ND	0.0170	"								
Total PCBs	ND	0.0170	"								
<i>Surrogate: Tetrachloro-m-xylene</i>	0.0553		"	0.0670		82.6	30-150				
<i>Surrogate: Decachlorobiphenyl</i>	0.0953		"	0.0670		142	30-150				
LCS (BK20991-BS1)										Prepared: 11/28/2012 Analyzed: 11/29/2012	
Aroclor 1016	0.275	0.0170	mg/kg wet	0.333		82.5	40-140				
Aroclor 1260	0.259	0.0170	"	0.333		77.6	40-140				
<i>Surrogate: Tetrachloro-m-xylene</i>	0.0610		"	0.0670		91.0	30-150				
<i>Surrogate: Decachlorobiphenyl</i>	0.0583		"	0.0670		87.1	30-150				
LCS Dup (BK20991-BSD1)										Prepared: 11/28/2012 Analyzed: 11/29/2012	
Aroclor 1016	0.284	0.0170	mg/kg wet	0.333		85.2	40-140		3.27	25	
Aroclor 1260	0.267	0.0170	"	0.333		80.1	40-140		3.25	25	
<i>Surrogate: Tetrachloro-m-xylene</i>	0.0623		"	0.0670		93.0	30-150				
<i>Surrogate: Decachlorobiphenyl</i>	0.0610		"	0.0670		91.0	30-150				

Batch BK20992 - EPA 3550B

Blank (BK20992-BLK1)										Prepared: 11/28/2012 Analyzed: 11/29/2012	
Aroclor 1016	ND	0.510	mg/kg wet								
Aroclor 1221	ND	0.510	"								
Aroclor 1232	ND	0.510	"								
Aroclor 1242	ND	0.510	"								
Aroclor 1248	ND	0.510	"								
Aroclor 1254	ND	0.510	"								
Aroclor 1260	ND	0.510	"								
Total PCBs	ND	0.510	"								
<i>Surrogate: Tetrachloro-m-xylene</i>	1.60		"	2.01		79.6	30-150				
<i>Surrogate: Decachlorobiphenyl</i>	2.77		"	2.01		138	30-150				

YORK

ANALYTICAL LABORATORIES, INC.

Polychlorinated Biphenyls (PCB) by EPA SW 846-8082/EPA Compendium Methods - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BK20992 - EPA 3550B

LCS (BK20992-BS1)

Prepared: 11/28/2012 Analyzed: 11/29/2012

Aroclor 1016	8.87	0.510	mg/kg wet	10.0		88.7	40-140				
Aroclor 1260	8.22	0.510	"	10.0		82.2	40-140				
Surrogate: Tetrachloro-m-xylene	1.77		"	2.01		88.1	30-150				
Surrogate: Decachlorobiphenyl	1.78		"	2.01		88.6	30-150				

LCS Dup (BK20992-BSD1)

Prepared: 11/28/2012 Analyzed: 11/29/2012

Aroclor 1016	8.79	0.510	mg/kg wet	10.0		87.9	40-140		0.861	25	
Aroclor 1260	8.10	0.510	"	10.0		81.0	40-140		1.47	25	
Surrogate: Tetrachloro-m-xylene	1.75		"	2.01		87.1	30-150				
Surrogate: Decachlorobiphenyl	1.70		"	2.01		84.6	30-150				

Batch BK20993 - EPA 3545A

Blank (BK20993-BLK1)

Prepared & Analyzed: 11/28/2012

Aroclor 1016	ND	0.0255	mg/kg wet								
Aroclor 1221	ND	0.0255	"								
Aroclor 1232	ND	0.0255	"								
Aroclor 1242	ND	0.0255	"								
Aroclor 1248	ND	0.0255	"								
Aroclor 1254	ND	0.0255	"								
Aroclor 1260	ND	0.0255	"								
PCBs	ND	0.0255	"								
Surrogate: Tetrachloro-m-xylene	0.100		"	0.100		100	30-150				
Surrogate: Decachlorobiphenyl	0.0955		"	0.100		95.0	30-150				

LCS (BK20993-BS2)

Prepared & Analyzed: 11/28/2012

Aroclor 1016	0.303	0.0170	mg/kg wet	0.333		90.8	40-140				
Aroclor 1260	0.274	0.0170	"	0.333		82.2	40-140				
Surrogate: Tetrachloro-m-xylene	0.0610		"	0.0670		91.0	30-150				
Surrogate: Decachlorobiphenyl	0.0590		"	0.0670		88.1	30-150				

YORK

ANALYTICAL LABORATORIES, INC.

Polychlorinated Biphenyls (PCB) by EPA SW 846-8082/EPA Compendium Methods - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BK21040 - EPA 3550B										
Prepared: 11/28/2012 Analyzed: 11/30/2012										
Blank (BK21040-BLK1)										
Aroclor 1016	ND	0.0170	mg/kg wet							
Aroclor 1221	ND	0.0170	"							
Aroclor 1232	ND	0.0170	"							
Aroclor 1242	ND	0.0170	"							
Aroclor 1248	ND	0.0170	"							
Aroclor 1254	ND	0.0170	"							
Aroclor 1260	ND	0.0170	"							
Total PCBs	ND	0.0170	"							
<i>Surrogate: Tetrachloro-m-xylene</i>	0.0517		"	0.0670		77.1		30-150		
<i>Surrogate: Decachlorobiphenyl</i>	0.0790		"	0.0670		118		30-150		
Prepared: 11/28/2012 Analyzed: 11/30/2012										
LCS (BK21040-BS1)										
Aroclor 1016	0.275	0.0170	mg/kg wet	0.333		82.5		40-140		
Aroclor 1260	0.250	0.0170	"	0.333		74.9		40-140		
<i>Surrogate: Tetrachloro-m-xylene</i>	0.0573		"	0.0670		85.6		30-150		
<i>Surrogate: Decachlorobiphenyl</i>	0.0520		"	0.0670		77.6		30-150		
Prepared: 11/28/2012 Analyzed: 11/30/2012										
LCS Dup (BK21040-BSD1)										
Aroclor 1016	0.277	0.0170	mg/kg wet	0.333		83.2		40-140	0.869	25
Aroclor 1260	0.252	0.0170	"	0.333		75.6		40-140	0.930	25
<i>Surrogate: Tetrachloro-m-xylene</i>	0.0567		"	0.0670		84.6		30-150		
<i>Surrogate: Decachlorobiphenyl</i>	0.0517		"	0.0670		77.1		30-150		
Batch BK21041 - EPA 3545A										
Prepared: 11/28/2012 Analyzed: 11/29/2012										
Blank (BK21041-BLK1)										
Aroclor 1016	ND	0.0255	mg/kg wet							
Aroclor 1221	ND	0.0255	"							
Aroclor 1232	ND	0.0255	"							
Aroclor 1242	ND	0.0255	"							
Aroclor 1248	ND	0.0255	"							
Aroclor 1254	ND	0.0255	"							
Aroclor 1260	ND	0.0255	"							
Total PCBs	ND	0.0255	"							
<i>Surrogate: Tetrachloro-m-xylene</i>	0.112		"	0.100		111		30-150		
<i>Surrogate: Decachlorobiphenyl</i>	0.108		"	0.100		108		30-150		

YORK

ANALYTICAL LABORATORIES, INC.
120 RESEARCH DRIVE STRATFORD, CT 06615 (203) 325-1371 FAX (203) 357-0166

Polychlorinated Biphenyls (PCB) by EPA SW 846-8082/EPA Compendium Methods - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BK21041 - EPA 3545A											
LCS (BK21041-BS2)						Prepared: 11/28/2012 Analyzed: 11/29/2012					
Aroclor 1016	0.554	0.0255	mg/kg wet	0.500		111	40-140				
Aroclor 1260	0.520	0.0255	"	0.500		104	40-140				
<i>Surrogate: Tetrachloro-m-xylene</i>	0.0865		"	0.100		86.1	30-150				
<i>Surrogate: Decachlorobiphenyl</i>	0.0940		"	0.100		93.5	30-150				
LCS Dup (BK21041-BSD2)						Prepared: 11/28/2012 Analyzed: 11/29/2012					
Aroclor 1016	0.556	0.0255	mg/kg wet	0.500		111	40-140		0.486	25	
Aroclor 1260	0.523	0.0255	"	0.500		105	40-140		0.729	25	
<i>Surrogate: Tetrachloro-m-xylene</i>	0.0870		"	0.100		86.6	30-150				
<i>Surrogate: Decachlorobiphenyl</i>	0.0925		"	0.100		92.0	30-150				

YORK

ANALYTICAL LABORATORIES, INC.

Chlorinated Herbicides by EPA Method 8151 - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	
									RPD	Limit
Batch BK20929 - EPA 3550B/8151A										
Blank (BK20929-BLK1)										
Prepared: 11/27/2012 Analyzed: 11/30/2012										
2,4-D	ND	40.0	ug/kg wet							
2,4,5-TP (Silvex)	ND	40.0	"							
2,4,5-T	ND	40.0	"							
Surrogate: 2,4-Dichlorophenylacetic acid (DCAA)	1030		"	1000		103	5.5-148			
LCS (BK20929-BS1)										
Prepared: 11/27/2012 Analyzed: 11/30/2012										
2,4-D	234	40.0	ug/kg wet	320		73.1	10-186			
2,4,5-TP (Silvex)	258	40.0	"	320		80.6	13.3-189			
2,4,5-T	248	40.0	"	320		77.5	11.2-181			
Surrogate: 2,4-Dichlorophenylacetic acid (DCAA)	898		"	1000		89.8	5.5-148			
LCS Dup (BK20929-BSD1)										
Prepared: 11/27/2012 Analyzed: 11/30/2012										
2,4-D	256	40.0	ug/kg wet	320		80.0	10-186	8.98	38	
2,4,5-TP (Silvex)	292	40.0	"	320		91.2	13.3-189	12.4	39	
2,4,5-T	278	40.0	"	320		86.9	11.2-181	11.4	39	
Surrogate: 2,4-Dichlorophenylacetic acid (DCAA)	996		"	1000		99.6	5.5-148			

YORK

ANALYTICAL LABORATORIES, INC.

Metals by EPA 6000 Series Methods - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BK20888 - EPA 3050B											
Blank (BK20888-BLK1)										Prepared & Analyzed: 11/26/2012	
Lead	ND	0.300	mg/kg wet								
Reference (BK20888-SRM1)										Prepared & Analyzed: 11/26/2012	
Lead	69.1	0.300	mg/kg wet	76.9		89.9	68.7-131				
Batch BK20889 - EPA 3010A											
Blank (BK20889-BLK1)										Prepared & Analyzed: 11/26/2012	
Arsenic	ND	0.010	mg/L								
Barium	ND	0.010	"								
Cadmium	ND	0.003	"								
Chromium	ND	0.005	"								
Lead	ND	0.003	"								
Selenium	ND	0.010	"								
Silver	ND	0.005	"								
Blank (BK20889-BLK2)										Prepared & Analyzed: 11/26/2012	
Arsenic	ND	0.010	mg/L								
Barium	ND	0.010	"								
Cadmium	ND	0.003	"								
Chromium	ND	0.005	"								
Lead	ND	0.003	"								
Manganese	0.018	0.010	"								
Silver	ND	0.005	"								
Reference (BK20889-SRM1)										Prepared & Analyzed: 11/26/2012	
Arsenic	0.156	0.010	mg/L	0.182		85.7	81.9-118				
Barium	2.08	0.010	"	2.08		99.8	87-113				
Cadmium	0.346	0.003	"	0.393		88.1	85.2-114				
Chromium	0.562	0.005	"	0.611		91.9	87.1-113				
Lead	0.252	0.003	"	0.259		97.2	85.7-114				
Selenium	0.896	0.010	"	1.05		85.3	79.5-116				
Silver	0.303	0.005	"	0.333		90.9	85.9-115				

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Metals by EPA 6000 Series Methods - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BK20911 - EPA 3050B											
Blank (BK20911-BLK1)										Prepared & Analyzed: 11/26/2012	
Lead	ND	0.300	mg/kg wet								
Reference (BK20911-SRMI)										Prepared & Analyzed: 11/26/2012	
Lead	69.6	0.300	mg/kg wet	76.9		90.5	68.7-131				
Batch BK20912 - EPA 3050B											
Blank (BK20912-BLK1)										Prepared: 11/26/2012 Analyzed: 11/27/2012	
Lead	ND	0.300	mg/kg wet								
Duplicate (BK20912-DUP1)										Prepared: 11/26/2012 Analyzed: 11/27/2012	
	*Source sample: 12K0580-28 (SBMTS PC-28)										
Lead	33100	30.0	mg/kg dry		33800				2.14	35	
Matrix Spike (BK20912-MS1)										Prepared: 11/26/2012 Analyzed: 11/27/2012	
	*Source sample: 12K0580-28 (SBMTS PC-28)										
Lead	34200	30.0	mg/kg dry	500	33800	79.0	75-125				
Reference (BK20912-SRMI)										Prepared: 11/26/2012 Analyzed: 11/27/2012	
Lead	71.9	0.300	mg/kg wet	76.9		93.5	68.7-131				

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Mercury by EPA 7000/200 Series Methods - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting	Units	Spike	Source*	%REC		Flag	RPD	
		Limit		Level	Result	Limits	RPD		Limit	Flag
Batch BK21001 - EPA SW846-7470										
Blank (BK21001-BLK1)						Prepared & Analyzed: 11/28/2012				
Mercury	ND	0.000200	mg/L							
LCS (BK21001-BS1)						Prepared & Analyzed: 11/28/2012				
Mercury	0.00306	0.000200	mg/L	0.00300		102	80-120			

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Notes and Definitions

S-04 The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.

EXT-COMP Completed

E The concentration indicated for this analyte is an estimated value above the calibration range of the instrument. This value is considered an estimate.

B Analyte is found in the associated analysis batch blank. For volatiles, methylene chloride and acetone are common lab contaminants. Data users should consider anything $<10\times$ the blank value as artifact.

ND Analyte NOT DETECTED at the stated Reporting Limit (RL) or above.

RL REPORTING LIMIT - the minimum reportable value based upon the lowest point in the analyte calibration curve.

MDL METHOD DETECTION LIMIT - the minimum concentration that can be measured and reported with a 99% confidence that the concentration is greater than zero. If requested or required, a value reported below the RL and above the MDL is considered estimated and is noted with a "J" flag.

NR Not reported

RPD Relative Percent Difference

Wet The data has been reported on an as-received (wet weight) basis

Low Bias Low Bias flag indicates that the recovery of the flagged analyte is below the laboratory or regulatory lower control limit. The data user should take note that this analyte may be biased low but should evaluate multiple lines of evidence including the LCS and site-specific MS/MSD data to draw bias conclusions. In cases where no site-specific MS/MSD was requested, only the LCS data can be used to evaluate such bias.

High Bias High Bias flag indicates that the recovery of the flagged analyte is above the laboratory or regulatory upper control limit. The data user should take note that this analyte may be biased high but should evaluate multiple lines of evidence including the LCS and site-specific MS/MSD data to draw bias conclusions. In cases where no site-specific MS/MSD was requested, only the LCS data can be used to evaluate such bias.

Non-Dir. Non-dir. flag (Non-Directional Bias) indicates that the Relative Percent Difference (RPD) (a measure of precision) among the MS and MSD data is outside the laboratory or regulatory control limit. This alerts the data user where the MS and MSD are from site-specific samples that the RPD is high due to either non-homogeneous distribution of target analyte between the MS/MSD or indicates poor reproducibility for other reasons.

If EPA SW-846 method 8270 is included herein it is noted that the target compound N-nitrosodiphenylamine (NDPA) decomposes in the gas chromatographic inlet and cannot be separated from diphenylamine (DPA). These results could actually represent 100% DPA, 100% NDPA or some combination of the two. For this reason, York reports the combined result for n-nitrosodiphenylamine and diphenylamine for either of these compounds as a combined concentration as Diphenylamine.

If Total PCBs are detected and the target aroclors reported are "Not detected", the Total PCB value is reported due to the presence of either or both Aroclors 1262 and 1268 which are non-target aroclors for some regulatory lists.

2-chloroethylvinyl ether readily breaks down under acidic conditions. Samples that are acid preserved, including standards will exhibit breakdown. The data user should take note.

Certification for pH is no longer offered by NYDOH ELAP.

Semi-Volatile and Volatile analyses are reported down to the MDL, with values between the MDL and the RL being "J" flagged as estimated results.

Corrective Action: Sample (SBMTS.CLK-5) Jar Recvd At Lab Empty.
No sample, as per Michael Wellock: 11/21/2012. PM

12K0580

South Bronx Marine Transfer Station Sample Locations

Sample ID	Description	Date Sampled	Matrix	Analyses	Container
SBMTS PC-1	Green metal window frame - Meter Room, Tipping Floor	11/14/2012	O - paint	Total PCBs	4 oz glass
SBMTS PC-2	White metal discarded control box door - Meter Room, Tipping Floor	11/14/2012	O - paint	Total PCBs & Total Lead	4 oz glass
SBMTS PC-3	Factory applied red metal fire alarm control box - Meter Room, Tipping Floor	11/14/2012	O - paint	Total PCBs & Total Lead	4 oz glass
SBMTS PC-4	White concrete ceiling - Meter Room, Tipping Floor	11/17/2012	O - paint	Total PCBs & Total Lead	4 oz glass
SBMTS PC-5	Grey over green metal electrical box - Switchboard Room, Tipping Floor	11/14/2012	O - paint	Total PCBs & Total Lead	4 oz glass
SBMTS PC-6	Black metal switchboard - Switchboard Room, Tipping Floor	11/14/2012	O - paint	Total PCBs & Total Lead	4 oz glass
SBMTS PC-7	Factory applied grey metal electrical box - Switchboard Room, Tipping Floor	11/14/2012	O - paint	Total PCBs & Total Lead	4 oz glass
SBMTS PC-8	White concrete wall - Storage Room, Tipping Floor	11/14/2012	O - paint	Total PCBs & Total Lead	4 oz glass
SBMTS PC-9	Silver vertical metal pipe - Storage Room, Tipping Floor	11/14/2012	O - paint	Total PCBs & Total Lead	4 oz glass
SBMTS PC-10	Orange metal wheel on pipe - Storage Room, Tipping Floor	11/14/2012	O - paint	Total PCBs & Total Lead	4 oz glass
SBMTS PC-11	Silver vertical metal pipe - Storage Room, Tipping Floor	11/14/2012	O - paint	Total PCBs & Total Lead	4 oz glass
SBMTS PC-12	Rust horizontal metal pipe - Storage Room, Tipping Floor	11/14/2012	O - paint	Total PCBs & Total Lead	4 oz glass
SBMTS PC-13	Green metal hood - Storage Room, Tipping Floor	11/14/2012	O - paint	Total PCBs & Total Lead	4 oz glass
SBMTS PC-14	Beige concrete wall - Lunch Room, Tipping Floor	11/14/2012	O - paint	Total PCBs & Total Lead	4 oz glass
SBMTS PC-15	Beige metal window AC unit cover - Lunch Room, Tipping Floor	11/14/2012	O - paint	Total PCBs & Total Lead	4 oz glass
SBMTS PC-16	Silver metal radiator - Lunch Room, Tipping Floor	11/14/2012	O - paint	Total PCBs & Total Lead	4 oz glass
SBMTS PC-17	White metal wall mounted fan cover - Lunch Room, Tipping Floor	11/14/2012	O - paint	Total PCBs & Total Lead	4 oz glass
SBMTS PC-18	White metal door - Lunch Room, Tipping Floor	11/14/2012	O - paint	Total PCBs & Total Lead	4 oz glass
SBMTS PC-19	Yellow metal corner wall support - Open area, Tipping Floor	11/14/2012	O - paint	Total PCBs & Total Lead	4 oz glass
SBMTS PC-20	Green spray painted metal pipe - Open Area, Tipping Floor	11/14/2012	O - paint	Total PCBs & Total Lead	4 oz glass
SBMTS PC-21	White over yellow metal hoppers - Open Area, Tipping Floor	11/14/2012	O - paint	Total PCBs & Total Lead	4 oz glass
SBMTS PC-22	Green metal hoppers - Open Area, Tipping Floor	11/14/2012	O - paint	Total PCBs & Total Lead	4 oz glass
SBMTS PC-23	Yellow metal vertical I-beam - Fan Room No. 2, Tipping Floor	11/14/2012	O - paint	Total PCBs & Total Lead	4 oz glass
SBMTS PC-24	Black metal vertical I-beam - Fan Room No. 2, Tipping Floor	11/14/2012	O - paint	Total PCBs & Total Lead	4 oz glass
SBMTS PC-25	Silver Roofing Tar - Flat Roof	11/17/2012	O - paint	Total PCBs & Total Lead	4 oz glass
SBMTS PC-26	Green over red metal hopper - Fan Room No. 2, Tipping Floor	11/14/2012	O - paint	Total PCBs & Total Lead	4 oz glass
SBMTS PC-27	Brown metal light casing - Fan Room No. 1, Tipping Floor	11/14/2012	O - paint	Total PCBs & Total Lead	4 oz glass
SBMTS PC-28	Light green over green metal window - Weigh Booth, Ramp	11/14/2012	O - paint	Total PCBs & Total Lead	4 oz glass

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12K 380

South Bronx Marine Tran Station Sample Locations

Sample ID	Description	Date Sampled	Matrix	Analyses	Container
SBMTS PC-29	Green over green metal closet door - Foreman's Office, Tipping Floor	11/14/2012	O - paint	Total PCBs	4 oz glass
SBMTS PC-30	Factory applied grey metal electrical box - Foreman's Office, Tipping Floor	11/14/2012	O - paint	Total PCBs & Total Lead	4 oz glass
SBMTS PC-31	Factory applied white metal electrical box interior - Foreman's Office, Tipping Floor	11/14/2012	O - paint	Total PCBs & Total Lead	4 oz glass
SBMTS PC-32	Beige metal fire alarm annunciator - Foreman's Office, Tipping Floor	11/14/2012	O - paint	Total PCBs & Total Lead	4 oz glass
SBMTS PC-33	Brown metal ventilation unit - Foreman's Office, Tipping Floor	11/14/2012	O - paint	Total PCBs & Total Lead	4 oz glass
SBMTS PC-34	Grey/rust metal electrical box - Foreman's Office, Tipping Floor	11/14/2012	O - paint	Total PCBs & Total Lead	4 oz glass
SBMTS PC-35	Grey metal electrical box - Foreman's Office, Tipping Floor	11/14/2012	O - paint	Total PCBs & Total Lead	4 oz glass
SBMTS PC-36	Grey concrete ceiling and wall - Foreman's Office, Tipping Floor	11/14/2012	O - paint	Total PCBs	4 oz glass
SBMTS PC-37	White concrete ceiling and wall - Foreman's Office, Tipping Floor	11/14/2012	O - paint	Total PCBs	4 oz glass
SBMTS PC-38	Green over beige metal door - Foreman's Office, Tipping Floor	11/14/2012	O - paint	Total PCBs	4 oz glass
SBMTS PC-39	White wood receptacle - Open Area, Tipping Floor	11/14/2012	O - paint	Total PCBs & Total Lead	4 oz glass
SBMTS PC-40	Orange spray paint over beige concrete beam - Open Area, Tipping Floor	11/14/2012	O - paint	Total PCBs & Total Lead	4 oz glass
SBMTS PC-41	Beige metal corner support of concrete beam - Open Area, Tipping Floor	11/14/2012	O - paint	Total PCBs & Total Lead	4 oz glass
SBMTS PC-42	Grey metal door - Foreman's Office, Tipping Floor	11/14/2012	O - paint	Total PCBs & Total Lead	4 oz glass
SBMTS PC-43	White plastic refrigerator - Men's Toilet, Tipping Floor	11/15/2012	O - paint	Total PCBs & Total Lead	4 oz glass
SBMTS PC-44	Grey metal locker - Men's Locker Room, Tipping Floor	11/14/2012	O - paint	Total PCBs & Total Lead	4 oz glass
SBMTS PC-45	Dark grey metal locker interior - Men's Locker Room, Tipping Floor	11/15/2012	O - paint	Total PCBs & Total Lead	4 oz glass
SBMTS PC-46	Green metal large locker - Men's Locker Room, Tipping Floor	11/15/2012	O - paint	Total PCBs & Total Lead	4 oz glass
SBMTS PC-47	Beige metal locker - Men's Locker Room, Tipping Floor	11/15/2012	O - paint	Total PCBs & Total Lead	4 oz glass
SBMTS PC-48	Silver metal locker - Men's Locker Room, Tipping Floor	11/15/2012	O - paint	Total PCBs & Total Lead	4 oz glass
SBMTS PC-49	Dark grey metal locker - Men's Locker Room, Tipping Floor	11/15/2012	O - paint	Total PCBs & Total Lead	4 oz glass
SBMTS PC-50	White metal locker - Men's Locker Room, Tipping Floor	11/15/2012	O - paint	Total PCBs & Total Lead	4 oz glass

12K0580

South Bronx Marine Transfer Station Sample Locations

Sample ID	Description	Date Sampled	Matrix	Analyses	Container
SBMTS PC-51	Green concrete wall - Ramp B	11/16/2012	O - paint	Total PCBs & Total Lead	4 oz glass
SBMTS PC-52	Black over white metal staircase - Staircase Connecting Tipping Floor and Pier Level	11/16/2012	O - paint	Total PCBs	4 oz glass
SBMTS PC-53	Brown ceramic tile glaze - Foreman's Office	11/16/2012	O - paint	Total PCBs	4 oz glass
SBMTS CLK-1	Black Tar on Pipe - Ramp B	11/15/2012	O - Tar	Total PCBs	4 oz glass
SBMTS CLK-2	Black Pipe Wrapping - Ramp B	11/15/2012	O - Wrapping	Total PCBs	4 oz glass
SBMTS CLK-3	Pipe insulation Wrapping - Ramp B	11/15/2012	O - Wrapping	Total PCBs	4 oz glass
SBMTS CLK-4	Orange Pipe Sealant - Ramp B	11/15/2012	O - Caulk	Total PCBs	4 oz glass
SBMTS CLK-5	White String Sealant - Ramp B	11/15/2012	O - Caulk	Total PCBs	4 oz glass
SBMTS CLK-6	Black Tar - Ramp B	11/15/2012	O - Tar	Total PCBs	4 oz glass
SBMTS CLK-7	Black Expansion Sealant - Ramp B	11/15/2012	O - Caulk	Total PCBs	4 oz glass
SBMTS CLK-8	White Expansion Sealant - Ramp B	11/15/2012	O - Caulk	Total PCBs	4 oz glass
SBMTS CLK-9	Black Tar - Ramp	11/15/2012	O - Tar	Total PCBs	4 oz glass
SBMTS CLK-10	Black Sealant - Ramp	11/15/2012	O - Caulk	Total PCBs	4 oz glass
SBMTS CLK-11	White Caulk - Ramp	11/15/2012	O - Caulk	Total PCBs	4 oz glass
SBMTS CLK-12	Window Caulk - Weigh Booth, Ramp	11/15/2012	O - Caulk	Total PCBs	4 oz glass
SBMTS CLK-13	Window Glaze - Weigh Booth, Ramp	11/15/2012	O - Glaze	Total PCBs	4 oz glass
SBMTS CLK-14	Window Glaze - Foreman's Office, Tipping Floor	11/15/2012	O - Glaze	Total PCBs	4 oz glass
SBMTS CLK-15	Window Glaze - Foreman's Office, Tipping Floor	11/15/2012	O - Glaze	Total PCBs	4 oz glass
SBMTS CLK-16	Black Door Caulk - Fan Room No. 1, Tipping Floor	11/15/2012	O - Caulk	Total PCBs	4 oz glass
SBMTS CLK-17	Caulk on Electrical Pipe - Ramp A	11/15/2012	O - Caulk	Total PCBs	4 oz glass
SBMTS CLK-18	Window Caulk - Foreman's Office, Tipping Floor	11/16/2012	O - Caulk	Total PCBs	4 oz glass
SBMTS CON-1	Concrete - Ramp	11/14/2012	O - Concrete	Total PCBs and TCLP Metals and Semi-Volatiles	4 oz glass
SBMTS CON-2	Concrete - Pump Room No. 1, Pier Level	11/14/2012	O - Concrete	Total PCBs	4 oz glass
SBMTS WD-1	Wooden Utility Pole - Ramp A	11/16/2012	O - Wood	Total PCBs and TCLP Metals, Semi-Volatiles, Pesticides, Herbicides	4 oz glass
SBMTS BULK-1	Painted Substrate - Tipping Floor	11/16/2012	O - Painted Masonry	TCLP Metals	4 oz glass
SBMTS BULK-2	Painted Substrate - Exterior	11/16/2012	O - Painted Masonry	TCLP Metals	4 oz glass

YORK

ANALYTICAL LABORATORIES, INC.

Technical Report

prepared for:

Bidwell Environmental, LLC
1353 Kings Highway / P.O. Box 266
Sugar Loaf NY, 10981
Attention: M. Wellock

Report Date: 12/06/2012

Client Project ID: South Bronx Marine Transfer Station
York Project (SDG) No.: 12L0110

CT License No. PH-0723

New Jersey License No. CT-005



New York License No. 10854

PA License No. 68-04440

RESEARCH DRIVE

STRATFORD, CT 06615

(203) 325-1371

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Report Date: 12/06/2012
Client Project ID: South Bronx Marine Transfer Station
York Project (SDG) No.: 12L0110

Bidwell Environmental, LLC
1353 Kings Highway / P.O. Box 266
Sugar Loaf NY, 10981
Attention: M. Wellock

Purpose and Results

This report contains the analytical data for the sample(s) identified on the attached chain-of-custody received in our laboratory on December 05, 2012 and listed below. The project was identified as your project: **South Bronx Marine Transfer Station**.

The analyses were conducted utilizing appropriate EPA, Standard Methods, and ASTM methods as detailed in the data summary tables.

All samples were received in proper condition meeting the customary acceptance requirements for environmental samples except those indicated under the Notes section of this report.

All analyses met the method and laboratory standard operating procedure requirements except as indicated by any data flags, the meaning of which are explained in the attachment to this report, and case narrative if applicable.

The results of the analyses, which are all reported on dry weight basis (soils) unless otherwise noted, are detailed in the following pages.

Please contact Client Services at 203.325.1371 with any questions regarding this report.

<u>York Sample ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Date Collected</u>	<u>Date Received</u>
12L0110-01	SBMTS-WD-1	Solid	12/05/2012	12/05/2012

General Notes for York Project (SDG) No.: 12L0110

1. The RLs and MDLs (Reporting Limit and Method Detection Limit respectively) reported are adjusted for any dilution necessary due to the levels of target and/or non-target analytes and matrix interference. The RL(REPORTING LIMIT) is based upon the lowest standard utilized for the calibration where applicable.
2. Samples are retained for a period of thirty days after submittal of report, unless other arrangements are made.
3. York's liability for the above data is limited to the dollar value paid to York for the referenced project.
4. This report shall not be reproduced without the written approval of York Analytical Laboratories, Inc.
5. All samples were received in proper condition for analysis with proper documentation, unless otherwise noted.
6. All analyses conducted met method or Laboratory SOP requirements. See the Qualifiers and/or Narrative sections for further information.
7. It is noted that no analyses reported herein were subcontracted to another laboratory, unless noted in the report.
8. This report reflects results that relate only to the samples submitted on the attached chain-of-custody form(s) received by York.

Approved By:



Robert Q. Bradley
Laboratory Director

Date: 12/06/2012

YORK

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ANALYTICAL LABORATORIES, INC.

Sample Information

Client Sample ID: SBMFS-WD-1

York Sample ID: 12L0110-01

York Project (SDG) No.
12L0110

Client Project ID
South Bronx Marine Transfer Station

Matrix
Solid

Collection Date/Time
December 5, 2012 11:00 am

Date Received
12/05/2012

Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		mg/kg dry	0.635	0.635	10	EPA SW 846-8082	12/05/2012 12:05	12/06/2012 09:05	JW
11104-28-2	Aroclor 1221	ND		mg/kg dry	0.635	0.635	10	EPA SW 846-8082	12/05/2012 12:05	12/06/2012 09:05	JW
11141-16-5	Aroclor 1232	ND		mg/kg dry	0.635	0.635	10	EPA SW 846-8082	12/05/2012 12:05	12/06/2012 09:05	JW
53469-21-9	Aroclor 1242	ND		mg/kg dry	0.635	0.635	10	EPA SW 846-8082	12/05/2012 12:05	12/06/2012 09:05	JW
12672-29-6	Aroclor 1248	ND		mg/kg dry	0.635	0.635	10	EPA SW 846-8082	12/05/2012 12:05	12/06/2012 09:05	JW
11097-69-1	Aroclor 1254	ND		mg/kg dry	0.635	0.635	10	EPA SW 846-8082	12/05/2012 12:05	12/06/2012 09:05	JW
11096-82-5	Aroclor 1260	ND		mg/kg dry	0.635	0.635	10	EPA SW 846-8082	12/05/2012 12:05	12/06/2012 09:05	JW
1336-36-3	Total PCBs	ND		mg/kg dry	0.635	0.635	10	EPA SW 846-8082	12/05/2012 12:05	12/06/2012 09:05	JW

Surrogate Recoveries

Surrogate <th>Result</th> <th>Acceptance Range</th>	Result	Acceptance Range
877-09-8 Surrogate: Tetrachloro-m-xylene	44.8%	30-150
2051-24-3 Surrogate: Decachlorobiphenyl	69.7%	30-150

TCLP Extraction for METALS EPA 1311

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA SW 846-1311 TCLP ext. for metals

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
	TCLP Extraction	Completed		N/A	1.00	1.00	1	EPA SW846-1311	12/05/2012 14:50	12/06/2012 09:10	AD

Metals, TCLP RCRA

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3010A

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7440-38-2	Arsenic	ND		mg/L	0.004	0.010	1	EPA SW846-6010B/1311	12/06/2012 09:19	12/06/2012 13:07	MW
7440-39-3	Barium	0.984		mg/L	0.002	0.010	1	EPA SW846-6010B/1311	12/06/2012 09:19	12/06/2012 13:07	MW
7440-43-9	Cadmium	ND		mg/L	0.002	0.003	1	EPA SW846-6010B/1311	12/06/2012 09:19	12/06/2012 13:07	MW
7440-47-3	Chromium	ND		mg/L	0.002	0.005	1	EPA SW846-6010B/1311	12/06/2012 09:19	12/06/2012 13:07	MW
7439-92-1	Lead	0.005		mg/L	0.002	0.005	1	EPA SW846-6010B/1311	12/06/2012 09:19	12/06/2012 13:07	MW
7782-49-2	Selenium	ND		mg/L	0.007	0.010	1	EPA SW846-6010B/1311	12/06/2012 09:19	12/06/2012 13:07	MW
7440-22-4	Silver	ND		mg/L	0.002	0.005	1	EPA SW846-6010B/1311	12/06/2012 09:19	12/06/2012 13:07	MW

Mercury, TCLP

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA SW846-7470

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-97-6	Mercury	ND		mg/L	0.0000390	0.000200	1	EPA SW846-7470/1311	12/06/2012 12:54	12/06/2012 12:54	AA

YORK

ANALYTICAL LABORATORIES, INC.

Sample Information

Client Sample ID: SBMTS-WD-1

York Sample ID: 12L0110-01

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

12L0110

South Bronx Marine Transfer Station

Solid

December 5, 2012 11:00 am

12/05/2012

Total Solids

Log-in Notes:

Sample Notes:

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	MDI	RI	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	% Solids	80.4		%	0.100	0.100	1	SM 2540G	12/06/2012 14:38	12/06/2012 14:38	AMC

YORK

ANALYTICAL LABORATORIES, INC.
120 RESEARCH DRIVE
STRATFORD, CT 06615

Analytical Batch Summary

Batch ID: BL20137 Preparation Method: EPA 3550B Prepared By: CM

YORK Sample ID	Client Sample ID	Preparation Date
12L0110-01	SBMTS-WD-1	12/05/12

Batch ID: BL20181 Preparation Method: EPA SW 846-1311 TCLP ext. for met Prepared By: AD

YORK Sample ID	Client Sample ID	Preparation Date
12L0110-01	SBMTS-WD-1	12/05/12
BL20181-BLK1	Blank	12/05/12

Batch ID: BL20195 Preparation Method: EPA 3010A Prepared By: MW

YORK Sample ID	Client Sample ID	Preparation Date
12L0110-01	SBMTS-WD-1	12/06/12
BL20195-BLK1	Blank	12/06/12
BL20195-BLK2	Blank	12/06/12
BL20195-SRM1	Reference	12/06/12

Batch ID: BL20203 Preparation Method: EPA SW846-7470 Prepared By: AA

YORK Sample ID	Client Sample ID	Preparation Date
12L0110-01	SBMTS-WD-1	12/06/12
BL20203-BLK1	Blank	12/06/12
BL20203-BS1	LCS	12/06/12

Batch ID: BL20219 Preparation Method: % Solids Prep Prepared By: AMC

YORK Sample ID	Client Sample ID	Preparation Date
12L0110-01	SBMTS-WD-1	12/06/12

YORK

ANALYTICAL LABORATORIES, INC.

TCLP Extraction by EPA SW-846 1311 - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BL2018J - EPA SW 846-1311 TCLP ext. for metals											
Blank (BL2018J-BLK1)											
Prepared: 12/05/2012 Analyzed: 12/06/2012											
TCLP Extraction	Completed	1.00	N/A								

YORK

ANALYTICAL LABORATORIES, INC.

Metals by EPA 6000 Series Methods - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RFD Limit	Flag
Batch BL20195 - EPA 3010A											
Blank (BL20195-BLK1)										Prepared & Analyzed: 12/06/2012	
Arsenic	ND	0.010	mg/L								
Barium	ND	0.010	"								
Cadmium	ND	0.003	"								
Chromium	ND	0.005	"								
Lead	ND	0.003	"								
Selenium	ND	0.010	"								
Silver	ND	0.005	"								
Blank (BL20195-BLK2)										Prepared & Analyzed: 12/06/2012	
Arsenic	ND	0.010	mg/L								
Barium	ND	0.010	"								
Cadmium	ND	0.003	"								
Chromium	ND	0.005	"								
Lead	ND	0.003	"								
Selenium	0.014	0.010	"								
Silver	ND	0.005	"								
Reference (BL20195-SRM1)										Prepared & Analyzed: 12/06/2012	
Arsenic	0.165	0.010	mg/L	0.182		90.8	81.9-118				
Barium	2.14	0.010	"	2.08		103	87-113				
Cadmium	0.366	0.003	"	0.393		93.0	85.2-114				
Chromium	0.586	0.005	"	0.611		96.0	87.1-113				
Lead	0.262	0.003	"	0.259		101	85.7-114				
Selenium	0.957	0.010	"	1.05		91.1	79.5-116				
Silver	0.314	0.005	"	0.333		94.3	85.9-115				

YORK

ANALYTICAL LABORATORIES, INC.

Mercury by EPA 7000/200 Series Methods - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BL20203 - EPA SW846-7470											
Blank (BL20203-BLK1)										Prepared & Analyzed: 12/06/2012	
Mercury	ND	0.000200	mg/L								
LCS (BL20203-BS1)										Prepared & Analyzed: 12/06/2012	
Mercury	ND	0.000200	mg/L	0.00300			80-120	Low Bias			

YORK

ANALYTICAL LABORATORIES, INC.

Notes and Definitions

EXT-COMP Completed

B Analyte is found in the associated analysis batch blank. For volatiles, methylene chloride and acetone are common lab contaminants. Data users should consider anything $<10\times$ the blank value as artifact.

ND Analyte NOT DETECTED at the stated Reporting Limit (RL) or above.

RL REPORTING LIMIT - the minimum reportable value based upon the lowest point in the analyte calibration curve.

MDL METHOD DETECTION LIMIT - the minimum concentration that can be measured and reported with a 99% confidence that the concentration is greater than zero. If requested or required, a value reported below the RL and above the MDL is considered estimated and is noted with a "J" flag.

NR Not reported

RPD Relative Percent Difference

Wet The data has been reported on an as-received (wet weight) basis

Low Bias Low Bias flag indicates that the recovery of the flagged analyte is below the laboratory or regulatory lower control limit. The data user should take note that this analyte may be biased low but should evaluate multiple lines of evidence including the LCS and site-specific MS/MSD data to draw bias conclusions. In cases where no site-specific MS/MSD was requested, only the LCS data can be used to evaluate such bias.

High Bias High Bias flag indicates that the recovery of the flagged analyte is above the laboratory or regulatory upper control limit. The data user should take note that this analyte may be biased high but should evaluate multiple lines of evidence including the LCS and site-specific MS/MSD data to draw bias conclusions. In cases where no site-specific MS/MSD was requested, only the LCS data can be used to evaluate such bias.

dir. Non-dir. flag (Non-Directional Bias) indicates that the Relative Percent Difference (RPD) (a measure of precision) among the MS and MSD data is outside the laboratory or regulatory control limit. This alerts the data user where the MS and MSD are from site-specific samples that the RPD is high due to either non-homogeneous distribution of target analyte between the MS/MSD or indicates poor reproducibility for other reasons.

If EPA SW-846 method 8270 is included herein it is noted that the target compound N-nitrosodiphenylamine (NDPA) decomposes in the gas chromatographic inlet and cannot be separated from diphenylamine (DPA). These results could actually represent 100% DPA, 100% NDPA or some combination of the two. For this reason, York reports the combined result for n-nitrosodiphenylamine and diphenylamine for either of these compounds as a combined concentration as Diphenylamine.

If Total PCBs are detected and the target aroclors reported are "Not detected", the Total PCB value is reported due to the presence of either or both Aroclors 1262 and 1268 which are non-target aroclors for some regulatory lists.

2-chloroethyl(vinyl) ether readily breaks down under acidic conditions. Samples that are acid preserved, including standards will exhibit breakdown. The data user should take note.

Certification for pH is no longer offered by NYDOH ELAP.

Semi-Volatile and Volatile analyses are reported down to the MDL, with values between the MDL and the RL being "J" flagged as estimated results.

Field Chain-of-Custody Record

NOTE: York's Std. Terms & Conditions are listed on the back side of this document. The following serves as your written authorization to York to proceed with the analysis requested and sign a separate form when the Std. Terms & Conditions are not supported by a separate contract.

YOUR Information	Report To: BIDWELL ENVIRONMENTAL 1353 KINGS HIGHWAY SUGAR LAKE NY 10981 845-610-3773	Invoice To: SAME	YOUR Project ID SOUTH BRONX MARINE TRANSFER STATION Purchase Order No.	Turn-Around Time RUSH - Same Day RUSH - Next Day RUSH - Two Day RUSH - Three Day RUSH - Four Day Standard (5-7 Days)	Report Type/Deliverables Summary Report Summary with Data CERT. Packages CV ASP Packages CV ASP Reports Lab. Fee/Package LDD ASP Package Etc.
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Sample Info: Sample No. 12/5/12 Sample Name: SBMTS-LD-1 Sample Matrix: O-WOOD	Client Info: Client Name: BIDWELL ENVIRONMENTAL Client Address: 1353 Kings Highway, Sugar Lake, NY 10981 Client Phone: 845-610-3773	Analysis Info: Analysis: PCBs, Metals, TCLP Metals Standards: EPA 8160, EPA 8210, EPA 8215, EPA 8220, EPA 8230, EPA 8240, EPA 8260, EPA 8270, EPA 8280, EPA 8290, EPA 8310, EPA 8330, EPA 8340, EPA 8350, EPA 8360, EPA 8370, EPA 8380, EPA 8390, EPA 8410, EPA 8430, EPA 8450, EPA 8470, EPA 8490, EPA 8510, EPA 8530, EPA 8550, EPA 8570, EPA 8590, EPA 8610, EPA 8630, EPA 8650, EPA 8670, EPA 8690, EPA 8710, EPA 8730, EPA 8750, EPA 8770, EPA 8790, EPA 8810, EPA 8830, EPA 8850, EPA 8870, EPA 8890, EPA 8910, EPA 8930, EPA 8950, EPA 8970, EPA 8990, EPA 9010, EPA 9030, EPA 9050, EPA 9070, EPA 9090, EPA 9110, EPA 9130, EPA 9150, EPA 9170, EPA 9190, EPA 9210, EPA 9230, EPA 9250, EPA 9270, EPA 9290, EPA 9310, EPA 9330, EPA 9350, EPA 9370, EPA 9390, EPA 9410, EPA 9430, EPA 9450, EPA 9470, EPA 9490, EPA 9510, EPA 9530, EPA 9550, EPA 9570, EPA 9590, EPA 9610, EPA 9630, EPA 9650, EPA 9670, EPA 9690, EPA 9710, EPA 9730, EPA 9750, EPA 9770, EPA 9790, EPA 9810, EPA 9830, EPA 9850, EPA 9870, EPA 9890, EPA 9910, EPA 9930, EPA 9950, EPA 9970, EPA 9990	Special ASBESTOS Field Based Lab at Lab
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Sample Identification SBMTS-LD-1	Date Sampled 12/5/12	Sample Matrix O-WOOD	Choose Analyses Needed from the Menu Above and Enter Below TCLP METALS + TOTAL PCBs	Temperature on Receipt 38.0
Signatures				Temperature on Receipt
Samples Collected/Authorized By (Signature): <i>M. Wellock</i> Name (printed): M. WELLOCK				Temperature on Receipt
Samples Relinquished By (Signature): <i>M. Wellock</i> Date/Time: 12/5/12				Samples Received By (Signature): <i>Place</i> Date/Time: 12-5-12
Samples Relinquished By (Signature): _____ Date/Time: _____				Samples Received in LAB By (Signature): _____ Date/Time: _____

YORK

ANALYTICAL LABORATORIES, INC.

Technical Report

prepared for:

Bidwell Environmental, LLC
1353 Kings Highway / P.O. Box 266
Sugar Loaf NY, 10981
Attention: M. Wellock

Report Date: 12/13/2012

Client Project ID: South Bronx Marine Transfer Station
York Project (SDG) No.: 12L0180

CT License No. PH-0723

New Jersey License No. CT-005



New York License No. 10854

PA License No. 68-04440

RESEARCH DRIVE

STRATFORD, CT 08615

(203) 325-1371

FAX (203) 357-0166

Report Date: 12/13/2012
Client Project ID: South Bronx Marine Transfer Station
York Project (SDG) No.: 12L0180

Bidwell Environmental, LLC
1353 Kings Highway / P.O. Box 266
Sugar Loaf NY, 10981
Attention: M. Wellock

Purpose and Results

This report contains the analytical data for the sample(s) identified on the attached chain-of-custody received in our laboratory on December 05, 2012 and listed below. The project was identified as your project: **South Bronx Marine Transfer Station**.

The analyses were conducted utilizing appropriate EPA, Standard Methods, and ASTM methods as detailed in the data summary tables.

All samples were received in proper condition meeting the customary acceptance requirements for environmental samples except those indicated under the Notes section of this report.

All analyses met the method and laboratory standard operating procedure requirements except as indicated by any data flags, the meaning of which are explained in the attachment to this report, and case narrative if applicable.

The results of the analyses, which are all reported on dry weight basis (soils) unless otherwise noted, are detailed in the following pages.

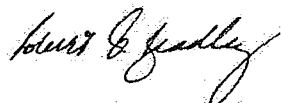
Please contact Client Services at 203.325.1371 with any questions regarding this report.

<u>York Sample ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Date Collected</u>	<u>Date Received</u>
12L0180-01	SBMTS-WD-1	Solid	12/05/2012	12/05/2012

General Notes for York Project (SDG) No.: 12L0180

1. The RLs and MDLs (Reporting Limit and Method Detection Limit respectively) reported are adjusted for any dilution necessary due to the levels of target and/or non-target analytes and matrix interference. The RL(REPORTING LIMIT) is based upon the lowest standard utilized for the calibration where applicable.
2. Samples are retained for a period of thirty days after submittal of report, unless other arrangements are made.
3. York's liability for the above data is limited to the dollar value paid to York for the referenced project.
4. This report shall not be reproduced without the written approval of York Analytical Laboratories, Inc.
5. All samples were received in proper condition for analysis with proper documentation, unless otherwise noted.
6. All analyses conducted met method or Laboratory SOP requirements. See the Qualifiers and/or Narrative sections for further information.
7. It is noted that no analyses reported herein were subcontracted to another laboratory, unless noted in the report.
8. This report reflects results that relate only to the samples submitted on the attached chain-of-custody form(s) received by York.

Approved By:



Robert Q. Bradley
Laboratory Director

Date: 12/13/2012

YORK

YORK

ANALYTICAL LABORATORIES, INC.
1000 FORTY-FIFTH AVENUE, SUITE 200, NEW YORK, NY 10018

Sample Information

Client Sample ID: SBMTS-WD-1

York Sample ID: 12L0180-01

York Project (SDG) No.

12L0180

Client Project ID

South Bronx Marine Transfer Station

Matrix

Solid

Collection Date/Time

December 5, 2012 12:00 am

Date Received

12/05/2012

Volatile Organics, TCL (Target Compound List)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5035B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
71-55-6	1,1,1-Trichloroethane	ND		ug/kg dry	310	620	100	EPA SW846-8260B	12/11/2012 12:46	12/11/2012 21:01	SS
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/kg dry	310	620	100	EPA SW846-8260B	12/11/2012 12:46	12/11/2012 21:01	SS
76-13-1	1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/kg dry	310	620	100	EPA SW846-8260B	12/11/2012 12:46	12/11/2012 21:01	SS
79-00-5	1,1,2-Trichloroethane	ND		ug/kg dry	310	620	100	EPA SW846-8260B	12/11/2012 12:46	12/11/2012 21:01	SS
75-34-3	1,1-Dichloroethane	ND		ug/kg dry	310	620	100	EPA SW846-8260B	12/11/2012 12:46	12/11/2012 21:01	SS
75-35-4	1,1-Dichloroethylene	ND		ug/kg dry	310	620	100	EPA SW846-8260B	12/11/2012 12:46	12/11/2012 21:01	SS
120-82-1	1,2,4-Trichlorobenzene	ND		ug/kg dry	310	1200	100	EPA SW846-8260B	12/11/2012 12:46	12/11/2012 21:01	SS
95-63-6	1,2,4-Trimethylbenzene	ND		ug/kg dry	310	620	100	EPA SW846-8260B	12/11/2012 12:46	12/11/2012 21:01	SS
96-12-8	1,2-Dibromo-3-chloropropane	ND		ug/kg dry	310	1200	100	EPA SW846-8260B	12/11/2012 12:46	12/11/2012 21:01	SS
106-93-4	1,2-Dibromoethane	ND		ug/kg dry	310	620	100	EPA SW846-8260B	12/11/2012 12:46	12/11/2012 21:01	SS
107-06-2	1,2-Dichloroethane	ND		ug/kg dry	310	620	100	EPA SW846-8260B	12/11/2012 12:46	12/11/2012 21:01	SS
78-87-5	1,2-Dichloropropane	ND		ug/kg dry	310	620	100	EPA SW846-8260B	12/11/2012 12:46	12/11/2012 21:01	SS
78-95-3	1,3,5-Trimethylbenzene	1300		ug/kg dry	310	620	100	EPA SW846-8260B	12/11/2012 12:46	12/11/2012 21:01	SS
591-78-6	2-Butanone	ND		ug/kg dry	310	1200	100	EPA SW846-8260B	12/11/2012 12:46	12/11/2012 21:01	SS
591-78-6	2-Hexanone	ND		ug/kg dry	310	1200	100	EPA SW846-8260B	12/11/2012 12:46	12/11/2012 21:01	SS
108-10-1	4-Methyl-2-pentanone	ND		ug/kg dry	310	620	100	EPA SW846-8260B	12/11/2012 12:46	12/11/2012 21:01	SS
67-64-1	Acetone	340	J, B	ug/kg dry	310	1200	100	EPA SW846-8260B	12/11/2012 12:46	12/11/2012 21:01	SS
71-43-2	Benzene	ND		ug/kg dry	310	620	100	EPA SW846-8260B	12/11/2012 12:46	12/11/2012 21:01	SS
75-27-4	Bromodichloromethane	ND		ug/kg dry	310	620	100	EPA SW846-8260B	12/11/2012 12:46	12/11/2012 21:01	SS
75-25-2	Bromoform	ND		ug/kg dry	310	620	100	EPA SW846-8260B	12/11/2012 12:46	12/11/2012 21:01	SS
74-83-9	Bromomethane	ND		ug/kg dry	310	620	100	EPA SW846-8260B	12/11/2012 12:46	12/11/2012 21:01	SS
75-15-0	Carbon disulfide	ND		ug/kg dry	310	620	100	EPA SW846-8260B	12/11/2012 12:46	12/11/2012 21:01	SS
56-73-5	Carbon tetrachloride	ND		ug/kg dry	310	620	100	EPA SW846-8260B	12/11/2012 12:46	12/11/2012 21:01	SS
108-90-7	Chlorobenzene	ND		ug/kg dry	310	620	100	EPA SW846-8260B	12/11/2012 12:46	12/11/2012 21:01	SS
75-00-3	Chloroethane	ND		ug/kg dry	310	620	100	EPA SW846-8260B	12/11/2012 12:46	12/11/2012 21:01	SS
67-66-3	Chloroform	ND		ug/kg dry	310	620	100	EPA SW846-8260B	12/11/2012 12:46	12/11/2012 21:01	SS
74-87-3	Chloromethane	ND		ug/kg dry	310	620	100	EPA SW846-8260B	12/11/2012 12:46	12/11/2012 21:01	SS
156-59-2	cis-1,2-Dichloroethylene	ND		ug/kg dry	310	620	100	EPA SW846-8260B	12/11/2012 12:46	12/11/2012 21:01	SS
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/kg dry	310	620	100	EPA SW846-8260B	12/11/2012 12:46	12/11/2012 21:01	SS
124-48-1	Dibromochloromethane	ND		ug/kg dry	310	620	100	EPA SW846-8260B	12/11/2012 12:46	12/11/2012 21:01	SS
75-71-8	Dichlorodifluoromethane	ND		ug/kg dry	310	620	100	EPA SW846-8260B	12/11/2012 12:46	12/11/2012 21:01	SS
100-41-4	Ethyl Benzene	ND		ug/kg dry	310	620	100	EPA SW846-8260B	12/11/2012 12:46	12/11/2012 21:01	SS
16	Methyl tert-butyl ether (MTBE)	ND		ug/kg dry	310	620	100	EPA SW846-8260B	12/11/2012 12:46	12/11/2012 21:01	SS

YORK

ANALYTICAL LABORATORIES, INC.

Sample Information

Client Sample ID: SBMTS-WD-1

York Sample ID: 12L0180-01

York Project (SDG) No.
12L0180

Client Project ID
South Bronx Marine Transfer Station

Matrix
Solid

Collection Date/Time
December 5, 2012 12:00 am

Date Received
12/05/2012

Volatile Organics, TCL (Target Compound List)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5035B

CAS No.	Parameter	Result	Flag	Units	MDL	RI	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
75-09-2	Methylene chloride	ND		ug/kg dry	310	1200	100	EPA SW846-8260B	12/11/2012 12:46	12/11/2012 21:01	SS
91-20-3	Naphthalene	ND		ug/kg dry	310	1200	100	EPA SW846-8260B	12/11/2012 12:46	12/11/2012 21:01	SS
104-51-8	n-Butylbenzene	ND		ug/kg dry	310	620	100	EPA SW846-8260B	12/11/2012 12:46	12/11/2012 21:01	SS
103-65-1	n-Propylbenzene	ND		ug/kg dry	310	620	100	EPA SW846-8260B	12/11/2012 12:46	12/11/2012 21:01	SS
95-47-6	o-Xylene	ND		ug/kg dry	310	620	100	EPA SW846-8260B	12/11/2012 12:46	12/11/2012 21:01	SS
1330-20-7P/M	p- & m- Xylenes	ND		ug/kg dry	310	1200	100	EPA SW846-8260B	12/11/2012 12:46	12/11/2012 21:01	SS
135-98-8	sec-Butylbenzene	ND		ug/kg dry	310	620	100	EPA SW846-8260B	12/11/2012 12:46	12/11/2012 21:01	SS
100-42-5	Styrene	ND		ug/kg dry	310	620	100	EPA SW846-8260B	12/11/2012 12:46	12/11/2012 21:01	SS
98-06-6	tert-Butylbenzene	ND		ug/kg dry	310	620	100	EPA SW846-8260B	12/11/2012 12:46	12/11/2012 21:01	SS
127-18-4	Tetrachloroethylene	ND		ug/kg dry	310	620	100	EPA SW846-8260B	12/11/2012 12:46	12/11/2012 21:01	SS
108-88-3	Toluene	ND		ug/kg dry	310	620	100	EPA SW846-8260B	12/11/2012 12:46	12/11/2012 21:01	SS
156-50-5	trans-1,2-Dichloroethylene	ND		ug/kg dry	310	620	100	EPA SW846-8260B	12/11/2012 12:46	12/11/2012 21:01	SS
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/kg dry	310	620	100	EPA SW846-8260B	12/11/2012 12:46	12/11/2012 21:01	SS
79-01-6	Trichloroethylene	ND		ug/kg dry	310	620	100	EPA SW846-8260B	12/11/2012 12:46	12/11/2012 21:01	SS
75-69-4	Trichlorofluoromethane	ND		ug/kg dry	310	620	100	EPA SW846-8260B	12/11/2012 12:46	12/11/2012 21:01	SS
75-01-4	Vinyl Chloride	ND		ug/kg dry	310	620	100	EPA SW846-8260B	12/11/2012 12:46	12/11/2012 21:01	SS
1330-20-7	Xylenes, Total	ND		ug/kg dry	310	1900	100	EPA SW846-8260B	12/11/2012 12:46	12/11/2012 21:01	SS
Surrogate Recoveries		Result			Acceptance Range						
17060-07-0	Surrogate: 1,2-Dichloroethane-d4	96.6%			73-130						
460-00-4	Surrogate: p-Bromofluorobenzene	99.8%			72-127						
2037-26-5	Surrogate: Toluene-d8	101%			84-117						

Semi-Volatiles, EPA TCL List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550B

CAS No.	Parameter	Result	Flag	Units	MDL	RI	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
83-32-9	Acenaphthene	ND		ug/kg dry	45000	124000	200	EPA SW846-8270C	12/07/2012 06:49	12/13/2012 16:35	SR
208-96-8	Acenaphthylene	ND		ug/kg dry	59700	124000	200	EPA SW846-8270C	12/07/2012 06:49	12/13/2012 16:35	SR
120-12-7	Anthracene	ND		ug/kg dry	67900	124000	200	EPA SW846-8270C	12/07/2012 06:49	12/13/2012 16:35	SR
56-55-3	Benzo(a)anthracene	ND		ug/kg dry	46500	124000	200	EPA SW846-8270C	12/07/2012 06:49	12/13/2012 16:35	SR
50-52-8	Benzo(a)pyrene	ND		ug/kg dry	49300	124000	200	EPA SW846-8270C	12/07/2012 06:49	12/13/2012 16:35	SR
65-85-0	Benzoic acid	ND		ug/kg dry	85100	249000	200	EPA SW846-8270C	12/07/2012 06:49	12/13/2012 16:35	SR
205-99-2	Benzo(b)fluoranthene	ND		ug/kg dry	104000	124000	200	EPA SW846-8270C	12/07/2012 06:49	12/13/2012 16:35	SR
191-24-2	Benzo(g,h,i)perylene	ND		ug/kg dry	41300	124000	200	EPA SW846-8270C	12/07/2012 06:49	12/13/2012 16:35	SR
100-51-6	Benzyl alcohol	ND		ug/kg dry	124000	124000	200	EPA SW846-8270C	12/07/2012 06:49	12/13/2012 16:35	SR
207-08-9	Benzo(k)fluoranthene	ND		ug/kg dry	124000	124000	200	EPA SW846-8270C	12/07/2012 06:49	12/13/2012 16:35	SR

YORK

ANALYTICAL LABORATORIES, INC.

Sample Information

Client Sample ID: SBMTS-WD-1

York Sample ID: 12L0180-01

York Project (SDG) No.
12L0180

Client Project ID
South Bronx Marine Transfer Station

Matrix
Solid

Collection Date/Time
December 5, 2012 12:00 am

Date Received
12/05/2012

Semi-Volatiles, EPA TCL List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
85-68-7	Benzyl butyl phthalate	ND		ug/kg dry	68700	124000	200	EPA SW846-8270C	12/07/2012 06:49	12/13/2012 16:35	SR
101-55-3	4-Bromophenyl phenyl ether	ND		ug/kg dry	60000	124000	200	EPA SW846-8270C	12/07/2012 06:49	12/13/2012 16:35	SR
59-50-7	4-Chloro-3-methylphenol	ND		ug/kg dry	83800	124000	200	EPA SW846-8270C	12/07/2012 06:49	12/13/2012 16:35	SR
106-47-8	4-Chloroaniline	ND		ug/kg dry	32300	124000	200	EPA SW846-8270C	12/07/2012 06:49	12/13/2012 16:35	SR
111-91-1	Bis(2-chloroethoxy)methane	ND		ug/kg dry	42800	124000	200	EPA SW846-8270C	12/07/2012 06:49	12/13/2012 16:35	SR
111-44-4	Bis(2-chloroethyl)ether	ND		ug/kg dry	63400	124000	200	EPA SW846-8270C	12/07/2012 06:49	12/13/2012 16:35	SR
108-60-1	Bis(2-chloroisopropyl)ether	ND		ug/kg dry	43800	124000	200	EPA SW846-8270C	12/07/2012 06:49	12/13/2012 16:35	SR
117-81-7	Bis(2-ethylhexyl)phthalate	ND		ug/kg dry	85800	124000	200	EPA SW846-8270C	12/07/2012 06:49	12/13/2012 16:35	SR
91-58-7	2-Chloronaphthalene	ND		ug/kg dry	67200	124000	200	EPA SW846-8270C	12/07/2012 06:49	12/13/2012 16:35	SR
95-57-8	2-Chlorophenol	ND		ug/kg dry	41000	124000	200	EPA SW846-8270C	12/07/2012 06:49	12/13/2012 16:35	SR
7005-72-3	4-Chlorophenyl phenyl ether	ND		ug/kg dry	72900	124000	200	EPA SW846-8270C	12/07/2012 06:49	12/13/2012 16:35	SR
218-01-9	Chrysene	ND		ug/kg dry	57200	124000	200	EPA SW846-8270C	12/07/2012 06:49	12/13/2012 16:35	SR
5	Dibenzo(a,h)anthracene	ND		ug/kg dry	50000	124000	200	EPA SW846-8270C	12/07/2012 06:49	12/13/2012 16:35	SR
17	Dibenzofuran	ND		ug/kg dry	58000	124000	200	EPA SW846-8270C	12/07/2012 06:49	12/13/2012 16:35	SR
84-74-2	Di-n-butyl phthalate	ND		ug/kg dry	50500	124000	200	EPA SW846-8270C	12/07/2012 06:49	12/13/2012 16:35	SR
95-50-1	1,2-Dichlorobenzene	ND		ug/kg dry	81300	124000	200	EPA SW846-8270C	12/07/2012 06:49	12/13/2012 16:35	SR
106-46-7	1,4-Dichlorobenzene	ND		ug/kg dry	76600	124000	200	EPA SW846-8270C	12/07/2012 06:49	12/13/2012 16:35	SR
541-73-1	1,3-Dichlorobenzene	ND		ug/kg dry	39300	124000	200	EPA SW846-8270C	12/07/2012 06:49	12/13/2012 16:35	SR
91-94-1	3,3'-Dichlorobenzidine	ND		ug/kg dry	65200	124000	200	EPA SW846-8270C	12/07/2012 06:49	12/13/2012 16:35	SR
120-83-2	2,4-Dichlorophenol	ND		ug/kg dry	101000	124000	200	EPA SW846-8270C	12/07/2012 06:49	12/13/2012 16:35	SR
84-66-2	Diethyl phthalate	ND		ug/kg dry	78100	124000	200	EPA SW846-8270C	12/07/2012 06:49	12/13/2012 16:35	SR
105-67-9	2,4-Dimethylphenol	ND		ug/kg dry	87100	124000	200	EPA SW846-8270C	12/07/2012 06:49	12/13/2012 16:35	SR
131-11-3	Dimethyl phthalate	ND		ug/kg dry	55500	124000	200	EPA SW846-8270C	12/07/2012 06:49	12/13/2012 16:35	SR
534-52-1	4,6-Dinitro-2-methylphenol	ND		ug/kg dry	157000	249000	200	EPA SW846-8270C	12/07/2012 06:49	12/13/2012 16:35	SR
88-74-4	2-Nitroaniline	ND		ug/kg dry	108000	124000	200	EPA SW846-8270C	12/07/2012 06:49	12/13/2012 16:35	SR
51-28-5	2,4-Dinitrophenol	ND		ug/kg dry	104000	249000	200	EPA SW846-8270C	12/07/2012 06:49	12/13/2012 16:35	SR
606-20-2	2,6-Dinitrotoluene	ND		ug/kg dry	63900	124000	200	EPA SW846-8270C	12/07/2012 06:49	12/13/2012 16:35	SR
121-14-2	2,4-Dinitrotoluene	ND		ug/kg dry	55600	124000	200	EPA SW846-8270C	12/07/2012 06:49	12/13/2012 16:35	SR
117-84-0	Di-n-octyl phthalate	ND		ug/kg dry	124000	124000	200	EPA SW846-8270C	12/07/2012 06:49	12/13/2012 16:35	SR
206-44-0	Fluoranthene	ND		ug/kg dry	72900	124000	200	EPA SW846-8270C	12/07/2012 06:49	12/13/2012 16:35	SR
86-75-7	Fluorene	ND		ug/kg dry	59700	124000	200	EPA SW846-8270C	12/07/2012 06:49	12/13/2012 16:35	SR
118-74-1	Hexachlorobenzene	ND		ug/kg dry	73400	124000	200	EPA SW846-8270C	12/07/2012 06:49	12/13/2012 16:35	SR
87	Hexachlorobutadiene	ND		ug/kg dry	42000	124000	200	EPA SW846-8270C	12/07/2012 06:49	12/13/2012 16:35	SR
77	Hexachlorocyclopentadiene	ND		ug/kg dry	92500	124000	200	EPA SW846-8270C	12/07/2012 06:49	12/13/2012 16:35	SR

YORK

ANALYTICAL LABORATORIES, INC.

Sample Information

Client Sample ID: SBMTS-WD-1

York Sample ID: 12L0180-01

York Project (SDG) No.
12L0180

Client Project ID
South Bronx Marine Transfer Station

Matrix
Solid

Collection Date/Time
December 5, 2012 12:00 am

Date Received
12/05/2012

Semi-Volatiles, EPA TCL List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
67-72-1	Hexachloroethane	ND		ug/kg dry	35600	124000	200	EPA SW846-8270C	12/07/2012 06:49	12/13/2012 16:35	SR
193-39-5	Indeno(1,2,3-cd)pyrene	ND		ug/kg dry	56700	124000	200	EPA SW846-8270C	12/07/2012 06:49	12/13/2012 16:35	SR
78-59-1	Isophorone	ND		ug/kg dry	42800	124000	200	EPA SW846-8270C	12/07/2012 06:49	12/13/2012 16:35	SR
91-57-6	2-Methylnaphthalene	ND		ug/kg dry	95500	124000	200	EPA SW846-8270C	12/07/2012 06:49	12/13/2012 16:35	SR
95-48-7	2-Methylphenol	ND		ug/kg dry	47300	124000	200	EPA SW846-8270C	12/07/2012 06:49	12/13/2012 16:35	SR
100-01-6	3- & 4-Methylphenols	ND		ug/kg dry	54000	124000	200	EPA SW846-8270C	12/07/2012 06:49	12/13/2012 16:35	SR
91-20-3	Naphthalene	ND		ug/kg dry	30600	124000	200	EPA SW846-8270C	12/07/2012 06:49	12/13/2012 16:35	SR
99-09-2	3-Nitroaniline	ND		ug/kg dry	124000	124000	200	EPA SW846-8270C	12/07/2012 06:49	12/13/2012 16:35	SR
100-01-6	4-Nitroaniline	ND		ug/kg dry	51500	124000	200	EPA SW846-8270C	12/07/2012 06:49	12/13/2012 16:35	SR
98-95-3	Nitrobenzene	ND		ug/kg dry	36600	124000	200	EPA SW846-8270C	12/07/2012 06:49	12/13/2012 16:35	SR
100-02-7	4-Nitrophenol	ND		ug/kg dry	46800	124000	200	EPA SW846-8270C	12/07/2012 06:49	12/13/2012 16:35	SR
88-75-5	2-Nitrophenol	ND		ug/kg dry	33800	124000	200	EPA SW846-8270C	12/07/2012 06:49	12/13/2012 16:35	SR
621-64-7	N-nitroso-di-n-propylamine	ND		ug/kg dry	41500	124000	200	EPA SW846-8270C	12/07/2012 06:49	12/13/2012 16:35	SR
86-30-6	N-Nitrosodiphenylamine	ND		ug/kg dry	56200	124000	200	EPA SW846-8270C	12/07/2012 06:49	12/13/2012 16:35	SR
87-86-5	Pentachlorophenol	1900000	E	ug/kg dry	93800	124000	200	EPA SW846-8270C	12/07/2012 06:49	12/13/2012 16:35	SR
85-01-8	Phenanthrene	ND		ug/kg dry	64900	124000	200	EPA SW846-8270C	12/07/2012 06:49	12/13/2012 16:35	SR
108-95-2	Fluorene	ND		ug/kg dry	53700	124000	200	EPA SW846-8270C	12/07/2012 06:49	12/13/2012 16:35	SR
129-00-0	Pyrene	ND		ug/kg dry	50700	124000	200	EPA SW846-8270C	12/07/2012 06:49	12/13/2012 16:35	SR
120-82-1	1,2,4-Trichlorobenzene	ND		ug/kg dry	45000	124000	200	EPA SW846-8270C	12/07/2012 06:49	12/13/2012 16:35	SR
95-95-4	2,4,5-Trichlorophenol	ND		ug/kg dry	96500	124000	200	EPA SW846-8270C	12/07/2012 06:49	12/13/2012 16:35	SR
88-06-2	2,4,6-Trichlorophenol	ND		ug/kg dry	63200	124000	200	EPA SW846-8270C	12/07/2012 06:49	12/13/2012 16:35	SR

Surrogate Recoveries

Result

Acceptance Range

5175-83-7	Surrogate: 2,4,6-Tribromophenol	%	S-06	15-110
321-60-8	Surrogate: 2-Fluorobiphenyl	56.0 %	S-06	30-130
367-12-4	Surrogate: 2-Fluorophenol	32.0 %	S-06	15-110
4165-60-0	Surrogate: Nitrobenzene-d5	48.0 %	S-06	30-130
4165-62-2	Surrogate: Phenol-d5	45.3 %	S-06	15-110
1718-51-0	Surrogate: Terphenyl-d14	80.0 %	S-06	30-130

Semi-Volatiles, TCLP RCRA Target List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3510C

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
106-46-7	1,4-Dichlorobenzene	ND		ug/L	702	1590	20	EPA SW846-8270C/1311	12/13/2012 07:35	12/13/2012 14:55	SR
95-95-4	2,4,5-Trichlorophenol	ND		ug/L	606	1590	20	EPA SW846-8270C/1311	12/13/2012 07:35	12/13/2012 14:55	SR
88-06-2	2,4,6-Trichlorophenol	ND		ug/L	556	1590	20	EPA SW846-8270C/1311	12/13/2012 07:35	12/13/2012 14:55	SR
121-14-7	2,4-Dinitrotoluene	ND		ug/L	511	1590	20	EPA SW846-8270C/1311	12/13/2012 07:35	12/13/2012 14:55	SR

YORK

ANALYTICAL LABORATORIES, INC.
 120 RESEARCH DRIVE
 STRATFORD, CT 06615

Sample Information

Client Sample ID: SBMTS-WD-1

York Sample ID: 12L0180-01

York Project (SDG) No:
12L0180

Client Project ID:
South Bronx Marine Transfer Station

Matrix:
Solid

Collection Date/Time:
December 5, 2012 12:00 am

Date Received:
12/05/2012

Semi-Volatiles, TCLP RCRA Target List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3510C

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
95-48-7	2-Methylphenol	ND		ug/L	368	1590	20	EPA SW846-8270C/1311	12/13/2012 07:35	12/13/2012 14:53	SR
100-01-6	3- & 4-Methylphenols	ND		ug/L	356	1590	20	EPA SW846-8270C/1311	12/13/2012 07:35	12/13/2012 14:53	SR
1319-77-3	Cresols, total	ND		ug/L	368	1590	20	EPA SW846-8270C/1311	12/13/2012 07:35	12/13/2012 14:53	SR
118-74-1	Hexachlorobenzene	ND		ug/L	403	1590	20	EPA SW846-8270C/1311	12/13/2012 07:35	12/13/2012 14:53	SR
87-68-3	Hexachlorobutadiene	ND		ug/L	886	1590	20	EPA SW846-8270C/1311	12/13/2012 07:35	12/13/2012 14:53	SR
67-72-1	Hexachloroethane	ND		ug/L	965	1590	20	EPA SW846-8270C/1311	12/13/2012 07:35	12/13/2012 14:53	SR
98-95-3	Nitrobenzene	ND		ug/L	537	1590	20	EPA SW846-8270C/1311	12/13/2012 07:35	12/13/2012 14:53	SR
87-86-5	Pentachlorophenol	2430		ug/L	460	1590	20	EPA SW846-8270C/1311	12/13/2012 07:35	12/13/2012 14:53	SR
110-86-1	Pyridine	ND		ug/L	1240	1590	20	EPA SW846-8270C/1311	12/13/2012 07:35	12/13/2012 14:53	SR
Surrogate Recoveries		Result			Acceptance Range						
367-12-4	Surrogate: 2-Fluorophenol	10.9%	S-06		15-110						
4165-62-2	Surrogate: Phenol-d5	11.5%	S-06		10-110						
5175-83-7	Surrogate: 2,4,6-Tribromophenol	42.7%	S-06		15-110						
321-85-0	Surrogate: 2-Fluorobiphenyl	56.0%	S-06		30-130						
1718-51-0	Surrogate: Nitrobenzene-d5	37.1%	S-06		30-130						
	Surrogate: Terphenyl-d14	83.2%	S-06		30-130						

Pesticides, EPA TCL List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
8001-35-2	Toxaphene	ND	Rep-04	ug/kg dry	6230	6230	100	EPA SW 846-8081	12/07/2012 06:46	12/12/2012 10:08	JW
72-43-5	Methoxychlor	ND	Rep-04	ug/kg dry	616	616	100	EPA SW 846-8081	12/07/2012 06:46	12/12/2012 10:08	JW
1024-57-3	Heptachlor epoxide	ND	Rep-04	ug/kg dry	123	123	100	EPA SW 846-8081	12/07/2012 06:46	12/12/2012 10:08	JW
76-44-8	Heptachlor	ND	Rep-04	ug/kg dry	123	123	100	EPA SW 846-8081	12/07/2012 06:46	12/12/2012 10:08	JW
58-89-9	gamma-BHC (Lindane)	ND	Rep-04	ug/kg dry	123	123	100	EPA SW 846-8081	12/07/2012 06:46	12/12/2012 10:08	JW
53494-70-5	Endrin ketone	ND	Rep-04	ug/kg dry	123	123	100	EPA SW 846-8081	12/07/2012 06:46	12/12/2012 10:08	JW
7421-93-4	Endrin aldehyde	ND	Rep-04	ug/kg dry	123	123	100	EPA SW 846-8081	12/07/2012 06:46	12/12/2012 10:08	JW
72-20-8	Endrin	ND	Rep-04	ug/kg dry	123	123	100	EPA SW 846-8081	12/07/2012 06:46	12/12/2012 10:08	JW
1031-07-8	Endosulfan sulfate	ND	Rep-04	ug/kg dry	123	123	100	EPA SW 846-8081	12/07/2012 06:46	12/12/2012 10:08	JW
33213-65-9	Endosulfan II	ND	Rep-04	ug/kg dry	123	123	100	EPA SW 846-8081	12/07/2012 06:46	12/12/2012 10:08	JW
959-98-8	Endosulfan I	ND	Rep-04	ug/kg dry	123	123	100	EPA SW 846-8081	12/07/2012 06:46	12/12/2012 10:08	JW
60-57-1	Dieldrin	ND	Rep-04	ug/kg dry	123	123	100	EPA SW 846-8081	12/07/2012 06:46	12/12/2012 10:08	JW
319-86-8	delta-BHC	ND	Rep-04	ug/kg dry	123	123	100	EPA SW 846-8081	12/07/2012 06:46	12/12/2012 10:08	JW
57-74-9	Chlordane, total	ND	Rep-04	ug/kg dry	493	493	100	EPA SW 846-8081	12/07/2012 06:46	12/12/2012 10:08	JW
319-85-7	beta-BHC	ND	Rep-04	ug/kg dry	123	123	100	EPA SW 846-8081	12/07/2012 06:46	12/12/2012 10:08	JW
319-85-7	alpha-BHC	ND	Rep-04	ug/kg dry	123	123	100	EPA SW 846-8081	12/07/2012 06:46	12/12/2012 10:08	JW

YORK

ANALYTICAL LABORATORIES, INC.

Sample Information

Client Sample ID: SBMTS-WD-1

York Sample ID: 12L0180-01

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

12L0180

South Bronx Marine Transfer Station

Solid

December 5, 2012 12:00 am

12/05/2012

Pesticides, EPA TCL List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
309-00-2	Aldrin	ND	Rep-04	ug/kg dry	123	123	100	EPA SW 846-8081	12/07/2012 06:46	12/12/2012 10:08	JW
50-29-3	4,4'-DDT	ND	Rep-04	ug/kg dry	123	123	100	EPA SW 846-8081	12/07/2012 06:46	12/12/2012 10:08	JW
72-55-9	4,4'-DDE	ND	Rep-04	ug/kg dry	123	123	100	EPA SW 846-8081	12/07/2012 06:46	12/12/2012 10:08	JW
72-54-8	4,4'-DDD	ND	Rep-04	ug/kg dry	123	123	100	EPA SW 846-8081	12/07/2012 06:46	12/12/2012 10:08	JW
Surrogate Recoveries		Result			Acceptance Range						
877-09-8	Surrogate: Tetrachloro-m-xylene	%	Rep-04		30-150						
			S-01								
2051-24-3	Surrogate: Decachlorobiphenyl	%	Rep-04		30-150						
			S-01								

Herbicides, Target List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550B/8151A

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
94-75-7	2,4-D	ND	Rep-04	ug/kg dry	12400	12400	100	EPA SW846-8151B	12/07/2012 08:40	12/10/2012 15:43	JW
95-72-1	2,4,5-TP (Silvex)	ND	Rep-04	ug/kg dry	12400	12400	100	EPA SW846-8151B	12/07/2012 08:40	12/10/2012 15:43	JW
93-76-5	2,4,5-T	ND	Rep-04	ug/kg dry	12400	12400	100	EPA SW846-8151B	12/07/2012 08:40	12/10/2012 15:43	JW
Surrogate Recoveries		Result			Acceptance Range						
19719-28-9	Surrogate: 2,4-Dichlorophenoxyacetic acid	%	Rep-04		5.5-148						
			S-01								

TCLP Extraction for SVOCs/PEST/HERB

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA SW 846-1311 TCLP extr. for SVOC/PEST/HERBS

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
	TCLP Extraction	Completed		N/A	1.00	1.00	1	EPA SW-846 1311	12/12/2012 14:30	12/13/2012 08:44	AA

Total Solids

Log-in Notes:

Sample Notes:

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	% Solids	80.4		%	0.100	0.100	1	SM 2540G	12/05/2012 17:37	12/05/2012 17:37	AA

YORK

ANALYTICAL LABORATORIES, INC.
120 RESEARCH DRIVE
STRATFORD, CT 06615

Analytical Batch Summary

Batch ID: BL20249 Preparation Method: % Solids Prep Prepared By: AA

YORK Sample ID	Client Sample ID	Preparation Date
12L0180-01	SBMTS-WD-1	12/06/12

Batch ID: BL20253 Preparation Method: EPA 3550B Prepared By: TFD

YORK Sample ID	Client Sample ID	Preparation Date
12L0180-01	SBMTS-WD-1	12/07/12

Batch ID: BL20255 Preparation Method: EPA 3550B Prepared By: CM

YORK Sample ID	Client Sample ID	Preparation Date
12L0180-01	SBMTS-WD-1	12/07/12
BL20255-BLK1	Blank	12/07/12
BL20255-BS1	LCS	12/07/12

Batch ID: BL20268 Preparation Method: EPA 3550B/8151A Prepared By: TFD

YORK Sample ID	Client Sample ID	Preparation Date
12L0180-01	SBMTS-WD-1	12/07/12
268-BLK1	Blank	12/07/12
268-BS1	LCS	12/07/12

Batch ID: BL20417 Preparation Method: EPA 5035B Prepared By: EKM

YORK Sample ID	Client Sample ID	Preparation Date
12L0180-01	SBMTS-WD-1	12/11/12
BL20417-BLK1	Blank	12/11/12
BL20417-BS1	LCS	12/11/12
BL20417-BSD1	LCS Dup	12/11/12

Batch ID: BL20487 Preparation Method: EPA SW 846-1311 TCLP extr. for SVI Prepared By: JCC

YORK Sample ID	Client Sample ID	Preparation Date
12L0180-01	SBMTS-WD-1	12/12/12
BL20487-BLK1	Blank	12/12/12

Batch ID: BL20507 Preparation Method: EPA 3510C Prepared By: KAM

YORK Sample ID	Client Sample ID	Preparation Date
12L0180-01	SBMTS-WD-1	12/13/12

YORK

ANALYTICAL LABORATORIES, INC.

Volatile Organic Compounds by EPA SW846-8260B - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BL20417 - EPA 5035B										
Blank (BL20417-BLK1)										
Prepared & Analyzed: 12/11/2012										
1,1,1-Trichloroethane	ND	5.0	ug/kg wet							
1,1,2,2-Tetrachloroethane	ND	5.0	"							
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	5.0	"							
1,1,2-Trichloroethane	ND	5.0	"							
1,1-Dichloroethane	ND	5.0	"							
1,1-Dichloroethylene	ND	5.0	"							
1,2,4-Trichlorobenzene	ND	10	"							
1,2,4-Trimethylbenzene	ND	5.0	"							
1,2-Dibromo-3-chloropropane	ND	10	"							
1,2-Dibromoethane	ND	5.0	"							
1,2-Dichloroethane	ND	5.0	"							
1,2-Dichloropropane	ND	5.0	"							
1,3,5-Trimethylbenzene	ND	5.0	"							
2-Butanone	ND	10	"							
2-Hexanone	ND	10	"							
4-Methyl-2-pentanone	ND	5.0	"							
Acetone	6.7	10	"							
Benzene	ND	5.0	"							
Bromodichloromethane	ND	5.0	"							
Bromoform	ND	5.0	"							
Bromomethane	ND	5.0	"							
Carbon disulfide	ND	5.0	"							
Carbon tetrachloride	ND	5.0	"							
Chlorobenzene	ND	5.0	"							
Chloroethane	ND	5.0	"							
Chloroform	ND	5.0	"							
Chloromethane	ND	5.0	"							
cis-1,2-Dichloroethylene	ND	5.0	"							
cis-1,3-Dichloropropylene	ND	5.0	"							
Dibromochloromethane	ND	5.0	"							
Dichlorodifluoromethane	ND	5.0	"							
Ethyl Benzene	ND	5.0	"							
Methyl tert-butyl ether (MTBE)	ND	5.0	"							
Methylene chloride	6.5	10	"							
Naphthalene	ND	10	"							
n-Butylbenzene	ND	5.0	"							
n-Propylbenzene	ND	5.0	"							
o-Xylene	ND	5.0	"							
p- & m- Xylenes	ND	10	"							
sec-Butylbenzene	ND	5.0	"							
Styrene	ND	5.0	"							
tert-Butylbenzene	ND	5.0	"							
Tetrachloroethylene	ND	5.0	"							
Toluene	ND	5.0	"							
trans-1,2-Dichloroethylene	ND	5.0	"							
trans-1,3-Dichloropropylene	ND	5.0	"							
Trichloroethylene	ND	5.0	"							
Trichlorofluoromethane	ND	5.0	"							
Vinyl Chloride	ND	5.0	"							
Xylenes, Total	ND	15	"							
Surrogate: 1,2-Dichloroethane-d4	51.8		ng/L	50.0		104		73-130		
Surrogate: p-Bromofluorobenzene	48.0		"	50.0		96.1		72-127		
Surrogate: Toluene-d8	49.4		"	50.0		98.8		84-117		

YORK

ANALYTICAL LABORATORIES, INC.

Volatile Organic Compounds by EPA SW846-8260B - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting		Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	
		Limit	Units						Limit	Flag
Batch BL20417 - EPA 5035B										
LCS (BL20417-BS1)						Prepared & Analyzed: 12/11/2012				
1,1,1-Trichloroethane	47		ug/L	50.0		94.6	77-131			
1,1,2,2-Tetrachloroethane	50		"	50.0		99.0	68-129			
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	52		"	50.0		104	75-143			
1,1,2-Trichloroethane	48		"	50.0		96.1	72-128			
1,1-Dichloroethane	50		"	50.0		99.7	78-133			
1,1-Dichloroethylene	48		"	50.0		95.2	71-142			
1,2,4-Trichlorobenzene	46		"	50.0		92.7	59-133			
1,2,4-Trimethylbenzene	49		"	50.0		97.2	68-128			
1,2-Dibromo-3-chloropropane	45		"	50.0		89.9	58-145			
1,2-Dibromoethane	49		"	50.0		98.6	73-128			
1,2-Dichloroethane	51		"	50.0		101	78-131			
1,2-Dichloropropane	51		"	50.0		101	72-129			
1,3,5-Trimethylbenzene	50		"	50.0		100	67-125			
2-Butanone	48		"	50.0		95.5	49-138			
2-Hexanone	47		"	50.0		93.7	52-137			
4-Methyl-2-pentanone	33		"	50.0		66.3	56-130			
Acetone	32		"	50.0		64.5	21-131			
Benzene	44		"	50.0		88.2	81-125			
Bromodichloromethane	52		"	50.0		104	73-131			
Bromoform	46		"	50.0		91.1	66-137			
Bromomethane	41		"	50.0		81.9	55-144			
Carbon disulfide	87		"	100		87.2	59-145			
Carbon tetrachloride	48		"	50.0		95.8	74-137			
Chlorobenzene	48		"	50.0		96.7	75-127			
Chloroethane	43		"	50.0		86.8	65-138			
Chloroform	49		"	50.0		98.7	82-128			
Chloromethane	41		"	50.0		82.7	51-138			
cis-1,2-Dichloroethylene	46		"	50.0		92.8	77-130			
cis-1,3-Dichloropropylene	51		"	50.0		101	68-123			
Dibromochloromethane	49		"	50.0		98.9	73-136			
Dichlorodifluoromethane	46		"	50.0		92.8	10-183			
Ethyl Benzene	49		"	50.0		98.0	75-130			
Methyl tert-butyl ether (MTBE)	50		"	50.0		99.1	76-136			
Methylene chloride	46		"	50.0		91.3	55-143			
Naphthalene	45		"	50.0		89.2	65-140			
n-Butylbenzene	50		"	50.0		100	63-123			
n-Propylbenzene	76		"	50.0		153	65-127	High Bias		
o-Xylene	49		"	50.0		98.1	71-123			
p- & m- Xylenes	99		"	100		99.0	72-127			
sec-Butylbenzene	51		"	50.0		101	69-125			
Styrene	49		"	50.0		97.2	74-127			
tert-Butylbenzene	48		"	50.0		96.5	59-164			
Tetrachloroethylene	49		"	50.0		98.2	65-151			
Toluene	48		"	50.0		95.3	72-127			
trans-1,2-Dichloroethylene	48		"	50.0		95.0	73-137			
trans-1,3-Dichloropropylene	51		"	50.0		103	67-131			
Trichloroethylene	63		"	50.0		127	73-129			
Trichlorofluoromethane	47		"	50.0		93.3	69-136			
Vinyl Chloride	43		"	50.0		86.7	58-132			
Surrogate: 1,2-Dichloroethane-d4	50.7		"	50.0		101	73-130			
Surrogate: p-Bromofluorobenzene	49.0		"	50.0		98.1	72-127			
Surrogate: Toluene-d8	49.9		"	50.0		99.7	84-117			

YORK

ANALYTICAL LABORATORIES, INC.

Volatile Organic Compounds by EPA SW846-8260B - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	
									RPD	Limit
Batch BL20417 - EPA 5035B										
LCS Dup (BL20417-BSD1)						Prepared & Analyzed: 12/11/2012				
1,1,1-Trichloroethane	52		ug/L	50.0		105	77-131		10.4	30
1,1,2,2-Tetrachloroethane	52		"	50.0		103	68-129		4.12	30
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	57		"	50.0		115	75-143		9.55	30
1,1,2-Trichloroethane	54		"	50.0		107	72-128		11.2	30
1,1-Dichloroethane	54		"	50.0		108	78-133		7.77	30
1,1-Dichloroethylene	53		"	50.0		106	71-142		10.5	30
1,2,4-Trichlorobenzene	49		"	50.0		98.4	59-133		5.95	30
1,2,4-Trimethylbenzene	50		"	50.0		100	68-128		2.86	30
1,2-Dibromo-3-chloropropane	56		"	50.0		112	58-145		21.7	30
1,2-Dibromoethane	55		"	50.0		110	73-128		10.8	30
1,2-Dichloroethane	54		"	50.0		109	78-131		7.26	30
1,2-Dichloropropane	57		"	50.0		114	72-129		11.3	30
1,3,5-Trimethylbenzene	51		"	50.0		103	67-125		2.62	30
2-Butanone	49		"	50.0		98.8	49-138		3.40	30
2-Hexanone	52		"	50.0		104	52-137		10.4	30
4-Methyl-2-pentanone	38		"	50.0		75.2	56-130		12.5	30
Acetone	46		"	50.0		91.4	21-131		34.5	30 Non-dir.
Benzene	49		"	50.0		97.7	81-125		10.2	30
Bromodichloromethane	57		"	50.0		114	73-131		8.76	30
Bromoform	47		"	50.0		95.0	66-137		4.21	30
Bromomethane	47		"	50.0		93.6	55-144		13.3	30
Carbon disulfide	100		"	100		101	59-145		14.6	30
Carbon tetrachloride	53		"	50.0		106	74-137		9.72	30
Chlorobenzene	52		"	50.0		103	75-127		6.68	30
Chloroethane	48		"	50.0		96.8	65-138		10.9	30
Chloroform	53		"	50.0		106	82-128		7.54	30
Chloromethane	48		"	50.0		96.0	51-138		14.9	30
cis-1,2-Dichloroethylene	51		"	50.0		101	77-130		8.78	30
cis-1,3-Dichloropropylene	54		"	50.0		108	68-123		6.18	30
Dibromochloromethane	54		"	50.0		107	73-136		7.93	30
Dichlorodifluoromethane	70		"	50.0		140	10-185		40.6	30 Non-dir.
Ethyl Benzene	53		"	50.0		106	75-130		7.58	30
Methyl tert-butyl ether (MTBE)	55		"	50.0		111	76-136		11.3	30
Methylene chloride	64		"	50.0		128	55-143		33.7	30 Non-dir.
Naphthalene	49		"	50.0		98.0	65-140		9.32	30
n-Butylbenzene	53		"	50.0		106	63-123		5.99	30
n-Propylbenzene	76		"	50.0		152	65-127	High Bias	0.669	30
o-Xylene	53		"	50.0		106	71-123		7.71	30
p- & m- Xylenes	110		"	100		107	72-127		8.02	30
sec-Butylbenzene	50		"	50.0		101	69-125		0.337	30
Styrene	53		"	50.0		106	74-127		8.87	30
tert-Butylbenzene	50		"	50.0		101	59-164		4.06	30
Tetrachloroethylene	52		"	50.0		103	65-151		4.96	30
Toluene	51		"	50.0		101	72-127		6.10	30
trans-1,2-Dichloroethylene	55		"	50.0		111	73-137		15.1	30
trans-1,3-Dichloropropylene	55		"	50.0		110	67-131		6.54	30
Trichloroethylene	64		"	50.0		127	73-129		0.346	30
Trichlorofluoromethane	54		"	50.0		107	69-136		14.0	30
Vinyl Chloride	52		"	50.0		103	58-132		17.3	30
<i>Surrogate: 1,2-Dichloroethane-d4</i>	53.9		"	50.0		108	73-130			
<i>Surrogate: p-Bromofluorobenzene</i>	47.7		"	50.0		95.3	72-127			
<i>Surrogate: Toluene-d8</i>	50.8		"	50.0		102	84-117			

YORK

ANALYTICAL LABORATORIES, INC.

Organochlorine Pesticides by EPA SW 846-8081 - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting	Units	Spike	Source*	%REC	Flag	RPD	Limit	Flag
		Limit		Level	Result	Limit		RPD		
Batch BL20255 - EPA 3550B										
Blank (BL20255-BLK1) Prepared: 12/07/2012 Analyzed: 12/10/2012										
Toxaphene	ND	16.7	ug/kg wet							
Methoxychlor	ND	1.65	"							
Heptachlor epoxide	ND	0.330	"							
Heptachlor	ND	0.330	"							
gamma-BHC (Lindane)	ND	0.330	"							
Endrin ketone	ND	0.330	"							
Endrin aldehyde	ND	0.330	"							
Endrin	ND	0.330	"							
Endosulfan sulfate	ND	0.330	"							
Endosulfan II	ND	0.330	"							
Endosulfan I	ND	0.330	"							
Dieldrin	ND	0.330	"							
delta-BHC	ND	0.330	"							
Chlordane, total	ND	1.32	"							
beta-BHC	ND	0.330	"							
alpha-BHC	ND	0.330	"							
Aldrin	ND	0.330	"							
4,4'-DDT	ND	0.330	"							
4,4'-DDE	ND	0.330	"							
4,4'-DDD	ND	0.330	"							
Surrogate: Tetrachloro-m-xylene	36.4		"	67.0		54.3			30-150	
Surrogate: Decachlorobiphenyl	26.0		"	67.0		38.9			30-150	
Blank (BL20255-BS1) Prepared: 12/07/2012 Analyzed: 12/10/2012										
Methoxychlor	19.5	1.65	ug/kg wet	33.3		58.6			40-140	
Heptachlor epoxide	19.8	0.330	"	33.3		59.4			40-140	
Heptachlor	15.9	0.330	"	33.3		47.8			40-140	
gamma-BHC (Lindane)	17.7	0.330	"	33.3		53.0			40-140	
Endrin ketone	23.6	0.330	"	33.3		70.8			40-140	
Endrin aldehyde	22.1	0.330	"	33.3		66.4			40-140	
Endrin	20.5	0.330	"	33.3		61.5			40-140	
Endosulfan sulfate	22.2	0.330	"	33.3		66.7			40-140	
Endosulfan II	22.5	0.330	"	33.3		67.6			40-140	
Endosulfan I	20.5	0.330	"	33.3		61.6			40-140	
Dieldrin	20.9	0.330	"	33.3		62.8			40-140	
delta-BHC	21.0	0.330	"	33.3		63.1			40-140	
beta-BHC	17.4	0.330	"	33.3		52.1			40-140	
alpha-BHC	17.7	0.330	"	33.3		53.1			40-140	
Aldrin	19.6	0.330	"	33.3		58.9			40-140	
4,4'-DDT	20.5	0.330	"	33.3		61.5			40-140	
4,4'-DDE	19.0	0.330	"	33.3		57.1			40-140	
4,4'-DDD	20.5	0.330	"	33.3		61.4			40-140	
Surrogate: Tetrachloro-m-xylene	33.4		"	67.0		49.8			30-150	
Surrogate: Decachlorobiphenyl	20.3		"	67.0		30.3			30-150	

YORK

ANALYTICAL LABORATORIES, INC.

Chlorinated Herbicides by EPA Method 8151 - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BL20268 - EPA 3550B/8151A

Blank (BL20268-BLK1) Prepared: 12/07/2012 Analyzed: 12/10/2012

2,4-D	ND	100	ug/kg wet								
2,4,5-TP (Silvex)	ND	100	"								
2,4,5-T	ND	100	"								
Surrogate: 2,4-Dichlorophenylacetic acid (DCAA)	2580		"	2500		103	5.5-148				

LCS (BL20268-BS1) Prepared: 12/07/2012 Analyzed: 12/10/2012

2,4-D	620	100	ug/kg wet	800		77.5	50.8-135				
2,4,5-TP (Silvex)	715	100	"	800		89.4	45.1-134				
2,4,5-T	685	100	"	800		85.6	52.3-142				
Surrogate: 2,4-Dichlorophenylacetic acid (DCAA)	2320		"	2500		93.0	5.5-148				

YORK

ANALYTICAL LABORATORIES, INC.

Miscellaneous Physical/Conventional Chemistry Parameters - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BL20487 - EPA SW 846-1311 TCLP extr. for SVOA/PEST/HERBS

Blank (BL20487-BLK1)

Prepared: 12/12/2012 Analyzed: 12/13/2012

TCLP Extraction	ND	1.00	N/A								
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YORK

ANALYTICAL LABORATORIES, INC.
120 RESEARCH DRIVE
STRATFORD, CT 06615

Volatile Analysis Sample Containers

Lab ID	Client Sample ID	Volatile Sample Container
12L0180-01	SBMTS-WD-1	4 oz. WM Clear Glass Cool to 4° C

Notes and Definitions

- S-06 The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interferences.
- S-01 The surrogate recovery for this sample may not be available due to sample dilution required from high analyte concentration and/or matrix interferences.
- Rep-04 The sample was diluted due to the presence of high levels of non-target analytes resulting in elevated reporting limits.
- QL-02 This LCS analyte is outside Laboratory Recovery limits due the analyte behavior using the referenced method. The reference method has certain limitations with respect to analytes of this nature.
- J Detected below the Reporting Limit but greater than or equal to the Method Detection Limit (MDL); therefore, the result is an estimated concentration.
- EXT-COMP Completed
- E The concentration indicated for this analyte is an estimated value above the calibration range of the instrument. This value is considered an estimate.
- B Analyte is found in the associated analysis batch blank. For volatiles, methylene chloride and acetone are common lab contaminants. Data users should consider anything <10x the blank value as artifact.
-
- ND Analyte NOT DETECTED at the stated Reporting Limit (RL) or above.
- RL REPORTING LIMIT - the minimum reportable value based upon the lowest point in the analyte calibration curve.
- MDL METHOD DETECTION LIMIT - the minimum concentration that can be measured and reported with a 99% confidence that the concentration is greater than zero. If requested or required, a value reported below the RL and above the MDL is considered estimated and is noted with a "J" flag.
- NR Not reported
- RPD Relative Percent Difference
- Wet The data has been reported on an as-received (wet weight) basis.
- Low Bias Low Bias flag indicates that the recovery of the flagged analyte is below the laboratory or regulatory lower control limit. The data user should take note that this analyte may be biased low but should evaluate multiple lines of evidence including the LCS and site-specific MS/MSD data to draw bias conclusions. In cases where no site-specific MS/MSD was requested, only the LCS data can be used to evaluate such bias.
- High Bias High Bias flag indicates that the recovery of the flagged analyte is above the laboratory or regulatory upper control limit. The data user should take note that this analyte may be biased high but should evaluate multiple lines of evidence including the LCS and site-specific MS/MSD data to draw bias conclusions. In cases where no site-specific MS/MSD was requested, only the LCS data can be used to evaluate such bias.
- Non-Dir. Non-dir. flag (Non-Directional Bias) indicates that the Relative Percent Difference (RPD) (a measure of precision) among the MS and MSD data is outside the laboratory or regulatory control limit. This alerts the data user where the MS and MSD are from site-specific samples that the RPD is high due to either non-homogeneous distribution of target analyte between the MS/MSD or indicates poor reproducibility for other reasons.

If EPA SW-846 method 8270 is included herein it is noted that the target compound N-nitrosodiphenylamine (NDPA) decomposes in the gas chromatographic inlet and cannot be separated from diphenylamine (DPA). These results could actually represent 100% DPA, 100% NDPA or some combination of the two. For this reason, York reports the combined result for n-nitrosodiphenylamine and diphenylamine for either of these compounds as a combined concentration as Diphenylamine.

If Total PCBs are detected and the target aroclors reported are "Not detected", the Total PCB value is reported due to the presence of either or both Aroclors 1262 and 1268 which are non-target aroclors for some regulatory lists.

2-chloroethylvinyl ether readily breaks down under acidic conditions. Samples that are acid preserved, including standards will exhibit breakdown. The data user should take note.

YORK

ANALYTICAL LABORATORIES, INC.

Confirmation for pH is no longer offered by NYDOH ELAP.

-Volatile and Volatile analyses are reported down to the MDL, with values between the MDL and the RL being "J" flagged as estimated results.

YORK

Field Chain-of-Custody Record

Page 12/20/80

York Project No. 10000000

YOUR Information
 BIDWELL ENVIRONMENTAL
 1353 KINGS HIGHWAY
 SUGARLOAF, NY 10961
 845-610-3813

Report To:
 SAME

Invoice To:
 SAME

YOUR Project ID:
 SOUTH BEAUX MARINE TRANSFER STATION

Turn-Around Time:
 12/11/80

Report Type/Deliveries:
 X

Purchase Order No.:
 [Faint]

BIDWELL ENVIRONMENTAL, COA

Please Study and Legible. All Information must be complete. Samples will NOT be logged in until the turn-around time check will not begin until any questions by York are resolved.

M. Wellock
M. WELLOCK

Sample Identification	Date Sampled	Sample Matrix	Class, Analysis, Method from the Method Sheet, and Other Details	Temperature on Receipt
SEATS-WD-1	12/5/82	C-WOOD	TCLP METALS + TOTAL PCBs 4-9oz jar	12-5-82

Comments:
 HOLD SAMPLES PENDING-
 DECISION TO MAKE DO TCLP ANALYSIS

Signature: [Signature]
Date: 12/5/82

Attachment D

Niche Analysis Data Packages



NICHE ANALYSIS, INC.

BULK SAMPLE ANALYSIS REPORT

BIDWELL ENVIRONMENTAL, LLC.
 1353 KINGS HIGHWAY
 P.O. BOX 266
 SUGAR LOAF, NY 10981
 PHONE (845) 610-3993; FAX (845) 610-3996
 SITE PHONE (212) 831-7550; FAX (212) 831-7599

NICHE FILE: 12-14437-1

Page 1 of 4

PROJECT NAME	South Bronx Marine Transfer Station	PROJECT MANAGER	Ellen Metzger
FLOOR	Ramp & Tipping Floor	INSPECTOR	Kevin Pavese
LOCATION	Various	DATE SAMPLED	11-15-17-12
PROJECT ADDRESS	Bronx, NY	DATE RECEIVED	11-27-12
		DATE ANALYZED	11-29-12

Sample No.	Type of Material	Appearance	Sample Location	Asbestos Content And Percent	Non-Asbestos Fiber Content And Percent	Non Fibrous
ASB-03	Black Pipe Wrapping	Dark Brown	Ramp B/ Black Pipe Wrapping	ND	40% Mineral Filler	40% Other
ASB-04	Black Pipe Wrapping	Dark Brown	Ramp B/ Black Pipe Wrapping	ND	60% Mineral Filler	40% Other
ASB-05	White Pipe Gasket	Gray	Ramp B/ White Gasket On Pipe	80% Chrysotile	ND	20% Other
ASB-06	White Pipe Gasket	Gray	Ramp B/ White Gasket on Pipe	80% Chrysotile	ND	20% Other
ASB-07	Fibrous Insulation	Dark Brown	Ramp B/ Pipe Insulation	ND	95% Hair	5% Other
ASB-08	Fibrous Insulation	Dark Brown	Ramp B/ Pipe Insulation	ND	90% Hair	10% Other
ASB-15	White String Sealant	White	Ramp B/ Pipe	ND	95% Cellulose	5% Other
ASB-16	White String Sealant	White-Brown	Ramp B/ Pipe	ND	90% Cellulose	5% Gypsum 5% Other
ASB-19	White Rope Gasket	Light Gray	Ramp/ Electrical Panel	100% Chrysotile	ND	ND
ASB-20	White Rope Gasket	Light Gray	Ramp/ Electrical Panel	100% Chrysotile	ND	ND
ASB-23	White Paper Covered Wire	Gray-White	Ramp A/ Electrical Panel	19.1% Chrysotile	70% Cellulose	10.9% Other
ASB-24	White Paper Covered Wire	Gray-White	Ramp A/ Electrical Panel	22.2% Chrysotile	65% Cellulose	12.8% Other

Note 1: The balance of each sample is non-fibrous particulates. Please contact us promptly if you have any question about these results. Analysis was performed by using "Point Count Technique" as required and recommended by the New York State Department of Health and USEPA Interim Method for "Identification of Asbestos Fibers in Bulk Samples". This report must not be used by the client to claim product endorsement by NYS or any agency of the US government. This report relates only to the items listed. NICHE's liability not to exceed the invoice amount.
 *Polarized light microscopy is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials. Quantitative transmission electron microscopy is currently the only method that can be used to determine if the material can be considered or treated as non-asbestos-containing.
Note 2: NOB samples were prepared and analyzed in accordance with ELAP 198.6 by NICHE's sub-lab, ATC Associates, Inc. an ELAP approved lab (ELAP #10879).

SAMPLE ANALYSIS BY	POLARIZED LIGHT MICROSCOPY - DISPERSION STAINING (PLM-DS)
METHOD OF SAMPLE PREPARATION & ANALYSIS	ALL SAMPLES WERE PREPARED AND ANALYZED IN ACCORDANCE WITH THE NYSDOH ELAP "POLARIZED-LIGHT MICROSCOPE METHODS FOR IDENTIFYING AND QUANTITATING ASBESTOS IN BULK SAMPLES" ELAP ITEM 198.1, 04/14/10
INSTRUMENT	OLYMPUS POLARIZED LIGHT MICROSCOPY, MODEL BH-2

ND = NONE DETECTED
 ELAP#: 11236

BING LIANG
 Laboratory Director/Contact Person

Approved Signatory



NICHE ANALYSIS, INC.

BULK SAMPLE ANALYSIS REPORT

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NICHE FILE: 12-14437-1

Page 2 of 4

PROJECT NAME	South Bronx Marine Transfer Station	PROJECT MANAGER	Ellen Metzger
FLOOR	Ramp & Tipping Floor	INSPECTOR	Kevin Pavese
LOCATION	Various	DATE SAMPLED	11-15-17-12
PROJECT ADDRESS	Bronx, NY	DATE RECEIVED	11-27-12
		DATE ANALYZED	11-29-12

Sample No.	Type Of Material	Appearance	Sample Location	Asbestos Content And Percent	Non-Asbestos Fiber Content And Percent	Non Fibrous
ASB-27	Black Expansion Sealant	Black	Ramp B/ Wall	ND	90% Cellulose	10% Other
ASB-28	Black Expansion Sealant	Black	Ramp B/ Wall	ND	90% Cellulose	10% Other
ASB-41	Wall Insulation	Brown	Ramp/ Weigh Booth	ND	95% Mineral Wool	5% Other
ASB-42	Wall Insulation	Brown	Ramp/ Weigh Booth	ND	90% Mineral Wool	10% Other
ASB-47	Mortar	Gray	Tipping Floor/ External Wall of Foreman's Office	ND	ND	100% Mineral Filler
ASB-48	Mortar	Gray	Tipping Floor/ External Wall of Foreman's Office	ND	ND	100% Mineral Filler
ASB-49	Ceramic Wall Tile	Beige	Tipping Floor/ External Wall of Meter Room	ND	ND	100% Ceramic
ASB-50	Ceramic Wall Tile	Beige	Tipping Floor/ External Wall of Meter Room	ND	ND	100% Ceramic
ASB-51	Firehose	Off White	Tipping Floor	ND	100% Synthetic	ND
ASB-52	Firehose	Off White	Tipping Floor	ND	100% Synthetic	ND
ASB-53	Sheetrock	Brown-White	Tipping Floor/ Wall Between Storage & Lunch Rooms	ND	10% Cellulose 5% Fiberglass	85% Gypsum
ASB-54	Sheetrock	Brown-White	Tipping Floor/ Wall Between Storage & Lunch Rooms	ND	15% Cellulose 5% Fiberglass	80% Gypsum

Note 1: The balance of each sample is non-fibrous particulates. Please contact us promptly if you have any question about these results. Analysis was performed by using "Point Count Technique" as required and recommended by the New York State Department of Health and USEPA Interim Method for "Identification of Asbestos Fibers in Bulk Samples". This report must not be used by the client to claim product endorsement by NVLAP or any agency of the US government. This report relates only to the items listed. NICHE's liability not to exceed the invoice amount.

*Polarized light microscopy is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials. Quantitative transmission electron microscopy is currently the only method that can be used to determine if the material can be considered or treated as non-asbestos-containing.

Note 2: NOB samples were prepared and analyzed in accordance with ELAP 198.6, by NICHE's sub-lab, ATC Associates, Inc. an ELAP approved lab (ELAP # 10875)

SAMPLE ANALYSIS BY	POLARIZED LIGHT MICROSCOPY - DISPERSION STAINING (PLM-DS)
METHOD OF SAMPLE PREPARATION & ANALYSIS	ALL SAMPLES WERE PREPARED AND ANALYZED IN ACCORDANCE WITH THE NYSDOH ELAP "POLARIZED-LIGHT MICROSCOPE METHODS FOR IDENTIFYING AND QUANTITATING ASBESTOS IN BULK SAMPLES" ELAP ITEM 198.1.04/14/10
INSTRUMENT	OLYMPUS POLARIZED LIGHT MICROSCOPY MODEL BH-2

ND = NONE DETECTED
 ELAP#: 11236

BING LIANG
 Laboratory Director/Contact Person

Approved Signatory



NICHE ANALYSIS, INC.

BULK SAMPLE ANALYSIS REPORT

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NICHE FILE: 12-14437-1

Page 3 of 4

PROJECT NAME	South Bronx Marine Transfer Station	PROJECT MANAGER	Eileen Metzger
FLOOR	Ramp & Tipping Floor	INSPECTOR	Kevin Pavese
LOCATION	Various	DATE SAMPLED	11-15-17-12
PROJECT ADDRESS	Bronx, NY	DATE RECEIVED	11-27-12
		DATE ANALYZED	11-29-12

Sample No.	Type Of Material	Appearance	Sample Location	Asbestos Content And Percent	Non-Asbestos Fiber Content And Percent	Non Fibrous
ASB-61	Paper Covering Sheetrock	White	Tipping Floor/ Lunch Room	ND	ND	100% Gypsum
ASB-62	Paper Covering Sheetrock	White	Tipping Floor/ Lunch Room	ND	ND	100% Gypsum
ASB-63	Orange Gasket	Mauve	Tipping Floor/ Storage Room	ND	80% Cellulose	20% Other
ASB-64	Orange Gasket	Mauve	Tipping Floor/ Storage Room	ND	80% Cellulose	20% Other
ASB-65	White Braided Wire	White-Brown Black	Tipping Floor/ Storage Room	ND	25% Cellulose 25% Fiberglass	50% Rubber
ASB-66	White Braided Wire	White-Brown Black	Tipping Floor/ Storage Room	ND	30% Cellulose 20% Cellulose	50% Rubber
ASB-67	Black Insulation Paper	Black	Tipping Floor/ Meter Room	ND	90% Cellulose	10% Organic Binder
ASB-68	Black Insulation Paper	Black	Tipping Floor/ Meter Room	ND	90% Cellulose	10% Organic Binder
ASB-69	Black Insulation Block	Black	Tipping Floor/ Switchboard Room	12.1% Chrysotile	ND	87.9% Mineral Filler
ASB-70	Black Insulation Block	Black	Tipping Floor/ Switchboard Room	14.3% Chrysotile	ND	85.7% Mineral Filler
ASB-71	Black Insulation Block	Black	Tipping Floor/ Switchboard Room	ND	20% Cellulose	80% Other

Note 1: The balance of each sample is non-fibrous particulates. Please contact us promptly if you have any question about these results. Analysis was performed by using "Point Count Technique" as required and recommended by the New York State Department of Health and USEPA Interim Method for "Identification of Asbestos Fibers in Bulk Samples". This report must not be used by the client to claim product endorsement by NYS/DOH or any agency of the US government. This report relates only to the items listed. NICHE's liability not to exceed the invoice amount.

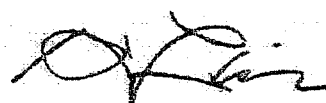
*Polarized light microscopy is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials. Quantitative transmission electron microscopy is currently the only method that can be used to determine if the material can be considered or treated as non-asbestos-containing.

Note 2: NOB samples were prepared and analyzed in accordance with ELAP 198.6, by NICHE's sub-lab, ATC Associates, Inc. an ELAP approved lab (ELAP # 10879)

SAMPLE ANALYSIS BY	POLARIZED LIGHT MICROSCOPY - DISPERSION STAINING (PLM-DS)
METHOD OF SAMPLE PREPARATION & ANALYSIS	ALL SAMPLES WERE PREPARED AND ANALYZED IN ACCORDANCE WITH THE NYS/DOH ELAP "POLARIZED-LIGHT MICROSCOPE METHODS FOR IDENTIFYING AND QUANTITATING ASBESTOS IN BULK SAMPLES" ELAP ITEM 198.1, 04/14/10
INSTRUMENT	OLYMPUS POLARIZED LIGHT MICROSCOPY MODEL 8H-2

ND = NONE DETECTED
 ELAP#: 11236

BING LIANG
 Laboratory Director/Contact Person


 Approved Signatory



BULK SAMPLE ANALYSIS REPORT

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NICHE FILE: 12-14437-1

PROJECT NAME	South Bronx Marine Transfer Station	PROJECT MANAGER	Ellen Metzger
FLOOR	Ramp & Tipping Floor	INSPECTOR	Kevin Pavese
LOCATION	Various	DATE SAMPLED	11-15-17-12
PROJECT ADDRESS	Bronx, NY	DATE RECEIVED	11-27-12
		DATE ANALYZED	11-29-12

Sample No.	Type Of Material	Appearance	Sample Location	Asbestos Content And Percent	Non-Asbestos Fiber Content And Percent	Non Fibrous
ASB-72	Black Insulation Block	Black	Tipping Floor/ Switchboard Room	ND	20% Cellulose	80% Other
ASB-77	Black Vibration Dampener	Black-White	Tipping Floor/ Fan Room # 2	ND	60% Fiberglass	40% Rubber
ASB-78	Black Vibration Dampener	Black-White	Tipping Floor/ Fan Room # 2	ND	60% Fiberglass	40% Rubber
ASB-79	White Vibration Dampener	White	Tipping Floor/ Fan Room # 2	80% Chrysotile	2% Cellulose	18% Other
ASB-80	White Vibration Dampener	White	Tipping Floor/ Fan Room # 2	80% Chrysotile	1% Cellulose	19% Other
ASB-81	Insulation Board	Mauve	Tipping Floor/ Foreman's Office	ND	95% Cellulose	5% Other
ASB-82	Insulation Board	Mauve	Tipping Floor/ Foreman's Office	ND	95% Cellulose	5% Other
ASB-85	White Braided Wire	Black	Tipping Floor/ Hallway	ND	40% Cellulose	60% Rubber
ASB-86	White Braided Wire	Black	Tipping Floor/ Hallway	ND	45% Cellulose	55% Rubber
ASB-87	Pipe Insulation	Gray-Brown	Tipping Floor/ Men's Toilet	9.9% Chrysotile	85% Cellulose	4.1% Other
ASB-88	Pipe Insulation	Brown	Tipping Floor/ Men's Toilet	Trace Chrysotile	95% Cellulose	5% Other
ASB-89	Pipe Insulation	Gray	Tipping Floor/ Men's Toilet Shower	50% Chrysotile	40% Cellulose	10% Other

Note 1: The balance of each sample is non-fibrous particulates. Please contact us promptly if you have any question about these results. Analysis was performed by using "Point Count Technique" as required and recommended by the New York State Department of Health and USEPA Intern Method for "Identification of Asbestos Fibers in Bulk Samples". This report must not be used by the client to claim product endorsement by NVLAP or any agency of the US government. This report relates only to the items listed. NICHE's liability not to exceed the invoice amount.

*Polarized light microscopy is not consistently reliable in detecting asbestos in floor coverings and similar non-fragile organically bound materials. Quantitative transmission electron microscopy is currently the only method that can be used to determine if the material can be considered or treated as non-asbestos-containing.

Note 2: NOB samples were prepared and analyzed in accordance with ELAP 198.6, by NICHE's sub-lab, ATC Associates, Inc. an ELAP approved lab (ELAP # 10879).

SAMPLE ANALYSIS BY:	POLARIZED LIGHT MICROSCOPY - DISPERSION STAINING (PLM-DS)
METHOD OF SAMPLE PREPARATION & ANALYSIS:	ALL SAMPLES WERE PREPARED AND ANALYZED IN ACCORDANCE WITH THE NYSDOH ELAP "POLARIZED-LIGHT MICROSCOPE METHODS FOR IDENTIFYING AND QUANTITATING ASBESTOS IN BULK SAMPLES" ELAP ITEM 198.1, 04/14/10.
INSTRUMENT:	OLYMPUS POLARIZED LIGHT MICROSCOPY, MODEL BH-2

ND = NONE DETECTED
 ELAP#: 11236

BING LIANG
 Laboratory Director/Contact Person

Approved Signatory



NICHE ANALYSIS, INC.

BULK SAMPLE ANALYSIS REPORT (NON-FRIABLE ORGANICALLY BOUND MATERIALS BY TEM VIA NYS ELAP 198.4)

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NICHE FILE: 12-14437-2

Page 1 of 8

PROJECT NAME	South Bronx Marine Transfer Station	PROJECT MANAGER	Ellen Metzger
FLOOR	Ramp & Tipping Floor	INSPECTOR	Kevin Pavese
LOCATION	Vairous	DATE SAMPLED	11-15 to 17-12
PROJECT ADDRESS	South Bronx Marine Transfer Station Bronx, NY	DATE RELINQUISHED	11-27-12
		DATE ANALYZED	12-04-12

Sample No.	Type Of Material	Appearance	Sample Location	Asbestos Content And Percent	Non-Asbestos Fiber Content And Percent	Gravimetric NOB Results
SBMTS ASB-1	Black Tar	Black	Black Tar on Pipe on RAMP B	ND	ND	54.4% Organic 14.3% Residue 31.3% Carbonate
SBMTS ASB-2	Black Tar	Black	Black Tar on Pipe on RAMP B	ND	ND	46.8% Organic 12.2% Residue 41.0% Carbonate
SBMTS ASB-9	Insulation Paper Wrapping	NA	Pipe Insulation Paper on RAMP B	ND	ND	87.8% Organic 2.5% Residue 9.7% Carbonate
SBMTS ASB-10	Insulation Paper Wrapping	NA	Pipe Insulation Paper on RAMP B	ND	ND	87.2% Organic 2.8% Residue 10.0% Carbonate
SBMTS ASB-11	Orange Gasket	Orange	Pipe on RAMP B	ND	ND	31.2% Organic 55.6% Residue 13.2% Carbonate
SBMTS ASB-12	Orange Gasket	Orange	Pipe on RAMP B	ND	ND	31.5% Organic 57.1% Residue 14.4% Carbonate
SBMTS ASB-13	Orange Pipe Sealant	Orange	Pipe on RAMP B	ND	ND	37.5% Organic 33.2% Residue 29.3% Carbonate
SBMTS ASB-14	Orange Pipe Sealant	Orange	Pipe on RAMP B	ND	ND	45.9% Organic 18.9% Residue 55.2% Carbonate

Note: All NOB samples were prepared and analyzed in accordance with NYS DOH ELAP methods 198.6 and 198.4 via Transmission Electron Microscopy (TEM) by NICHE's sub-lab, ATC Associates, Inc., an ELAP approved lab (ELAP # 10879), and this report is generated with their permission and approval.

SAMPLE ANALYSIS BY:	TRANSMISSION ELECTRON MICROSCOPY (TEM)
METHOD OF SAMPLE PREPARATION & ANALYSIS	ALL SAMPLES WERE PREPARED AND ANALYZED IN ACCORDANCE WITH THE NYS DOH ELAP METHODS 198.6 "POLARIZED-LIGHT MICROSCOPE METHOD FOR IDENTIFYING AND QUANTITATING ASBESTOS IN NON-FRIABLE ORGANICALLY BOUND BULK SAMPLES" AND 198.4 "TRANSMISSION ELECTRON MICROSCOPE METHOD FOR IDENTIFYING AND QUANTITATING ASBESTOS IN NON-FRIABLE ORGANICALLY BOUND BULK SAMPLES"

ND = NONE DETECTED
NICHE ELAP#: 11236

ATC BATCH # 26372

BING LIANG
Laboratory Director/Contact Person

Approved Signatory



NICHE ANALYSIS, INC.

BULK SAMPLE ANALYSIS REPORT (NON-FRIABLE ORGANICALLY BOUND MATERIALS BY TEM VIA NYS ELAP 198.4)

BIDWELL ENVIRONMENTAL, LLC.
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NICHE FILE: 12-14437-2

Page 2 of 8

PROJECT NAME	South Bronx Marine Transfer Station	PROJECT MANAGER	Ellen Metzger
FLOOR	Ramp & Tipping Floor	INSPECTOR	Kevin Pavese
LOCATION	Vairous	DATE SAMPLED	11-15 to 17-12
PROJECT ADDRESS	South Bronx Marine Transfer Station Bronx, NY	DATE RELINQUISHED	11-27-12
		DATE ANALYZED	12-04-12

Sample No.	Type Of Material	Appearance	Sample Location	Asbestos Content And Percent	Non-Asbestos Fiber Content And Percent	Gravimetric NOB Results
SBMTS ASB-17	Orange & Black Panel	Orange-Black	RAMP B Electrical Panel	ND	ND	89.3% Organic 2.3% Residue 8.4% Carbonate
SBMTS ASB-18	Orange & Black Panel	Orange-Black	RAMP B Electrical Panel	ND	ND	88.0% Organic 1.8% Residue 10.2% Carbonate
SBMTS ASB-21	Black Wire	Black	Electrical Panel on RAMP A	ND	ND	69.1% Organic 13.8% Residue 17.1% Carbonate
SBMTS ASB-22	Black Wire	Black	Electrical Panel on RAMP A	ND	ND	69.8% Organic 17.1% Residue 13.1% Carbonate
SBMTS ASB-25	Black Tar	Black	RAMP B Wall	ND	ND	85.2% Organic 6.8% Residue 8.0% Carbonate
SBMTS ASB-26	Black Tar	Black	RAMP B Wall	ND	ND	83.9% Organic 7.8% Residue 8.3% Carbonate
SBMTS ASB-29	White Expansion Sealant	White	RAMP B Floor	ND	ND	80.2% Organic 4.2% Residue 15.6% Carbonate
SBMTS ASB-30	White Expansion Sealant	White	RAMP B Floor	ND	ND	81.9% Organic 4.9% Residue 13.7% Carbonate


Note: All NOB samples were prepared and analyzed in accordance with NYS DOH ELAP methods 198.6, and 198.4 via Transmission Electron Microscopy (TEM) by NICHE's sub-lab, ATC Associates, Inc., an ELAP approved lab (ELAP # 10878), and this report is generated with their permission and approval.

SAMPLE ANALYSIS BY:	TRANSMISSION ELECTRON MICROSCOPY (TEM)
METHOD OF SAMPLE PREPARATION & ANALYSIS	ALL SAMPLES WERE PREPARED AND ANALYZED IN ACCORDANCE WITH THE NYS DOH ELAP METHODS 198.6 "POLARIZED-LIGHT MICROSCOPE METHOD FOR IDENTIFYING AND QUANTITATING ASBESTOS IN NON-FRIABLE ORGANICALLY BOUND BULK SAMPLES", AND 198.4 "TRANSMISSION ELECTRON MICROSCOPE METHOD FOR IDENTIFYING AND QUANTITATING ASBESTOS IN NON-FRIABLE ORGANICALLY BOUND BULK SAMPLES"

ND = NONE DETECTED
NICHE ELAP#: 11236

ATC BATCH #: 21807

BING LIANG
Laboratory Director/Contact Person


Approved Signatory



NICHE ANALYSIS, INC.

BULK SAMPLE ANALYSIS REPORT

(NON-FRIABLE ORGANICALLY BOUND MATERIALS BY TEM VIA NYS ELAP 198.4)

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NICHE FILE: 12-14437-2

Page 3 of 8

PROJECT NAME	South Bronx Marine Transfer Station	PROJECT MANAGER	Ellen Metzger
FLOOR	Ramp & Tipping Floor	INSPECTOR	Kevin Pavese
LOCATION	Vairous	DATE SAMPLED	11-15 to 17-12
PROJECT ADDRESS	South Bronx Marine Transfer Station Bronx, NY	DATE RELINQUISHED	11-27-12
		DATE ANALYZED	12-04-12

Sample No.	Type Of Material	Appearance	Sample Location	Asbestos Content And Percent	Non-Asbestos Fiber Content And Percent	Gravimetric NOB Results
SBMTS ASB-31	Black Tar	Black	RAMP Floor	ND	ND	39.2% Organic 39.3% Residue 21.5% Carbonate
SBMTS ASB-32	Black Tar	Black	RAMP Floor	ND	ND	41.3% Organic 41.3% Residue 17.4% Carbonate
SBMTS ASB-33	Black Sealant	Black	RAMP Wall	3.3% Chrysotile	ND	67.3% Organic 13.3% Residue 16.1% Carbonate
SBMTS ASB-34	Black Sealant	Black	RAMP Wall	3.5% Chrysotile	ND	68.6% Organic 13.8% Residue 14.1% Carbonate
SBMTS ASB-35	White Caulk	White	Electrical Panel on RAMP	1.7% Chrysotile Trace Anthophyllite	ND	11.6% Organic 53.6% Residue 33.1% Carbonate
SBMTS ASB-36	White Caulk	White	Electrical Panel on RAMP	1.3% Chrysotile Trace Anthophyllite	ND	9.9% Organic 65.3% Residue 23.5% Carbonate
SBMTS ASB-37	Window Caulk	Gray	Weigh Booth	Trace Anthophyllite	ND	2.6% Organic 1.9% Residue 95.5% Carbonate
SBMTS ASB-38	Window Caulk	Gray	Weigh Booth	Trace Anthophyllite	ND	3.4% Organic 2.7% Residue 93.9% Carbonate

Note: All NOB samples were prepared and analyzed in accordance with NYS DOH ELAP methods 198.5 and 198.4 via Transmission Electron Microscopy (TEM) by NICHE's sub-lab, ATC Associates, Inc., an ELAP approved lab (ELAP # 10875), and this report is generated with their permission and approval.

SAMPLE ANALYSIS BY	TRANSMISSION ELECTRON MICROSCOPY (TEM)
METHOD OF SAMPLE PREPARATION & ANALYSIS	ALL SAMPLES WERE PREPARED AND ANALYZED IN ACCORDANCE WITH THE NYS DOH ELAP METHODS 198.6 "POLARIZED-LIGHT MICROSCOPE METHOD FOR IDENTIFYING AND QUANTITATING ASBESTOS IN NON-FRIABLE ORGANICALLY BOUND BULK SAMPLES" AND 198.4 "TRANSMISSION ELECTRON MICROSCOPE METHOD FOR IDENTIFYING AND QUANTITATING ASBESTOS IN NON-FRIABLE ORGANICALLY BOUND BULK SAMPLES"

ND = NONE DETECTED

ATC BATCH #: 25372

NICHE ELAP#: 11236

BING LIANG
 Laboratory Director/Contact Person

Approved Signatory



NICHE ANALYSIS, INC.

BULK SAMPLE ANALYSIS REPORT

(NON-FRIABLE ORGANICALLY BOUND MATERIALS BY TEM VIA NYS ELAP 198.4)

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NICHE FILE: 12-14437-2

Page 4 of 8

PROJECT NAME	South Bronx Marine Transfer Station	PROJECT MANAGER	Ellen Metzger
FLOOR	Ramp & Tipping Floor	INSPECTOR	Kevin Pavese
LOCATION	Vairous	DATE SAMPLED	11-15 to 17-12
PROJECT ADDRESS	South Bronx Marine Transfer Station Bronx, NY	DATE RELINQUISHED	11-27-12
		DATE ANALYZED	12-04-12

Sample No.	Type Of Material	Appearance	Sample Location	Asbestos Content And Percent	Non-Asbestos Fiber Content And Percent	Gravimetric NOB Results
SBMTS ASB-39	Window Glazing	Gray	Weigh Booth	Trace Anthophyllite	ND	9.2% Organic 2.5% Residue 88.3% Carbonate
SBMTS ASB-40	Window Glazing	Gray	Weigh Booth	Trace Anthophyllite	ND	8.7% Organic 2.5% Residue 88.8% Carbonate
SBMTS ASB-43	Window Glaze	Gray	External Windows on Forman's Office	Trace Anthophyllite	ND	6.5% Organic 4.8% Residue 86.7% Carbonate
SBMTS ASB-44	Window Glaze	Gray	External Windows on Forman's Office	Trace Anthophyllite	ND	8.7% Organic 2.8% Residue 88.5% Carbonate
SBMTS ASB-45	Window Glaze	Gray	External Wall of Forman's Office	Trace Anthophyllite	ND	6.4% Organic 1.2% Residue 92.4% Carbonate
SBMTS ASB-46	Window Glaze	Gray	External Wall of Forman's Office	Trace Anthophyllite	ND	9.0% Organic 1.5% Residue 89.5% Carbonate
SBMTS ASB-55	Door Caulk	Gray	Fan Room No. 1	3.9% Chrysotile	ND	33.3% Organic 35.3% Residue 27.5% Carbonate
SBMTS ASB-56	Door Caulk	Gray	Fan Room No. 1	3.9% Chrysotile	ND	34.7% Organic 35.1% Residue 26.3% Carbonate

Note: All NOB samples were prepared and analyzed in accordance with NYS DOH ELAP methods 198.6 and 198.4 via Transmission Electron Microscopy (TEM) by NICHE's sub-lab, ATC Associates Inc., an ELAP approved lab (ELAP # 10876), and this report is generated with their permission and approval.

SAMPLE ANALYSIS BY	TRANSMISSION ELECTRON MICROSCOPY (TEM)
METHOD OF SAMPLE PREPARATION & ANALYSIS	ALL SAMPLES WERE PREPARED AND ANALYZED IN ACCORDANCE WITH THE NYS DOH ELAP METHODS 198.6 "POLARIZED-LIGHT MICROSCOPE METHOD FOR IDENTIFYING AND QUANTITATING ASBESTOS IN NON-FRIABLE ORGANICALLY BOUND BULK SAMPLES", AND 198.4 "TRANSMISSION ELECTRON MICROSCOPE METHOD FOR IDENTIFYING AND QUANTITATING ASBESTOS IN NON-FRIABLE ORGANICALLY BOUND BULK SAMPLES"

ND = NONE DETECTED
NICHE ELAP#: 11236

ATC BATCH #: 25372

BING LIANG
Laboratory Director/Contact Person

Approved Signatory



NICHE ANALYSIS, INC.

BULK SAMPLE ANALYSIS REPORT (NON-FRIABLE ORGANICALLY BOUND MATERIALS BY TEM VIA NYS ELAP 198.4)

BIDWELL ENVIRONMENTAL, LLC.
1353 KINGS HIGHWAY
P.O. BOX 266
SUGAR LOAF, NY 10981
PHONE (845) 610-3993; FAX (845) 610-3996

NICHE FILE: 12-14437-2

Page 5 of 8

PROJECT NAME	South Bronx Marine Transfer Station	PROJECT MANAGER	Ellen Metzger
FLOOR	Ramp & Tipping Floor	INSPECTOR	Kevin Pavese
LOCATION	Vairous	DATE SAMPLED	11-15 to 17-12
PROJECT ADDRESS	South Bronx Marine Transfer Station Bronx, NY	DATE RELINQUISHED	11-27-12
		DATE ANALYZED	12-04-12

Sample No.	Type Of Material	Appearance	Sample Location	Asbestos Content And Percent	Non-Asbestos Fiber Content And Percent	Gravimetric NOB Results
SBMTS ASB-57	Caulk on Electrical Pipe	Gray	RAMP A	ND	ND	44.1% Organic 3.9% Residue 52.0% Carbonate
SBMTS ASB-58	Caulk on Electrical Pipe	Gray	RAMP A	ND	ND	41.3% Organic 4.0% Residue 54.7% Carbonate
SBMTS ASB-59	Window Caulking	Gray	Forman's Office	2.2% Chrysotile Trace Anthophyllite	ND	30.0% Organic 41.7% Residue 26.1% Carbonate
SBMTS ASB-60	Window Caulking	Gray	Forman's Office	2.5% Chrysotile Trace Anthophyllite	ND	30.0% Organic 47.1% Residue 20.4% Carbonate
SBMTS ASB-73	Main Feed Jacket	NA	Switch Board Room	ND	ND	75.5% Organic 2.1% Residue 22.3% Carbonate
SBMTS ASB-74	Main Feed Jacket	NA	Switch Board Room	ND	ND	77.4% Organic 2.7% Residue 19.9% Carbonate
SBMTS ASB-75	Black Wire	Black	Switch Room	ND	ND	75.2% Organic 2.2% Residue 22.6% Carbonate
SBMTS ASB-76	Black Wire	Black	Switch Room	ND	ND	76.3% Organic 2.7% Residue 21.0% Carbonate

Note: All NOB samples were prepared and analyzed in accordance with NYS DOH ELAP methods 198.6 and 198.4 via Transmission Electron Microscopy (TEM) by NICHE's sub-lab, ATC Associates, Inc., an ELAP approved lab (ELAP # 16679), and this report is generated with their permission and approval.

SAMPLE ANALYSIS BY	TRANSMISSION ELECTRON MICROSCOPY (TEM)
METHOD OF SAMPLE PREPARATION & ANALYSIS	ALL SAMPLES WERE PREPARED AND ANALYZED IN ACCORDANCE WITH THE NYS DOH ELAP METHODS 198.6 "POLARIZED-LIGHT MICROSCOPE METHOD FOR IDENTIFYING AND QUANTITATING ASBESTOS IN NON-FRIABLE ORGANICALLY BOUND BULK SAMPLES", AND 198.4 "TRANSMISSION ELECTRON MICROSCOPE METHOD FOR IDENTIFYING AND QUANTITATING ASBESTOS IN NON-FRIABLE ORGANICALLY BOUND BULK SAMPLES"

ND = NONE DETECTED

ATC BATCH #: 25372

NICHE ELAP#: 11236

BING LIANG
Laboratory Director/Contact Person

Approved Signatory



NICHE ANALYSIS, INC.

BULK SAMPLE ANALYSIS REPORT (NON-FRIABLE ORGANICALLY BOUND MATERIALS BY TEM VIA NYS ELAP 198.4)

BIDWELL ENVIRONMENTAL, LLC.
1353 KINGS HIGHWAY
P.O. BOX 266
SUGAR LOAF, NY 10981
PHONE (845) 610-3993; FAX (845) 610-3996

NICHE FILE: 12-14437-2

Page 5 of 8

PROJECT NAME	South Bronx Marine Transfer Station	PROJECT MANAGER	Ellen Metzger
FLOOR	Ramp & Tipping Floor	INSPECTOR	Kevin Pavese
LOCATION	Vairous	DATE SAMPLED	11-15 to 17-12
PROJECT ADDRESS	South Bronx Marine Transfer Station Bronx, NY	DATE RELINQUISHED	11-27-12
		DATE ANALYZED	12-04-12

Sample No.	Type Of Material	Appearance	Sample Location	Asbestos Content And Percent	Non-Asbestos Fiber Content And Percent	Gravimetric NOB Results
SBMTS ASB-83	White Wire	White	Forman's Office	ND	ND	65.4% Organic 10.9% Residue 23.7% Carbonate
SBMTS ASB-84	White Wire	White	Forman's Office	ND	ND	70.4% Organic 15.3% Residue 14.3% Carbonate
SBMTS ASB-90	Roof Tar	Black	Flat Roof	ND	ND	70.1% Organic 23.9% Residue 6.1% Carbonate
SBMTS ASB-91	Roof Tar	Black	Flat Roof	ND	ND	84.4% Organic 4.1% Residue 11.5% Carbonate
SBMTS ASB-92	Tar Paper	Black	Flat Roof	ND	ND	87.0% Organic 1.9% Residue 11.1% Carbonate
SBMTS ASB-93	Tar Paper	Black	Flat Roof	ND	ND	36.8% Organic 2.0% Residue 11.2% Carbonate
SBMTS ASB-94	Roof Tar	Black	Flat Roof	ND	ND	79.1% Organic 2.5% Residue 16.4% Carbonate
SBMTS ASB-95	Roof Tar	Black	Flat Roof	ND	ND	82.6% Organic 8.4% Residue 9.0% Carbonate

Note: All NOB samples were prepared and analyzed in accordance with NYS DOH ELAP methods 198.5 and 198.4 via Transmission Electron Microscopy (TEM) by NICHE's sub-lab, ATC Associates, Inc., an ELAP approved lab (ELAP # 10879), and this report is generated with their permission and approval.

SAMPLE ANALYSIS BY	TRANSMISSION ELECTRON MICROSCOPY (TEM)
METHOD OF SAMPLE PREPARATION & ANALYSIS	ALL SAMPLES WERE PREPARED AND ANALYZED IN ACCORDANCE WITH THE NYS DOH ELAP METHODS 198.5 "POLARIZED-LIGHT MICROSCOPE METHOD FOR IDENTIFYING AND QUANTITATING ASBESTOS IN NON-FRIABLE ORGANICALLY BOUND BULK SAMPLES", AND 198.4 "TRANSMISSION ELECTRON MICROSCOPE METHOD FOR IDENTIFYING AND QUANTITATING ASBESTOS IN NON-FRIABLE ORGANICALLY BOUND BULK SAMPLES".

ND = NONE DETECTED
NICHE ELAP# 11236

ATC BATCH # 25372

BING LIANG
Laboratory Director/Contact Person

Approved Signatory



NICHE ANALYSIS, INC.

BULK SAMPLE ANALYSIS REPORT

(NON-FRIABLE ORGANICALLY BOUND MATERIALS BY TEM VIA NYS ELAP 198.4)

BIDWELL ENVIRONMENTAL, LLC.
 1353 KINGS HIGHWAY
 P.O. BOX 266
 SUGAR LOAF, NY 10981
 PHONE (845) 610-3993; FAX (845) 610-3996

NICHE FILE: 12-14437-2

Page 7 of 8

PROJECT NAME	South Bronx Marine Transfer Station	PROJECT MANAGER	Ellen Metzger
FLOOR	Ramp & Tipping Floor	INSPECTOR	Kevin Pavese
LOCATION	Vairous	DATE SAMPLED	11-15 to 17-12
PROJECT ADDRESS	South Bronx Marine Transfer Station Bronx, NY	DATE RELINQUISHED	11-27-12
		DATE ANALYZED	12-04-12

Sample No.	Type Of Material	Appearance	Sample Location	Asbestos Content And Percent	Non-Asbestos Fiber Content And Percent	Gravimetric NOB Results
SBMTS ASB-96	Rolled Roof	Black	Flat Roof	ND	ND	38.1% Organic 39.2% Residue 22.7% Carbonate
SBMTS ASB-97	Rolled Roof	Black	Flat Roof	ND	ND	39.4% Organic 35.9% Residue 24.7% Carbonate
SBMTS ASB-98	Roof Tar	Black	Flat Roof	ND	ND	94.3% Organic 2.0% Residue 3.7% Carbonate
SBMTS ASB-99	Roof Tar	Black	Flat Roof	ND	ND	91.5% Organic 1.8% Residue 6.7% Carbonate
SBMTS ASB-100	Rolled Roofing	Black	Flat Roof	ND	ND	93.1% Organic 2.5% Residue 4.4% Carbonate
SBMTS ASB-101	Rolled Roofing	Black	Flat Roof	ND	ND	88.0% Organic 4.8% Residue 7.2% Carbonate
SBMTS ASB-102	Flashing	Black	Flat Roof	ND	ND	94.0% Organic 1.2% Residue 4.8% Carbonate
SBMTS ASB-103	Flashing	Black	Flat Roof	ND	ND	88.7% Organic 1.8% Residue 9.5% Carbonate

Note: All NOB samples were prepared and analyzed in accordance with NYS DOH-ELAP methods 198.6 and 198.4 via Transmission Electron Microscopy (TEM) by NICHE's sub-lab, ATC Associates, Inc., an ELAP approved lab (ELAP # 10573), and this report is generated with their permission and approval.

SAMPLE ANALYSIS BY	TRANSMISSION ELECTRON MICROSCOPY (TEM)
METHOD OF SAMPLE PREPARATION & ANALYSIS	ALL SAMPLES WERE PREPARED AND ANALYZED IN ACCORDANCE WITH THE NYS DOH-ELAP METHODS 198.6 "POLARIZED-LIGHT MICROSCOPE METHOD FOR IDENTIFYING AND QUANTITATING ASBESTOS IN NON-FRIABLE ORGANICALLY BOUND BULK SAMPLES" AND 198.4 "TRANSMISSION ELECTRON MICROSCOPE METHOD FOR IDENTIFYING AND QUANTITATING ASBESTOS IN NON-FRIABLE ORGANICALLY BOUND BULK SAMPLES"

ND = NONE DETECTED

ATC BATCH #: 25372

NICHE ELAP#: 11236

BING LIANG
 Laboratory Director/Contact Person

Approved Signatory



NICHE ANALYSIS, INC.

BULK SAMPLE ANALYSIS REPORT

(NON-FRIABLE ORGANICALLY BOUND MATERIALS BY TEM VIA NYS ELAP 198.4)

BIDWELL ENVIRONMENTAL, LLC.
1353 KINGS HIGHWAY
P.O. BOX 266
SUGAR LOAF, NY 10981
PHONE (845) 610-3993; FAX (845) 610-3996

NICHE FILE: 12-14437-2

Page 8 of 8

PROJECT NAME	South Bronx Marine Transfer Station	PROJECT MANAGER	Ellen Metzger
FLOOR	Ramp & Tipping Floor	INSPECTOR	Kevin Pavese
LOCATION	Vairous	DATE SAMPLED	11-15 to 17-12
PROJECT ADDRESS	South Bronx Marine Transfer Station Bronx, NY	DATE RELINQUISHED	11-27-12
		DATE ANALYZED	12-04-12

Sample No.	Type Of Material	Appearance	Sample Location	Asbestos Content And Percent	Non-Asbestos Fiber Content And Percent	Gravimetric NOB Results
SBMTS ASB-104	Tar Flashing	Black	Flat Roof	3.3% Chrysotile	ND	75.6% Organic 9.8% Residue 11.3% Carbonate
SBMTS ASB-105	Tar Flashing	Black	Flat Roof	3.3% Chrysotile	ND	75.0% Organic 9.8% Residue 11.9% Carbonate
SBMTS ASB-106	Red Wire	Red	Flat Roof	ND	ND	65.0% Organic 14.5% Residue 20.5% Carbonate
SBMTS ASB-107	Red Wire	Red	Flat Roof	ND	ND	67.2% Organic 13.6% Residue 19.2% Carbonate

Note: All NOB samples were prepared and analyzed in accordance with NYS DOH ELAP methods 198.5 and 198.4 via Transmission Electron Microscopy (TEM) by NICHE's sub-lab ATC Associates, Inc., an ELAP approved lab (ELAP # 10879), and this report is generated with their permission and approval.

SAMPLE ANALYSIS BY:	TRANSMISSION ELECTRON MICROSCOPY (TEM)
METHOD OF SAMPLE PREPARATION & ANALYSIS	ALL SAMPLES WERE PREPARED AND ANALYZED IN ACCORDANCE WITH THE NYS DOH ELAP METHODS 198.5 "POLARIZED-LIGHT MICROSCOPE METHOD FOR IDENTIFYING AND QUANTITATING ASBESTOS IN NON-FRIABLE ORGANICALLY BOUND BULK SAMPLES" AND 198.4 "TRANSMISSION ELECTRON MICROSCOPE METHOD FOR IDENTIFYING AND QUANTITATING ASBESTOS IN NON-FRIABLE ORGANICALLY BOUND BULK SAMPLES"

ND = NONE DETECTED
NICHE ELAP#: 11236

ATC BATCH #: 26372

BING LIANG
Laboratory Director/Contact Person

Approved Signatory

NICHE ANALYSIS, INC.

361 Lake Place, Suite 417
 Mt. Vernon NY 10550
 914-466-0593
 914-466-8787 FAX

TURN AROUND TIME:
 RUSH 6 HRS 24 HRS OTHER

ASBESTOS FIELD SURVEY DATA SHEET / BULK SAMPLE LOG

PROJECT NO. 21217 12-14437
 CLIENT: ~~XXXXXXXXXX~~ BIDWELL
 PROJECT SITE: SOUTH BRONX MARINE
 TRANSFER STATION
 INVESTIGATOR: KEVIN PAVESE

LOCATION(S) SURVEYED: RAMP + TIPPING FLOOR
 SCOPE OF WORK: ASBESTOS SURVEY
 INSPECTOR: K. PAVESE DATE(S) OF INSPECTION: 11/5/12-11/17/12

FLOOR	FUNCTIONAL SPACE	AREA DESCRIPTION	SAMPLE # OR ASSUMED	HOMOGENEOUS		QUANTITY (LF/SF)	ASSESSMENT		ASBESTOS CONTENT %
				HID	MATERIAL DESCRIPTION		COND	FRIAB	
RAMP	PIPE INSULATION PAPER ON RAMP B		SBMTS ASB-10		INSULATION PAPER	1,2,3,4		(F)	PLM TEM
RAMP	PIPE ON RAMP B		SBMTS ASB-11		ORANGE GASKET	5,6,7 GMDP		(NF)	PLM TEM
RAMP	PIPE ON RAMP B	↓	SBMTS ASB-12		ORANGE PIPE GASKET	1,2,3,4		(E)	PLM TEM
RAMP	PIPE ON RAMP B	↓	SBMTS ASB-13		ORANGE PIPE	5,6,7 GMDP		(NF)	PLM TEM
RAMP	PIPE ON RAMP B	↓	SBMTS ASB-14		ORANGE PIPE	1,2,3,4		(F)	PLM TEM
RAMP	PIPE ON RAMP B	↓	SBMTS ASB-15		SEALANT	5,6,7 GMDP		(E)	PLM TEM
RAMP	PIPE ON RAMP B	↓	SBMTS ASB-16		WHITE STRING	1,2,3,4		(NF)	PLM TEM
RAMP	PIPE ON RAMP B	↓	SBMTS ASB-17		SEALANT	5,6,7 GMDP		(NF)	PLM TEM
RAMP	RAMP B ELECTRICAL PANEL	↓	SBMTS ASB-18		ORANGE + BLACK PANEL	1,2,3,4		(F)	PLM TEM
RAMP	RAMP B ELECTRICAL PANEL	↓	SBMTS ASB-18		ORANGE + BLACK PANEL	5,6,7 GMDP		(NF)	PLM TEM

FIELD NOTES:
 PLM FIRST, THEN TEM FOR NOBS
 ANALYZE: BALL STOP AT FIRST POSITIVE
 RECEIVED BY: *[Signature]* DATE: 11/17/12 TIME: 1700
 RECEIVED BY: *[Signature]* DATE: 11/17/12 TIME: 1400
 RECEIVED BY: *[Signature]* DATE: 11/26/12 TIME: 1000
 RECEIVED BY: *[Signature]* DATE: 11/27/12 TIME:
 TEM: TRANSMISSION ELECTRON MICROSCOPY
 NYS/DOH CERTIFICATE NO. CC-00987
 ADDRESS: 203-232-9640
 1. A physical "tag" (tagging) is used to identify and label all suspect materials and samples.
 2. A physical "tag" (tagging) is used to identify and label all suspect materials and samples.
 3. A physical "tag" (tagging) is used to identify and label all suspect materials and samples.
 4. A physical "tag" (tagging) is used to identify and label all suspect materials and samples.
 5. A physical "tag" (tagging) is used to identify and label all suspect materials and samples.
 6. A physical "tag" (tagging) is used to identify and label all suspect materials and samples.
 7. A physical "tag" (tagging) is used to identify and label all suspect materials and samples.
 8. A physical "tag" (tagging) is used to identify and label all suspect materials and samples.
 9. A physical "tag" (tagging) is used to identify and label all suspect materials and samples.
 10. A physical "tag" (tagging) is used to identify and label all suspect materials and samples.

NICHE ANALYSIS, INC.

10 Tucke Place, Suite 317
 Mt. Vernon, NY 10550
 (914) 663-8882 FAX
 (914) 663-8881

TURN AROUND TIME:
 RUSH 6 HRS 24 HRS OTHER

ASBESTOS FIELD SURVEY DATA SHEET / BULK SAMPLE LOG PAGE 3 OF 12

PROJECT NO: 21217 12-14437
 CLIENT: ~~XXXXXXXXXX~~ BIDWELL
 PROJECT SITE: SOUTH BRONX MARINE
 TRANSFER STATION
 INVESTIGATOR: KEVIN PAVESE
 LOCATION(S) SURVEYED: RAMP + TIPPING FLOOR
 SCOPE OF WORK: ASBESTOS SURVEY
 INSPECTOR: K. PAVESE DATE(S) OF INSPECTION: 11/15/12 - 11/17/12

FLOOR	FUNCTIONAL SPACE	AREA DESCRIPTION	SAMPLE # OR ASSUMED	HID	HOMOGENEOUS MATERIAL DESCRIPTION	QUANTITY (LBS)	ASSESSMENT		ASBESTOS CONTENT %
							COND	FRIAB	
RAMP	ELECTRICAL PANEL ON RAMP		SBMTS-19 ASB-20		WHITE ROPE GASKET		1,2,3,4 5,6,7 GMDP	F (NF)	PLM TEM
RAMP	ELECTRICAL PANEL ON RAMP A		SBMTS ASB-20		WHITE ROPE GASKET		1,2,3,4 5,6,7 GMDP	F (NF)	PLM TEM
RAMP	ELECTRICAL PANEL ON RAMP A		SBMTS ASB-21		BLACK WIRE		1,2,3,4 5,6,7 GMDP	F (NF)	PLM TEM
RAMP	ELECTRICAL PANEL ON RAMP A		SBMTS ASB-22		BLACK WIRE		1,2,3,4 5,6,7 GMDP	F (NF)	PLM TEM
RAMP	ELECTRICAL PANEL ON RAMP A		SBMTS ASB-23		WHITE PAPER COVERED WIRE		1,2,3,4 5,6,7 GMDP	F (NF)	PLM TEM
RAMP	ELECTRICAL PANEL ON RAMP A		SBMTS ASB-23		WHITE PAPER COVERED WIRE		1,2,3,4 5,6,7 GMDP	F (NF)	PLM TEM
RAMP	RAMP B WALL		ASB-24 SBMTS ASB-25		BLACK TAR		1,2,3,4 5,6,7 GMDP	F (NF)	PLM TEM
RAMP	RAMP B WALL		SBMTS ASB-26		BLACK TAR		1,2,3,4 5,6,7 GMDP	F (NF)	PLM TEM
RAMP	RAMP B WALL		SBMTS ASB-27		BLACK EXPANSION SEALANT		1,2,3,4 5,6,7 GMDP	F (NF)	PLM TEM

NYSDOL INSPECTOR: [Signature] TELEPHONE NO: 06-00987
 ADDRESS: [Blank]

1. A report detailing results of measurements, listed materials, and results.
 2. Copies of test samples of asbestos building materials.
 3. A report detailing results of laboratory tests for determining friability and conditions.
 4. A report detailing results of laboratory tests for determining friability and conditions.
 5. Copies of test samples of asbestos building materials in their respective locations.
 6. Copies of test samples for analysis by PLM and/or TEM.
 7. Bulk samples for analysis and suspected materials were identified on this report.
 8. A copy of this report accompanied this shipment to the laboratory.

PHYSICAL CONTAMINATION: [Blank] VARIABLE: [Blank]
 POLARIZED LIGHT MICROSCOPY: [Blank] TRANSMISSION ELECTRON MICROSCOPY: [Blank]
 RELINQUISHED BY: [Signature] DATE: 11/17/12 TIME: 1900
 RECEIVED BY: [Signature] DATE: 11/14/12 TIME: 1400
 RELINQUISHED BY: [Signature] DATE: 11/26/12 TIME: 1000
 RECEIVED BY: Rosemary Lett DATE: 11/27/12 TIME: [Blank]

FIELD NOTES:
 PLY FIRST, THEN TEM FOR ANALYZE. ALL STOP AT FIRST POSITIVE. A PLM A TEM NOBS

NICHE ANALYSIS, INC.

101 East Plaza, Suite 207
 Mt Vernon, NY 10550
 (914) 661-8800 FAX

TURN AROUND TIME:
 RUSH 5 HRS 24 HRS OTHER

ASBESTOS FIELD SURVEY DATA SHEET / BULK SAMPLE LOG PAGE 5 OF 12

PROJECT NO: 21217 12-14437
 CLIENT: BIRWELL ENVIRONMENTAL
 PROJECT SITE: SOUTH BRONX MARINE
 TRANSFER STATION
 INVESTIGATOR: KEVIN PAVESE
 LOCATION(S) SURVEYED: RAMP + TIPPING FLOOR
 SCOPE OF WORK: ASBESTOS SURVEY
 INSPECTOR: K. PAVESE DATE(S) OF INSPECTION: 11/15/12 - 11/17/12

FLOOR	FUNCTIONAL SPACE	SAMPLE # OR ASSUMED	HOMOGENEOUS		QUANTITY (L/TSF)	ASSESSMENT		ASBESTOS CONTENT %
			HID	MATERIAL DESCRIPTION		COND	FRIAB	
RAMP	WEIGH BOOTH	SBMTS ASB-37		WINDOW CAULK	1,2,3,4 5,6,7 GMD	F NF	PLM: TEM:	
	↓	SBMTS ASB-38		WINDOW CAULK	1,2,3,4 5,6,7 GMD	F NF	PLM: TEM:	
RAMP	WEIGH BOOTH	ASB-39		WINDOW GLAZING	1,2,3,4 5,6,7 GMD	F NF	PLM: TEM:	
	↓	SBMTS ASB-40		WINDOW GLAZING	1,2,3,4 5,6,7 GMD	F NF	PLM: TEM:	
	↓	SBMTS ASB-41		WALL INSULATION	1,2,3,4 5,6,7 GMD	F NF	PLM: TEM:	
	↓	SBMTS ASB-42		WALL INSULATION	1,2,3,4 5,6,7 GMD	F NF	PLM: TEM:	
TIP	EXTERNAL WINDOWS OF FOREHANS OFFICE	SBMTS ASB-43		WINDOW GLAZE	1,2,3,4 5,6,7 GMD	F NF	PLM: TEM:	
	↓	SBMTS ASB-44		WINDOW GLAZE	1,2,3,4 5,6,7 GMD	F NF	PLM: TEM:	
TIP	EXTERNAL WALL OF FOREHANS OFFICE	SBMTS ASB-45		WINDOW GLAZE	1,2,3,4 5,6,7 GMD	F NF	PLM: TEM:	

NYSDJLRS PLUS IIR
 CERTIFICATE NO. C-00987
 TELEPHONE NO.
 ADDRESS

TRANSMISSION ELECTRON MICROSCOPY
 DATE 11/17/12 TIME 1400
 DATE 11/17/12 TIME 1400
 DATE 11/26/12 TIME 1000
 DATE 11/27/12 TIME

RELINQUISHED BY: M. Hill
 RECEIVED BY: M. Hill
 RELINQUISHED BY: M. Hill
 RECEIVED BY: Rosemary Bell
 ANALYZE: STOP AT FIRST POSITIVE TEM

FIELD NOTES:
 PM FIRST, THEN TEM FORNOBS

1. Select representative areas for sampling asbestos containing materials and conduct the following tests: a) Visual inspection of suspect building materials
2. Conduct field tests for determining friability and asbestos
3. Conduct field tests for determining friability and asbestos
4. Asbestos of suspect friable and non-friable materials and locations
5. Conduct the sampling of suspect materials on their respective locations
6. Submit bulk samples for analysis by PCA and/or IETA/NIOSH
7. Bulk Sample locations and laboratory materials were identified on the appropriate building floor plans/sections with a sample tag/label
8. A Chain of Custody record accompanied the samples to the laboratory

NICHE ANALYSIS, INC.

10 Fusco Place, Suite 317
 Mt. Vernon, NY 10550
 (914) 663-8933
 (914) 663-8932 FAX

TURN AROUND TIME:
 RUSH 6 HRS 24 HRS OTHER

ASBESTOS FIELD SURVEY DATA SHEET / BULK SAMPLE LOG

PAGE 15 OF 12

PROJECT NO: 2121712 - 14437
 CLIENT: BIDWELL ENVIRONMENTAL
 PROJECT SITE: SOUTH BRONX MARINE TRANSFER STATION
 INVESTIGATOR: KEVIN PAVESE

LOCATIONS SURVEYED: RAMP + TIPPING FLOOR
 SCOPE OF WORK: ASBESTOS SURVEY
 INSPECTOR: K. PAVESE DATE(S) OF INSPECTION: 11/17/12 - 11/21/12

FLOOR	FUNCTIONAL SPACE	AREA DESCRIPTION	SAMPLE # OR ASSUMED	HID	HOMOGENEOUS MATERIAL DESCRIPTION	QUANTITY (LF/SF)	ASSESSMENT		ASBESTOS CONTENT %
							COND	FRIAB	
TIP	EXTERNAL WALL OF FOREMANS OFFICE	FOREMANS OFFICE	SBMTS ASB-46		WINDOW GLAZE		1,2,3,4 5,6,7 GMDP	F (NF)	PLM: TEM:
TIP	EXTERNAL WALL OF FOREMANS OFFICE	FOREMANS OFFICE	SBMTS ASB-47		MORTAR		1,2,3,4 5,6,7 GMDP	F (NF)	PLM: TEM:
TIP	EXTERNAL WALL OF METER ROOM	METER ROOM	SBMTS ASB-48		MORTAR		1,2,3,4 5,6,7 GMDP	F (NF)	PLM: TEM:
TIP	EXTERNAL WALL OF METER ROOM	METER ROOM	SBMTS ASB-49		CERAMIC WALL TILE		1,2,3,4 5,6,7 GMDP	F (NF)	PLM: TEM:
TIP	TIPPING FLOOR	TIPPING FLOOR	SBMTS ASB-50		CERAMIC WALL TILE		1,2,3,4 5,6,7 GMDP	F (NF)	PLM: TEM:
TIP	TIPPING FLOOR	TIPPING FLOOR	SBMTS ASB-51		FIRE HOSE		1,2,3,4 5,6,7 GMDP	F (NF)	PLM: TEM:
TIP	TIPPING FLOOR	TIPPING FLOOR	SBMTS ASB-52		FIRE HOSE		1,2,3,4 5,6,7 GMDP	F (NF)	PLM: TEM:
TIP	WALL BETWEEN STORAGE + LUNCH ROOMS	WALL BETWEEN STORAGE + LUNCH ROOMS	SBMTS ASB-53		SHEET ROCK		1,2,3,4 5,6,7 GMDP	F (NF)	PLM: TEM:
TIP	WALL BETWEEN STORAGE + LUNCH ROOMS	WALL BETWEEN STORAGE + LUNCH ROOMS	SBMTS ASB-54		SHEET ROCK		1,2,3,4 5,6,7 GMDP	F (NF)	PLM: TEM:

NYSDOH INSPECTOR: [Signature]
 CERTIFICATE NO: [Number]
 TELEPHONE: [Number]
 ADDRESS: [Address]

1. A representative of accessible suspect materials and products
 2. Collect bulk samples of suspect building materials
 3. A physical "hand crush" test for determining friability and condition
 4. Assessment of suspect friable and non friable materials and locations
 5. Control for amount of suspect materials on their respective locations
 6. Submit bulk samples for analysis by PLM and/or TEM Method
 7. Bulk Sample locations, and suspect materials were identified on the appropriate floor-plan diagram with the sample number
 8. A Chain of Custody record accompanied the samples to the laboratory

FIELD NOTES
 PLM FIRST, THEN TEM FOR NOBS

ANALYZE: [Signature] [Signature] [Signature]
 STOP AT FIRST POSITIVE ATTEM ATTEM

NICHE ANALYSIS, INC.

10705Aa Place, Suite 317
 34 Vestal, NY 14850
 914 409-8837
 914 409-8782 (fax)

TURN AROUND TIME:
 RUSH 6 HRS 24 HRS OTHER

ASBESTOS FIELD SURVEY DATA SHEET / BULK SAMPLE LOG

PROJECT NO: 21217 12-14437
 CLIENT: BIDWELL ENVIRONMENTAL
 PROJECT SITE: SOUTH BROWX MARINE
 TRANSFER STATION
 INVESTIGATOR: KEVIN PAVESE

LOCATION(S) SURVEYED: RAMP + TIPPING FLOOR
 SCOPE OF WORK: ASBESTO SURVEY
 INSPECTOR: K. PAVESE DATE(S) OF INSPECTION: 11/17/12 - 11/17/12

FLOOR	FUNCTIONAL SPACE	AREA DESCRIPTION	SAMPLE # OR ASSUMED	HID	HOMOGENEOUS MATERIAL DESCRIPTION	QUANTITY (LF/FS)	ASSESSMENT COND	FRIAB	ASBESTOS CONTENT %
TIPP FAN ROOM NO. 1			SBMTS ASB-55		DOOR CAULK		1,2,3,4 5,6,7 GMD P	F (NF)	PLM: TEM:
			SBMTS ASB-56		DOOR CAULK		1,2,3,4 5,6,7 GMD P	F (NF)	PLM: TEM:
			SBMTS ASB-57		CAULK ON ELECTRICAL PIPE		1,2,3,4 5,6,7 GMD P	F (NF)	PLM: TEM:
			SBMTS ASB-58		CAULK ON ELECTRICAL PIPE		1,2,3,4 5,6,7 GMD P	F (NF)	PLM: TEM:
			SBMTS ASB-59		WINDOW CAULKING		1,2,3,4 5,6,7 GMD P	F (NF)	PLM: TEM:
			SBMTS ASB-60		WINDOW CAULKING		1,2,3,4 5,6,7 GMD P	F (NF)	PLM: TEM:
			SBMTS ASB-61		PAPER COVERING ON SHEET ROCK		1,2,3,4 5,6,7 GMD P	F (NF)	PLM: TEM:
			SBMTS ASB-62		PAPER COVERING ON SHEET ROCK		1,2,3,4 5,6,7 GMD P	F (NF)	PLM: TEM:
			SBMTS ASB-63		ORANGE GASKET		1,2,3,4 5,6,7 GMD P	F (NF)	PLM: TEM:

TECH: POLARIZED LIGHT MICROSCOPY
 DATE: 11/17/12 TIME: 1400
 RECEIVED BY: M. MULL
 DATE: 11/26/12 TIME: 1000
 RECEIVED BY: Rosemary
 DATE: 11/27/12 TIME: 1000

ANALYZE: MAIL STOP AT FIRST POSITIVE PLM ATEM

FIELD NOTES:
 PLM FIRST, THEN TEM FOR MOBS

LABORATORY: EX-00757

1. A valid determination of asbestos suspect materials and analysis.
2. Called bulk samples of suspect building materials.
3. A physical "grab procedure" test for determining friability and sampling.
4. Assessment of suspect friable and non-friable materials and locations.
5. Identify the amount of suspect materials in their respective locations.
6. Submit bulk samples for analysis by PLM and/or TEM Method.
7. Bulk sample technique: the suspect materials were identified on the appropriate building floor plan diagram with the sample number.
8. A Chain of Custody record accompanied the samples to the laboratory.

NICHE ANALYSIS, INC.

10 Elmside Place, Suite 311
 Mt. Vernon, NY 10550
 (914) 663-8782 (Fax)

TURN AROUND TIME:
 RUSH 6 HRS 24 HRS OTHER

ASBESTOS FIELD SURVEY DATA SHEET / BULK SAMPLE LOG

PROJECT NO: 21217 12-14437
 CLIENT: BDFELL ENVIRONMENTAL
 PROJECT SITE: SOUTH BRONX MARINE TRANSFER STATION
 INVESTIGATOR: KEVIN PAVESE
 LOCATIONS SURVEYED: RAMP + FLIPPING FLOOR
 SCOPE OF WORK: ASBESTOS SURVEY
 INSPECTOR: K. PAVESE DATE(S) OF INSPECTION: 11/17/12 - 11/21/12

FLOOR	FUNCTIONAL SPACE	AREA DESCRIPTION	SAMPLE # OR ASSUMED	HOMOGENEOUS MATERIAL DESCRIPTION		QUANTITY (LF/SF)	ASSESSMENT		ASBESTOS CONTENT %
				HID	MATERIAL DESCRIPTION		COND	FRIAB	
TYP. STORAGE ROOM			SBMTS ASB-64		ORANGE GASKET	1,2,3,4 5,6,7 GMDP	F	F	PLM: TEM:
TYP. STORAGE ROOM			SBMTS ASB-65		WHITE BRAIDED WIRE	1,2,3,4 5,6,7 GMDP	F	F	PLM: TEM:
TYP. METER ROOM	↓		SBMTS ASB-66		WHITE BRAIDED WIRE	1,2,3,4 5,6,7 GMDP	F	F	PLM: TEM:
			SBMTS ASB-67		BLACK INSULATION PAPER	1,2,3,4 5,6,7 GMDP	F	F	PLM: TEM:
TYP. SWITCHBOARD ROOM	↓		SBMTS ASB-68		BLACK INSULATION PAPER	1,2,3,4 5,6,7 GMDP	F	F	PLM: TEM:
			SBMTS ASB-69		BLACK INSULATION BLOCK	1,2,3,4 5,6,7 GMDP	F	F	PLM: TEM:
TYP. SWITCHBOARD ROOM	↓		SBMTS ASB-70		BLACK INSULATION BLOCK	1,2,3,4 5,6,7 GMDP	F	F	PLM: TEM:
			SBMTS ASB-71		BLACK INSULATION BLOCK	1,2,3,4 5,6,7 GMDP	F	F	PLM: TEM:
TYP. SWITCHBOARD ROOM	↓		SBMTS ASB-72		BLACK INSULATION BLOCK	1,2,3,4 5,6,7 GMDP	F	F	PLM: TEM:

PHOTOMICROSCOPY: PLM - POLARIZED LIGHT MICROSCOPY
 TEM - TRANSMISSION ELECTRON MICROSCOPY
 RECEIVED BY: M. Miller DATE: 11/17/12 TIME: 1400
 RECEIVED BY: M. Miller DATE: 11/21/12 TIME: 1400
 RECEIVED BY: Anthony P. H. DATE: 11/21/12 TIME: 1000
 ANALYZE: X-RAY STOP AT FIRST POSITIVE PLM TEM
 FIELD NOTES: PLM FIRST, THEN TEM FOR NOB's

- A naive determination of accessible suspect materials are provided.
- Collect bulk samples of suspect building materials.
- A physical "Hand Pressure" test for determining insulating and non-highly friable materials.
- Assessment of suspect friable and non-friable materials and locations.
- Classify the amount of suspect materials in their respective locations.
- Special bulk samples for analysis by PLM and/or TEM (optional).
- Bulk samples for analysis by PLM and/or TEM (optional).
- A Chain of Custody record accompanied the samples to the laboratory.

NICHE ANALYSIS, INC.

10 Fishkill Place, Suite 317
 89 - Vermont, NY 10550
 (914) 463-4733 FAX

TURN AROUND TIME:
 RUSH 6 HRS 24 HRS OTHER

ASBESTOS FIELD SURVEY DATA SHEET / BULK SAMPLE LOG

PAGE 9 OF 12

PROJECT NO: 21217 12-14437
 CLIENT: BIDWELL ENVIRONMENTAL
 PROJECT SITE: SOUTH BRONX MARINE TRANSFER STATION
 INVESTIGATOR: KEVIN DAVESE

LOCATION(S) SURVEYED: RAMP + LIFTING FLOOR

SCOPE OF WORK: ASBESTOS SURVEY

INSPECTOR: K. DAVESE DATE(S) OF INSPECTION: 11/15/12 - 11/17/12

FLOOR	FUNCTIONAL SPACE	AREA DESCRIPTION	SAMPLE # OR ASSUMED	HOMOGENEOUS		QUANTITY (LFSF)	ASSESSMENT		ASBESTOS CONTENT %
				MATERIAL DESCRIPTION	COND		FRIAB		
TYP. SWITCHBOARD ROOM			SBMTS ASD-73	MAIN FEED JACKET	1, 2, 3, 4 5, 6, 7 GMDP		F NF	PLM: TEM:	
TYP. SWITCHBOARD ROOM			SBMTS ASB-74	MAIN FEED JACKET	1, 2, 3, 4 5, 6, 7 GMDP		F NF	PLM: TEM:	
TYP. SWITCHBOARD ROOM			SBMTS ASB-75	BLACK WIRE	1, 2, 3, 4 5, 6, 7 GMDP		F NF	PLM: TEM:	
TYP. SWITCHBOARD ROOM			SBMTS ASB-76	BLACK WIRE	1, 2, 3, 4 5, 6, 7 GMDP		F NF	PLM: TEM:	
TYP. FAN ROOM NO. 2			SBMTS ASB-77	BLACK VIBRATION DAMPENERS	1, 2, 3, 4 5, 6, 7 GMDP		F NF	PLM: TEM:	
TYP. FAN ROOM NO. 2			SBMTS ASB-78	BLACK VIBRATION DAMPENERS	1, 2, 3, 4 5, 6, 7 GMDP		F NF	PLM: TEM:	
TYP. FAN ROOM NO. 2			SBMTS ASB-79	WHITE VIBRATION DAMPENERS	1, 2, 3, 4 5, 6, 7 GMDP		F NF	PLM: TEM:	
TYP. FAN ROOM NO. 2			SBMTS ASB-80	WHITE VIBRATION DAMPENERS	1, 2, 3, 4 5, 6, 7 GMDP		F NF	PLM: TEM:	
TYP. FOREMAN'S OFFICE			SBMTS ASB-81	INSULATION BOARD	1, 2, 3, 4 5, 6, 7 GMDP		F NF	PLM: TEM:	

TECHNICAL INSPECTOR: [Signature] ADDRESS: [Address]
 CERTIFICATE NO: 00-00757
 1. A visual examination of accessible surfaces, materials and conditions
 2. Collect bulk samples in accordance with the sampling protocol
 3. Physical Hand Test used for determining friability and condition
 4. Assessment of suspect friable and non-friable materials and locations
 5. Quantify the amount of suspect materials in bulk samples as follows:
 6. Small bulk samples for analysis by PLM and/or TEM method
 7. Bulk samples for pump and extract materials were deposited on the appropriate holding filter plate (designated with a sample number)
 8. A Chain of Custody record accompanies the samples to the laboratory

FIELD NOTES:
 PLM FIRST, THEN TEM FOR MOBS
 ANALYZE: SKULL STOP AT FIRST POSITIVE PLM TEM

NICHE ANALYSIS, INC.

10 Eagle Place, Suite 317
 Mt. Vernon, NY 10550
 (914) 663-8211
 (914) 663-8782 (Fax)

TURN AROUND TIME:
 RUSH 6 HRS 24 HRS OTHER

ASBESTOS FIELD SURVEY DATA SHEET / BULK SAMPLE LOG

PROJECT NO: 21217 2-14437
 CLIENT: BIDWELL ENVIRONMENTAL
 PROJECT SITE: SOUTH BRONX MARINE TRANSFER STATION
 INVESTIGATOR: KEVIN PAVESE

LOCATION(S) SURVEYED: RAMP + TIPPING FLOOR
 SCOPE OF WORK: ASBESTOS SURVEY

INSPECTOR: K. PAVESE DATE(S) OF INSPECTION: 11/18/12 - 11/17/12

FLOOR	FUNCTIONAL SPACE	SAMPLE # OR ASSUMED	HID	HOMOGENEOUS MATERIAL DESCRIPTION	QUANTITY (L/IF/CF)	ASSESSMENT		ASBESTOS CONTENT %
						COND	FRIAB	
TYP	FOREMAN'S OFFICE	SBMTS ASB-82		INSULATION BOARD		1,2,3,4 5,6,7 GM(D)P	F (NF)	PLM: TEM:
TYP	FOREMAN'S OFFICE	SBMTS ASB-83		WHITE WIRE		1,2,3,4 GM(D)P	F (NF)	PLM: TEM:
TYP	HALLWAY	SBMTS ASB-84		WHITE WIRE		1,2,3,4 GM(D)P	F (NF)	PLM: TEM:
TYP	HALLWAY	SBMTS ASB-85		WHITE BRAIDED WIRE		1,2,3,4 GM(D)P	F (NF)	PLM: TEM:
TYP	MEN'S TOILET	SBMTS ASB-86		WHITE BRAIDED WIRE		1,2,3,4 GM(D)P	F (NF)	PLM: TEM:
TYP	MEN'S TOILET	SBMTS ASB-87		PIPE INSULATION		1,2,3,4 5,6,7 GM(M)P	(E) NF	PLM: TEM:
TYP	MEN'S TOILET	SBMTS ASB-88		PIPE INSULATION		1,2,3,4 GM(D)P	(E) NF	PLM: TEM:
TYP	MEN'S TOILET SHOWER	SBMTS ASB-89		PIPE INSULATION		1,2,3,4 GM(D)P	(E) NF	PLM: TEM:
TYP	FLAT ROOF	SBMTS ASB-90		ROOF TAR		1,2,3,4 GM(D)P	(E) NF	PLM: TEM:

ANALYZE: ALL STOP AT FIRST POSITIVE PLM TEM

RM FIRST, THEN TEM FOR NOB3

1. Aerial determination of accessible suspect materials and removal
 2. Collect bulk samples at suspect building materials
 3. A chemical analysis performed for determining friability and content
 4. Assessment of suspect areas and recordable friability and locations
 5. Quality assurance of suspect materials in their respective locations
 6. Submit bulk samples for analysis by PLM and/or TEM Method
 7. Bulk Samples (suspect and suspect material) were analyzed on the appropriate building floor plan diagram with the sample number
 8. A Chain of Custody record accompanied the samples to the laboratory.

TECHNICAL COORDINATOR: [Signature]
 ANALYZED BY: [Signature]
 RECEIVED BY: [Signature]
 RECEIVED BY: [Signature]
 RECEIVED BY: [Signature]

DATE: 11/17/12 TIME: 1400
 DATE: 11/17/12 TIME: 1400
 DATE: 11/26/12 TIME: 1000
 DATE: 11/27/12 TIME: [Blank]

NO. SOCIAL INSPECTOR NO. [Blank]
 CERTIFICATE NO. [Blank]
 TELEPHONE NO. [Blank]
 ADDRESS [Blank]

NICHE ANALYSIS, INC.

10 Ft. Le. Drive Suite 317

Mt. Vernon NY 10550

(914) 663-8933

(914) 663-8933 (Fax)

TURN AROUND TIME:
 RUSH 6 HRS 24 HRS OTHER

ASBESTOS FIELD SURVEY DATA SHEET / BULK SAMPLE LOG

PROJECT NO. 2121712-14437
 CLIENT BIDWELL ENVIRONMENTAL
 PROJECT SITE SOOTH BRONX MARINE TRANSFER STATION
 INVESTIGATOR KEVIN PAVESE

LOCATION(S) SURVEYED: RAMP + TIPPING FLOOR
 SCOPE OF WORK: ASBESTOS SURVEY
 INSPECTOR: K. PAVESE DATE(S) OF INSPECTION: 11/21/12 - 11/27/12

FLOOR	FUNCTIONAL SPACE	AREA DESCRIPTION	SAMPLE # OR ASSUMED	HOMOGENEOUS		QUANTITY (LF/ISF)	ASSESSMENT		ASBESTOS CONTENT %
				HID	MATERIAL DESCRIPTION		COND	FRIAB	
ROOF	FLAT ROOF		SBMTS ASB91		ROOF TAR				PLM: TEM:
ROOF	FLAT ROOF		SBMTS ASB-92		TAR PAPER				PLM: TEM:
			SBMTS ASB-93		TAR PAPER				PLM: TEM:
ROOF	FLAT ROOF		SBMTS ASB-94		ROOF TAR				PLM: TEM:
			SBMTS ASB-95		ROOF TAR				PLM: TEM:
ROOF	FLAT ROOF		SBMTS ASB-96		ROLLED ROOF				PLM: TEM:
			SBMTS ASB-97		ROLLED ROOF				PLM: TEM:
ROOF	FLAT ROOF		SBMTS ASB-98		ROOF TAR				PLM: TEM:
			SBMTS ASB-99		ROOF TAR				PLM: TEM:

NYSDOL INSPECTOR: CO 60787
 CERTIFICATE NO. 00 60787
 TELEPHONE NO. 00 60787
 ADDRESS 00 60787

1. A visual determination of asbestos within suspect materials and collection
 2. Collect bulk samples or suspect building materials
 3. A physical "Hand Pressure" test for determining friability and condition
 4. Assessment of suspect friable and non-friable materials and locations
 5. Quantify the amount of suspect materials in their respective localities
 6. Submit bulk samples for analysis by PLM and/or TEM Method
 7. Bulk Sample locations and suspect materials, were identified on the appropriate building floor plan diagram with the sample number
 8. A Chain of Custody record accompanied the samples to the laboratory

DATE: 11/27/12 TIME: 1400
 DATE: 11/27/12 TIME: 1400
 DATE: 11/29/12 TIME: 1000
 DATE: 11/29/12 TIME: 1400

RELINQUISHED BY: [Signature]
 RECEIVED BY: [Signature]
 RELINQUISHED BY: [Signature]
 RECEIVED BY: [Signature]

ANALYZE: PLM TEM

STOP AT FIRST POSITIVE: PLM TEM

FIELD NOTES: PLM FIRST, THEN TEM FOR NOBS

NICHE ANALYSIS, INC.

40 First Street, Suite 117
 MI Vernon, NY 10350
 (914) 261-1801
 (914) 261-1878 (fax)

TURN AROUND TIME:
 RUSH 6 HRS 24 HRS OTHER

ASBESTOS FIELD SURVEY DATA SHEET / BULK SAMPLE LOG

PROJECT NO. 21217 R-14437
 CLIENT BIDWELL ENVIRONMENTAL
 PROJECT SITE SOUTH BRONX MARINE TRANSFER STATION
 INVESTIGATOR KEVIN PAVESE

LOCATION(S) SURVEYED RAMP + TIPPING FLOOR

SCOPE OF WORK ASBESTOS SURVEY

INSPECTOR K PAVESE DATE(S) OF INSPECTION: 11/12/12 - 11/17/12

FLOOR	FUNCTIONAL SPACE	AREA DESCRIPTION	SAMPLE # OR ASSUMED	HOMOGENEOUS		QUANTITY (LF/SF)	ASSESSMENT		ASBESTOS CONTENT %
				HID	MATERIAL DESCRIPTION		COND	FRIAB	
ROOF	FLAT ROOF		SBMTS ASB-100		ROLLED ROOFING		1,2,3,4 5,6,7 G-MDP	F NF	PLM: TEM:
	↓		SBMTS ASB-101		ROLLED ROOFING		1,2,3,4 5,6,7 G-MDP	F NF	PLM: TEM:
ROOF	FLAT ROOF		SBMTS ASB-102		FLASHING		1,2,3,4 5,6,7 G-MDP	F NF	PLM: TEM:
	↓		SBMTS ASB-103		FLASHING		1,2,3,4 5,6,7 G-MDP	F NF	PLM: TEM:
	↓		SBMTS ASB-104		TAR FLASHING		1,2,3,4 5,6,7 G-MDP	F NF	PLM: TEM:
	↓		SBMTS ASB-105		TAR FLASHING		1,2,3,4 5,6,7 G-MDP	F NF	PLM: TEM:
ROOF	FLAT ROOF		SBMTS ASB-106		RED WIRE		1,2,3,4 5,6,7 G-MDP	F NF	PLM: TEM:
	↓		SBMTS ASB-107		RED WIRE		1,2,3,4 5,6,7 G-MDP	F NF	PLM: TEM:

IP/SOIL INSPECTOR CC 00707
 CERTIFICATE NO. 00707
 ADDRESS

1. A visual estimation of accessible dustable materials and asbestos.
2. Collect bulk samples of suspect building materials.
3. A physical "hand flexing" test for determining friability and conduct an assessment of suspect materials and non-identifiable materials and locations.
4. Conduct air monitoring of suspect materials in their respective locations.
5. Submit bulk samples for analysis by PLM and/or TEM laboratory.
6. Bulk samples collection and suspect materials were identified on the appropriate building floor plan diagram with the sample number.
7. A Chain of Custody record accompanied the samples to the laboratory.

PHYSICAL COMPLIANCE ASSESSMENT: GENERAL
 RECEIVED BY: M. Williams DATE: 11/17/12 TIME: 1400
 RECEIVED BY: M. Williams DATE: 11/26/12 TIME: 1000
 RECEIVED BY: Kevin Pavesi DATE: 11/27/12 TIME: 1400

ANALYZE: ALL STOP AT FIRST POSITIVE PLM TEM

FIELD NOTES:
PLM FIRST, THEN TEM FOR AOB

Attachment E

MSDS

SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

Product Name: **Premium Plus® Interior Ceiling Paint No. 558**
 Product Code: 558
 MSDS Manufacturer Number: 558
 Manufacturer Name: BEHR Process Corporation
 Address: 3400 W. Segerstrom Avenue
 Santa Ana, CA 92704
 General Phone Number: (714) 545-7101
 General Fax Number: (714) 241-1002
 Customer Service Phone Number: (800) 854-0133 ext. 2
 CHEMTREC: For emergencies in the US, call CHEMTREC: 800-424-9300
 Canutec: In Canada, call CANUTEC: (613) 996-6666 (call collect)
 MSDS Creation Date: January 30, 2007
 MSDS Revision Date: August 31, 2012
 MSDS Format: According to ANSI Z400.1-2004



HMIS	
Health Hazard	1
Fire Hazard	1
Reactivity	0
Personal Protection	

SECTION 2 - COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS#	Ingredient Percent
Vinyl acrylic polymer	No Data	5 - 10 by weight
Silica, crystalline - cristobalite	14464-46-1	1 - 5 by weight
Proprietary	No Data	1 - 5 by weight
Clay (kaolin)	1332-58-7	10 - 30 by weight
Titanium dioxide	13463-67-7	10 - 30 by weight
Calcium carbonate (limestone)	1317-65-3	10 - 30 by weight
Styrene/acrylic copolymer	No Data	1 - 5 by weight
Water	7732-18-5	30 - 60 by weight

SECTION 3 - HAZARDS IDENTIFICATION

Emergency Overview: Irritant.

Potential Health Effects:

Eye: May cause irritation.

Skin: May cause irritation.

Inhalation: Prolonged or excessive inhalation may cause respiratory tract irritation.

Ingestion: May be harmful if swallowed. May cause vomiting.

Chronic Health Effects: Prolonged or repeated contact may cause skin irritation.

Signs/Symptoms: Overexposure may cause headaches and dizziness.

Target Organs: Eyes, Skin, Respiratory system, Digestive system.

Aggravation of Pre-Existing Conditions: None generally recognized.

SECTION 4 - FIRST AID MEASURES

Eye Contact: Immediately flush eyes with plenty of water for 15 to 20 minutes. Get medical attention, if irritation or symptoms of overexposure persists.

Skin Contact: Immediately wash skin with soap and plenty of water. Get medical attention if irritation develops or persists.

Inhalation: If inhaled, remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Seek immediate medical attention.

Ingestion: If swallowed, do NOT induce vomiting. Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person.

Other First Aid: Due to possible aspiration into the lungs, DO NOT induce vomiting if ingested. Provide a glass of water to dilute the material in the stomach. If vomiting occurs naturally, have the person lean forward to reduce the risk of aspiration.

SECTION 5 - FIRE FIGHTING MEASURES

Flash Point:	No Data
Lower Flammable/Explosive Limit:	Not applicable.
Upper Flammable/Explosive Limit:	Not applicable.
Extinguishing Media:	Use alcohol resistant foam, carbon dioxide, dry chemical, or water fog or spray when fighting fires involving this material.
Protective Equipment:	As in any fire, wear Self-Contained Breathing Apparatus (SCBA), MSHA/NIOSH (approved or equivalent) and full protective gear.

NFPA Ratings:

NFPA Health:	1
NFPA Flammability:	1
NFPA Reactivity:	0

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Personnel Precautions:	Use proper personal protective equipment as listed in section 8.
Environmental Precautions:	Avoid runoff into storm sewers, ditches, and waterways.
Spill Cleanup Measures:	Absorb spill with inert material (e.g., dry sand or earth), then place in a chemical waste container. Provide ventilation. Clean up spills immediately observing precautions in the protective equipment section.

SECTION 7 - HANDLING and STORAGE

Handling:	Use with adequate ventilation. Avoid breathing vapor and contact with eyes, skin and clothing.
Storage:	Store in a cool, dry, well ventilated area away from sources of heat, combustible materials, and incompatible substances. Keep container tightly closed when not in use.
Hygiene Practices:	Wash thoroughly after handling. Avoid contact with eyes and skin. Avoid inhaling vapor or mist.

SECTION 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION - EXPOSURE GUIDELINES

Engineering Controls:	Use appropriate engineering control such as process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Good general ventilation should be sufficient to control airborne levels. Where such systems are not effective wear suitable personal protective equipment, which performs satisfactorily and meets OSHA or other recognized standards. Consult with local procedures for selection, training, inspection and maintenance of the personal protective equipment.
Eye/Face Protection:	Wear appropriate protective glasses or splash goggles as described by 29 CFR 1910.133, OSHA eye and face protection regulation, or the European standard EN 166.
Skin Protection Description:	Chemical-resistant gloves and chemical goggles, face-shield and synthetic apron or coveralls should be used to prevent contact with eyes, skin or clothing. Wear appropriate protective gloves. Consult glove manufacturer's data for permeability data.
Respiratory Protection:	A NIOSH approved air-purifying respirator with an organic vapor cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits. Protection provided by air purifying respirators is limited. Use a positive pressure air supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air purifying respirators may not provide adequate protection.
Other Protective:	Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

EXPOSURE GUIDELINES

Silica, crystalline - cristobalite:

Guideline ACGIH:	TLV-TWA: 0.05 mg/m ³ (Respirable)
Guideline OSHA:	OSHA-TWA: One half the Quartz PEL [30 mg/m ³]/(% SiO ₂) + 2]

Clay (kaolin):

Guideline ACGIH:	TLV-TWA: 2 mg/m ³ (Respirable)
Guideline OSHA:	OSHA-TWA: 5 mg/m ³ Respirable

Titanium dioxide:

Guideline ACGIH:	TLV-TWA: 10 mg/m ³
Guideline OSHA:	OSHA-TWA: 15 mg/m ³

SECTION 9 - PHYSICAL and CHEMICAL PROPERTIES

Physical State Appearance: Liquid.
Color: White
Boiling Point: No Data
Melting Point: No Data
Density: 10 - 32 Lbs./gal.
Vapor Density: Greater than 1 (Air = 1).
Vapor Pressure: Greater than 1 (Air = 1).
pH: 8.5 to 9.5
Molecular Formula: Mixture
Molecular Weight: Mixture
Flash Point: No Data
VOC Content: Material VOC: 18 gm/l (Includes Water)
Coating VOC: 49 gm/l (Excludes Water)
The addition of colorant may add VOCs.

SECTION 10 - STABILITY and REACTIVITY

Chemical Stability: Stable under normal temperatures and pressures.
Hazardous Polymerization: Not reported.
Conditions to Avoid: Heat, flames, incompatible materials, and freezing or temperatures below 32 deg. F.
Incompatible Materials: Oxidizing agents, Strong acids and alkalis.
Special Decomposition Products: Incomplete combustion may produce carbon monoxide and other toxic gases.

SECTION 11 - TOXICOLOGICAL INFORMATION

Silica, crystalline - cristobalite:

RTECS Number: VV7225000
Carcinogenicity: IARC: Group 1: Carcinogenic to humans. NTP: Reasonably anticipated to be a human carcinogen.

Clay (kaolin):

RTECS Number: GF1670500

Titanium dioxide:

RTECS Number: XR2275000
Skin: Administration onto the skin - Human Standard Draize test: 300 ug/3D (Intermittent) (RTECS)

Carcinogenicity: IARC: Group 2B: Possibly carcinogenic to humans.

Calcium carbonate (limestone):

RTECS Number: EV9580000

SECTION 12 - ECOLOGICAL INFORMATION

Ecotoxicity: No ecotoxicity data was found for the product.
Environmental Fate: No environmental information found for this product.

SECTION 13 - DISPOSAL CONSIDERATIONS

Waste Disposal: Consult with the US EPA Guidelines listed in 40 CFR Part 261.3 for the classifications of hazardous waste prior to disposal. Furthermore, consult with your state and local waste requirements or guidelines, if applicable, to ensure compliance. Arrange disposal in accordance to the EPA and/or state and local guidelines.

SECTION 14 - TRANSPORT INFORMATION

DOT UN Number: No Data
DOT Hazard Class: No Data

SECTION 15 - REGULATORY INFORMATION

California PROP 65: WARNING: This product contains a chemical known to the state of California to cause cancer and birth defects or other reproductive harm.

Silica, crystalline - cristobalite :

TSCA Inventory Status: Listed
State Regulations: Listed in the New Jersey State Right to Know List.
Listed in the Pennsylvania State Hazardous Substances List.
Canada DSL: Listed

Clay (kaolin) :

TSCA Inventory Status: Listed
State Regulations: Listed in the Pennsylvania State Hazardous Substances List.
Canada DSL: Listed

Titanium dioxide :

TSCA Inventory Status: Listed
State Regulations: Listed in the New Jersey State Right to Know List.
Listed in the Pennsylvania State Hazardous Substances List.
Canada DSL: Listed

Calcium carbonate (limestone) :

TSCA Inventory Status: Listed
State Regulations: Listed in the Pennsylvania State Hazardous Substances List.

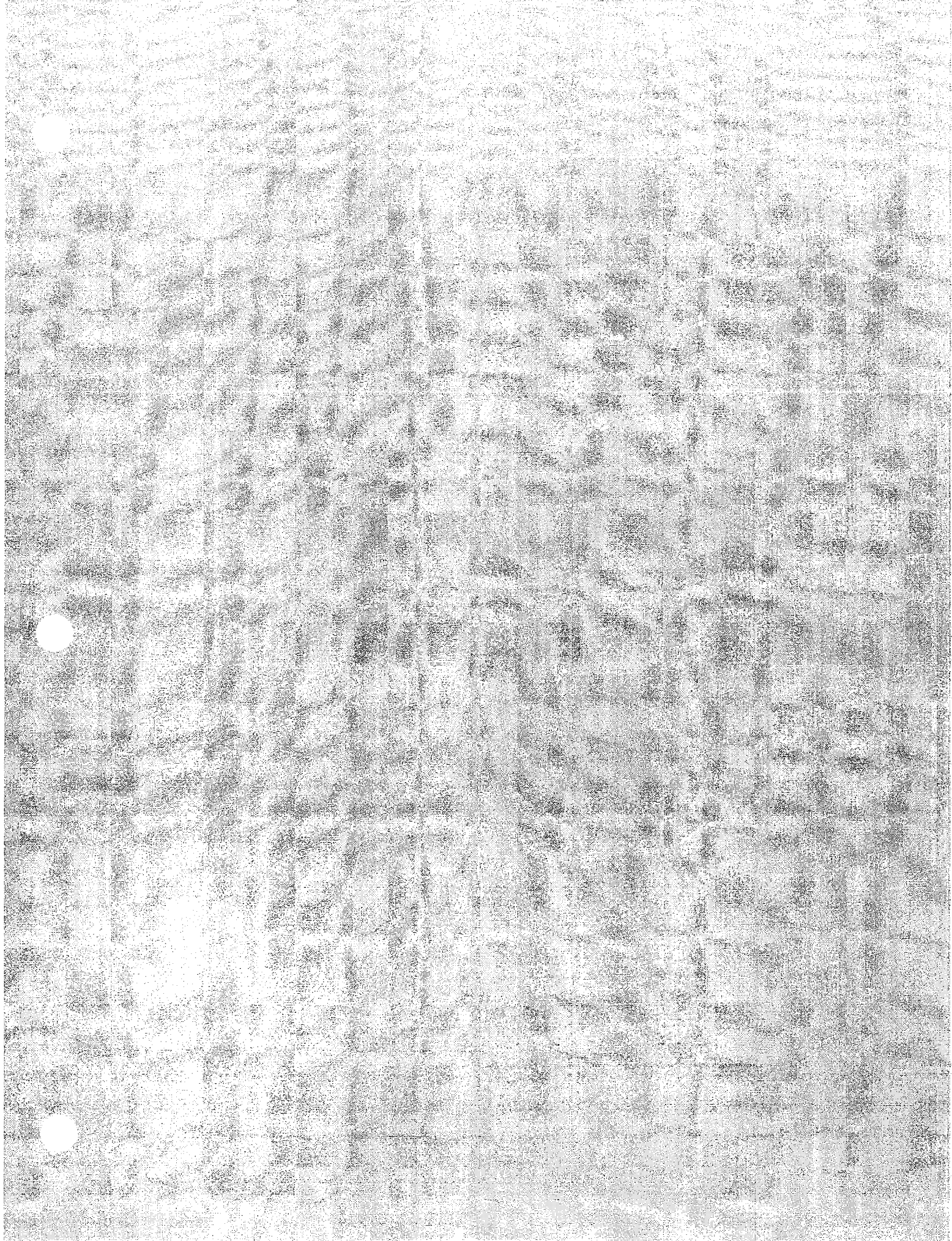
SECTION 16 - ADDITIONAL INFORMATION

HMIS Health Hazard: 1
HMIS Fire Hazard: 1
HMIS Reactivity: 0
HMIS Other: x
MSDS Creation Date: January 30, 2007
MSDS Revision Date: August 31, 2012
MSDS Revision Notes: Quarterly formula update
MSDS Author: Actio Corporation

Disclaimer: This Health and Safety Information is correct to the best of our knowledge and belief at the date of its publication but we cannot accept liability for any loss, injury or damage which may result from its use. We shall ensure, so far as is reasonably practicable, that any revision of this Data Sheet is sent to all customers to whom we have directly supplied this substance, but must point out that it is the responsibility of any intermediate supplier to ensure that such revision is passed to the ultimate user. The information given in the Data Sheet is designed only as a guidance for safe handling, storage and the use of the substance. It is not a specification nor does it guarantee any specific properties. All chemicals should be handled only by competent personnel, within a controlled environment. Should further information be required, this can be obtained through the sales office whose address is at the top of this data sheet.

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Material Safety Data Sheet
acc. to ISO/DIS 11014

Printing date 08/29/2011

Reviewed on 08/29/2011

1 Identification of the substance/mixture and of the company undertaking

- **Product identifier**
- **Trade name:** **FLITZ LIQUID METAL POLISH**
- **Article number:** 1744-2
- **Application of the substance / the preparation**
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Flitz International, Ltd.
821 Mohr Avenue
Waterford, WI 53185
USA
- **Information department:** Product safety department
- **Emergency telephone number:**
USA: 800-558-8611
Outside USA: 262-534-5808



2 Composition/information on ingredients

- **Chemical characterization:** Mixtures
- **Description:** Mixture of the substances listed below with nonhazardous additions.

• **Dangerous components:**

64742-47-8	Distillates (petroleum), hydrotreated light	10-25%
14464-46-1	cristobalite	≤ 2.5%

3 Hazards identification

- **Classification of the substance or mixture**
- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**
 **Harmful**
Harmful: may cause lung damage if swallowed.
- **Information concerning particular hazards for human and environment:**
The product has to be labelled due to the calculation procedure of international guidelines.
- **Classification system:**
The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.
- **Label elements**
- **Labelling according to EU guidelines:**
The product has been classified and marked in accordance with directives on hazardous materials.
- **Code letter and hazard designation of product:**
 **Harmful**
- **Hazard-determining components of labelling:**
Distillates (petroleum), hydrotreated light
- **Risk phrases:**
Harmful: may cause lung damage if swallowed.
- **Safety phrases:**
*Keep out of the reach of children.
Keep away from food, drink and animal feedingstuffs.*

(Contd. on page 2)

USA



Printing date 08/29/2011

Reviewed on 08/29/2011

Trade name: **FLITZ LIQUID METAL POLISH**

(Contd. of page 1)

If swallowed, seek medical advice immediately and show this container or label.
Dispose of this material and its container to hazardous or special waste collection point.

Classification system:

· NFPA ratings (scale 0 - 4)



Health = 2
Fire = 1
Reactivity = 0

· HMIS-ratings (scale 0 - 4)



Health = 2
Fire = 1
Reactivity = 0

4 First aid measures

- After inhalation: Supply fresh air; consult doctor in case of complaints.
- After skin contact: Generally the product does not irritate the skin.
- After eye contact: Rinse opened eye for several minutes under running water.
- After swallowing: If symptoms persist consult doctor.

5 Firefighting measures

- Suitable extinguishing agents: CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- Special hazards arising from the substance or mixture: No further relevant information available.
- Protective equipment: No special measures required.

6 Accidental release measures

- Personal precautions, protective equipment and emergency procedures: Not required.
- Environmental precautions:
Dilute with plenty of water.
Do not allow to enter sewers/ surface or ground water.
- Methods and material for containment and cleaning up:
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.
- Reference to other sections
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

- Handling:
Precautions for safe handling
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.
- Information about protection against explosions and fires: No special measures required.
- Storage:
Requirements to be met by storerooms and receptacles: No special requirements.
Information about storage in one common storage facility: Not required.
Further information about storage conditions: None.

(Contd. on page 3)



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Trade name: FLITZ LIQUID METAL POLISH

(Contd. of page 2)

Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

Additional information about design of technical systems: No further data; see item 7.

Components with limit values that require monitoring at the workplace:

14464-46-1 cristobalite

PEL 1/2 value from respirable dust formulae for Quartz

REL 0.05* mg/m³

*respirable dust; See Pocket Guide App. A

TLV 0.025* mg/m³

*as respirable fraction

Additional information: The lists that were valid during the creation were used as basis.

Personal protective equipment:

General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed.

Wash hands before breaks and at the end of work.

Breathing equipment:

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

Protection of hands:

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Eye protection: Goggles recommended during refilling.

9 Physical and chemical properties

General Information

Appearance:

Form:	Fluid
Color:	According to product specification
Odor:	Characteristic
Odour threshold:	Not determined.

pH-value: Not determined.

Change in condition

Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	100°C (212 °F)

Flash point: Not applicable.

Flammability (solid, gaseous): Not applicable.

Ignition temperature: 210°C (410 °F)

(Contd. on page 4)

USA



Material Safety Data Sheet

acc. to ISO/DIS 11014

Printing date 08/29/2011

Reviewed on 08/29/2011

Trade name: **FLITZ LIQUID METAL POLISH**

(Contd. of page 3)

· Decomposition temperature:	<i>Not determined.</i>
· Auto igniting:	<i>Product is not selfigniting.</i>
· Danger of explosion:	<i>Product does not present an explosion hazard.</i>
· Explosion limits:	
Lower:	0.5 Vol %
Upper:	6.5 Vol %
· Vapor pressure at 20°C (68 °F):	23 hPa (17 mm Hg)
· Density:	<i>Not determined.</i>
· Relative density	<i>Not determined.</i>
· Vapour density	<i>Not determined.</i>
· Evaporation rate	<i>Not determined.</i>
· Solubility in / Miscibility with	
Water:	Fully miscible.
· Segregation coefficient (n-octanol/water):	<i>Not determined.</i>
· Viscosity:	
Dynamic:	<i>Not determined.</i>
Kinematic:	<i>Not determined.</i>
· Solvent content:	
Organic solvents:	16.5 %
Water:	52.6 %
· Solids content:	30.9 %
· Other information	<i>No further relevant information available.</i>

10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:** *No decomposition if used according to specifications.*
- **Incompatible materials:** *No further relevant information available.*
- **Hazardous decomposition products:** *No dangerous decomposition products known.*

11 Toxicological information

- **Acute toxicity:**
 - **Primary irritant effect:**
 - on the skin: No irritant effect.*
 - on the eye: No irritating effect.*
 - **Sensitization:** *No sensitizing effects known.*
 - **Additional toxicological information:**
- The product shows the following dangers according to internally approved calculation methods for preparations:*

12 Ecological information

- **Aquatic toxicity:** *No further relevant information available.*
- **Persistence and degradability** *No further relevant information available.*
- **Behavior in environmental systems:**
- **Bioaccumulative potential** *No further relevant information available.*

(Contd. on page 5)

USA



Material Safety Data Sheet
acc. to ISO/DIS 11014

Printing date 08/29/2011

Reviewed on 08/29/2011

Trade name: FLITZ LIQUID METAL POLISH

(Contd. of page 4)

- **Additional ecological information:**
- **General notes:**
Water hazard class 1 (Self-assessment): slightly hazardous for water
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

14 Transport information

· UN-Number	
· DOT, ADR, ADN, IMDG, IATA	Void
· UN proper shipping name	
· DOT, ADR, ADN, IMDG, IATA	Void
· Transport hazard class(es)	
· DOT, ADR, ADN, IMDG, IATA	
· Class	Void
· Packing group	
· DOT, ADR, IMDG, IATA	Void
· Environmental hazards:	
· Marine pollutant:	No
· Special precautions for user	Not applicable.
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.

15 Regulatory information

- **Sara**
- **Section 355 (extremely hazardous substances):**
None of the ingredients is listed.
- **Section 313 (Specific toxic chemical listings):**
1344-28-1 aluminium oxide
- **TSCA (Toxic Substances Control Act) All ingredients are listed**
- **Proposition 65**
- **Chemicals known to cause cancer:**
None of the ingredients is listed.
- **Chemicals known to cause reproductive toxicity for females:**
None of the ingredients is listed.
- **Chemicals known to cause reproductive toxicity for males:**
None of the ingredients is listed.

(Contd. on page 6)



Material Safety Data Sheet
acc. to ISO/DIS 11014

Printing date 08/29/2011

Reviewed on 08/29/2011

Trade name: **FLITZ LIQUID METAL POLISH**

(Contd. of page 5)

• Chemicals known to cause developmental toxicity:		
None of the ingredients is listed.		
• Carcinogenic categories		
• EPA (Environmental Protection Agency)		
None of the ingredients is listed.		
• IARC (International Agency for Research on Cancer)		
14464-46-1	cristobalite	I
• NTP (National Toxicology Program)		
14464-46-1	cristobalite	K
• TLV (Threshold Limit Value established by ACGIH)		
1344-28-1	aluminium oxide	A4
14464-46-1	cristobalite	A2
• NIOSH-Ca (National Institute for Occupational Safety and Health)		
14464-46-1	cristobalite	
• OSHA-Ca (Occupational Safety & Health Administration)		
None of the ingredients is listed.		

• **Product related hazard informations:**
The product has been classified and marked in accordance with directives on hazardous materials.

• **Hazard symbols:**



Harmful

• **Hazard-determining components of labelling:**
Distillates (petroleum), hydrotreated light

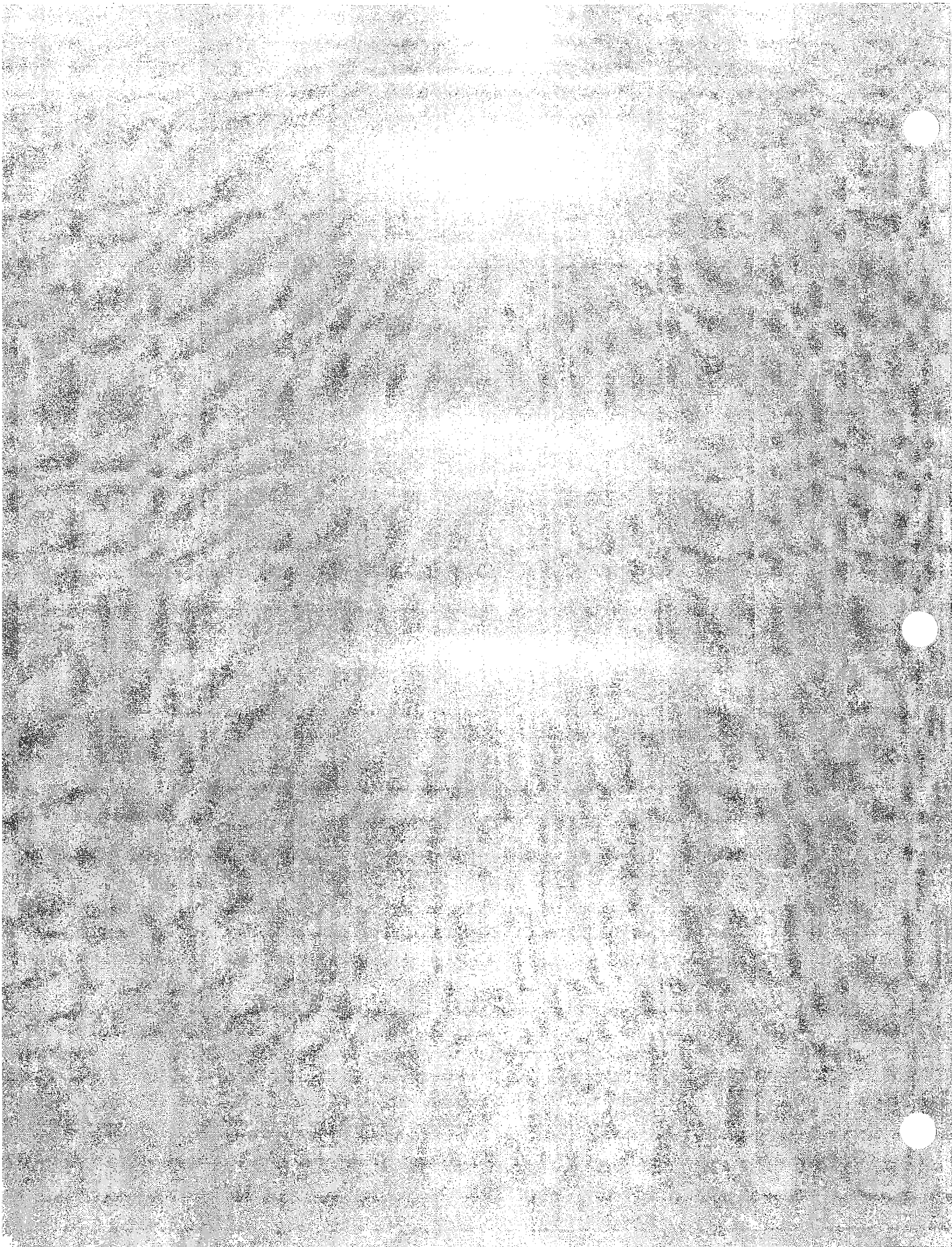
• **Risk phrases:**
Harmful: may cause lung damage if swallowed.

• **Safety phrases:**
Keep out of the reach of children.
Keep away from food, drink and animal feedingstuffs.
If swallowed, seek medical advice immediately and show this container or label.
Dispose of this material and its container to hazardous or special waste collection point.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- Department issuing MSDS: Product safety department
- Contact:
- * Data compared to the previous version altered.



=====
===== Product Identification =====

MSDS NAME:HM1403 OFF WHITE AMERICAS FINEST INT/ACR LATEX SEMIGLOSS ENAMEL

Status Code:A

MSDS Number: CKRVM

=== Responsible Party ===

Company:GLIDDEN COMPANY

Address:925 EUCLID AVENUE

City:CLEVELAND

State:OH

ZIP:44115

Country:US

Info Phone Num:800-221-4100

Emergency Phone Num:800-545-2643

Resp. Party Other MSDS Num.:S3

CAGE:01PD6

=== Contractor Identification ===

Company:3E COMPANY

Address:4920 CARROLL CANYON ROAD

Box:City:SAN DIEGO

State:CA

ZIP:92121

Country:US

Phone:800-451-8346;619-677-0467(FAX)

CAGE:ECOMP

Company:GLIDDEN PAINT, ICI PAINTS NORTH AMERICA

Address:925 EUCLID AVE

Box:City:CLEVELAND

State:OH

ZIP:44115

Country:US

Phone:800-545-2643/216-344-8207

CAGE:01PD6

=====
===== Composition/Information on Ingredients =====

Name:1,2-ETHANEDIOL: (ETHYLENE GLYCOL)

CAS:107-21-1

RTECS #:KW2975000

Minumum % Wt:1.

Maxumum % Wt:5.

ACGIH STEL:C127 MG/M3;C50 PPM

EPA Rpt Qty:1 LB

DOT Rpt Qty:1 LB

Name:KAOLIN: (CLAY)

CAS:1332-58-7

RTECS #:GF1670500

Minumum % Wt:1.

Maxumum % Wt:5.

OSHA PEL:15 MG/M3

ACGIH TLV:2 MG/M3

Name:PROPANOIC ACID, 2-METHYL-, MONOESTER WITH

2,2,4-TRIMETHYL-1,3-PENTANEDIOL: (TEXANOL)

CAS:25265-77-4

RTECS #:UF6000000

Minumum % Wt:1.
Maxumum % Wt:5.

Name:SILICA GEL, PRECIPITATED., CRYSTALLINE.-FREE: (SILICA GEL,
AMORPHOUS)

CAS:112926-00-8

RTECS #:VV7315000

Minumum % Wt:1.

Maxumum % Wt:5.

OSHA PEL:SEE TABLE Z-3

ACGIH TLV:10 MG/M3

Name:TITANIUM OXIDE: (TITANIUM DIOXIDE)

CAS:13463-67-7

RTECS #:XR2275000

Minumum % Wt:10.

Maxumum % Wt:20.

OSHA PEL:15 MG/M3

ACGIH TLV:10 MG/M3

Name:2-PROPENOIC ACID, BUTYL ESTER, POLYMER WITH ETHENYL
ACETATE: (BUTYL ACYLATE - VINYL ACETATE POLYMER

CAS:25067-01-0

Minumum % Wt:10.

Maxumum % Wt:20.

Name:WATER

CAS:7732-18-5

RTECS #:ZC0110000

Minumum % Wt:10.

Maxumum % Wt:40.

=====
===== Hazards Identification =====

Routes of Entry: Inhalation:YES Skin:YES Ingestion:YES

Reports of Carcinogenicity:NTP:NO IARC:NO OSHA:NO

Health Hazards Acute and Chronic:INHAL: IRRIT OF RESP TRACT, LUNGS.

PRLNG INHAL MAY LEAD TO MUC MEMB IRRIT, DROW, DIZZ

&/LIGHTHEADEDNESS, HDCH, NAUSEA, VOMIT, GI DISTURB, COUGHING,

APATHY, CNS DEPRESSION, ANESTHETIC EFFECT/NARCOSIS, BLOOD

ABNORMALITIES, KIDNEY DMG, LOSS OF CONSCIOUSNESS. SKIN: IRRIT OF

SKIN. PRLNG/RPTD CONTACT CAN CAUSE DERM, DEFATTING. SKIN CONTACT

MAY RESULT IN DERMAL ABSORPTION OF COMPONENT(S) OF THIS PROD WHI CH

MAY CAUSE APATHY. EYE: IRRIT OF EYES. PRLNG/RPTD CONTACT CAN CAUSE

CONJ. INGEST: MAY CAUSE FATIGUE, DROW, DIZZ &/LIGHTHEADEDNESS,

HDCH, NAUSEA, VOMIT, DIARR, GI DISTURB, SEVERE ABDOM PAIN, APATHY,

CNS DEPRESSION, RESP (EFTS OF OVEREXP)

Effects of Overexposure:HLTH HAZ: PROBLEMS, INTOXICATION, CNS DMG,

LIVER DMG, KIDNEY DMG, BLADDER DMG, PULM EDEMA, LOSS OF

CONSCIOUSNESS, CYANOSIS, ACUTE POISONING, RESP FAILURE, CARDIAC

FAILURE, BRAIN DMG, DEATH. SUPPLEMENTAL HEALTH INFO: CNINS CHEM

THAT IS MOD TOX BY INGEST. OTHER EFTS OF OVEREXP MAY INCLUDE TOX TO

LIVER, KIDNEY. MAY BE ABSORBED THRU SKIN. SOME LAB TEST RSLTS HAVE

SHOWN ETHYLENE GLYCOL TO BE AN ANIMAL TERATOGEN. A STUDY CONDUCTED

BY NTP, USING A CONTINUOUS BREEDING PROTOCOL, DEMONSTRATED THAT

DIETHYLENE GLYCOL IN DRINKING H*2O AT CONC OF 3.5% (6.1 G/KG/DAY)

RSLTD IN DECRD FERTILITY & REPROD PERFORM ANCE IN MICE. (SUPDAT)

Medical Cond Aggravated by Exposure: EYE, SKIN, RESPIRATORY DISORDERS
KIDNEY DISORDERS LIVER DISORDERS NERVOUS SYSTEM DISORDERS.

=====
===== First Aid Measures =====

First Aid: INHAL: REMOVE TO FRESH AIR. RESTORE & SUPPORT CONTINUED BREATHING. GET EMERGENCY MEDICAL ATTENTION. HAVE TRAINED PERSON GIVE OXYGEN IF NECESSARY. GET MEDICAL HELP FOR ANY BREATHING DIFFICULTY. REMOVE TO FRESH AIR IF INHALATION CAUSES EYE WATERING, HEADACHES, DIZZINESS/OTHER DISCOMFORT. SKIN: FLUSH FROM SKIN WITH WATER. THEN WASH THOROUGHLY WITH SOAP & WATER. REMOVE CONTAMINATED CLOTHING. WASH CONTAMINATED CLOTHING BEFORE RE-USE. EYE: FLUSH IMMEDIATELY W/LARGE AMOUNTS OF WATER, ESPECIALLY UNDER LIDS FOR AT LEAST 15 MINUTES. IF IRRITATION/OTHER EFFECTS PERSIST, OBTAIN MEDICAL TREATMENT. INGESTION : OBTAIN MEDICAL TREATMENT IMMEDIATELY.

=====
===== Fire Fighting Measures =====

Flash Point: NONE

Extinguishing Media: DRY CHEMICAL OR FOAM, WATER FOG, CARBON DIOXIDE.

Fire Fighting Procedures: WEAR NIOSH APPROVED SCBA & FULL PROTECTIVE EQUIPMENT . WATER MAY BE USED TO COOL AND PROTECT EXPOSED CONTAINERS.

Unusual Fire/Explosion Hazard: CLOSED CNTNRS MAY EXPLODE WHEN EXPOSED TO EXTREME HEAT/FIRE. VAPS ARE HEAVIER THAN AIR & MAY TRAVEL LONG DISTANCES TO SOURCE OF IGNIT & FLASH BACK. VAPS CAN FORM EXPLOS MIXT IN AIR AT ELEVATED TEMP. CLOSED CNTNRS MAY BURST IF EXPOSED TO EXTREME HEAT/FIRE. IN CLOSED TANKS, H*2O/FOAM MAY CAUSE FROTHING/ERUPTION.

=====
===== Accidental Release Measures =====

Spill Release Procedures: COMPLY W/APPLIC HEALTH & ENVIRON REGS.

ELIMINATE ALL SOURCES OF IGNIT. VENT AREA. SPILLS MAY BE COLLECTED W/ABSORB MATLS. EVACUATE ALL UNNEC PERS. PLACE COLLECTED MATERIAL IN PROPER CNTNR. LRG SPILLS- SHUT OFF LEAK IF SAFE TO DO SO. DIKE & CNTN SPILL. PUMP TO STORAGE/SALVAGE VESSELS. USE ABSORB TO PICK UP EXCESS RESIDUE. KEEP SALVAGEABLE MATL & RINSE H*2O OUT OF SEWERS & H*2O COURSES. (OTHER INFO)

=====
===== Handling and Storage =====

Handling and Storage Precautions: STORE BELOW 100F. KEEP AWAY FROM HEAT, SPARKS AND OPEN FLAME. KEEP FROM FREEZING. USE ONLY WITH ADEQUATE VENTILATION. DO NOT TAKE INTERNALLY. KEEP OUT OF REACH OF CHILDREN. AVOID CONTACT WITH SKIN AND EYES, AND BREATHING OF VAPORS.

Other Precautions: KEEP CONTAINERS TIGHTLY CLOSED AND UPRIGHT WHEN NOT IN USE. AVOID CONDITIONS WHICH RESULT IN FORMATION OF INHALABLE PARTICLES SUCH AS SPRAYING OR ABRADING (SANDING) PAINTED SURFACES. IF SUCH CONDITIONS CANNOT BE AVOIDED, USE APPROPRIATE RESPIRATORY PROTECTION AS DIRECTED UNDER SPECIAL PROTECTION INFORMATION.

=====
===== Exposure Controls/Personal Protection =====

Respiratory Protection: CONTROL ENVIRONMENTAL CONCENTRATIONS BELOW APPLICABLE STANDARDS. WHERE RESPIRATORY PROTECTION IS REQUIRED, USE

ONLY NIOSH APPROVED RESPIRATORS IN ACCORDANCE WITH OSHA STANDARD 29
CFR 1910.134

Ventilation:PROVIDE DILUTION VENTILATION OR LOCAL EXHAUST TO PREVENT
BUILD-UP OF VAPORS.

Protective Gloves:IMPERVIOUS GLOVES.

Eye Protection:ANSI APPROVED CHEMICAL WORKERS GOGGLES .

Other Protective Equipment:EYEWASH AND DELUGE SHOWER MEETING ANSI
DESIGN CRITERIA . IMPERVIOUS CLOTHING AND APRON.

Work Hygienic Practices:WASH HANDS THOROUGHLY AFTER HANDLING,
ESPECIALLY BEFORE EATING OR SMOKING.

Supplemental Safety and Health

EFT OF OVEREXP; THESE EFTS WERE NOT SEEN IN LOWER DOSE LEVELS
EVALUATED. SINCE EXPOS FROM INCIDENTAL CNTCT IS LIKELY TO BE LOWER
BY SEVERAL DEGREES OF MAGNITUDE & ROUTE OF EXPOS USED IN STUDY
DOESN'T REFLECT A LIKELY ROUTE FROM OCCUP/CONSUMER USE.
SIGNIFICANCE OF FINDING TO HUMAN IS UNCERTAIN.

===== Physical/Chemical Properties =====

Boiling Pt:~100.C, 212.F

B.P. Text:212F - 477F

VOC Pounds/Gallon:185

Appearance and Odor:OFF WHITE.

Percent Volatiles by Volume:67.92

===== Stability and Reactivity Data =====

Stability Indicator/Materials to Avoid:YES

OXIDIZERS, ACIDS, REDUCING AGENTS, BASES, ALUMINUM, ZINC, HYDROGEN
CHLORIDE, METALS, NITRIC ACID, HYDROFLUORIC ACID, VINYL POLYMERS,
METAL COMPOUNDS, HYDROGEN FLUORIDE, MAGNESIUM, SODIUM, POTASSIUM.

Stability Condition to Avoid:ELEVATED TEMPERATURES, CONTACT WITH
OXIDIZING AGENT, CONTACT WITH ALUMINUM OR ZINC, FREEZING, SPARKS,
OPEN FLAME.

Hazardous Decomposition Products:CARBON MONOXIDE, CARBON DIOXIDE,
OXYGEN, TOXIC GASES. PROPIONALDEHYDE.

Conditions to Avoid Polymerization:WILL NOT OCCUR.

===== Disposal Considerations =====

Waste Disposal Methods:DISPOSE IN ACCORDANCE WITH ALL APPLICABLE
FEDERAL, STATE AND LOCAL REGULATIONS. AVOID DISCHARGE TO NATURAL
WATERS.

===== MSDS Transport Information =====

Transport Information:DOT, PROPER SHIPPING NAME: PAINT.

===== Other Information =====

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particular situation.



**HALEY &
ALDRICH**

**DATA REPORT ON
GEOTECHNICAL INVESTIGATION
SOUTH BRONX
DSNY MARINE TRANSFER STATION
BRONX, NEW YORK**

**DATA REPORT ON
GEOTECHNICAL INVESTIGATION
SOUTH BRONX
DSNY MARINE TRANSFER STATION
BRONX, NEW YORK**

by

HALEY & ALDRICH OF NEW YORK

for

**Greeley and Hansen LLC
Philadelphia, Pennsylvania**

**File No. 29504-100
June 2005**

**HALEY &
ALDRICH**

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1. INTRODUCTION

1.1 Background

The New York City Department of Sanitation (DSNY) has historically used a network of eight transfer stations as destinations where Department collection vehicles deliver municipal solid waste. Since the closure of the Fresh Kills landfill, previously the ultimate destination for New York City (NYC) municipal solid waste, the DSNY has utilized a series of land-based transfer stations for overland export of Department managed waste to remote out-of-city disposal facilities. This mode of disposal has added to air and noise pollution within the City limits, has increased maintenance and operating costs of collection vehicles and has contributed to increased deterioration of City streets and highways.

In order to mitigate these increased costs and pollution issues, studies and conceptual designs for the conversion of the transfer stations to containerization and barge transport have been conducted. The studies have determined the existing transfer station network could be upgraded and modified to provide a truck-to-barge transfer system where the waste is received at the transfer stations, processed and containerized, loaded onto barges and transported to an inner-harbor port facility where the containers could be off-loaded onto rail, ship or truck for transport to remote out-of-city disposal facilities.

Based on the evaluation of the various alternatives, DSNY originally authorized Greeley and Hansen to develop conversion designs for all eight (8) of the existing Marine Transfer Station (MTS) sites. Subsequently, design for four of these sites including South Bronx was discontinued at the direction of DSNY. The purpose of this data report is to provide a complete record of the subsurface data that has been obtained prior to discontinuation of the project. The data contained in this report is therefore readily available for potential continuation of the MTS project or for other future development projects that may occur at this site.

1.2 Site Location

The South Bronx site is located on the East River, west of Hunts Point Avenue and east of Farragut Street in the Borough of the Bronx. The location of the site is shown on Figure 1 - Site Location Map.

Elevations referenced herein are in feet and are based on the local borough datum for the Bronx, which is +2.608 ft above N.G.V.D.

1.3 Scope of Work

The following scope of work was executed for the project:

- Site reconnaissance
- Subsurface data collection
- Performance of borings and laboratory testing
- Preparation of this Data Report

1.4 Limitations

This report has been prepared for specific application to the South Bronx Marine Transfer Station site located in the Borough of Bronx, New York. Excluded from the scope of our work was an assessment of oil, other hazardous materials, mold or other biological pollutants at the site.

2. SITE DESCRIPTION

2.1 Existing Site Conditions

The existing site is occupied by a dormant marine transfer facility located in the waters of East River. The existing ramp connects the MTS facility with Hunts Point Avenue. A bulkhead consisting of a steel sheetpile cofferdam exists along the East River.

2.2 Geologic Setting

The geologic setting of the site was determined from a review of boring logs and geologic maps, including the Geologic Map of New York, Lower Hudson Sheet, dated 1970, published by the New York State Museum and Science Service, and the Surficial Geologic Map of New York, Lower Hudson Sheet, dated 1989, published by the New York State Museum.

The site is located entirely within the East River. The existing soft organic and river-bottom deposits are underlain by glacial till, which in turn is underlain by bedrock. Bedrock in the area is part of the Manhattan Schist Formation, which is Lower Cambrian in age, or the Hartland Formation, which is Middle Ordovician to Lower Cambrian in age. The rock that was encountered at the South Bronx site was Schist.

3. SUBSURFACE CONDITIONS

3.1 Subsurface Data Collection

Existing boring data was collected from the NYC Department of Design and Construction and the Department of Sanitation. In addition, applicable reports available through project team members were reviewed. To provide additional data, seventeen new borings were drilled as part of the Phase 2 exploration program.

3.1.1 Previous Subsurface Exploration Programs

The data search yielded existing borings shown on the City of New York Public Works drawings, entitled "Record of Borings, South Bronx Incinerator and Marine Transfer Station, East River at Hunts Point Ave, Borough of the Bronx", dated 8/1/1955, and "Record of Borings, Bronx MTS Sweeper Dump, Hunts Point Avenue and Farragut Street, Borough of the Bronx", dated 12/13/1990. Logs for these borings are included in Appendix A.

It should be noted that the existing borings from the 1950s utilized sampling techniques, and in some cases soil classifications, that are not in accordance with current standards or practice. The blowcounts on the 1955 boring logs were converted to equivalent standard sampling blowcounts using the procedure presented in the AASHTO publication "Manual on Subsurface Investigations", dated 1988. The equivalent standard sampling blowcounts, rather than the blowcounts obtained in 1955 using the nonstandard sampling, were included on the soil profiles (Figures 3 through 6).

3.1.2 Phase 2 Subsurface Exploration Program

Seventeen (17) additional subsurface explorations were drilled for the South Bronx site. These borings were performed from a barge between 20 January and 25 March 2004. The borings were drilled by Warren George, Inc. of Jersey City, New Jersey. The borings were drilled to depths of between 28 and 60 feet below mudline, and were monitored and logged by a representative of Haley & Aldrich. Disturbed soil samples were obtained using the Standard Penetration Test (SPT) Method (ASTM D-1586). Rock core samples were obtained using a NX-sized double-tube core barrel. Samples were described and classified in accordance with the Unified Soil Classification System (USCS) (ASTM D-2487) and the New York City Building Code. Locations of the borings are shown on Figure 2, and the boring logs are included in Appendix B.

3.2 Subsurface Stratigraphy

Many of the borings drilled in 1955 in the area between Hunts Point Avenue and the existing shoreline encountered organic deposits at ground surface. The borings drilled closest to the current shoreline indicate that this area was submerged in 1955. Subsequent to 1955, this area was filled to create reclaimed land. Based on the relative ground surface elevations noted in the 1955 borings and the current ground surface elevation in this area, it appears that approximately 15 to 20 feet of uncontrolled fill was placed.

Our interpretation of subsurface conditions is based on recent borings performed by the project team, and available existing borings performed in the past by others, as described above. Geologic strata encountered in the borings can be characterized as follows, described in order of increasing depth below water surface. The stratigraphy is illustrated on subsurface profiles presented on Figures 3 through 6, Subsurface Profile Sections A-A through D-D. Figure 2 shows the section cut locations.

Stratum 1: ORGANIC SOIL (OL/OH) and River Bottom Sediment

This recent deposit is encountered at the mudline in most of the borings. The mudline elevation ranged approximately from El. -9 ft near land to El. -40 ft further out into the East River. The stratum typically consisted of very soft, black to gray ORGANIC SILT (OL) with varying amounts of fine sand, clay, shells, and peat. When encountered this stratum ranges in thickness from approximately 3 to 23 feet. (Class 11-65)

Stratum 2: SAND

This stratum was encountered in all of the borings. Its thickness ranged from 7 to 58 feet thick. It typically consisted of a loose to very dense, brown, silty SAND to poorly-graded SAND with varying amounts of silt and gravel. Several borings encountered cobbles and boulders within this layer, in some cases as shallow as several feet below mudline. Spoon refusal (defined as 100 blows in less than 6 in.) was encountered throughout this layer, and the drilling was difficult and slow. In boring E-210 a layer of SILT was encountered, and in E-201 a CLAY layer was encountered within this stratum. (Class 6-65 to 10-65)

Stratum 3: Decomposed Bedrock

This stratum was encountered in several of the borings. Where penetrated, its thickness ranged from 1 to 12 feet. This stratum was generally described as very dense, olive-gray, silty SAND to hard, olive-gray, sandy SILT. Spoon refusal (defined as 100 blows in less than 6 in.) was encountered throughout this layer. (Class 4-65 to 5-65 & 7-65)

Stratum 4: Bedrock

Some of the borings were drilled to bedrock, which was encountered between from El. -41 ft to El. -73 ft. The bedrock was described as moderately hard, fresh to slightly weathered and seamy, fine to medium grained, gray, SCHIST. Recovery ranged from 42 to 100%. RQD's ranged from 0% to 100%. (Class 2-65 to 3-65)

3.3 Groundwater Levels

Groundwater is expected to be encountered at relatively shallow depths ranging from El. 0.0 to El. +3.0. Groundwater levels are expected to fluctuate with precipitation, seasonal conditions, land use, and tides.

3.4 Laboratory Test Results

Several representative soil samples obtained during the Phase 2 exploration program were submitted to a soil mechanics laboratory for testing to aid in soil classification, and for determination of engineering properties. Testing included:

- Wash 200 sieve analysis (ASTM D-421 and D-422)
- Atterberg Limits (ASTM D-4318)
- Water Content (ASTM D-2216)
- Unconsolidated Undrained (UU) Triaxial Compression Test (ASTM D-2850)

The tests were performed in general accordance with the applicable ASTM standard. Test results are summarized on Table 1, which is included in Appendix C with the laboratory test data sheets

3.4.1 Classification Tests

Two soil samples were submitted for classification tests, including water content, Atterberg Limits, and wash 200 sieve analysis.

3.4.2 UU Triaxial Test

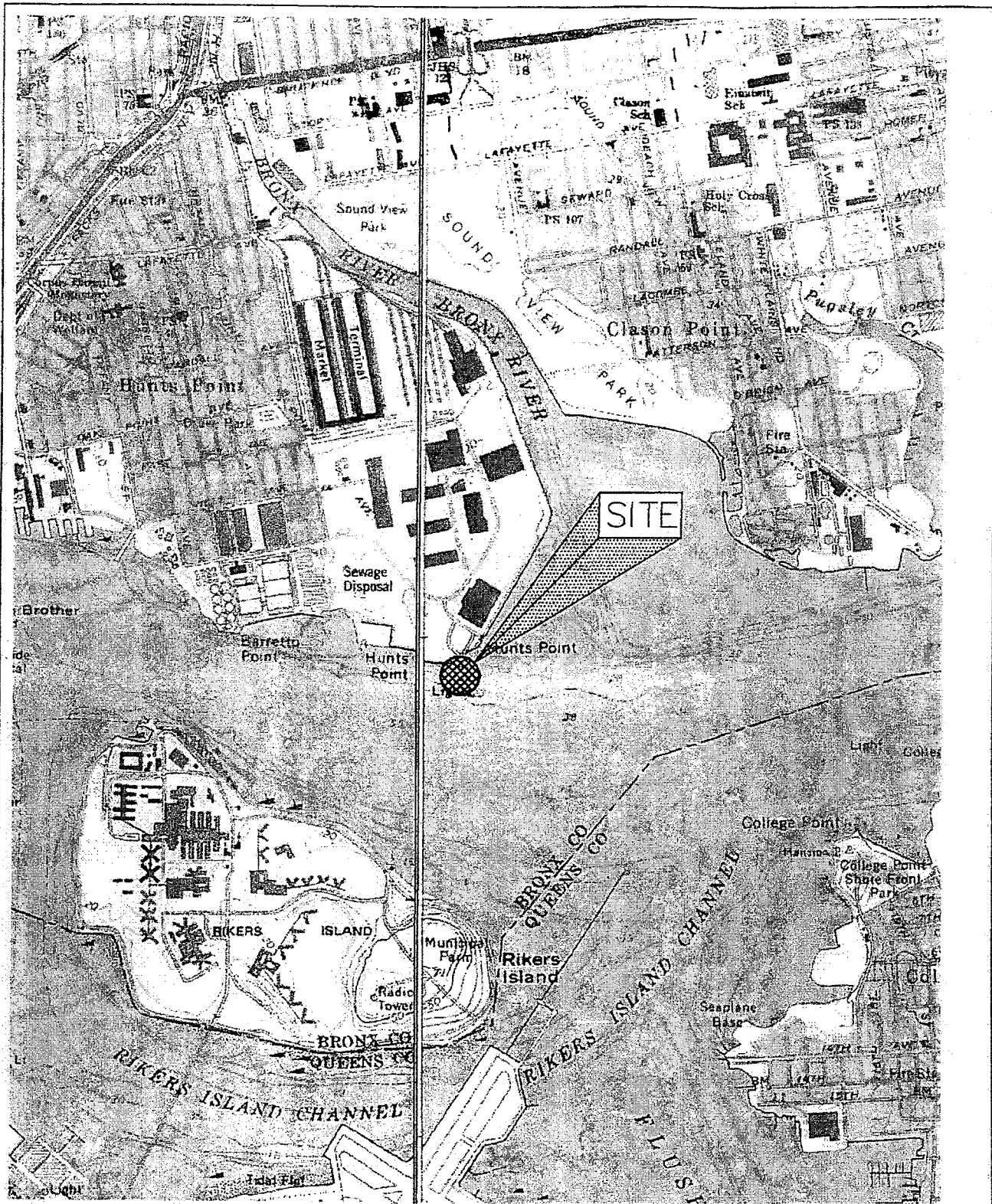
Two samples were submitted for UU triaxial tests. The samples were from Stratum 1, Organic Silt. The undrained shear strength of the samples, as determined by the UU triaxial test, ranged from 110 to 120 psf. The unit weight of the samples ranged from 77.3 to 79.9 pcf.

REFERENCES

1. AASHTO Publication entitled, "Manual on Subsurface Investigation" 1988, Appendix C.
2. Greeley & Hansen LLC, Transfer Station Conversion Preliminary Design Report, dated June 2003.

G:\documents\29\29504\29504t09.doc

Figures



SOURCE:
 CENTRAL PARK QUADRANGLE, N.Y.-N.J., USGS 7.5 MINUTE SERIES
 (TOPOGRAPHIC), DATED 1966, PHOTOREVISED 1979.
 FLUSHING QUADRANGLE, N.Y., USGS 7.5 MINUTE SERIES
 (TOPOGRAPHIC), DATED 1966, PHOTOREVISED 1979.



UNDERGROUND
 ENGINEERING &
 ENVIRONMENTAL
 SOLUTIONS

MARINE TRANSFER STATION
 SOUTH BRONX
 BRONX, NEW YORK

SITE LOCATION MAP

APPROXIMATE SCALE: 1" = 2000'

JUNE 2005

29504-000 A08

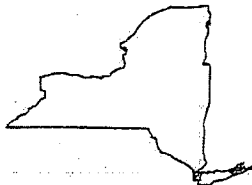
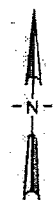


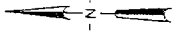
FIGURE 1



MARINE TRANSFER STATION
SOUTH BRONX
BRONX, NEW YORK

SUBSURFACE EXPLORATION LOCATION PLAN

SCALE: AS SHOWN

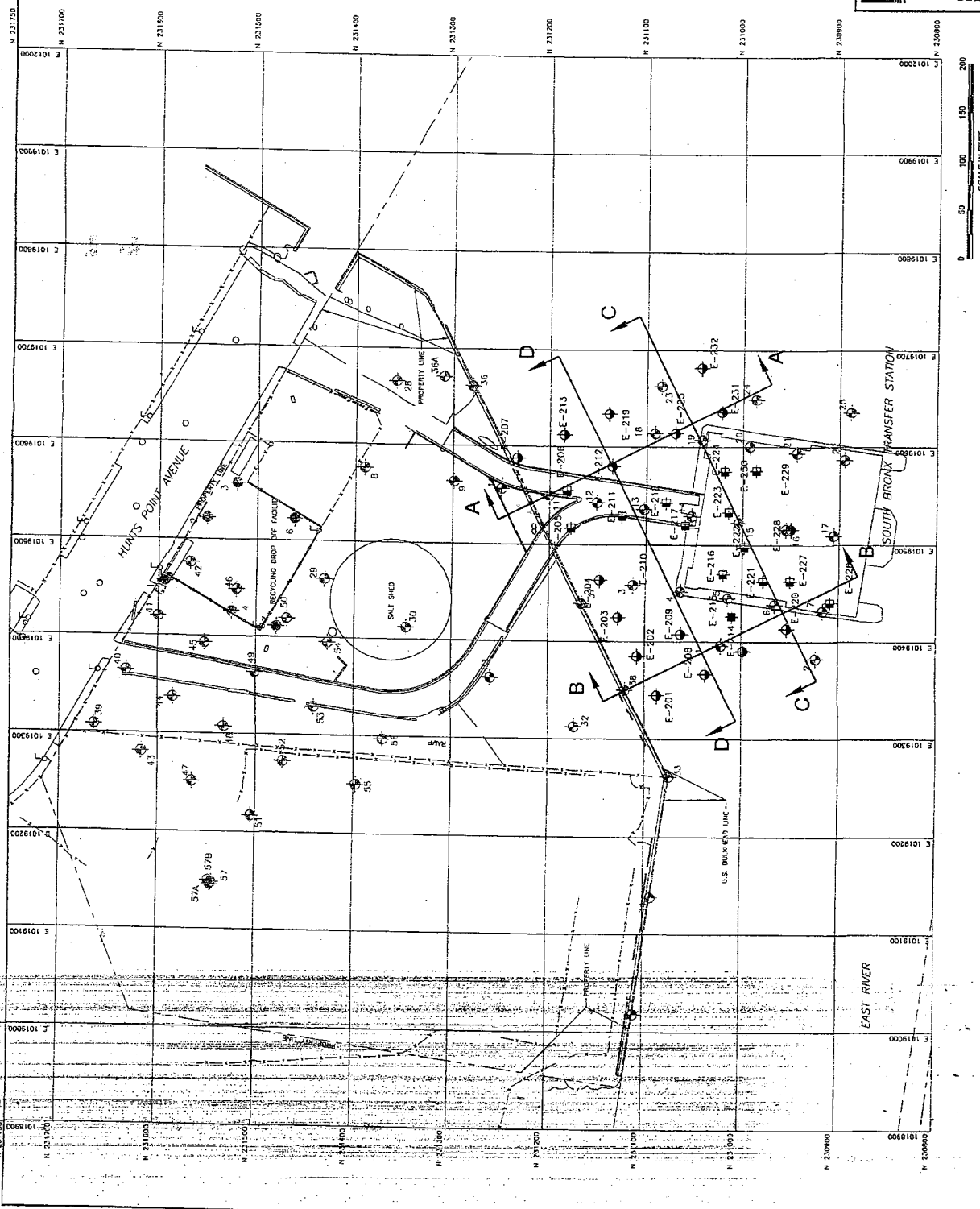


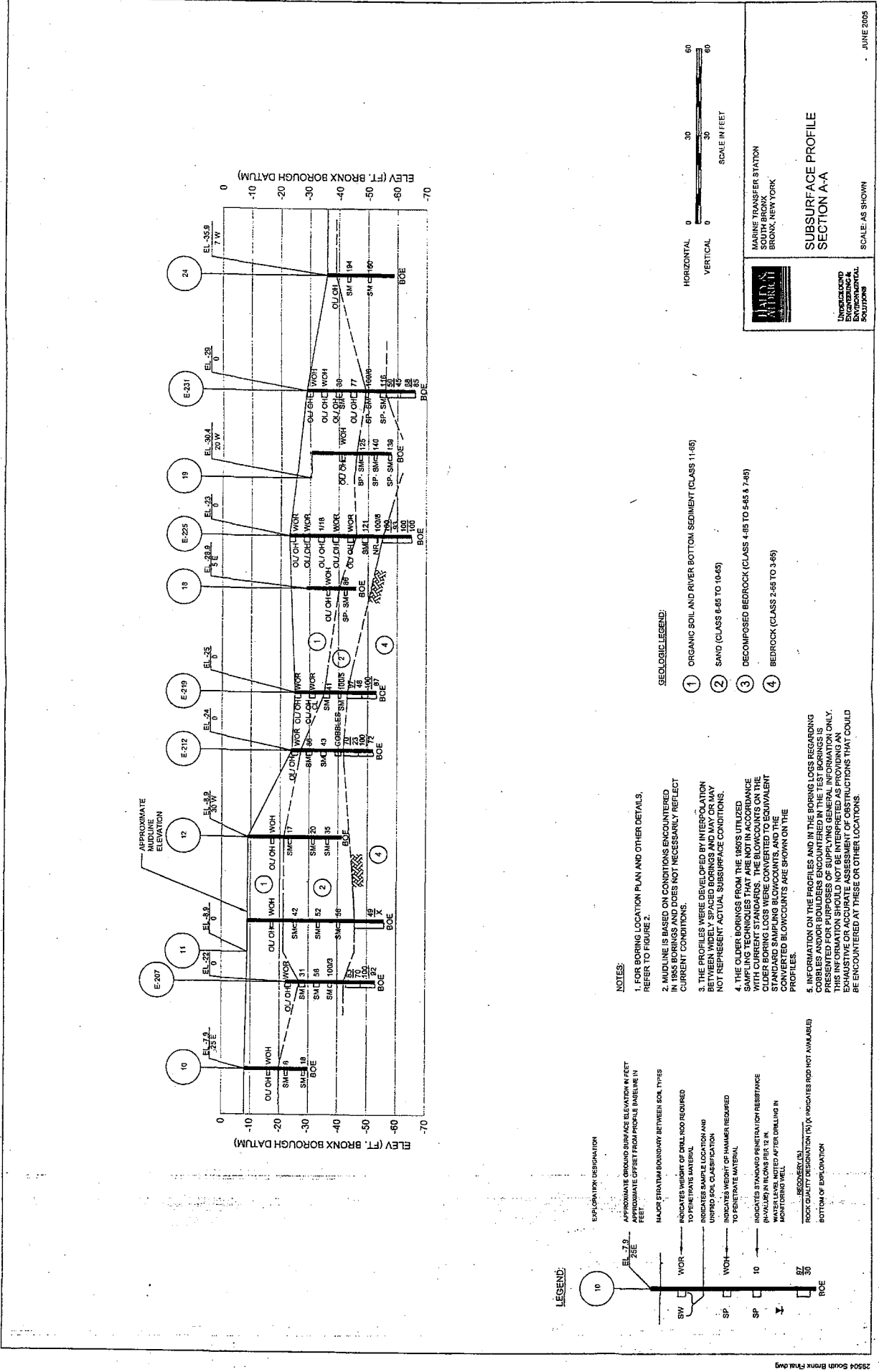
LEGEND

- ◆ BORINGS PERFORMED BY OTHERS AS SHOWN ON THE CITY OF NEW YORK PUBLIC WORKS DRAWING ENTITLED, RECORD OF BORINGS, SOUTH BRONX WASTEWATER AND WINDMILL WASTEWATER STATION, DATED 8/1/75
- BORINGS PERFORMED BY OTHERS AS SHOWN ON THE CITY OF NEW YORK PUBLIC WORKS DRAWING ENTITLED, RECORD OF BORINGS, SUBSURFACE EXPLORATION UNIT DRAWING ENTITLED, RECORD OF BORINGS, BRONX MIS SWEEPER CAMP, BOROUGHS OF THE BRONX, DATED 12/17/70.
- ◆ PHASE 2 BORING LOCATION.
- ◆ WATER BORINGS WERE PERFORMED BY WARREN GEORGE INC. OF NEW YORK CITY ON 11/11/04, 11/12/04 & 25 MARCH, 2004 UNDER OBSERVATION OF HALEY & ALDRICH, INC.
- ◆ BORINGS NOT PERFORMED DUE TO DISCONTINUATION OF DATA COLLECTION AT THE SITE.
- ◆ PHASE 2 BORING PROBE DOWN TO ROCK & CORE LOGBOOK.

GENERAL NOTES

- 1 PLAN DEVELOPED FROM DRAWINGS PROVIDED BY GREELY AND HANSEN, LLC, 670 ELLER SOUTH BRONX MARINE TRANSFER STATION, SOUTH BRONX, NEW YORK. CROSS-SECTION PLAN, DATED APRIL 2004 (AS SHOWN). ELECTRONIC FILE OF AERIAL PHOTO ENTITLED "S BRONX.JPG" WAS PROVIDED BY GREELY AND HANSEN, LLC. ORIGINAL AERIAL PHOTO DATED 12/17/2000 (PROPOSED STRUCTURES).
- 2 THE DATUM IS THE BOROUGHS OF BRONX DATUM.
- 3 PROPERTY LINES SHOWN ARE APPROXIMATE BASED ON BRONX MIS SWEEPER CAMP AERIALPHOTOGRAPHICAL AND PROPERTY LINE MAP RECEIVED IN 1991.





MARINE TRANSFER STATION
SOUTH BRONX BRIDGE, NEW YORK

URS
UNIVERSITY
ENVIRONMENTAL
SOLUTIONS

SCALE: AS SHOWN

JUNE 2004

**SUBSURFACE PROFILE
SECTION A-A**

FIGURE 3

NOTES:

1. FOR BORING LOCATION PLAN AND OTHER DETAILS, REFER TO FIGURE 2.
2. MUDLINE IS BASED ON CONDITIONS ENCOUNTERED IN 1955 BORINGS AND DOES NOT NECESSARILY REFLECT CURRENT CONDITIONS.
3. THE PROFILES WERE DEVELOPED BY INTERPOLATION BETWEEN WIDELY SPACED BORINGS AND MAY OR MAY NOT REPRESENT ACTUAL SUBSURFACE CONDITIONS.
4. THE OLDER BORINGS FROM THE 1950S UTILIZED SAMPLING TECHNIQUES THAT ARE NOT IN ACCORDANCE WITH CURRENT STANDARDS. THE BLOWCOUNTS ON THE OLDER BORING LOGS WERE CONVERTED TO EQUIVALENT STANDARD PENETRATION RESISTANCE (SP-VALUES) IN BLOWS PER 12 IN. MONITORING WELL.
5. INFORMATION ON THE PROFILES AND IN THE BORING LOGS REGARDING CURBLES, CHANGES IN SOIL TYPES, AND OTHER INFORMATION IS PRESENTED FOR PURPOSES OF SUPPLYING GENERAL INFORMATION ONLY. THIS INFORMATION SHOULD NOT BE INTERPRETED AS PROVIDING AN EXHAUSTIVE OR ACCURATE ASSESSMENT OF OBSTRUCTIONS THAT COULD BE ENCOUNTERED AT THESE OR OTHER LOCATIONS.

SEDLOGIC LEGEND:

- 1 ORGANIC SOIL AND RIVER BOTTOM SEDIMENT (CLASS 11-65)
- 2 SAND (CLASS 6-65 TO 10-65)
- 3 DECOMPOSED BEDROCK (CLASS 4-65 TO 5-65 & 7-65)
- 4 BEDROCK (CLASS 2-65 TO 3-65)

LEGEND:

EXPLORATION DESIGNATION

APPROXIMATE GRADE AND SURFACE ELEVATION IN FEET

APPROXIMATE OFFSET FROM PROFILE ELEVATION IN FEET

MAJOR STRATA BOUNDARY BETWEEN SOIL TYPES

INDICATES HEIGHT OF PILE, LOG REQUIRED TO PENETRATE MATERIAL

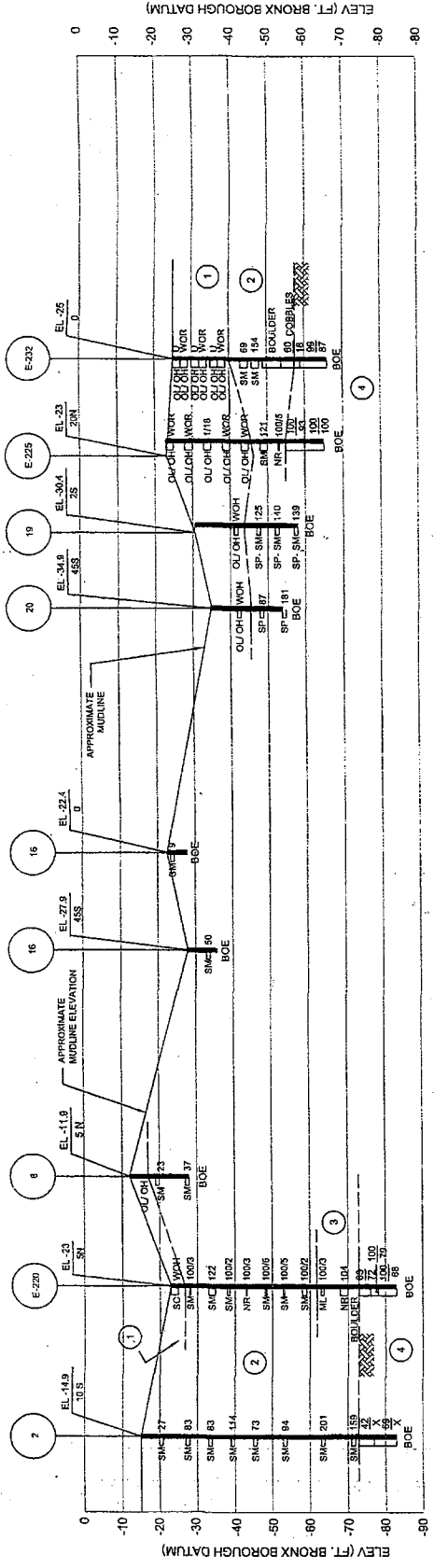
INDICATES SAMPLE LOCATION AND UNFROD SOIL CLASSIFICATION

INDICATES WEIGHT OF HAMMER REQUIRED TO PENETRATE MATERIAL

INDICATES STANDARD PENETRATION RESISTANCE (SP-VALUE) IN BLOWS PER 12 IN. MONITORING WELL

ROCK CAPACITY DESIGNATION (RCD) INDICATES PND NOT AVAILABLE

BOTTOM OF EXPLORATION

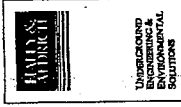
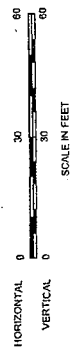


GEOLOGIC LEGEND:

- ① ORGANIC SOIL AND RIVER BOTTOM SEDIMENT (CLASS 11-65)
- ② SAND (CLASS 6-65 TO 10-65)
- ③ DECOMPOSED BEDROCK (CLASS 4-65 TO 5-65 & 7-65)
- ④ BEDROCK (CLASS 2-65 TO 3-65)

NOTE:

- 1. SEE FIGURE 3 FOR PROFILE LEGEND AND NOTES.



MARINE TRANSFER STATION
SOUTH BRONX
BRONX, NEW YORK

**SUBSURFACE PROFILE
SECTION C-C**

SCALE: AS SHOWN

JUNE 2005

FIGURE 5

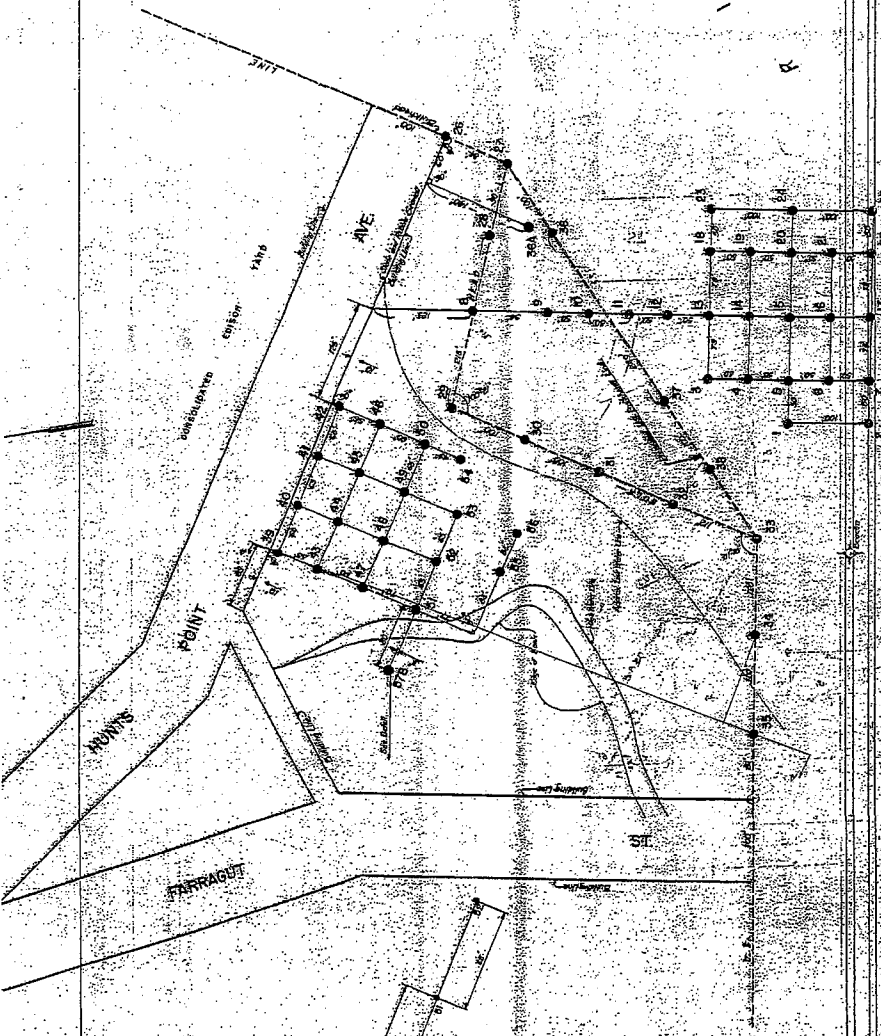
Appendix A

APPENDIX A

Logs of Previous Test Borings

DATUMABLE

Electrically fixed to building of 7th floor, adjacent building, and to other fixed structure of 8th floor, as indicated by the red dashed lines.



1. The structure shown on this drawing is a portion of the structure shown on the drawing of the same name on sheet 0272. The structure shown on this drawing is a portion of the structure shown on the drawing of the same name on sheet 0272.

2. The structure shown on this drawing is a portion of the structure shown on the drawing of the same name on sheet 0272. The structure shown on this drawing is a portion of the structure shown on the drawing of the same name on sheet 0272.

3. The structure shown on this drawing is a portion of the structure shown on the drawing of the same name on sheet 0272. The structure shown on this drawing is a portion of the structure shown on the drawing of the same name on sheet 0272.

EXPLANATION OF SYMBOLS

SYMBOL	DESCRIPTION
(Symbol)	Column
(Symbol)	Beam
(Symbol)	Wall
(Symbol)	Slab
(Symbol)	Stair
(Symbol)	Door
(Symbol)	Window
(Symbol)	Other

NO.	REVISION	DATE
1	AS SHOWN	7/1/68

DESIGNED BY: [Name]
 CHECKED BY: [Name]
 APPROVED BY: [Name]

STRUCTURAL ENGINEER

REGISTERED PROFESSIONAL ENGINEER

STATE OF CALIFORNIA

NO. [Number]

DATE OF EXPIRATION: [Date]

SOUTH BAY GENERATOR

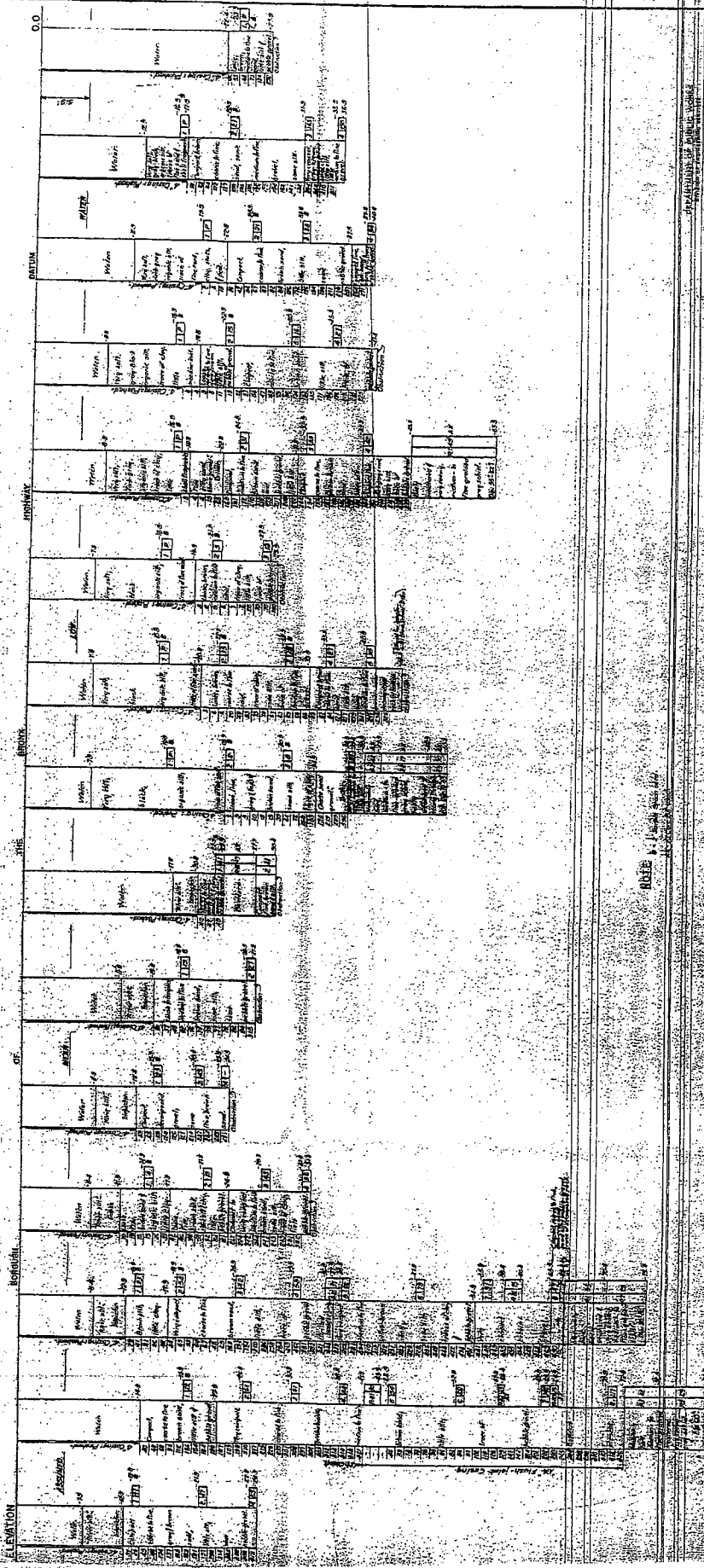
MARINE TRANSFER STATION

ALBANY, CALIFORNIA

SHEET 5

0273

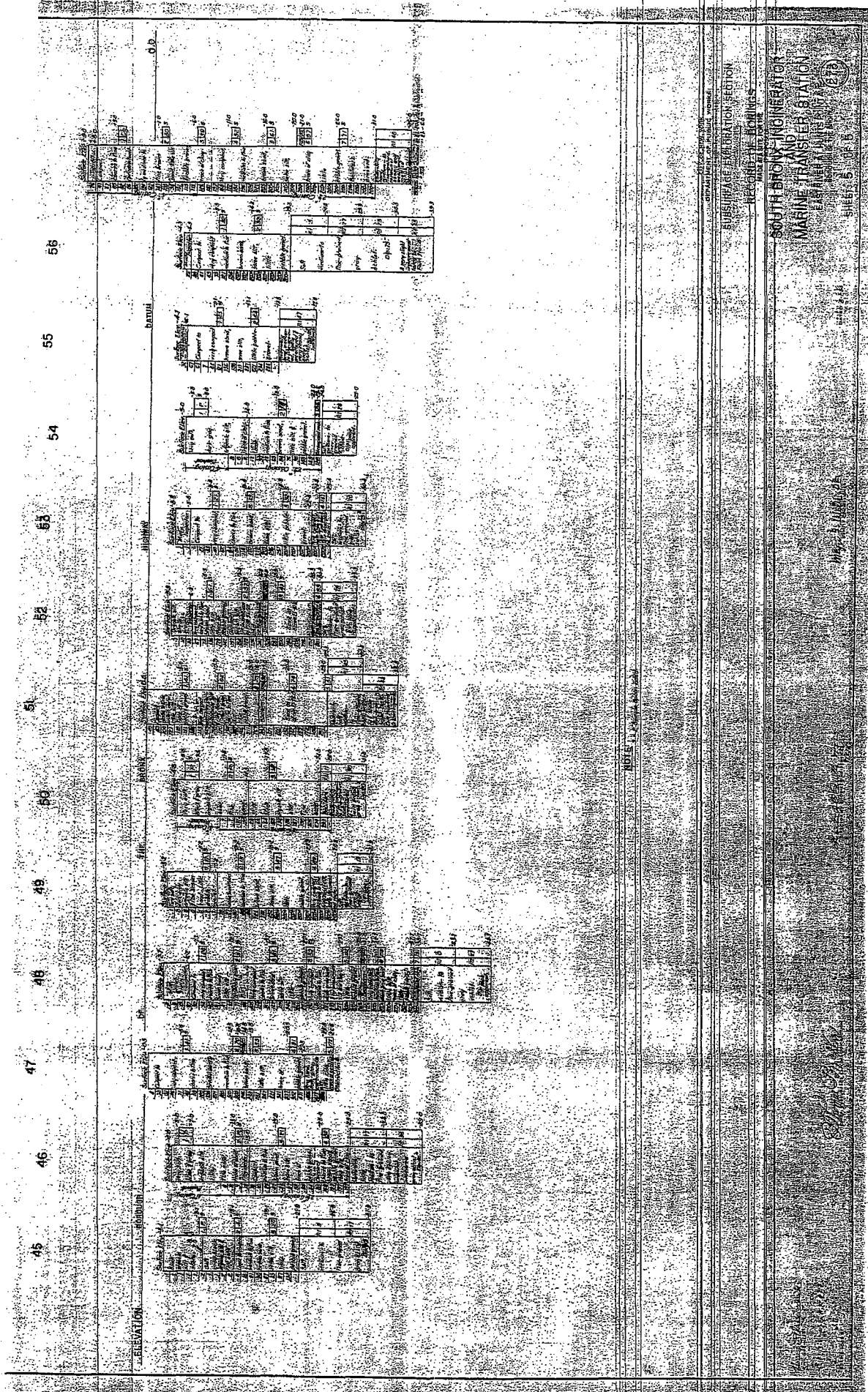
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15



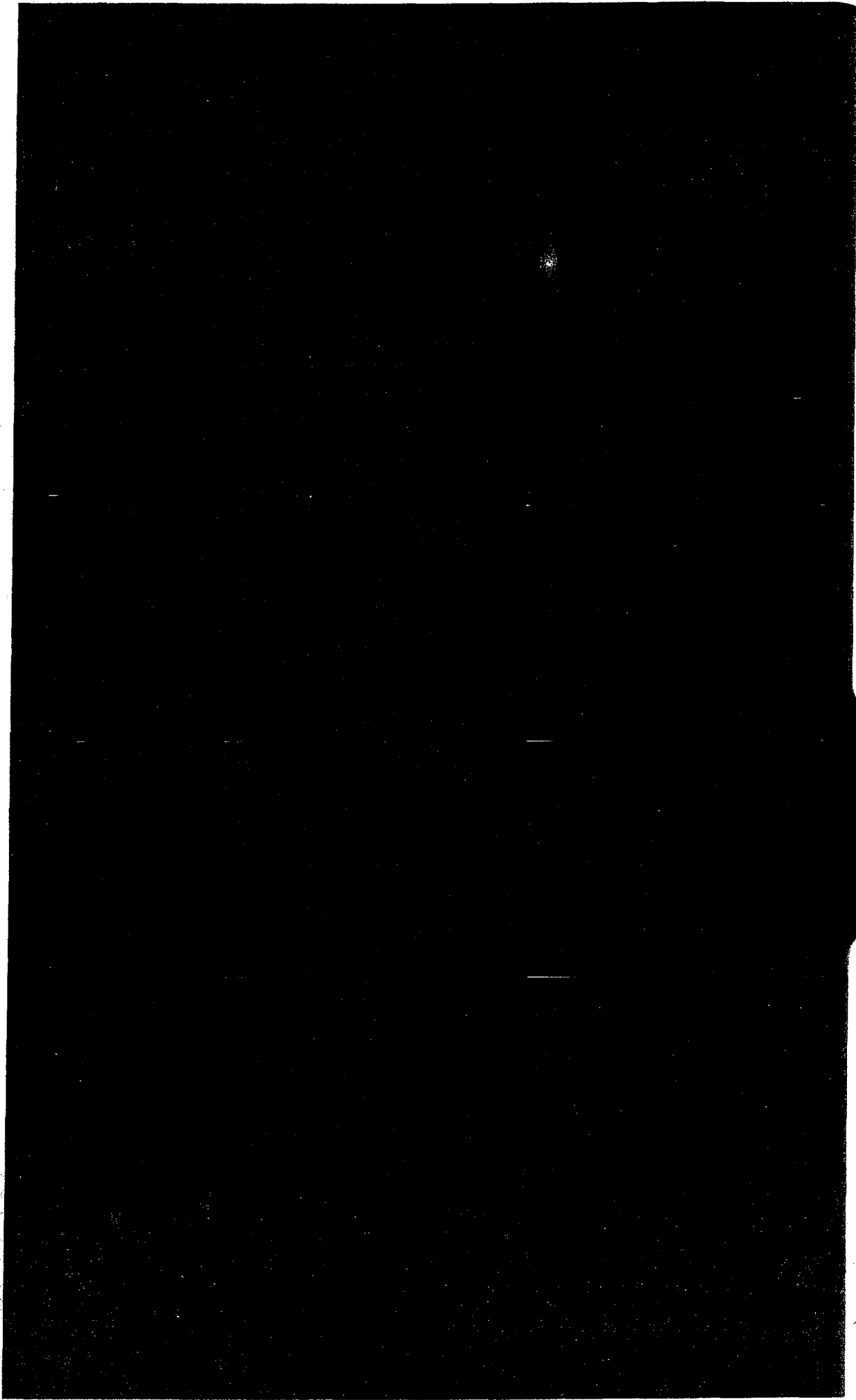
ROBEY & LADD ARCHT.

DEPARTMENT OF PUBLIC WORKS
 SUBSURFACE EXPLORATION SECTION
 RECORDING ENGINEERS
 SOUTH BAY
 MARINE TRANSPORTATION
 EAST RIVER TUNNEL
 SHEET 8

Handwritten signature or initials



GENERAL NOTES:
 SUBSIDIARY ELEVATION SECTION
 RECORD OF RECORDS
 SOUTH BRONX ENGINEERING
 MARINE TRANSFER STATION
 EAST 17TH ST. N.Y.C.
 SHEET NO. 0273



Appendix B



000000

APPENDIX B

Logs of Phase 2 Test Borings.



TEST BORING REPORT

Boring No. E-201

Project MARINE TRANSFER STATION - SOUTH BRONX BRONX, NEW YORK
 Client GREELEY & HANSEN LLC
 Contractor WARREN GEORGE, INC.

File No 29504-000
 Sheet No. 1 of 2
 Start February 4, 2004
 Finish February 6, 2004
 Driller G. Suri

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	HW/SW	S	NX	Rig Make & Model: Failing Holemaster on truck
Inside Diameter (in.)	4/6	1 3/8	2	Bit Type: Roller Bit
Hammer Weight (lb.)	300	140	-	Drill Mud: Bentonite
Hammer Fall (in.)	24	30	-	Casing: Driven
				Hoist/Hammer: Cat-Head Safety Hammer

H&A Rep.A. Krishnamoorthy
 Elevation -17.00 (est.)
 Datum Bronx Borough
 Location See Plan
 N 0
 E 0

Depth (ft.)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft.)	Well Diagram	Depth (ft.)	USCS Symbol	Visual-Manual Identification and Description <small>(Density/consistency, color, GROUP NAME, max. particle size², structure, odor, moisture, optional descriptions, geologic interpretation)</small>	Gravel					Sand			Field Test					
								% Coarse	% Fine	% Coarse	% Medium	% Fine	% Fines	Dilatancy	Toughness	Plasticity	Strength				
0	WOH WOH WOH WOH	S1 4	0.0 2.0	NO WELL INSTALLED		SM	-Mudline- Very loose, gray to black, silty SAND (SM), mps 3 mm, organic odor, wet Class 11-65				5	15	40	40							
5	1 1 1 20	S2 4	5.0 7.0			OL/ OH	Very soft, gray, ORGANIC SOIL with sand (OL-OH), organic odor, wet Class 11-65 Top 4 in. consisted of silty SAND (SM)							20	80						
10						-27.0 10.0		Drilling action indicated presence of boulder 10.0-12.0 ft. Wash indicates sand and gravel 12.0-15.0 ft. Drilling action indicates boulders 15.0-17.0 ft.													

G:\DATA\29504\LOGS\SOUTH BRONX\PHASE2 SOUTH BRONX WARREN GEORGE REV3.GPJ May 31, 05
 USCSTB-CORE4.GDT
 USCSTB-CORE4.GLB
 USCSTB-CORE4.GDT
 USCSTB-CORE4.GLB
 USCSTB-CORE4.GDT

Water Level Data				Sample Identification			Well Diagram			Summary												
Date	Time	Elapsed Time (hr.)	Depth (ft.) to:			O	T	U	S	G	Riser Pipe	Screen	Filter Sand	Cuttings	Grout	Concrete	Bentonite Seal	Overburden (lin. ft.)	Rock Cored (lin. ft.)	Samples	S6, R2	
			Bottom of Casing	Bottom of Hole	Water																	
																	Boring No.	E-201				

Field Tests: Dilatancy: R-Rapid, S-Slow, N-None Plasticity: N-Nonplastic, L-Low, M-Medium, H-High
 Toughness: L-Low, M-Medium, H-High Dry Strength: N-None, L-Low, M-Medium, H-High, V-Very High

¹SPT = Sampler blows per 6 in. ²Maximum particle size (mm) is determined by direct observation within the limitations of sampler size (in millimeters).

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.



TEST BORING REPORT

Boring No. E-201

File No. 29504-000

Sheet No. 2 of 2

Depth (ft.)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft.)	Well Diagram	Depth (ft.)	USCS Symbol	Visual-Manual Identification and Description (Density/consistency, color, GROUP NAME, max. particle size ² , structure, odor, moisture, optional descriptions, geologic interpretation)	Gravel		Sand			Field Test				
								% Coarse	% Fine	% Coarse	% Medium	% Fine	% Fines	Dilatancy	Toughness	Plasticity	Strength
20	36 50 100/6	S3 6	20.0 21.5			CL	Hard, dark gray, lean CLAY (CL), moist Class 9-65					10	90				
25	50 65 75 100/4	S4 18	25.0 27.0			SP-SM	Very dense, olive-gray, poorly-graded SAND with silt (SP-SM), mps 1 mm, moist Class 7-65			20	70	10					
30	12 30 32 44	S5 14	30.0 32.0			SP	Very dense, light-brown, poorly-graded SAND (SP), mps 10 mm, moist Class 7-65	5		30	60	5					
35					-52.0 35.0												
	100/6 6 min.	S6 4 R1	35.5 36.0 41.0		-53.0 36.0	SM	-Decomposed Rock- Very dense, olive-gray, silty SAND (SM), mps 4 mm, moist, with mica Class 4-65 <u>Drill action indicates bedrock at 36.0 ft. Started coring rock at 36.0 ft.</u> Medium hard, fresh, black-gray, fine-grained SCHIST. Joints are moderately spaced, fresh to discolored, rough, tight. Class 2-65 REC = 60/60 = 100% RQD = 38/60 = 63%			5	15	40	40				
	4 min. 4 min. 5 min. 5 min.																
40	5 min. 5 min. 5 min. 5 min.	R2	41.0 46.0				Similar to R1 Class 2-65 REC = 60/60 = 100% RQD = 42/60 = 70%										
45	5 min.				-63.0 46.0		END OF EXPLORATION AT 46 FT +/-										

USCS_TB4 USCSTB+CORE4.GDT C:\DATA\29504\LOGS\SOUTH-BRONX\PHASE2 SOUTH-BRONX-WARREN-GEORGE-REV3.GPJ May 31, 05

¹SPT = Sampler blows per 6 in. ²Maximum particle size (mm) is determined by direct observation within the limitations of sampler size
NOTE: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.



TEST BORING REPORT

Boring No. E-202

File No. 29504-000

Sheet No. 2 of 2

Depth (ft.)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft.)	Well Diagram	Depth (ft.)	USCS Symbol	Visual-Manual Identification and Description (Density/consistency, color, GROUP NAME, max. particle size ² , structure, odor, moisture, optional descriptions, geologic interpretation)	Gravel		Sand			Field Test						
								% Coarse	% Fine	% Coarse	% Medium	% Fine	% Fines	Dilatancy	Toughness	Plasticity	Strength		
20																			
	98 100/4	S4 4	23.0 23.8			SM	Very dense, brown, silty SAND (SM), moist Class 7-65					60	40						
25																			
30	70 100/4	S5 10	30.0 30.8			SM	Very dense, olive-gray, silty SAND (SM), mps 1 mm, moist Class 7-65					60	40						
35	90 100/4	S6 8	35.0 35.8			SM	-Decomposed Rock- Very dense, olive-gray, silty SAND (SM), mps 10 mm, moist, with mica Class 7-65	5	5	10	40	40							
					-56.0 36.0		Drilling action indicates top of rock at 36 ft. Drill 1 ft. into rock.												
	7 min.	R1 47	37.0 42.0				Moderately hard, fresh, black-gray, fine-grained SCHIST. Joints are moderately dipping, closely spaced, fresh to discolored, rough, tight. Class 2-65												
	7 min.																		
	6 min.																		
40	6 min.																		
	5 min.																		
	6 min.	R2	42.0 47.0				Moderately hard, fresh, black-gray, fine-grained, SCHIST. Joints are moderately dipping, moderate to closely spaced, fresh to discolored, rough, open. Class 2-65												
	4 min.																		
	6 min.																		
45	6 min.																		
	8 min.																		
					-67.0 47.0		END OF EXPLORATION AT 47 FT +/-												

USCS_TB4 USCSUB4.GLB USCSTB-CORE4.GDT G:\DATA\29504\LOGS\SOUTH BRONX\PHASE2 SOUTH BRONX WARREN GEORGE REV3.GPJ May 31, 05

¹SPT = Sampler blows per 6 in. ²Maximum particle size (mm) is determined by direct observation within the limitations of sampler size.
NOTE: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.



TEST BORING REPORT

Boring No. E-203

Project MARINE TRANSFER STATION - SOUTH BRONX BRONX, NEW YORK
 Client GREELEY & HANSEN LLC
 Contractor WARREN GEORGE, INC.

File No 29504-000
 Sheet No. 1 of 2
 Start February 13, 2004
 Finish February 16, 2004

	Casing	Sampler	Barrel	Drilling Equipment and Procedures	Driller G. Suri
Type	HW/SW	S	NX	Rig Make & Model: Failing Holemaster on truck	H&A Rep.A. Krishnamoorthy/M. F
Inside Diameter (in.)	4/6	1 3/8	2	Bit Type: Roller Bit	Elevation -21.00 (est.) Datum Bronx Borough
Hammer Weight (lb.)	140	140	-	Drill Mud: Attapulgitic	Location See Plan
Hammer Fall (in.)	30	30	-	Casing: Driven	N 0 E-3
				Hoist/Hammer: Cat-Head Safety Hammer	

Depth (ft.)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft.)	Well Diagram	Depth (ft.)	USCS Symbol	Visual-Manual Identification and Description (Density/consistency, color, GROUP NAME, max. particle size ² , structure, odor, moisture, optional descriptions, geologic interpretation)	Gravel		Sand			Field Test						
								% Coarse	% Fine	% Coarse	% Medium	% Fine	% Fines	Dilatancy	Toughness	Plasticity	Strength		
0	WOH WOH WOH WOH	S1 3	0.0 2.0	NO WELL INSTALLED	-25.0	OL/ OH	- Mudline- Very soft, gray, ORGANIC SOIL (OL/OH), organic odor, wet Class 11-65											100	
5	20 29 40 28	S2 5	5.0 7.0		SM	4.0	SM	Very dense, olive-gray, silty SAND (SM), mps 3 mm, organic odor, moist Class 7-65			5	10	60	25					
10	20 40 52 35	S3 10	10.0 12.0		SP- SM		SP- SM	Very dense, light-brown, poorly graded SAND with silt (SP-SM), mps 20 mm, moist Class 7-65	10	10	40	30	10						
15	30 56 15 98	S4 ?	15.0 17.0		SP		SP	Very dense, light-brown, poorly-graded SAND (SP), mps 3 mm, moist (possible wash) Class 7-65	20	70	10								

USCS_TB4 USCSLIB4.GLB USCSBTB-CORE4.GDT G:\DATA\2928504\LOGS\SOUTH BRONX\PHASE2 SOUTH BRONX WARREN GEORGE REV3.GPJ May 31, 05

Water Level Data				Sample Identification			Well Diagram			Summary			
Date	Time	Elapsed Time (hr.)	Depth (ft.) to:	O	T	U	S	G				Overburden (lin. ft.)	36
			Bottom of Casing									Rock Cored (lin. ft.)	10
			Bottom of Hole									Samples	S8, R2
			Water									Boring No.	E-203

Field Tests: Dilatancy: R-Rapid, S-Slow, N-None
 Toughness: L-Low, M-Medium, H-High
 Plasticity: N-Nonplastic, L-Low, M-Medium, H-High
 Dry Strength: N-None, L-Low, M-Medium, H-High, V-Very High

¹SPT = Sampler blows per 6 in. ²Maximum particle size (mm) is determined by direct observation within the limitations of sampler size (in millimeters).

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.



TEST BORING REPORT

Boring No. E-203

File No. 29504-000

Sheet No. 2 of 2

Depth (ft.)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft.)	Well Diagram	Depth (ft.)	USCS Symbol	Visual-Manual Identification and Description (Density/consistency, color, GROUP NAME, max. particle size ² , structure, odor, moisture, optional descriptions, geologic interpretation)	Gravel		Sand			Field Test				
								% Coarse	% Fine	% Coarse	% Medium	% Fine	% Fines	Dilatancy	Toughness	Plasticity	Strength
20	17 37 76 100/5	S5 16	20.0 22.0			SP	Very dense, yellow-brown, poorly-graded SAND (SP), mps 3 mm, moist Class 7-65			20	70	10					
25	75 100/5	S6 12	25.0 26.0			SM	Very dense, dark brown, silty SAND (SM), mps 3/4 in., wet Class 7-65	5	20	40	15	20					
30	78 81 100/3	S7 10	30.0 31.3			SM	Similar to S6 except mps 1/2 in. Class 7-65	5	15	30	30	20					
35	60 100/5	S8 6	35.0 36.9			SM	Similar to S6 except mps 5 mm Class 7-65			15	20	30	35				
40		R1 58	38.0 43.0		-59.0 38.0		Moderately hard, fresh to slightly weathered, gray, fine grained SCHIST. Joints low angle, spacing close to moderate, rough, undulating, tight to open. Class 2-65 REC = 58/60 = 97% RQD = 36/60 = 59%										
45		R2 43	43.0 48.0				Similar to R1 Class 2-65 REC = 43/60 = 71% RQD = 27/60 = 45%										
					-69.0 48.0		END OF EXPLORATION AT 48 FT +/-										

USCS_TB4 USCSLIB4_GLB USCSTB+CORE4.GDT G:\DATA\29504\OGS\SOUTH BRONX\WARREN GEORGE REV3.GPJ May 31, 05

¹SPT = Sampler blows per 6 in. ²Maximum particle size (mm) is determined by direct observation within the limitations of sampler

NOTE: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.



TEST BORING REPORT

Boring No E-204

File No 29504-000

Sheet No. 2 of 2

Depth (ft.)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft.)	Well Diagram	Depth (ft.)	USCS Symbol	Visual-Manual Identification and Description <small>(Density/consistency, color, GROUP NAME, max. particle size², structure, odor, moisture, optional descriptions, geologic interpretation)</small>	Gravel Sand					Field Test						
								% Coarse	% Fine	% Coarse	% Medium	% Fine	% Fines	Dilatancy	Toughness	Plasticity	Strength		
20							Class 7-65												
25	41 65 100/3	S5 10	24.0 25.3			SP	Very dense, tan, poorly-graded SAND (SP), mps 2 mm, moist Class 7-65 Drilling action indicates presence of boulder 25.5 to 26.4 ft.			20	75	5							
30	25 30 28 50	S6 12	29.0 31.0		-54.0 28.0	ML	-Decomposed Rock- Hard, olive-gray, sandy SILT (ML), moist, with mica Class 10-65					30	70						
35	95 100/5	S7 6	34.0 34.9		-60.9 34.9	SM	-Decomposed Rock- Very dense, olive-gray, silty SAND with gravel (SM), mps 10 mm, wet, with mica Class 7-65	15	10	10	40	25							
40	9 min. 9 min. 9 min. 9 min. 9 min.	R1 60	35.0 40.0				Moderately hard, fresh, black-gray, fine-grained, SCHIST. Joints are moderately dipping, closely spaced, fresh to discolored, rough, tight. Class 2-65 REC = 60/60 = 100% RQD = 43/60 = 72%												
45	9 min. 5 min. 7 min. 6 min. 7 min.	R2 48	40.0 45.0				Similar to R1 Class 2-65 REC = 48/60 = 80% RQD = 16/60 = 27%												
45					-71.0 45.0		END OF EXPLORATION AT 45 FT +/-												

JSCS_TB4 USCSL1B4.GLB USCSTB+CORE4.GDT G:\DATA\2928504\LOGS\SOUTH BRONX\PHASE2 SOUTH BRONX WARREN GEORGE REV3.GPJ May 31, 05

¹SPT = Sampler blows per 6 in. ²Maximum particle size (mm) is determined by direct observation within the limitations of sampler
NOTE: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.



TEST BORING REPORT

Boring No. E-207

Project MARINE TRANSFER STATION - SOUTH BRONX BRONX, NEW YORK
 Client GREELEY & HANSEN LLC
 Contractor WARREN GEORGE, INC.

File No 29504-000
 Sheet No. 1 of 2
 Start January 30, 2004
 Finish January 30, 2004
 Driller G. Suri

Type	Casing	Sampler	Barrel	Drilling Equipment and Procedures	
HW/SW	S	NX	Rig Make & Model: Failing Holemaster on truck		H&A Rep E. Adler
Inside Diameter (in.)	4/6	1 3/8	2	Bit Type: Roller Bit	Elevation -22.00 (est.) Bronx Borough
Hammer Weight (lb.)	300	140	-	Drill Mud: Bentonite	Location See Plan N 0 E 0
Hammer Fall (in.)	24	30	-	Casing: Driven	
				Hoist/Hammer: Cat-Head Safety Hammer	

Depth (ft.)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft.)	Well Diagram	Depth (ft.)	USCS Symbol	Visual-Manual Identification and Description (Density/consistency, color, GROUP NAME, max. particle size ² , structure, odor, moisture, optional descriptions, geologic interpretation)	Gravel		Sand		Field Test						
								% Coarse	% Fine	% Coarse	% Medium	% Fine	% Fines	Dilatancy	Toughness	Plasticity	Strength	
0		S1	0.0	NO WELL INSTALLED		OL/OH	-Mudline- Very soft, black, ORGANIC SOIL (OL/OH), mps < 0.5 mm, no structure, organic odor, moist Class 11-65					10	90					
		S2	2.0															
		S11	5.0															
		S12	7.0															
5	12	S2	5.0		-27.0	SM	Dense, gray, silty SAND (SM), mps 2 mm, no structure, slight organic odor, moist, trace shell particles Class 8-65					80	20					
	19	S11	7.0		5.0													
	12																	
	13																	
10	20	S3	10.0			SM	Drill action indicates stratum change at 10 ft. Very dense, olive-gray, silty SAND (SM), mps 2 mm, slightly bonded, moist Class 8-65					80	20					
	17	S6	12.0															
	39																	
	20																	
15	33	S4	15.0			SM	Very dense, light-brown, silty SAND (SM), mps 4 mm, wet, bonded Class 7-65		10	30	10	30	20					
	54	S9	16.3		-38.3													
	100/3				16.3		Drill action indicates cobbles 16.3 to 20 ft.											
20					-42.0													

Water Level Data						Sample Identification		Well Diagram		Summary											
Date	Time	Elapsed Time (hr.)	Depth (ft.) to:			O Open End Rod	T Thin Wall Tube	U Undisturbed Sample	S Split Spoon	G Geoprobe	Riser Pipe	Screen	Filter Sand	Cuttings	Grout	Concrete	Bentonite Seal	Overburden (lin. ft.) 21	Rock Cored (lin. ft.) 10	Samples S4, R2	
			Bottom of Casing	Bottom of Hole	Water																

Field Tests: Dilatancy: R-Rapid, S-Slow, N-None Plasticity: N-Nonplastic, L-Low, M-Medium, H-High
 Toughness: L-Low, M-Medium, H-High Dry Strength: N-None, L-Low, M-Medium, H-High, V-Very High
¹SPT = Sampler blows per 6 in. ²Maximum particle size (mm) is determined by direct observation within the limitations of sampler size (in millimeters).

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

JSCS_TB4 USCSLBR4.GLB USCSTR-COREA.GDT G:\DATA\29504\LOGS\SOUTH BRONX\PHASE2 SOUTH BRONX WARREN GEORGE REV9.GPJ May 31, 05



TEST BORING REPORT

Boring No. E-207

File No. 29504-000

Sheet No. 2 of 2

Depth (ft.)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft.)	Well Diagram	Depth (ft.)	USCS Symbol	Visual-Manual Identification and Description <small>(Density/consistency, color, GROUP NAME, max. particle size², structure, odor, moisture, optional descriptions, geologic interpretation)</small>	Gravel		Sand			Field Test						
								% Coarse	% Fine	% Coarse	% Medium	% Fine	% Fines	Dilatancy	Toughness	Plasticity	Strength		
20					20.0		Drill action indicates probable bedrock at 20.0 ft., rollerbit to 21.0 ft.												
5 min.		R1	21.0				Medium hard, fresh, black-gray, fine-grained, SCHIST. Joints are high angle, moderately spaced, fresh to discolored, rough, tight. Class 2-65 REC = 50/60 = 83 % RQD = 42/60 = 70 %												
5 min.		50	26.0																
5 min.																			
6 min.																			
5 min.																			
5 min.																			
25																			
5 min.		R2	26.0				Similar to R1 Class 2-65 REC = 60/60 = 100 % RQD = 55/60 = 92												
5 min.		60	31.0																
4 min.																			
4 min.																			
5 min.																			
30																			
6 min.																			
					-53.0		END OF EXPLORATION AT 31 FT +/-												
					31.0														

JSCS_TB4 USCSLIB4.GLB USCSTB-CORE4.GDT G:\DATA\29504\LOGS\SOUTH BRONX\PHASE2 SOUTH BRONX WARREN GEORGE REV3.GPJ May 31, 05

¹SPT = Sampler blows per 6 in. ²Maximum particle size (mm) is determined by direct observation within the limitations of sampler size.
NOTE: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

Boring No.

E-207



TEST BORING REPORT

Boring No. E-208

Project MARINE TRANSFER STATION - SOUTH BRONX BRONX, NEW YORK
 Client GREELEY & HANSEN LLC
 Contractor WARREN GEORGE, INC.

File No 29504-000
 Sheet No. 1 of 2
 Start February 17, 2004
 Finish February 19, 2004
 Driller G. Suri

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	HW/SW	S	-	Rig Make & Model: Failing Holemaster on Barge
Inside Diameter (in.)	4/6	1 3/8	-	Bit Type: Roller Bit
Hammer Weight (lb.)	140	140	-	Drill Mud: Bentonite
Hammer Fall (in.)	30	30	-	Casing: Driven
				Hoist/Hammer: Cat-Head Safety Hammer

H&A Rep.M. Pascal
 Elevation -14.00 (est.)
 Datum Bronx Borough
 Location See Plan
 N 0
 E 0

Depth (ft.)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft.)	Well Diagram	Depth (ft.)	USCS Symbol	Visual-Manual Identification and Description (Density/consistency, color, GROUP NAME, max. particle size ² , structure, odor, moisture, optional descriptions, geologic interpretation)	Gravel						Sand						Field Test			
								% Coarse	% Fine	% Coarse	% Medium	% Fine	% Fines	Dilatancy	Toughness	Plasticity	Strength						
0	10	S1	0.0	NO WELL INSTALLED		SP	-Mudline- Very dense, gray, poorly-graded SAND with gravel (SP), mps 1 in., slight organic odor, wet Class 6-65	5	10	40	30	10	5										
15	10	S10	1.0																				
	100/1																						
5	12	S2	5.0	NO WELL INSTALLED		SM	Medium dense, gray, silty SAND (SM), mps 3/4 in., wet Class 7-65	5	10	20	40	25											
13	10	S2	7.0																				
17																							
17																							
10	27	S3	10.0	NO WELL INSTALLED		SM	Very dense, gray, silty SAND (SM), mps 1 in., wet Class 7-65	5	10	25	30	30											
10.8	100/4	4	10.8																				
15	53	S4	15.0	NO WELL INSTALLED		SM	Similar to S3 except mps 0.5 in. Class 7-65	5	15	25	20	35											
15.8	100/3	8	15.8																				

Note: drill action indicates gravel and cobble field at approx. 18.0 ft. depth. According to driller largest cobbles 8-9 in. in diameter.

Water Level Data				Sample Identification			Well Diagram			Summary	
Date	Time	Elapsed Time (hr.)	Depth (ft.) to:	O	T	U	S	G	Riser Pipe	Screen	Overburden (lin. ft.)
			Bottom of Casing						Filter Sand		Rock Cored (lin. ft.)
			Bottom of Hole						Cuttings		Samples
			Water						Grout		Boring No.
									Concrete		E-208
									Bentonite Seal		

Field Tests: Dilatancy: R-Rapid, S-Slow, N-None Plasticity: N-Nonplastic, L-Low, M-Medium, H-High
 Toughness: L-Low, M-Medium, H-High Dry Strength: N-None, L-Low, M-Medium, H-High, V-Very High

¹SPT = Sampler blows per 6 in. ²Maximum particle size (mm) is determined by direct observation within the limitations of sampler size (in millimeters).

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

JSCS_TB4 USCSUB4.GLB USCSTB-CORE4.GDT G:\DATA\29504\LOGS\SOUTH BRONX\PHASE2 SOUTH BRONX WARREN GEORGE REV3.GPJ May 31, 05



TEST BORING REPORT

Boring No. E-208

File No. 29504-000

Sheet No. 2 of 2

Depth (ft.)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft.)	Well Diagram	Depth (ft.)	USCS Symbol	Visual-Manual Identification and Description (Density/consistency, color, GROUP NAME, max. particle size ² , structure, odor, moisture, optional descriptions, geologic interpretation)	Gravel		Sand			Field Test				
								% Coarse	% Fine	% Coarse	% Medium	% Fine	% Fines	Dilatancy	Toughness	Plasticity	Strength
20	67 100/3	S5 7	20.0 20.8			SM	Similar to S3 except brown, mps 1/2 in. Class 7-65	5	25	20	20	30					
25	100/5	S6 4	25.0 25.5			SM	Similar to S3 except brown Class 7-65 Note: drill action indicates gravel and cobbles, mps 8 in. +/-	5	15	20	35	25					
30	70 74 100/2	S7 6	30.0 31.2			SM	Very dense, brown, silty SAND with gravel (SM), mps 3/4 in., wet Class 6-65	20	15	20	25	20					
35	63 100/4	S8 8	35.0 37.0		-49.0 35.0	ML	-Decomposed Rock- Hard, gray, SILT with sand (ML), mps 1 mm, moist, with mica					20	80				
40	100/0	S9 0	40.0 40.0		-54.0 40.0		Drill action indicated top of rock at 40.0 ft. END OF EXPLORATION AT 40 FT +/-										

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¹SPT = Sampler blows per 6 in. ²Maximum particle size (mm) is determined by direct observation within the limitations of sampler
 NOTE: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.



TEST BORING REPORT

Boring No. E-209

Project MARINE TRANSFER STATION - SOUTH BRONX BRONX, NEW YORK
 Client GREELEY & HANSEN LLC
 Contractor WARREN GEORGE, INC.

File No 29504-000
 Sheet No. 1 of 3
 Start February 19, 2004
 Finish February 25, 2004
 Driller G. Suri

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	HW/SW	S	NX	Rig Make & Model: Failing Holemaster on Barge
Inside Diameter (in.)	4/6	1 3/8	2	Bit Type: Roller Bit
Hammer Weight (lb.)	140	140	-	Drill Mud: Attapulgit
Hammer Fall (in.)	30	30	-	Casing: Driven
				Hoist/Hammer: Cat-Head Safety Hammer

H&A Rep.M. Pascal/ L. Henry
 Elevation -25.00 (est.)
 Datum Bronx Borough
 Location See Plan
 N 0
 E 10

Depth (ft.)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft.)	Well Diagram	Depth (ft.)	USCS Symbol	Visual-Manual Identification and Description (Density/consistency, color, GROUP NAME, max. particle size ² , structure, odor, moisture, optional descriptions, geologic interpretation)	Gravel		Sand			Field Test					
								% Coarse	% Fine	% Coarse	% Medium	% Fine	% Fines	Dilatancy	Toughness	Plasticity	Strength	
0	12	S1	0.0	NO WELL INSTALLED.		SM	-Mudline- Very dense, gray, silty SAND (SM), mps 3/4 in., slight organic odor, wet Class 7-65	10	20	30	20	20						
	13	12	2.0															
	60																	
	72																	
5	20	S2	5.0				SM	Dense, gray, silty SAND (SM), mps 15 mm, wet Class 7-65	5	25	30	25	15					
	19	14	7.0															
	17																	
	17																	
10	23	S3	10.0				SP-SM	Very dense, brown, poorly-graded SAND with silt and gravel (SP-SM), mps 35 mm, wet Class 6-65	5	30	30	15	10	10				
	44	12	12.0															
	61																	
	70																	
15	60	S4	15.0			SM	Very dense, brown, silty SAND (SM), mps 5 mm, wet Class 7-65			15	15	55	15					
	100/1	3	15.6															

JCSL_TB4 USCSL184.GLB USCSTB-CORE4.GDT G:\DATA\29504\LOGS\SOUTH BRONX\PHASE2 SOUTH BRONX WARREN GEORGE REV3.GPJ May 31, 05

Water Level Data				Sample Identification		Well Diagram		Summary	
Date	Time	Elapsed Time (hr.)	Depth (ft.) to:	O	Open End Rod		Riser Pipe	Overburden (lin. ft.)	40
			Bottom of Casing	T	Thin Wall Tube		Screen	Rock Cored (lin. ft.)	10
			Bottom of Hole	U	Undisturbed Sample		Filter Sand	Samples	S8, R3
			Water	S	Split Spoon		Cuttings	Boring No.	E-209
				G	Geoprobe		Grout		
							Concrete		
							Bentonite Seal		

Field Tests: Dilatancy: R-Rapid, S-Slow, N-None Plasticity: N-Nonplastic, L-Low, M-Medium, H-High
 Toughness: L-Low, M-Medium, H-High Dry Strength: N-None, L-Low, M-Medium, H-High, V-Very High
¹SPT = Sampler blows per 6 in. ²Maximum particle size (mm) is determined by direct observation within the limitations of sampler size (in millimeters).
 Note: Soil Identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.



TEST BORING REPORT

Boring No E-209

File No 29504-000

Sheet No. 2 of 3

Depth (ft.)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft.)	Well Diagram	Depth (ft.)	USCS Symbol	Visual-Manual Identification and Description (Density/consistency, color, GROUP NAME, max. particle size ² , structure, odor, moisture, optional descriptions, geologic interpretation)	Gravel		Sand			Field Test				
								% Coarse	% Fine	% Coarse	% Medium	% Fine	% Fines	Dilatancy	Toughness	Plasticity	Strength
20	69 100/1	S5 4	20.0 20.6			SM	Similar to S4 except mps 35 mm Class 6-65	20	5	15	15	30	15				
25	100/4	S6 3	25.0 25.3			SM	Similar to S4 except mps 10 mm Class 7-65 Drill action indicates cobbles and boulders.		5	15	15	50	15				
30	100/5	S7 5	30.0 30.4			SP	Very dense, gray, poorly-graded SAND (SP), mps 5 mm, wet Class 7-65 Drill action indicates boulder/ cobbles		5	15	55	20	5				
35	50 100/2	S8 5	35.0 35.7			SP	Similar to S7 except mps 10 mm		10	15	40	30	5				
					-63.0 38.0		Drilling action indicates top of rock at 38.0 ft. Advance roller bit to 40.0 ft., begin coring										
40		R1 84	40.0 47.0				Medium to moderately hard, fresh to slightly weathered, black to gray, fine-grained, SCHIST. Joints are low angle to moderately dipping, spacing very close to moderately close, rough, undulating, tight to open. Class 2-65 REC = 84/84 = 100% RQD = 57/84 = 68%										
45							Barrel jammed at 47.0 ft.										
		R2 12	47.0 48.0				Similar to R1, with moderately weathered quartz seam. REC = 12/12 = 100% RQD = 0/12 = 0% Class 3-65										
		R3 18	48.0 50.0				Barrel jammed at 48.0 ft.										

I:\SCS_TB4 USCS\IB4.GLB USCSTB-CORE4.GDT G:\DATA\29504\LOGS\SOUTH BRONX\PHASE2 SOUTH BRONX WARREN GEORGE REV3.GPJ May 31, 05

¹SPT = Sampler blows per 6 in. ²Maximum particle size (mm) is determined by direct observation within the limitations of sampler size.
NOTE: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.



TEST BORING REPORT

Boring No. E-209

File No. 29504-000

Sheet No. 3 of 3

Depth (ft.)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft.)	Well Diagram	Depth (ft.)	USCS Symbol	Visual-Manual Identification and Description (Density/consistency, color, GROUP NAME, max. particle size ² , structure, odor, moisture, optional descriptions, geologic interpretation)	Gravel		Sand			Field Test					
								% Coarse	% Fine	% Coarse	% Medium	% Fine	% Fines	Dilatancy	Toughness	Plasticity	Strength	
50					-75.0 50.0		Similar to R1, with slightly weathered quartz seams. REC = 18/24 = 75% RQD = 5/24 = 21% Class 3-65 END OF EXPLORATION AT 50 FT +/-											

USCS_TB4 USCSUB4.GLB USCSTB-CORE4.GDT G:\DATA\29\05504\LOGS\SOUTH BRONX\PHASE2 SOUTH BRONX WARREN GEORGE REV3.GPJ May 31, 05

¹SPT = Sampler blows per 6 in. ²Maximum particle size (mm) is determined by direct observation within the limitations of sampler size.

NOTE: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

Boring No.

E-209



TEST BORING REPORT

Boring No. E-210

Project MARINE TRANSFER STATION - SOUTH BRONX BRONX, NEW YORK
 Client GREELEY & HANSEN LLC
 Contractor WARREN GEORGE, INC.

File No 29504-000
 Sheet No. 1 of 2
 Start March 23, 2004
 Finish March 25, 2004
 Driller G. Suri

	Casing	Sampler	Barrel	Drilling Equipment and Procedures	
Type	HW/SW	S	-	Rig Make & Model: Falling Holmaster on truck	H&A Rep.M. Pascal
Inside Diameter (in.)	4/6	1 3/8	-	Bit Type: Roller Bit	Elevation -13.70 (est.) Datum Bronx Borough
Hammer Weight (lb.)	500	140	-	Drill Mud: Attapulgate	Location See Plan
Hammer Fall (in.)	30	30	-	Casing: Driven	N 0 E 20
				Hoist/Hammer: Cat-Head Safety Hammer	

Depth (ft.)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft.)	Well Diagram	Depth (ft.)	USCS Symbol	Visual-Manual Identification and Description (Density/consistency, color, GROUP NAME, max. particle size ² , structure, odor, moisture, optional descriptions, geologic interpretation)	Gravel		Sand			Field Test					
								% Coarse	% Fine	% Coarse	% Medium	% Fine	% Fines	Dilatancy	Toughness	Plasticity	Strength	
0	28 72 35 22	S1 12	0.0 2.0			SC	-Mudline- Very dense, gray, clayey SAND with gravel (SC), mps 3/4 in., moist Class 6-65	15	25	20	20	20						
5	100/5	S2 0	5.0 5.4				No recovery Drilling action indicates presence of cobbles and gravel from 6-10 ft. approx. mps 8 in.											
10	80 100/4	S3 8	10.0 10.8			SM	Very dense, brown, silty SAND with gravel (SM), mps 25 mm, moist Class 6-65	5	30	20	15	15	15					
15	100/5	S4 4	15.0 15.4			SM	Similar to S6 except mps 1/2 in. Class 6-65	15	20	25	20	20						
20																		

SCS_TB4 USCSTB-CORE4.GDT G:\DATA\2929504\LOGS\SOUTH BRONX\PHASE2 SOUTH BRONX WARREN GEORGE REV3.GPJ May 31, 05

NO WELL INSTALLED

Water Level Data				Sample Identification		Well Diagram		Summary													
Date	Time	Elapsed Time (hr.)	Depth (ft.) to:			O	T	U	S	G	Riser Pipe	Screen	Filter Sand	Cuttings	Grout	Concrete	Bentonite Seal	Overburden (lin. ft.)	Rock Cored (lin. ft.)	Samples	Boring No.
			Bottom of Casing	Bottom of Hole	Water																

Field Tests: Dilatancy: R-Rapid, S-Slow, N-None Plasticity: N-Nonplastic, L-Low, M-Medium, H-High
 Toughness: L-Low, M-Medium, H-High Dry Strength: N-None, L-Low, M-Medium, H-High, V-Very High

¹SPT = Sampler blows per 6 in. ²Maximum particle size (mm) is determined by direct observation within the limitations of sampler size (in millimeters).

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.



TEST BORING REPORT

Boring No. E-210

File No. 29504-000

Sheet No. 2 of 2

Depth (ft.)	PID. (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft.)	Well Diagram	Depth (ft.)	USCS Symbol	Visual-Manual Identification and Description (Density/consistency, color, GROUP NAME, max. particle size ² , structure, odor, moisture, optional descriptions, geologic interpretation)	Gravel		Sand			Field Test				
								% Coarse	% Fine	% Coarse	% Medium	% Fine	% Fines	Dilatancy	Toughness	Plasticity	Strength
20	100/5	S5 4	20.0 20.4			SM	Very dense, brown, silty SAND (SM), mps 1/2 in., wet Class 7-65	5	25	30	20	20					
25	38 44 51 60	S6 13	25.0 27.0		-38.7 25.0	ML	Hard, gray, SILT (ML), mps 1 mm, moist Class 10-65				10	90	S		L		
30	41 51 100/2	S7 10	30.0 31.2			ML	Similar to S6 Class 10-65				10	90					
35	60 100/3	S8 8	35.0 35.8		-46.7 33.0	SM	Very dense, gray, silty SAND with gravel, mps 1/2 in., wet Class 6-65	15	20	20	20	25					
40	50 100/5	S9 6	40.0 40.9			SM	Very dense, gray, silty SAND (SM), mps 1/2 in., moist Class 7-65	5	15	20	30	30					
45	100/0	S10 0	45.0 45.0		-58.7 45.0		No recovery END OF EXPLORATION AT 45 FT +/-										

USCS TB4 USCSLIB4.GLB USCSTB-COREA.GDT G:\DATA\29504\LOGS\SOUTH BRONX PHASE2 SOUTH BRONX WARREN GEORGE REV3.GPJ May 31, 05

¹SPT = Sampler blows per 6 in. ²Maximum particle size (mm) is determined by direct observation within the limitations of sampler

Boring No.

E-210



TEST BORING REPORT

Boring No. E-212

Project MARINE TRANSFER STATION - SOUTH BRONX BRONX, NEW YORK
 Client GREELEY & HANSEN LLC
 Contractor WARREN GEORGE, INC.

File No 29504-000
 Sheet No. 1 of 2
 Start January 23, 2004
 Finish January 26, 2004

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	HW/SW	S	NX	Rig Make & Model: Failing Holemaster on truck
Inside Diameter (in.)	4/6	1 3/8	2	Bit Type: Roller Bit
Hammer Weight (lb.)	300	140	-	Drill Mud: Bentonite
Hammer Fall (in.)	24	30	-	Casing: Driven
				Hoist/Hammer: Cat-Head Safety Hammer

Driller G. Suri
 H&A Rep. E. Adler
 Elevation -24.00 (est.)
 Datum Bronx Borough

Location See Plan
 N 0
 E 30

Depth (ft.)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft.)	Well Diagram	Depth (ft.)	USCS Symbol	Visual-Manual Identification and Description (Density/consistency, color, GROUP NAME, max. particle size ² , structure, odor, moisture, optional descriptions, geologic interpretation)	Gravel		Sand			Field Test						
								% Coarse	% Fine	% Coarse	% Medium	% Fine	% Fines	Dilatancy	Toughness	Plasticity	Strength		
0																			
	WOR WOR WOR WOR	S1 12	0.0 2.0				-Mudline- Very soft, dark gray, ORGANIC SOIL (OL/OH), mps 10 mm, organic odor, wet Class 11-65						5	95					
					-26.5 2.5		Drill action indicates stratum change at 2.5 ft., wash indicates silty SAND												
5	10 54 32 36	S2 16	5.0 7.0			SM	Very dense, brown, silty SAND (SM), mps 15 mm, well bonded, moist Class 7-65	10	25	20	30	15							
10	3 16 27 34	S3 9	10.0 12.0			SM	Similar to S2 except dense Class 7-65												
15	14 min. 20 min.	R1 17	15.0 17.0				Attempted core run at 15 ft. Barrel jammed. Recovery is cobbles < 4 in. Advanced roller bit to 17 ft. Attempted second run at 17 ft. Barrel jammed. Advanced roller bit to 18 ft. Class 5-65												
	10 min.																		
	13 min. 18 min.	R2 42	18.0 23.0				Medium hard, black with white, fine-grained SCHIST. Primary joint set is high angle, closely spaced, planar, discolored, tight. Secondary joint set is moderately dipping, closely spaced, rough, discolored, tight to open.												

SCS_TB4 USCSUR4.GLB USCSTB-CORE4.GDT C:\DATA\29504\LOGS\SOUTH BRONX\PHASE2 SOUTH BRONX WARREN GEORGE REV3.GPJ May 31, 05

Water Level Data				Sample Identification			Well Diagram			Summary											
Date	Time	Elapsed Time (hr.)	Depth (ft.) to:			O	T	U	S	G	Riser Pipe	Screen	Filter Sand	Cuttings	Grout	Concrete	Bentonite Seal	Overburden (lin. ft.)	Rock Cored (lin. ft.)	Samples	Boring No.
			Bottom of Casing	Bottom of Hole	Water	Open End Rod	Thin Wall Tube	Undisturbed Sample	Split Spoon	Geoprobe								18	10	S3, R3	E-212
Field Tests:			Dilatancy: R-Rapid, S-Slow, N-None			Toughness: L-Low, M-Medium, H-High			Plasticity: N-Nonplastic, L-Low, M-Medium, H-High			Dry Strength: N-None, L-Low, M-Medium, H-High, V-Very High									
SPT = Sampler blows per 6 in. ² Maximum particle size (mm) is determined by direct observation within the limitations of sampler size (in millimeters).																					

Note: Soil identification based on visual/manual methods of the USCS as practiced by Haley & Aldrich, Inc.



TEST BORING REPORT

Boring No E-212

File No. 29504-000

Sheet No. 2 of 2

Depth (ft.)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft.)	Well Diagram	Depth (ft.)	USCS Symbol	Visual-Manual Identification and Description (Density/consistency, color, GROUP NAME, max. particle size, ² structure, odor, moisture, optional descriptions, geologic interpretation)	Gravel		Sand			Field Test						
								% Coarse	% Fine	% Coarse	% Medium	% Fine	% Fines	Dilatancy	Toughness	Plasticity	Strength		
20	8 min.						Class 2-65												
	8 min.						REC = 42/60 = 70% RQD = 14/60 = 23%												
	6 min.																		
	5 min.	R3	23.0				Similar to R2 Class 2-65												
	5 min.	60	28.0				REC = 60/60 = 100% RQD = 43/60 = 72%												
25	5 min.																		
	5 min.																		
	6 min.																		
			28.0		-52.0 28.0		END OF EXPLORATION AT 28 FT +/-												

3CS_TB4 USCUB4.GLB USCSTB+CORE4.GBT G:\DATA\2929504\LOGS\SOUTH BRONX\PHASE2 SOUTH BRONX WARREN GEORGE REV3.GPJ May/31/05

¹SPT = Sampler blows per 6 in. ²Maximum particle size (mm) is determined by direct observation within the limitations of sampler size.



TEST BORING REPORT

Boring No. E-213

File No. 29504-000

Sheet No. 2 of 2

Depth (ft.)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft.)	Well Diagram	Depth (ft.)	USCS Symbol	Visual-Manual Identification and Description <small>(Density/consistency, color, GROUP NAME, max. particle size², structure, odor, moisture, optional descriptions, geologic interpretation)</small>	Gravel		Sand			Field Test						
								% Coarse	% Fine	% Coarse	% Medium	% Fine	% Fines	Dilatancy	Toughness	Plasticity	Strength		
20	5 min.	R1	20.0		20.0		Medium hard, fresh, black-gray, fine-grained, SCHIST. Joints are high angle, moderately spaced, fresh to discolored, rough, tight. Class 2-65 REC = 60/60 = 100% RQD = 40/60 = 67%												
	7 min.		25.0																
	7 min.																		
	9 min.																		
	8 min.																		
25	4 min.	R2	25.0				Similar to R1 Class 2-65 REC = 60/60 = 100% RQD = 40/60 = 67%												
	8 min.		30.0																
	8 min.																		
	8 min.																		
	8 min.																		
30					-52.0		END OF EXPLORATION AT 30 FT +/-												
					30.0														

ICS_TB4 USC SUBA.GLB USCSTB-CORE4.GDT G:\DATA\29504\LOGS\SOUTH-BRONX\PHASE2-SOUTH-BRONX-WARREN-GEORGE-REV3.GPJ May 31, 05

¹SPT = Sampler blows per 6 in. ²Maximum particle size (mm) is determined by direct observation within the limitations of sampler

Boring No.

E-213



TEST BORING REPORT

Boring No. E-214

Project MARINE TRANSFER STATION - SOUTH BRONX BRONX, NEW YORK
 Client GREELEY & HANSEN LLC
 Contractor WARREN GEORGE, INC.

File No 29504-000
 Sheet No. 1 of 3
 Start March 4, 2004
 Finish March 11, 2004
 Driller G. Suri

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	HW/SW	S	-	Rig Make & Model: Failing Holemaster on Barge
Inside Diameter (in.)	4/6	1 3/8	-	Bit Type: Roller Bit
Hammer Weight (lb.)	500	140	-	Drill Mud: Attapulgitic
Hammer Fall (in.)	30	30	-	Casing: Driven
				Hoist/Hammer: Cat-Head Safety Hammer

H&A Rep.M. Pascal
 Elevation -21.70 (est.)
 Datum Bronx Borough
 Location See Plan
 N 0
 E 30

Depth (ft.)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft.)	Well Diagram	Depth (ft.)	USCS Symbol	Visual-Manual Identification and Description (Density/consistency, color, GROUP NAME, max. particle size ² , structure, odor, moisture, optional descriptions, geologic interpretation)	Gravel		Sand			Field Test						
								% Coarse	% Fine	% Coarse	% Medium	% Fine	% Fines	Dilatancy	Toughness	Plasticity	Strength		
0		U1	0.0				-Mudline- Pushed Shelby tube												
		S1	2.0			OL/OH	Hard, gray, sandy, ORGANIC SOIL (OL/OH), mps 5 mm, organic odor, wet Class 11-65			25	20	30	25						
		6	2.5																
5		S2	5.0		-27.0	OL/OH	Similar to S1 Class 11-65			20	20	25	25						
		5	5.5		5.3	SM	Very dense, dark brown, silty SAND (SM), mps 5 mm, wet Class 7-65			15	30	30	25						
10		S3	10.0			SM	Very dense, dark brown, silty SAND (SM), mps 5 mm, moist Class 7-65			15	20	40	25						
		1	10.2																
15		S4	15.0			SM	Similar to S3 except moist Class 7-65			15	15	40	30						
		2	15.3				Drill action indicates the presence of gravel. Drilling is proceeding very slowly.												

CS_TB4 USCSTB\GLB USCSTB\CORE4.GDT 6:\DATA\29504\LOGS\SOUTH BRONX\PHASE2 SOUTH BRONX WARREN GEORGE REV3.GPJ May 31, 05

NO WELL INSTALLED

Water Level Data				Sample Identification			Well Diagram			Summary			
Date	Time	Elapsed Time (hr.)	Depth (ft.) to:	O	T	U	S	G	Riser Pipe	Screen	Filter Sand	Overburden (lin. ft.)	50
			Bottom of Casing						Cuttings	Grout	Concrete	Rock Cored (lin. ft.)	-
			Bottom of Hole						Bentonite Seal			Samples	S9
			Water									Boring No.	E-214

Field Tests: Dilatancy: R-Rapid, S-Slow, N-None Plasticity: N-Nonplastic, L-Low, M-Medium, H-High
 Toughness: L-Low, M-Medium, H-High Dry Strength: N-None, L-Low, M-Medium, H-High, V-Very High
¹SPT = Sampler blows per 6 in. ²Maximum particle size (mm) is determined by direct observation within the limitations of sampler size (in millimeters).
 Methods of the USCS as practiced by Halley & Aldrich, Inc.



TEST BORING REPORT

Boring No. E-214

File No. 29504-000

Sheet No. 2 of 3

Depth (ft.)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft.)	Well Diagram	Depth (ft.)	USCS Symbol	Visual-Manual Identification and Description (Density/consistency, color, GROUP NAME, max. particle size ² , structure, odor, moisture, optional descriptions, geologic interpretation)	Gravel		Sand			Field Test						
								% Coarse	% Fine	% Coarse	% Medium	% Fine	% Fines	Dilatancy	Toughness	Plasticity	Strength		
20	12 19 100/4	S5 0	20.0 21.3				No recovery except 2 in. piece of gravel in tip of spoon												
25	61 100/2	S6 8	25.0 25.7			SP	Very dense, brown, poorly-graded SAND (SP), mps 1 mm, wet Class 7-65	5	5	35	30	15	10						
30	83 100/2	S7 6	30.0 30.2			SP	Similar to S6 except with gravel, mps 3/4 in. Class 6-65		25	40	20	10	5						
35	100/5	S8 5	35.0 35.5			SM	Very dense, brown, silty SAND (SM), mps 1 in., wet Class 7-65	10		15	20	30	25						
40	28 30 37 41	S9 12	40.0 42.0			SP	Very dense, gray-brown, poorly-graded SAND (SP), mps 2 mm, wet Class 7-65				45	50	5						
45							Driller indicates approx. 1 ft boulder at depth 45.0 ft.												
					-69.7 48.0		Drilling action indicates top of rock at 48.0 ft. Attempted rock core, core barrel jammed. Rock samples obtained were highly fractured. Terminated core.												

CS_TB4 USC LIB4.GLB USCSTB-CORE4.GDT G:\DATA\2928504\LOGS\SOUTH BRONX\PHASE2 SOUTH BRONX WARREN GEORGE REV3.GPJ May 31, 05

¹SPT = Sampler blows per 6 in. ²Maximum particle size (mm) is determined by direct observation within the limitations of sampler



TEST BORING REPORT

Boring No. E-214

File No. 29504-000

Sheet No. 3 of 3

Depth (ft.)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft.)	Well Diagram	Depth (ft.)	USCS Symbol	Visual-Manual Identification and Description (Density/consistency, color, GROUP NAME, max. particle size ² , structure, odor, moisture, optional descriptions, geologic interpretation)	Gravel		Sand			Field Test						
								% Coarse	% Fine	% Coarse	% Medium	% Fine	% Fines	Dilatancy	Toughness	Plasticity	Strength		
50					-71.7 50.0		END OF EXPLORATION AT 50 FT +/-												

CS_TBA USCSUB4GLB USCSTB+CORE4.GDT 0:\DATA\29504\LOGS\SOUTH BRONX\PHASE2 SOUTH BRONX WARREN GEORGE REV3.GPJ May 31, 05

¹SPT = Sampler blows per 6 in. ²Maximum particle size (mm) is determined by direct observation within the limitations of sampler

Boring No.

E-214



TEST BORING REPORT

Boring No E-215

File No. 29504-000

Sheet No. 2 of 3

Depth (ft.)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft.)	Well Diagram	Depth (ft.)	USCS Symbol	Visual-Manual Identification and Description (Density/consistency, color, GROUP NAME, max. particle size ² , structure, odor, moisture, optional descriptions, geologic interpretation)	Gravel		Sand			Field Test							
								% Coarse	% Fine	% Coarse	% Medium	% Fine	% Fines	Dilatancy	Toughness	Plasticity	Strength			
20																				
25																				
30																				
35																				
40																				
45																				

CS_TB4 USCSLIB4.GLB USCS TB+CORE4.GDT C:\DATA\282664\LOGS\SOUTH BRONX\WARREN GEORGE REV3.GPJ May 31, 05

¹SPT = Sampler blows per 6 in. ²Maximum particle size (mm) is determined by direct observation within the limitations of sampler

Boring No.

E-215



TEST BORING REPORT

Boring No. E-215

File No. 29504-000

Sheet No. 3 of 3

Depth (ft.)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft.)	Well Diagram	Depth (ft.)	USCS Symbol	Visual-Manual Identification and Description <small>(Density/consistency, color, GROUP NAME, max. particle size², structure, odor, moisture, optional descriptions, geologic interpretation)</small>	Gravel		Sand			Field Test						
								% Coarse	% Fine	% Coarse	% Medium	% Fine	% Fines	Dilatancy	Toughness	Plasticity	Strength		
50																			
		R1 59	52.0 57.0		-66.7 52.0		<p>Hard, slightly weathered, gray, fine to medium grained SCHIST. Joints low angle, spacing close to moderate, rough, undulating, fresh to discolored, tight to open. Class 2-65</p> <p>REC = 59/60 = 98% RQD = 41/60 = 68%</p>												
		R2 60	57.0 62.0				<p>Moderately hard, moderately to slightly weathered, gray, fine to medium grained SCHIST. Joints low angle, spacing close to moderate, rough, undulating, fresh to discolored, tight to open. Class 2-65</p> <p>REC = 60/60 = 100% RQD = 36/60 = 60%</p>												
60					-76.7 62.0		END OF EXPLORATION AT 62 FT +/-												

2S_TB1 USC5LIB4.GLB USC5TB+CORE4.GDT G:\DATA\2929504\LOGS\SCSOUTH BRONX\PHASE2 SOUTH BRONX WARREN GEORGE REV3.GPJ May 31, 05

¹SPT = Sampler blows per 6 in. ²Maximum particle size (mm) is determined by direct observation within the limitations of sampler

Boring No.

E-215



TEST BORING REPORT

Boring No E-219

File No. 29504-000

Sheet No. 2 of 2

Depth (ft.)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft.)	Well Diagram	Depth (ft.)	USCS Symbol	Visual-Manual Identification and Description <small>(Density/consistency, color, GROUP NAME, max. particle size², structure, odor, moisture, optional descriptions, geologic interpretation)</small>	Gravel		Sand			Field Test						
								% Coarse	% Fine	% Coarse	% Medium	% Fine	% Fines	Dilatancy	Toughness	Plasticity	Strength		
20	4 min.						Class 2-65												
	5 min.						REC = 58/60 = 97% RQD = 29/60 = 48%												
	4 min.																		
	5 min.	R2 60	23.0 28.0				Similar to R1 without secondary joint Class 2-65												
	3 min.						REC = 60/60 = 100% RQD = 40/60 = 67%												
25	4 min.																		
	3 min.																		
	4 min.																		
					-53.0 28.0		END OF EXPLORATION AT 28 FT +/-												

S:TB4 USCSJBA.GLB USCSTB-CORE4.GDT G:\DATA\29504\LOGS\SOUTH BRONX\PHASE2 SOUTH BRONX\WARREN GEORGE REV3.GPJ May 31, 05

¹SPT = Sampler blows per 6 in. ²Maximum particle size (mm) is determined by direct observation within the limitations of sampler



TEST BORING REPORT

Boring No E-220

File No. 29504-000

Sheet No. 2 of 3

Depth (ft.)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft.)	Well Diagram	Depth (ft.)	USCS Symbol	Visual-Manual Identification and Description (Density/consistency, color, GROUP NAME, max. particle size ² , structure, odor, moisture, optional descriptions, geologic interpretation)	Gravel		Sand			Field Test					
								% Coarse	% Fine	% Coarse	% Medium	% Fine	% Fines	Dilatancy	Toughness	Plasticity	Strength	
20	100/3	S5 0	20.0 20.3				No recovery Spoon bouncing on cobble or boulder											
25	100/5	S6 4	25.0 25.5			SM	Similar to S3 except with gravel, mps 25 mm Class 6-65	10	15	10	30	20	15					
30	100/5	S7 3	30.0 30.5			SM	Similar to S3 except with gravel, mps 25 mm Class 6-65	15	15	15	20	20	15					
35	70 78 100/2	S8 6	35.0 36.2			SM	Similar to S3 except mps 8 mm Class 7-65	10	15	15	30	30						
40	27 100/3	S9 4	40.0 40.8		-63.0 40.0	ML	-Decomposed Rock- Hard, dark brown, sandy SILT (ML), mps 15 mm, moist Class 5-65	5		35	60							
45	32 37 67 100/5	S10 1	45.0 47.0				Poor recovery. 2 in. gravel in tip of spoon, small amount of soil similar to S9 Drill action indicates boulder at 47 ft.											

29_TB4 USC9UBA\GLB USC9TB+CORE4.GDT G:\DATA\292355\ALOGS\SOUTH BRONX\PHASE2 SOUTH BRONX WARREN GEORGE REV3.GPJ May 31, 05

¹SPT = Sampler blows per 6 in. ²Maximum particle size (mm) is determined by direct observation within the limitations of sampler

Boring No.

E-220



TEST BORING REPORT

Boring No E-220

File No 29504-000

Sheet No 3 of 3

Depth (ft.)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft.)	Well Diagram	Depth (ft.)	USCS Symbol	Visual-Manual Identification and Description <small>(Density/consistency, color, GROUP NAME, max. particle size², structure, odor, moisture, optional descriptions, geologic interpretation)</small>	Gravel		Sand			Field Test						
								% Coarse	% Fine	% Coarse	% Medium	% Fine	% Fines	Dilatancy	Toughness	Plasticity	Strength		
50	7 min.	R1 30	50.0 53.0		-73.0 50.0		Moderately hard, slightly weathered, gray, medium grained GNEISS. Joints low angle, closely spaced, rough, undulating, tight to open Class 2-65												
	7 min.																		
	8 min						REC = 30/36 = 83 % RQD = 26/36 = 72 %												
	6 min.	R2 24	53.0 55.0				Similar to R1 Class 2-65												
	6 min.						REC = 24/24 = 100 % RQD = 19/24 = 79 % Similar to R1 Class 2-65												
55	6 min.	R3 60	55.0 60.0																
	6 min.																		
	6 min.						REC = 60/60 = 100 % RQD = 41/60 = 68 %												
	6 min.																		
60					-83.0 60.0		BOTTOM OF EXPLORATION 60 FT +/-												

CS_TB4 USCSUB4.GLB - USCSUB4.CORE4.GDT G:\DATA\29504\LOGS\SOUTH BRONX\PHASE2 SOUTH BRONX WARREN GEORGE REV3.GPJ May 31, 05

¹SPT = Sampler blows per 6 in. ²Maximum particle size (mm) is determined by direct observation within the limitations of sampler

Boring No.

E-220



TEST BORING REPORT

Boring No. E-225

File No. 29504-000

Sheet No. 2 of 2

Depth (ft.)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft.)	Well Diagram	Depth (ft.)	USCS Symbol	Visual-Manual Identification and Description <small>(Density/consistency, color, GROUP NAME, max. particle size², structure, odor, moisture, optional descriptions, geologic interpretation)</small>	Gravel		Sand			Field Test						
								% Coarse	% Fine	% Coarse	% Medium	% Fine	% Fines	Dilatancy	Toughness	Plasticity	Strength		
20	WOR	S5	20.0			OL/	Similar to S3 Class 11-65												
	WOR	18	22.0			OH													
	WOR																		
	WOR																		
					46.0		Drill action indicates stratum change at 23 ft.												
					23.0														
25	25	S6	25.0			SM	Dense, gray, silty SAND, mps 30 mm, very wet, bonded, moist Class 7-65	10	20	25	30	15							
	49	16	27.0																
	72																		
	90																		
30	100/5	S7	30.0				No recovery Drill action indicates probable boulder at 31 ft. Advance roller bit to 32 ft.												
		0	30.4																
	7 min.	R1	32.0				Medium hard, fresh, black and white, medium-grained mica SCHIST. Joints are moderately dipping, spacing moderately close, planar, fresh, tight to open. Class 2-65 REC = 60/60 = 100% RQD = 56/60 = 93% Similar to R1 Class 2-65 REC = 60/60 = 100% RQD = 60/60 = 100%												
	8 min.	60	37.0																
	9 min.																		
35	6 min.																		
	6 min.																		
	6 min.	R2	37.0																
	6 min.	60	42.0																
	6 min.																		
40	7 min.																		
	7 min.																		
					65.0		END OF EXPLORATION AT 42 FT. +/-												
					42.0														

ICS_TB4- USC&LIRA.GLB USCSTB-CORE4.GDT G:\DATA\29\55504\LOGS\SOUTH BRONX\PHASE2 SOUTH BRONX WARREN GEORGE REVA.GPJ May 31, 05

¹SPT = Sampler blows per 6 in. ²Maximum particle size (mm) is determined by direct observation within the limitations of sampler size.
Visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.



TEST BORING REPORT

Boring No. E-231

File No. 29504-000

Sheet No. 2 of 2

Depth (ft.)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft.)	Well Diagram	Depth (ft.)	USCS Symbol	Visual-Manual Identification and Description <small>(Density/consistency, color, GROUP NAME, max. particle size², structure, odor, moisture, optional descriptions, geologic interpretation)</small>	Gravel		Sand			Field Test			
								% Coarse	% Fine	% Coarse	% Medium	% Fine	% Fines	Dilatancy	Toughness	Plasticity
20	80 100/6	S5 12	20.0 21.0		20.0	SM	Very dense, yellow-brown, silty SAND (SM), mps 10 mm, moist Class 7-65	10	10	35	30	15				
25	31 29 87 50/3	S6 20	25.0 27.0		-56.0	SM	Similar to S5 except mps 2 mm Class 7-65		5	15	65	15				
	3 min. 5 min. 2 min.	R1 30	27.0 32.0		27.0		Medium hard, fresh, black-gray, fine-grained, SCHIST. Joints are vertical, moderately spaced, fresh to discolored, rough, tight. Class 2-65 REC = 30/60 = 50% RQD = 27/60 = 45%									
30	2 min. 2 min.															
	3 min. 3 min. 3 min.	R2 53	32.0 37.0				Similar to R1 Class 2-65 REC = 53/60 = 88% RQD = 51/60 = 85%									
35	3 min. 2 min.															
					-66.0		END OF EXPLORATION AT 37 FT +/-									
					37.0											

SCS_TB4 USCSTB-CORE4.GDT G:\DATA\29504\LOGS\SOUTH BRONX\WARREN GEORGE REV3.GPJ May 31, 05

¹SPT = Sampler blows per 6 in. ²Maximum particle size (mm) is determined by direct observation within the limitations of sampler size.
Soil identification based on visual manual methods of the USCS as practiced by Haley & Aldrich, Inc.

TEST BORING REPORT

Boring No. E-232

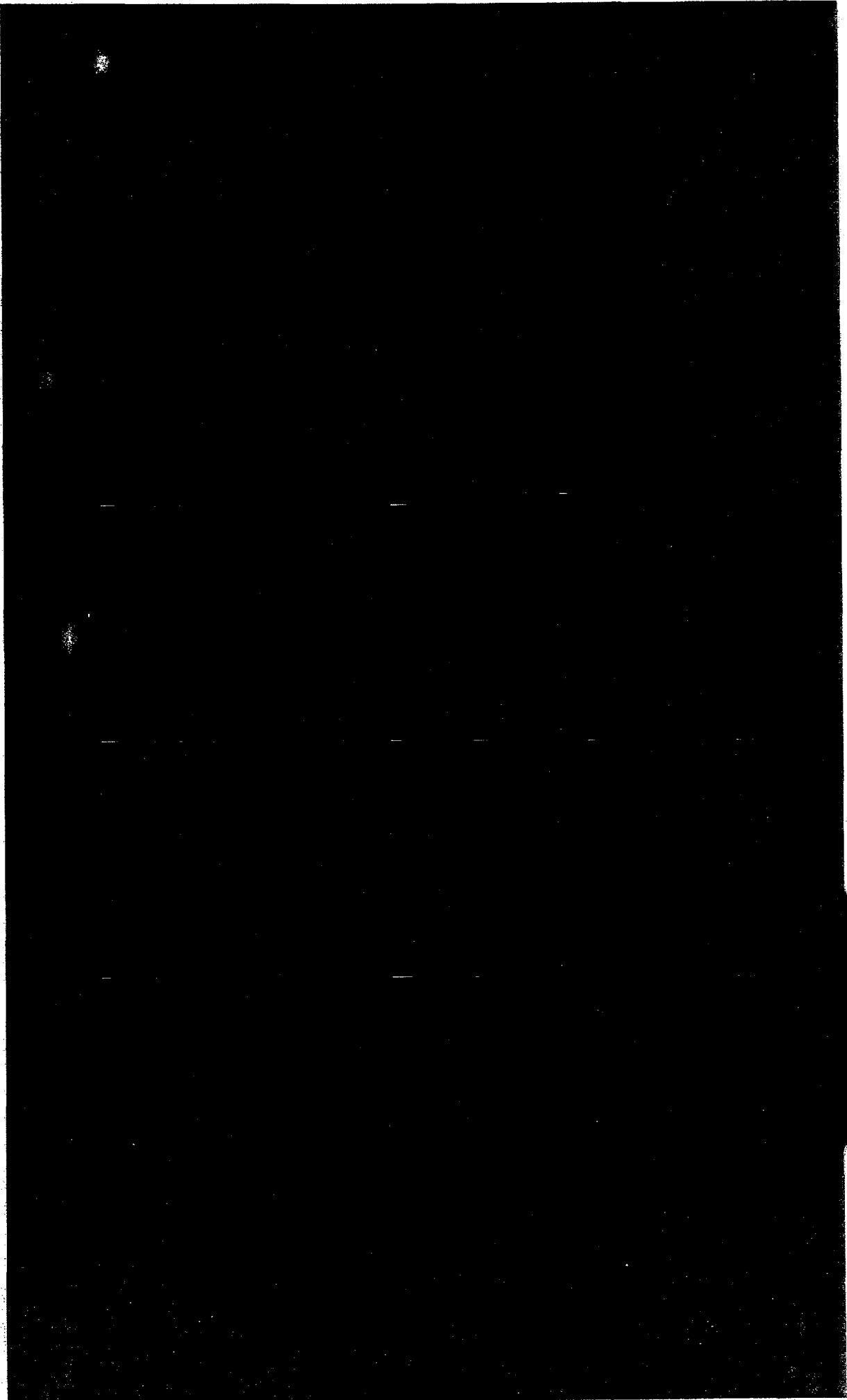
File No. 29504-000

Sheet No. 2 of 2

Depth (ft.)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft.)	Well Diagram	Depth (ft.)	USCS Symbol	Visual-Manual Identification and Description <small>(Density/consistency, color, GROUP NAME, max. particle size², structure, odor, moisture, optional descriptions, geologic interpretation)</small>	Gravel		Sand			Field Test						
								% Coarse	% Fine	% Coarse	% Medium	% Fine	% Fines	Dilatancy	Toughness	Plasticity	Strength		
20							Drill action indicates cobble from 20 to 20.5 ft												
	46 80 74 64	S5 14	21.0 23.0			SM	Very dense, light brown, silty SAND, mps 25 mm, moist Class 7-65	25	5	25	30	15							
					-48.5		Drill action indicates cobbles and gravel at 23 ft												
					23.5		Drill action indicates probable bedrock at 23.5 ft Advance roller bit to 24 ft Minimal recovery - all boulders and cobbles												
25	8 min. 10 min. 5 min. 5 min. 4 min.	R1 0	24.0 29.0																
	4 min.	R2 36	29.0 34.0				Recovery is cobbles to 32 ft.												
30	< 1 min. < 1 min. 4 min. 4 min.																		
	12 min. 7 min. 6 min. 6 min. 6 min. 6 min.	R3 83	34.0 41.0				Below 32 ft: Medium hard, slightly weathered, fine-grained, black and white SCHIST. Joints are moderately dipping, closely spaced, discolored, rough, open Class 2-65 REC = 36/60 = 60% RQD = 11/60 = 18% Medium hard, slightly weathered to fresh, fine-grained, black and white SCHIST. Joints are moderately dipping, closely spaced, fresh, rough, tight to open. Class 2-65 REC = 83/84 = 99% RQD = 73/84 = 87%												
35																			
40																			
					-57.0 32.0														
					-66.0 41.0		END OF EXPLORATION AT 41 FT +/-												

JCS_TB4 USCSLIB.GLB USCSIB+CORE4.GDT G:\DATA\29255M\LOGS\SOUTH BRONX WARREN GEORGE REV3.GPJ May 31, 05

¹SPT = Sampler blows per 6 in. ²Maximum particle size (mm) is determined by direct observation within the limitations of sampler
 NOTE: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.



Appendix C

APPENDIX C

Laboratory Test Data

TABLE I
SUMMARY OF LABORATORY TESTING DATA

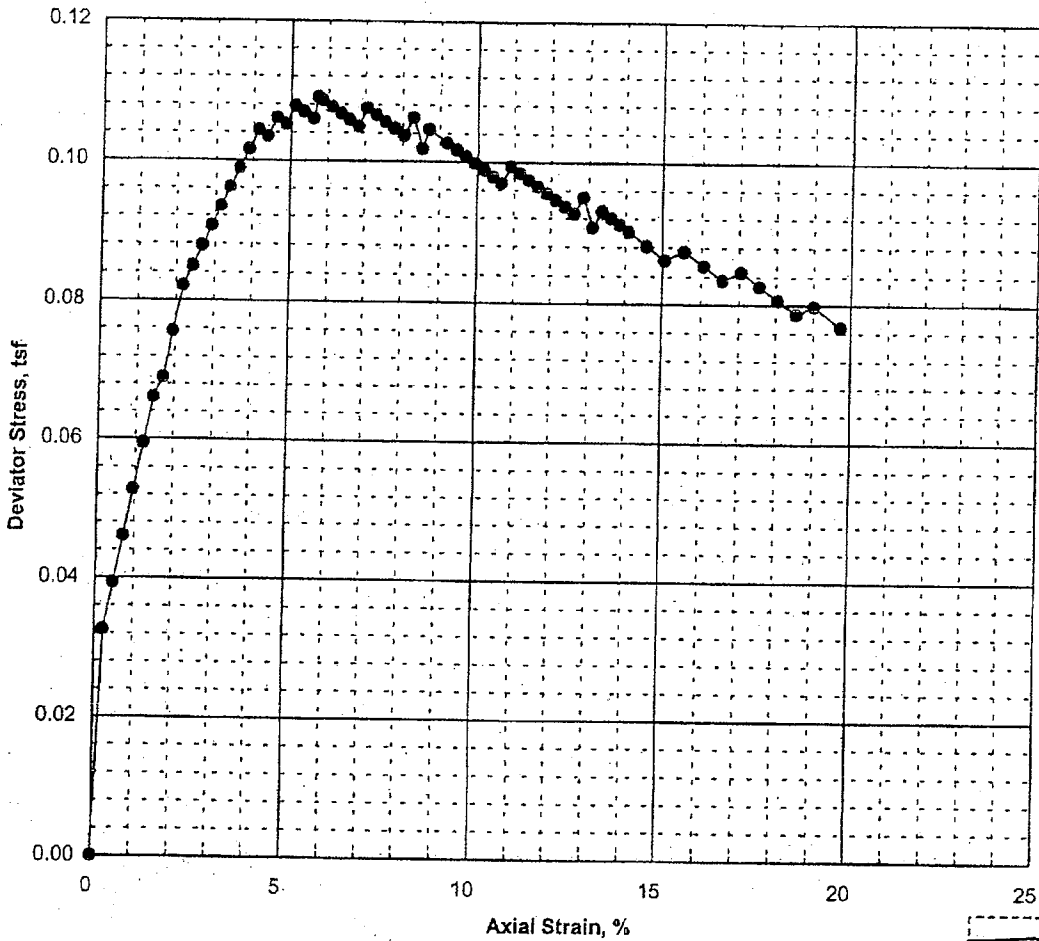
FILE NO. 29504-100
MARINE TRANSFER STATIONS
SOUTH BRONX
BRONX, NEW YORK

BORING NO.	SAMPLE NO.	DEPTH (FT)	CLASSIFICATION
E-232	U-2	5.0-7.0	Gray organic SILT (OH), peat noted
E-232	U-3	10.0-12.0	Gray organic SILT (OH), peat noted

WATER CONTENT (%)	ATTERBERG LIMITS		% PASSING NO. 200 SIEVE (%)	UNIT WEIGHT (pcf)	UU TRIAXIAL	
	LIQUID LIMIT	PLASTIC LIMIT			Su (psf)	% STRAIN
160.8	141	62	91.2	79.9	110	5.7
163.9	149	60	76.5	77.3	120	10.3

NOTES

Su - undrained shear strength
- not tested



Specimen Information

Water Content (%)	LL	PI	Length (inch)	Diameter (inch)	Wet Unit Weight (pcf)	Dry Unit Weight (pcf)
160.8	141	79	5.998	2.807	79.9	30.6

OH, dark gray ORGANIC clayey SILT, trace f. sand; peat material noted.

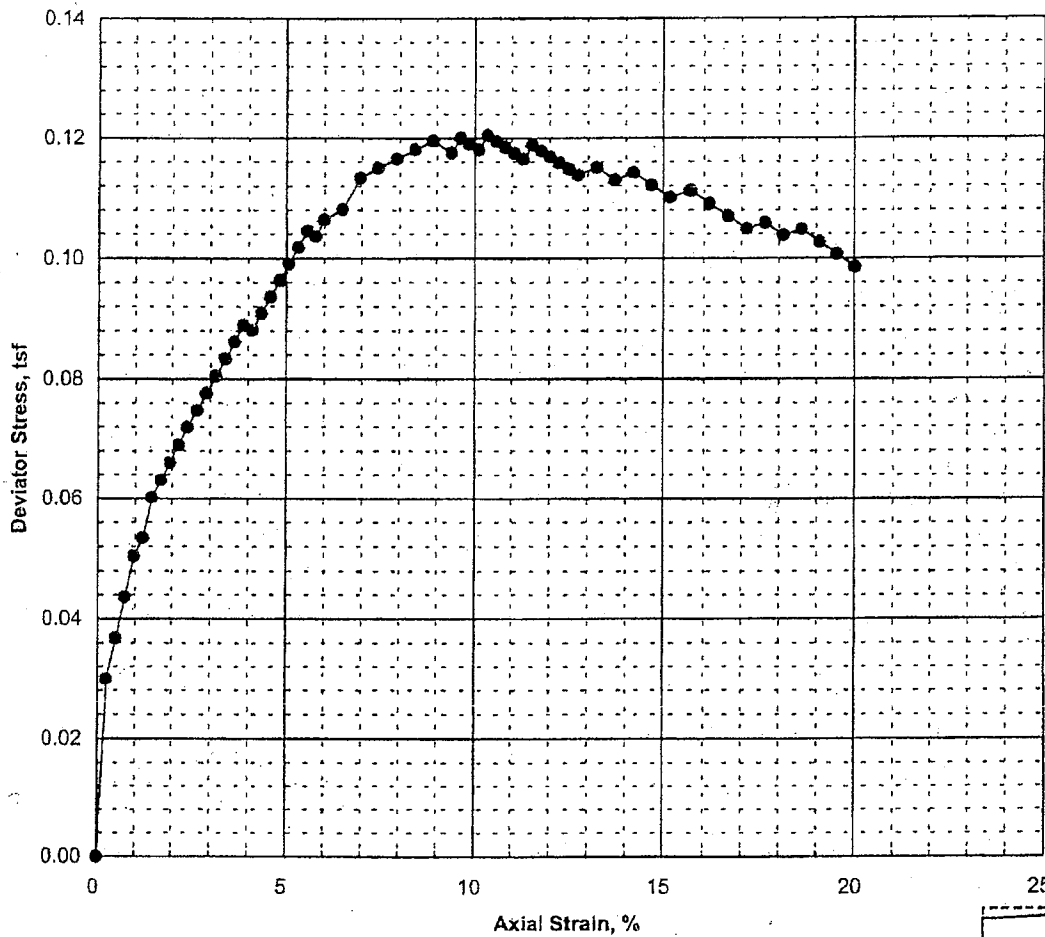


FAILURE SKETCH

Test Summary

Cell Pressure (tsf)	Axial Strain during confinement (%)	Compressive Strength (tsf)	Strain to Peak (%)	Strain Rate (%/min)
0.05	0.12	0.11	5.7	0.73

Project No. 31737788-4	South Bronx Haley & Aldrich, Inc.	UNCONSOLIDATED-UNDRAINED TRIAxIAL COMPRESSION TEST Boring No.: E-232 Sample No.: U-2B Depth (ft): 6.1	April 2004
Geotesting Services, Inc.			



Specimen Information

Water Content (%)	LL	PI	Length (Inch)	Diameter (inch)	Wet Unit Weight (pcf)	Dry Unit Weight (pcf)
163.9	149	89	6.037	2.794	77.3	29.3

OH, dark gray ORGANIC clayey SILT, trace f. sand; peat material noted.



FAILURE SKETCH

Test Summary

Cell Pressure (tsf)	Axial Strain during confinement (%)	Compressive Strength (tsf)	Strain to Peak (%)	Strain Rate (%/min)
0.10	0.10	0.12	10.3	0.73

Project No. 31737788-4	South Bronx Haley & Aldrich, Inc.	UNCONSOLIDATED-UNDRAINED TRIAxIAL COMPRESSION TEST	
Geotesting Services, Inc.		Boring No.: E-232 Sample No.: U-3A Depth (ft): 10.1	April 2004

Report of Analysis

Client Sample ID: SBRONX-TIP-A2	Date Sampled: 03/13/03
Lab Sample ID: N34531-14	Date Received: 03/14/03
Matrix: SO - Solid	Percent Solids: 95.3
Project: MWTS, Farragut Street, Bronx, NY	

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	95.3		%	1	03/17/03	MMV	EPA 160.3 M

RL = Reporting Limit

Report of Analysis

Client Sample ID: SBRONX-TIP-A2	Date Sampled: 03/13/03
Lab Sample ID: N34531-14	Date Received: 03/14/03
Matrix: SO - Solid	Percent Solids: 95.3
Method: SW846 8082 SW846 3550B	
Project: MWTS, Farragut Street, Bronx, NY	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	XX33859.D	1	03/15/03	KLS	03/14/03	OP13258	GXX871
Run #2							

Run #	Initial Weight	Final Volume
Run #1	2.1 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	250	170	ug/kg	
11104-28-2	Aroclor 1221	ND	250	99	ug/kg	
11141-16-5	Aroclor 1232	ND	250	57	ug/kg	
53469-21-9	Aroclor 1242	ND	250	160	ug/kg	
12672-29-6	Aroclor 1248	ND	250	160	ug/kg	
11097-69-1	Aroclor 1254	ND	250	220	ug/kg	
11096-82-5	Aroclor 1260	ND	250	220	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	84%		12-142%
877-09-8	Tetrachloro-m-xylene	86%		12-142%
2051-24-3	Decachlorobiphenyl	78%		14-160%
2051-24-3	Decachlorobiphenyl	69%		14-160%

ND = Not detected MDL - Method Detection Limit J = Indicates an estimated value
 RL = Reporting Limit B = Indicates analyte found in associated method blank
 E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: SBRONX-TIP-A1	Date Sampled: 03/13/03
Lab Sample ID: N34531-13	Date Received: 03/14/03
Matrix: SO - Solid	Percent Solids: 95.2
Project: MWTS, Farragut Street, Bronx, NY	

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	95.2		%	1	03/17/03	MMV	EPA 160.3 M

RL = Reporting Limit

Report of Analysis

Client Sample ID:	SBRONX-TIP-A1	Date Sampled:	03/13/03
Lab Sample ID:	N34531-13	Date Received:	03/14/03
Matrix:	SO - Solid	Percent Solids:	95.2
Method:	SW846 8082 SW846 3550B		
Project:	MWTS, Farragut Street, Bronx, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	XX33858.D	1	03/15/03	KLS	03/14/03	OP13258	GXX871
Run #2							

Run #	Initial Weight	Final Volume
Run #1	2.0 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	260	180	ug/kg	
11104-28-2	Aroclor 1221	ND	260	100	ug/kg	
11141-16-5	Aroclor 1232	ND	260	60	ug/kg	
53469-21-9	Aroclor 1242	ND	260	170	ug/kg	
12672-29-6	Aroclor 1248	ND	260	170	ug/kg	
11097-69-1	Aroclor 1254	ND	260	230	ug/kg	
11096-82-5	Aroclor 1260	ND	260	230	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	80%		12-142%
877-09-8	Tetrachloro-m-xylene	81%		12-142%
2051-24-3	Decachlorobiphenyl	72%		14-160%
2051-24-3	Decachlorobiphenyl	63%		14-160%

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ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: SBRONX-TIP-C3	Date Sampled: 03/13/03
Lab Sample ID: N34531-12	Date Received: 03/14/03
Matrix: SO - Solid	Percent Solids: 95.4
Project: MWTS, Farragut Street, Bronx, NY	

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide Reactivity	<5.2	5.2	mg/kg	1	03/17/03 10:45	JA	SW846 CHAP7
Ignitability (Flashpoint)	>200		Deg. F	1	03/18/03	LMM	SW846 CHAP7
Solids, Percent	95.4		%	1	03/17/03	MMV	EPA 160.3 M
Sulfide Reactivity	<100	100	mg/kg	1	03/19/03	ST	SW846 CHAP7

Report of Analysis

Client Sample ID:	SBRONX-TIP-C3	Date Sampled	03/13/2003
Lab Sample ID:	N34531-12	Date Received:	03/14/2003
Matrix:	SO - Solid	Percent Solids	95.4
Method:	SW846 6010B SW846 3010A		
Project:	MWTS, Farragut Street, Bronx, NY		

Metals Analysis, TCLP Leachate

Analyte	Result	HW#	MCL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Mercury	<0.20	D009	0.20	mg/l	1	3/17/03	3/18/03	SM	SW846 7470A	SW846 7470A
Arsenic	<5.0	D004	5.0	mg/l	1	3/18/03	3/19/03	RP	SW846 6010B	SW846 3010A
Barium	<100	D005	100	mg/l	1	3/18/03	3/19/03	RP	SW846 6010B	SW846 3010A
Cadmium	<1.0	D006	1.0	mg/l	1	3/18/03	3/19/03	RP	SW846 6010B	SW846 3010A
Chromium	<5.0	D007	5.0	mg/l	1	3/18/03	3/19/03	RP	SW846 6010B	SW846 3010A
Lead	<5.0	D008	5.0	mg/l	1	3/18/03	3/19/03	RP	SW846 6010B	SW846 3010A
Selenium	<1.0	D010	1.0	mg/l	1	3/18/03	3/19/03	RP	SW846 6010B	SW846 3010A
Silver	<5.0	D011	5.0	mg/l	1	3/18/03	3/19/03	RP	SW846 6010B	SW846 3010A

Footnotes:

MCL = Maximum Contamination Level (40 CFR 261.6/96)

Report of Analysis

Sample ID:	SBRONX-TIP-C3	Date Sampled:	03/13/2003
Lab Sample ID:	N34531-12	Date Received:	03/14/2003
Matrix:	SO - Solid	Percent Solids:	95.4
Method:	SW846 8270C SW846 3510C		
Project:	MWTS, Farragut Street, Bronx, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch	Weights and Volumes
1	R30842.D	1	03/18/2003	MCI	03/17/2003	OP13274	ER953	Initial Volume=100 ml:Final Volume=1 ml

ABN TCLP Leachate

CAS No	Compound	Result	HW#	MCL	Units	Q
95-48-7	2-Methylphenol	<200	D023	200	mg/l	
	3&4-Methylphenol	<200	D024	200	mg/l	
87-86-5	Pentachlorophenol	<100	D037	100	mg/l	
95-95-4	2,4,5-Trichlorophenol	<400	D041	400	mg/l	
88-06-2	2,4,6-Trichlorophenol	<2.0	D042	2.0	mg/l	
106-46-7	1,4-Dichlorobenzene	<7.5	D027	7.5	mg/l	
121-14-2	2,4-Dinitrotoluene	<0.13	D030	0.13	mg/l	
118-74-1	Hexachlorobenzene	<0.13	D032	0.13	mg/l	
87-68-3	Hexachlorobutadiene	<0.50	D033	0.50	mg/l	
67-72-1	Hexachloroethane	<3.0	D034	3.0	mg/l	
98-95-3	Nitrobenzene	<2.0	D036	2.0	mg/l	
96-1	Pyridine	<5.0	D038	5.0	mg/l	

Surrogate Summary

CAS No.	Surrogate	Recovery	Limits	File ID
367-12-4	2-Fluorophenol	58 %	12 - 96	R30842.D
4165-62-2	Phenol-d5	38 %	10 - 73	R30842.D
118-79-6	2,4,6-Tribromophenol	92 %	37 - 149	R30842.D
4165-60-0	Nitrobenzene-d5	87 %	40 - 124	R30842.D
321-60-8	2-Fluorobiphenyl	88 %	40 - 121	R30842.D
1718-51-0	Terphenyl-d14	87 %	20 - 142	R30842.D

Footnotes:

MCL = Maximum Contamination Level (40 CFR 261.6/96)
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: SBRONX-TIP-C3	
Lab Sample ID: N34531-12	
Matrix: SO - Solid	Date Sampled: 03/13/2003
Method: SW846 8260B SW846 1311	Date Received: 03/14/2003
Project: MWTS, Farragut Street, Bronx, NY	Percent Solids: 95.4

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch	Weights and Volumes
1	I64715.D	5	03/17/2003	MKF	03/14/2003	GP18683	VI2493	Purge Volume=5 ml

VOA TCLP Leachage

CAS No	Compound	Result	HW#	MCL	Units	Q
71-43-2	Benzene	<0.50	D018	0.50	mg/l	
78-93-3	2-Butanone (MEK)	<200	D035	200	mg/l	
56-23-5	Carbon tetrachloride	<0.50	D019	0.50	mg/l	
108-90-7	Chlorobenzene	<100	D021	100	mg/l	
67-66-3	Chloroform	<6.0	D022	6.0	mg/l	
106-46-7	1,4-Dichlorobenzene	<7.5	D027	7.5	mg/l	
107-06-2	1,2-Dichloroethane	<0.50	D028	0.50	mg/l	
75-35-4	1,1-Dichloroethene	<0.70	D029	0.70	mg/l	
127-18-4	Tetrachloroethene	<0.70	D039	0.70	mg/l	
79-01-6	Trichloroethene	<0.50	D040	0.50	mg/l	
75-01-4	Vinyl chloride	<0.20	D043	0.20	mg/l	

Surrogate Summary

CAS No.	Surrogate	Recovery	Limits	File ID
1888-53-7	Dibromofluoromethane	100 %	83 - 118	I64715.D
17060-07-0	1,2-Dichloroethane-D4	108 %	69 - 127	I64715.D
2037-26-5	Toluene-D8	103 %	82 - 119	I64715.D
460-00-4	4-Bromofluorobenzene	101 %	81 - 121	I64715.D

Footnotes:

MCL = Maximum Contamination Level (40 CFR 261.6/96)
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: SBRONX-TIP-C2	Date Sampled: 03/13/03
Lab Sample ID: N34531-11	Date Received: 03/14/03
Matrix: SO - Solid	Percent Solids: 95.2
Project: MWTS, Farragut Street, Bronx, NY	

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	95.2		%	1	03/17/03	MMV	EPA 160.3 M

Report of Analysis

Client Sample ID: SBRONX-TIP-C2	Date Sampled: 03/13/03
Lab Sample ID: N34531-11	Date Received: 03/14/03
Matrix: SO - Solid	Percent Solids: 95.2
Method: SW846 8082 SW846 3550B	
Project: MWTS, Farragut Street, Bronx, NY	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	XX33857.D	1	03/15/03	KLS	03/14/03	OP13258	GXX871
Run #2							

Run #	Initial Weight	Final Volume
Run #1	2.0 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	260	180	ug/kg	
11104-28-2	Aroclor 1221	ND	260	100	ug/kg	
11141-16-5	Aroclor 1232	ND	260	60	ug/kg	
53469-21-9	Aroclor 1242	ND	260	170	ug/kg	
12672-29-6	Aroclor 1248	ND	260	170	ug/kg	
11097-69-1	Aroclor 1254	ND	260	230	ug/kg	
11096-82-5	Aroclor 1260	ND	260	230	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	80%		12-142%
877-09-8	Tetrachloro-m-xylene	79%		12-142%
2051-24-3	Decachlorobiphenyl	68%		14-160%
2051-24-3	Decachlorobiphenyl	56%		14-160%

ND = Not detected MDL - Method Detection Limit J = Indicates an estimated value
 RL = Reporting Limit B = Indicates analyte found in associated method blank
 E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: SBRONX-TIP-C1	Date Sampled: 03/13/03
Lab Sample ID: N34531-10	Date Received: 03/14/03
Matrix: SO - Solid	Percent Solids: 96.0
Project: MWTS, Farragut Street, Bronx, NY	

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	96		%	1	03/17/03	MMV	EPA 160.3 M

Report of Analysis

Client Sample ID: SBRONX-TIP-C1	Date Sampled: 03/13/03
Lab Sample ID: N34531-10	Date Received: 03/14/03
Matrix: SO - Solid	Percent Solids: 96.0
Method: SW846 8082 SW846 3550B	
Project: MWTS, Farragut Street, Bronx, NY	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	XX33856.D	1	03/15/03	KLS	03/14/03	OP13258	GXX871
Run #2							

Run #	Initial Weight	Final Volume
Run #1	2.0 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	260	180	ug/kg	
11104-28-2	Aroclor 1221	ND	260	100	ug/kg	
11141-16-5	Aroclor 1232	ND	260	60	ug/kg	
53469-21-9	Aroclor 1242	ND	260	170	ug/kg	
12672-29-6	Aroclor 1248	ND	260	170	ug/kg	
11097-69-1	Aroclor 1254	ND	260	230	ug/kg	
11096-82-5	Aroclor 1260	ND	260	230	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	76%		12-142%
877-09-8	Tetrachloro-m-xylene	76%		12-142%
2051-24-3	Decachlorobiphenyl	66%		14-160%
2051-24-3	Decachlorobiphenyl	53%		14-160%

ND = Not detected MDL - Method Detection Limit J = Indicates an estimated value
 RL = Reporting Limit B = Indicates analyte found in associated method blank
 E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: SBRONX-SLIP-OIL2	Date Sampled: 03/13/03
Lab Sample ID: N34531-9	Date Received: 03/14/03
Matrix: SO - Oil	Percent Solids: n/a
Method: SW846 8082 SW846 3580A	
Project: MWTS, Farragut Street, Bronx, NY	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OA2061.D	1	03/18/03	SY	03/14/03	OP13242	GOA64
Run #2	OA2080.D	10	03/19/03	SY	03/14/03	OP13242	GOA64

	Initial Weight	Final Volume
Run #1	0.50 g	10.0 ml
Run #2	0.50 g	10.0 ml

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	1000	680	ug/kg	
11104-28-2	Aroclor 1221	ND	1000	400	ug/kg	
11141-16-5	Aroclor 1232	ND	1000	230	ug/kg	
53469-21-9	Aroclor 1242 ^a	126000 ^b	10000	6400	ug/kg	
12672-29-6	Aroclor 1248	ND	1000	630	ug/kg	
11097-69-1	Aroclor 1254	ND	1000	870	ug/kg	
11096-82-5	Aroclor 1260	261000 ^b	10000	8700	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	75%	72%	12-142%
877-09-8	Tetrachloro-m-xylene	74%	77%	12-142%
2051-24-3	Decachlorobiphenyl	14%	64%	14-160%
2051-24-3	Decachlorobiphenyl	14%	90%	14-160%

(a) Reported from 2nd signal.

(b) Result is from Run# 2

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ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: SBRONX-SLIP-C7	Date Sampled: 03/13/03
Lab Sample ID: N34531-8	Date Received: 03/14/03
Matrix: SO - Solid	Percent Solids: 92.3
Project: MWTS, Farragut Street, Bronx, NY	

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide Reactivity	<5.4	5.4	mg/kg	1	03/17/03 10:44	JA	SW846 CHAP7
Ignitability (Flashpoint)	>200		Deg. F	1	03/18/03	LMM	SW846 CHAP7
Solids, Percent	92.3		%	1	03/17/03	MMV	EPA 160.3 M
Sulfide Reactivity	<100	100	mg/kg	1	03/19/03	ST	SW846 CHAP7

Report of Analysis

Client Sample ID:	SBRONX-SLIP-C7	Date Sampled	03/13/2003
Lab Sample ID:	N34531-8	Date Received:	03/14/2003
Matrix:	SO - Solid	Percent Solids	92.3
Method:	SW846 6010B SW846 3010A		
Project:	MWTS, Farragut Street, Bronx, NY		

Metals Analysis, TCLP Leachate

Analyte	Result	HW#	MCL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Mercury	<0.20	D009	0.20	mg/l	1	3/17/03	3/18/03	SM	SW846 7470A	SW846 7470A
Arsenic	<5.0	D004	5.0	mg/l	1	3/18/03	3/19/03	RP	SW846 6010B	SW846 3010A
Barium	<100	D005	100	mg/l	1	3/18/03	3/19/03	RP	SW846 6010B	SW846 3010A
Cadmium	<1.0	D006	1.0	mg/l	1	3/18/03	3/19/03	RP	SW846 6010B	SW846 3010A
Chromium	<5.0	D007	5.0	mg/l	1	3/18/03	3/19/03	RP	SW846 6010B	SW846 3010A
Lead	<5.0	D008	5.0	mg/l	1	3/18/03	3/19/03	RP	SW846 6010B	SW846 3010A
Selenium	<1.0	D010	1.0	mg/l	1	3/18/03	3/19/03	RP	SW846 6010B	SW846 3010A
Silver	<5.0	D011	5.0	mg/l	1	3/18/03	3/19/03	RP	SW846 6010B	SW846 3010A

Footnotes:

MCL = Maximum Contamination Level (40 CFR 261.6/96)

Report of Analysis

Client Sample ID:	SBRONX-SLIP-C7	Date Sampled	03/13/2003
Lab Sample ID:	N34531-8	Date Received:	03/14/2003
Matrix:	SO - Solid	Percent Solids	92.3
Method:	SW846 8270C SW846 3510C		
Project:	MWTS, Farragut Street, Bronx, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch	Weights and Volumes
1	R30841.D	1	03/18/2003	MCI	03/17/2003	OP13274	ER953	Initial Volume=100 ml:Final Volume=1 ml

ABN TCLP Leachate

CAS No	Compound	Result	HW#	MCL	Units	Q
95-48-7	2-Methylphenol	<200	D023	200	mg/l	
	3&4-Methylphenol	<200	D024	200	mg/l	
87-86-5	Pentachlorophenol	<100	D037	100	mg/l	
95-95-4	2,4,5-Trichlorophenol	<400	D041	400	mg/l	
88-06-2	2,4,6-Trichlorophenol	<2.0	D042	2.0	mg/l	
106-46-7	1,4-Dichlorobenzene	<7.5	D027	7.5	mg/l	
121-14-2	2,4-Dinitrotoluene	<0.13	D030	0.13	mg/l	
118-74-1	Hexachlorobenzene	<0.13	D032	0.13	mg/l	
87-68-3	Hexachlorobutadiene	<0.50	D033	0.50	mg/l	
67-72-1	Hexachloroethane	<3.0	D034	3.0	mg/l	
95-3	Nitrobenzene	<2.0	D036	2.0	mg/l	
10-86-1	Pyridine	<5.0	D038	5.0	mg/l	

Surrogate Summary

CAS No.	Surrogate	Recovery	Limits	File ID
367-12-4	2-Fluorophenol	55 %	12 - 96	R30841.D
4165-62-2	Phenol-d5	36 %	10 - 73	R30841.D
118-79-6	2,4,6-Tribromophenol	90 %	37 - 149	R30841.D
4165-60-0	Nitrobenzene-d5	85 %	40 - 124	R30841.D
321-60-8	2-Fluorobiphenyl	86 %	40 - 121	R30841.D
1718-51-0	Terphenyl-d14	87 %	20 - 142	R30841.D

Footnotes:

MCL = Maximum Contamination Level (40 CFR 261.6/96)
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Parent Sample ID:	SBRONX-SLIP-C7	Date Sampled	03/13/2003
Lab Sample ID:	N34531-8	Date Received:	03/14/2003
Matrix:	SO - Solid	Percent Solids	92.3
Method:	SW846 8260B SW846 1311		
Project:	MWTS, Farragut Street, Bronx, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch	Weights and Volumes
1	164714.D	5	03/17/2003	MKF	03/14/2003	GP18683	VI2493	Purge Volume=5 ml

VOA TCLP Leachage

CAS No	Compound	Result	HW#	MCL	Units	Q
71-43-2	Benzene	<0.50	D018	0.50	mg/l	
78-93-3	2-Butanone (MEK)	<200	D035	200	mg/l	
56-23-5	Carbon tetrachloride	<0.50	D019	0.50	mg/l	
108-90-7	Chlorobenzene	<100	D021	100	mg/l	
67-66-3	Chloroform	<6.0	D022	6.0	mg/l	
106-46-7	1,4-Dichlorobenzene	<7.5	D027	7.5	mg/l	
107-06-2	1,2-Dichloroethane	<0.50	D028	0.50	mg/l	
75-35-4	1,1-Dichloroethene	<0.70	D029	0.70	mg/l	
127-18-4	Tetrachloroethene	<0.70	D039	0.70	mg/l	
79-01-6	Trichloroethene	<0.50	D040	0.50	mg/l	
75-01-4	Vinyl chloride	<0.20	D043	0.20	mg/l	

Surrogate Summary

CAS No.	Surrogate	Recovery	Limits	File ID
1868-53-7	Dibromofluoromethane	101 %	83 - 118	164714.D
17060-07-0	1,2-Dichloroethane-D4	107 %	69 - 127	164714.D
2037-26-5	Toluene-D8	103 %	82 - 119	164714.D
460-00-4	4-Bromofluorobenzene	97 %	81 - 121	164714.D

Footnotes:

MCL = Maximum Contamination Level (40 CFR 261.6/96)
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: SBRONX-SLIP-C6

Lab Sample ID: N34531-7

Matrix: SO - Solid

Project: MWTS, Farragut Street, Bronx, NY

Date Sampled: 03/13/03

Date Received: 03/14/03

Percent Solids: 92.0

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	92		%	1	03/17/03	MMV	EPA 160.3 M

Report of Analysis

Client Sample ID: SBRONX-SLIP-C6	Date Sampled: 03/13/03
Lab Sample ID: N34531-7	Date Received: 03/14/03
Matrix: SO - Solid	Percent Solids: 92.0
Method: SW846 8082 SW846 3550B	
Project: MWTS, Farragut Street, Bronx, NY	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	XX33855.D	1	03/15/03	KLS	03/14/03	OP13258	GXX871
Run #2							

	Initial Weight	Final Volume
Run #1	2.0 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units Q
12674-11-2	Aroclor 1016	ND	270	180	ug/kg
11104-28-2	Aroclor 1221	ND	270	110	ug/kg
11141-16-5	Aroclor 1232	ND	270	62	ug/kg
53469-21-9	Aroclor 1242	ND	270	170	ug/kg
12672-29-6	Aroclor 1248	ND	270	170	ug/kg
11097-69-1	Aroclor 1254	ND	270	240	ug/kg
11096-82-5	Aroclor 1260	ND	270	240	ug/kg

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	83%		12-142%
877-09-8	Tetrachloro-m-xylene	82%		12-142%
2051-24-3	Decachlorobiphenyl	79%		14-160%
2051-24-3	Decachlorobiphenyl	68%		14-160%

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ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: SBRONX-SLIP-C5 Lab Sample ID: N34531-6 Matrix: SO - Solid Project: MWTS, Farragut Street, Bronx, NY	Date Sampled: 03/13/03 Date Received: 03/14/03 Percent Solids: 98.7
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General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide Reactivity	<5.1	5.1	mg/kg	1	03/17/03 10:43	JA	SW846 CHAP7
Ignitability (Flashpoint)	>200		Deg. F	1	03/18/03	LMM	SW846 CHAP7
Solids, Percent	98.7		%	1	03/17/03	MMV	EPA 160.3 M
Sulfide Reactivity	<100	100	mg/kg	1	03/19/03	ST	SW846 CHAP7

Report of Analysis

Parent Sample ID:	SBRONX-SLIP-C5	Date Sampled	03/13/2003
Lab Sample ID:	N34531-6	Date Received:	03/14/2003
Matrix:	SO - Solid	Percent Solids	98.7
Method:	SW846 6010B SW846 3010A		
Project:	MWTS, Farragut Street, Bronx, NY		

Metals Analysis, TCLP Leachate

Analyte	Result	HW#	MCL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Mercury	<0.20	D009	0.20	mg/l	1	3/17/03	3/18/03	SM	SW846 7470A	SW846 7470A
Arsenic	<5.0	D004	5.0	mg/l	1	3/18/03	3/19/03	RP	SW846 6010B	SW846 3010A
Barium	<100	D005	100	mg/l	1	3/18/03	3/19/03	RP	SW846 6010B	SW846 3010A
Cadmium	<1.0	D006	1.0	mg/l	1	3/18/03	3/19/03	RP	SW846 6010B	SW846 3010A
Chromium	<5.0	D007	5.0	mg/l	1	3/18/03	3/19/03	RP	SW846 6010B	SW846 3010A
Lead	<5.0	D008	5.0	mg/l	1	3/18/03	3/19/03	RP	SW846 6010B	SW846 3010A
Selenium	<1.0	D010	1.0	mg/l	1	3/18/03	3/19/03	RP	SW846 6010B	SW846 3010A
Silver	<5.0	D011	5.0	mg/l	1	3/18/03	3/19/03	RP	SW846 6010B	SW846 3010A

Footnotes:

MCL = Maximum Contamination Level (40 CFR 261.6/96)

Report of Analysis

Client Sample ID:	SBRONX-SLIP-C5		
Lab Sample ID:	N34531-6	Date Sampled:	03/13/2003
Matrix:	SO - Solid	Date Received:	03/14/2003
Method:	SW846 B270C SW846 3510C	Percent Solids:	98.7
Project:	MWTS, Farragut Street, Bronx, NY		

File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch	Weights and Volumes
Run # 1	R30839.D	1	03/18/2003	MCI	03/17/2003	OP13274	ER953
							Initial Volume=100 ml:Final Volume=1 ml

ABN TCLP Leachate

CAS No	Compound	Result	HW#	MCL	Units	Q
95-48-7	2-Methylphenol	<200	D023	200	mg/l	
	3&4-Methylphenol	<200	D024	200	mg/l	
87-86-5	Pentachlorophenol	<100	D037	100	mg/l	
95-95-4	2,4,5-Trichlorophenol	<400	D041	400	mg/l	
88-06-2	2,4,6-Trichlorophenol	<2.0	D042	2.0	mg/l	
106-46-7	1,4-Dichlorobenzene	<7.5	D027	7.5	mg/l	
121-14-2	2,4-Dinitrotoluene	<0.13	D030	0.13	mg/l	
118-74-1	Hexachlorobenzene	<0.13	D032	0.13	mg/l	
87-68-3	Hexachlorobutadiene	<0.50	D033	0.50	mg/l	
67-72-1	Hexachloroethane	<3.0	D034	3.0	mg/l	
7-95-3	Nitrobenzene	<2.0	D036	2.0	mg/l	
10-86-1	Pyridine	<5.0	D038	5.0	mg/l	

Surrogate Summary

CAS No.	Surrogate	Recovery	Limits	File ID
367-12-4	2-Fluorophenol	59 %	12 - 96	R30839.D
4165-62-2	Phenol-d5	39 %	10 - 73	R30839.D
118-79-6	2,4,6-Tribromophenol	92 %	37 - 149	R30839.D
4165-60-0	Nitrobenzene-d5	87 %	40 - 124	R30839.D
321-60-8	2-Fluorobiphenyl	88 %	40 - 121	R30839.D
1718-51-0	Terphenyl-d14	86 %	20 - 142	R30839.D

Footnotes:

MCL = Maximum Contamination Level (40 CFR 261.6/96)
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Parent Sample ID:	SBRONX-SLIP-C5	Date Sampled:	03/13/2003
Lab Sample ID:	N34531-6	Date Received:	03/14/2003
Matrix:	SO - Solid	Percent Solids:	98.7
Method:	SW846 8260B SW846 1311		
Project:	MWTS, Farragut Street, Bronx, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch	Weights and Volumes
1	I64776.D	5	03/19/2003	MKF	03/14/2003	GP18683	VI2495	Purge Volume=5 ml

VOA TCLP Leachage

CAS No	Compound	Result	HW#	MCL	Units	Q
71-43-2	Benzene	<0.50	D018	0.50	mg/l	
78-93-3	2-Butanone (MEK)	<200	D035	200	mg/l	
56-23-5	Carbon tetrachloride	<0.50	D019	0.50	mg/l	
108-90-7	Chlorobenzene	<100	D021	100	mg/l	
67-66-3	Chloroform	<6.0	D022	6.0	mg/l	
106-46-7	1,4-Dichlorobenzene	<7.5	D027	7.5	mg/l	
107-06-2	1,2-Dichloroethane	<0.50	D028	0.50	mg/l	
75-35-4	1,1-Dichloroethene	<0.70	D029	0.70	mg/l	
127-18-4	Tetrachloroethene	<0.70	D039	0.70	mg/l	
79-01-6	Trichloroethene	<0.50	D040	0.50	mg/l	
75-01-4	Vinyl chloride	<0.20	D043	0.20	mg/l	

Surrogate Summary

CAS No.	Surrogate	Recovery	Limits	File ID
1868-53-7	Dibromofluoromethane	104 %	83 - 118	I64776.D
17060-07-0	1,2-Dichloroethane-D4	105 %	69 - 127	I64776.D
2037-26-5	Toluene-D8	100 %	82 - 119	I64776.D
460-00-4	4-Bromofluorobenzene	103 %	81 - 121	I64776.D

Footnotes:

MCL = Maximum Contamination Level (40 CFR 261.6/96)
 E = Indicates value exceeds calibration range.

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: SBRONX-SLIP-OIL-1	Date Sampled: 03/13/03
Lab Sample ID: N34531-5	Date Received: 03/14/03
Matrix: SO - Oil	Percent Solids: n/a
Method: SW846 8082 SW846 3580A	
Project: MWTS, Farragut Street, Bronx, NY	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OA2060.D	1	03/18/03	SY	03/14/03	OP13242	GOA64
Run #2							

Run #	Initial Weight	Final Volume
Run #1	0.50 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	1000	680	ug/kg	
11104-28-2	Aroclor 1221	ND	1000	400	ug/kg	
11141-16-5	Aroclor 1232	ND	1000	230	ug/kg	
53469-21-9	Aroclor 1242	ND	1000	640	ug/kg	
12672-29-6	Aroclor 1248	ND	1000	630	ug/kg	
11097-69-1	Aroclor 1254	ND	1000	870	ug/kg	
11096-82-5	Aroclor 1260	ND	1000	870	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	67%		12-142%
877-09-8	Tetrachloro-m-xylene	497% ^a		12-142%
2051-24-3	Decachlorobiphenyl	15%		14-160%
2051-24-3	Decachlorobiphenyl	18%		14-160%

(a) Outside control limits due to matrix interference.

ND = Not detected	MDL = Method Detection Limit	J = Indicates an estimated value
RL = Reporting Limit		B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range		N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: SBRONX-SLIP-C4	Date Sampled: 03/13/03
Lab Sample ID: N34531-4	Date Received: 03/14/03
Matrix: SO - Solid	Percent Solids: 85.7
Project: MWTS, Farragut Street, Bronx, NY	

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide Reactivity	<5.8	5.8	mg/kg	1	03/17/03 10:42	JA	SW846 CHAP7
Ignitability (Flashpoint)	>200		Deg. F	1	03/18/03	LMM	SW846 CHAP7
Solids, Percent	85.7		%	1	03/17/03	MMV	EPA 160.3 M
Sulfide Reactivity ^a	<150	150	mg/kg	1	03/19/03	ST	SW846 CHAP7

(a) Detection limit raised due to limited sample volume.

Report of Analysis

Client Sample ID:	SBRONX-SLIP-C4	Date Sampled:	03/13/2003
Lab Sample ID:	N34531-4	Date Received:	03/14/2003
Matrix:	SO - Solid	Percent Solids:	85.7
Method:	SW846 6010B SW846 3010A		
Project:	MWTS, Farragut Street, Bronx, NY		

Metals Analysis, TCLP Leachate

Analyte	Result	HW#	MCL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Mercury	<0.20	D009	0.20	mg/l	1	3/17/03	3/18/03	SM	SW846 7470A	SW846 7470A
Arsenic	<5.0	D004	5.0	mg/l	1	3/18/03	3/19/03	RP	SW846 6010B	SW846 3010A
Barium	<100	D005	100	mg/l	1	3/18/03	3/19/03	RP	SW846 6010B	SW846 3010A
Cadmium	<1.0	D006	1.0	mg/l	1	3/18/03	3/19/03	RP	SW846 6010B	SW846 3010A
Chromium	<5.0	D007	5.0	mg/l	1	3/18/03	3/19/03	RP	SW846 6010B	SW846 3010A
Lead	<5.0	D008	5.0	mg/l	1	3/18/03	3/19/03	RP	SW846 6010B	SW846 3010A
Selenium	<1.0	D010	1.0	mg/l	1	3/18/03	3/19/03	RP	SW846 6010B	SW846 3010A
Silver	<5.0	D011	5.0	mg/l	1	3/18/03	3/19/03	RP	SW846 6010B	SW846 3010A

Footnotes:

MCL = Maximum Contamination Level (40 CFR 261.6/96)

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Report of Analysis

Parent Sample ID:	SBRONX-SLIP-C4	Date Sampled	03/13/2003
Lab Sample ID:	N34531-4	Date Received:	03/14/2003
Matrix:	SO - Solid	Percent Solids	85.7
Method:	SW846 8270C SW846 3510C		
Project:	MWTS, Farragut Street, Bronx, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch	Weights and Volumes
1	R30837.D	1	03/18/2003	MCI	03/17/2003	OP13274	ER953	Initial Volume=100 ml:Final Volume=1 ml

ABN TCLP Leachate

CAS No	Compound	Result	HW#	MCL	Units	Q
95-48-7	2-Methylphenol	<200	D023	200	mg/l	
	3&4-Methylphenol	<200	D024	200	mg/l	
87-86-5	Pentachlorophenol	<100	D037	100	mg/l	
95-95-4	2,4,5-Trichlorophenol	<400	D041	400	mg/l	
88-06-2	2,4,6-Trichlorophenol	<2.0	D042	2.0	mg/l	
106-46-7	1,4-Dichlorobenzene	<7.5	D027	7.5	mg/l	
121-14-2	2,4-Dinitrotoluene	<0.13	D030	0.13	mg/l	
118-74-1	Hexachlorobenzene	<0.13	D032	0.13	mg/l	
87-68-3	Hexachlorobutadiene	<0.50	D033	0.50	mg/l	
67-72-1	Hexachloroethane	<3.0	D034	3.0	mg/l	
98-95-3	Nitrobenzene	<2.0	D036	2.0	mg/l	
86-1	Pyridine	<5.0	D038	5.0	mg/l	

Surrogate Summary

CAS No.	Surrogate	Recovery	Limits	File ID
367-12-4	2-Fluorophenol	55 %	12 - 96	R30837.D
4165-62-2	Phenol-d5	37 %	10 - 73	R30837.D
118-79-6	2,4,6-Tribromophenol	102 %	37 - 149	R30837.D
4165-60-0	Nitrobenzene-d5	83 %	40 - 124	R30837.D
321-60-8	2-Fluorobiphenyl	91 %	40 - 121	R30837.D
1718-51-0	Terphenyl-d14	90 %	20 - 142	R30837.D

Footnotes:

MCL = Maximum Contamination Level (40 CFR 261.6/96)
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SBRONX-SLIP-C4		
Lab Sample ID:	N34531-4	Date Sampled:	03/13/2003
Matrix:	SO - Solid	Date Received:	03/14/2003
Method:	SW846 8260B SW846 1311	Percent Solids:	85.7
Project:	MWTS, Farragut Street, Bronx, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch	Weights and Volumes
1	I64712.D	5	03/17/2003	MKF	03/14/2003	GP18683	VI2493	Purge Volume=5 ml

VOA TCLP Leachage

CAS No	Compound	Result	HW#	MCL	Units	Q
71-43-2	Benzene	<0.50	D018	0.50	mg/l	
78-93-3	2-Butanone (MEK)	<200	D035	200	mg/l	
56-23-5	Carbon tetrachloride	<0.50	D019	0.50	mg/l	
108-90-7	Chlorobenzene	<100	D021	100	mg/l	
67-66-3	Chloroform	<6.0	D022	6.0	mg/l	
106-46-7	1,4-Dichlorobenzene	<7.5	D027	7.5	mg/l	
107-06-2	1,2-Dichloroethane	<0.50	D028	0.50	mg/l	
75-35-4	1,1-Dichloroethene	<0.70	D029	0.70	mg/l	
127-18-4	Tetrachloroethene	<0.70	D039	0.70	mg/l	
79-01-6	Trichloroethene	<0.50	D040	0.50	mg/l	
75-01-4	Vinyl chloride	<0.20	D043	0.20	mg/l	

Surrogate Summary

CAS No.	Surrogate	Recovery	Limits	File ID
1868-53-7	Dibromofluoromethane	104 %	83 - 118	I64712.D
17060-07-0	1,2-Dichloroethane-D4	106 %	69 - 127	I64712.D
2037-26-5	Toluene-D8	103 %	82 - 119	I64712.D
460-00-4	4-Bromofluorobenzene	98 %	81 - 121	I64712.D

Footnotes:

MCL = Maximum Contamination Level (40 CFR 261.6/96)
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: SBRONX-SLIP-C3	Date Sampled: 03/13/03
Lab Sample ID: N34531-3	Date Received: 03/14/03
Matrix: SO - Solid	Percent Solids: 85.2
Project: MWTS, Farragut Street, Bronx, NY	

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	85.2		%	1	03/17/03	MMV	EPA 160.3 M

Report of Analysis

Client Sample ID: SBRONX-SLIP-C3	Date Sampled: 03/13/03
Lab Sample ID: N34531-3	Date Received: 03/14/03
Matrix: SO - Solid	Percent Solids: 85.2
Method: SW846 8082 SW846 3550B	
Project: MWTS, Farragut Street, Bronx, NY	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	XX33854.D	1	03/15/03	KLS	03/14/03	OP13258	GXX871
Run #2							

Run #	Initial Weight	Final Volume
Run #1	2.0 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	290	200	ug/kg	
11104-28-2	Aroclor 1221	ND	290	120	ug/kg	
11141-16-5	Aroclor 1232	ND	290	67	ug/kg	
53469-21-9	Aroclor 1242	ND	290	190	ug/kg	
12672-29-6	Aroclor 1248	ND	290	190	ug/kg	
11097-69-1	Aroclor 1254	ND	290	260	ug/kg	
11096-82-5	Aroclor 1260	ND	290	260	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	74%		12-142%
877-09-8	Tetrachloro-m-xylene	73%		12-142%
2051-24-3	Decachlorobiphenyl	68%		14-160%
2051-24-3	Decachlorobiphenyl	56%		14-160%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
 RL = Reporting Limit B = Indicates analyte found in associated method blank
 E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: SBRONX-SLIP-C2	Date Sampled: 03/13/03
Lab Sample ID: N34531-2	Date Received: 03/14/03
Matrix: SO - Solid	Percent Solids: 85.3
Project: MWTS, Farragut Street, Bronx, NY	

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	85.3		%	1	03/17/03	MMV	EPA 160.3 M

Report of Analysis

Client Sample ID:	SBRONX-SLIP-C2	Date Sampled:	03/13/03
Lab Sample ID:	N34531-2	Date Received:	03/14/03
Matrix:	SO - Solid	Percent Solids:	85.3
Method:	SW846 8082 SW846 3550B		
Project:	MWTS, Farragut Street, Bronx, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	XX33853.D	1	03/15/03	KLS	03/14/03	OP13258	GXX871
Run #2							

Run #	Initial Weight	Final Volume
Run #1	2.0 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	290	200	ug/kg	
11104-28-2	Aroclor 1221	ND	290	120	ug/kg	
11141-16-5	Aroclor 1232	ND	290	67	ug/kg	
53469-21-9	Aroclor 1242	ND	290	190	ug/kg	
12672-29-6	Aroclor 1248	ND	290	190	ug/kg	
11097-69-1	Aroclor 1254	ND	290	260	ug/kg	
11096-82-5	Aroclor 1260	ND	290	260	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	80%		12-142%
877-09-8	Tetrachloro-m-xylene	81%		12-142%
2051-24-3	Decachlorobiphenyl	64%		14-160%
2051-24-3	Decachlorobiphenyl	57%		14-160%

18

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: SBRONX-SLIP-C1	
Lab Sample ID: N34531-1	Date Sampled: 03/13/03
Matrix: SO - Solid	Date Received: 03/14/03
	Percent Solids: 86.9
Project: MWTS, Farragut Street, Bronx, NY	

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	86.9		%	1	03/17/03	MMV	EPA 160.3 M

RL = Reporting Limit

Report of Analysis

Client Sample ID: SBRONX-SLIP-C1	Date Sampled: 03/13/03
Lab Sample ID: N34531-1	Date Received: 03/14/03
Matrix: SO - Solid	Percent Solids: 86.9
Method: SW846 8082 SW846 3550B	
Project: MWTS, Farragut Street, Bronx, NY	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	XX33852.D	1	03/15/03	KLS	03/14/03	OP13258	GXX871
Run #2							

Run #	Initial Weight	Final Volume
Run #1	2.0 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	290	200	ug/kg	
11104-28-2	Aroclor 1221	ND	290	110	ug/kg	
11141-16-5	Aroclor 1232	ND	290	66	ug/kg	
53469-21-9	Aroclor 1242	ND	290	180	ug/kg	
12672-29-6	Aroclor 1248	ND	290	180	ug/kg	
11097-69-1	Aroclor 1254	ND	290	250	ug/kg	
11096-82-5	Aroclor 1260	ND	290	250	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	81%		12-142 %
877-09-8	Tetrachloro-m-xylene	82%		12-142 %
2051-24-3	Decachlorobiphenyl	69%		14-160 %
2051-24-3	Decachlorobiphenyl	62%		14-160 %

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

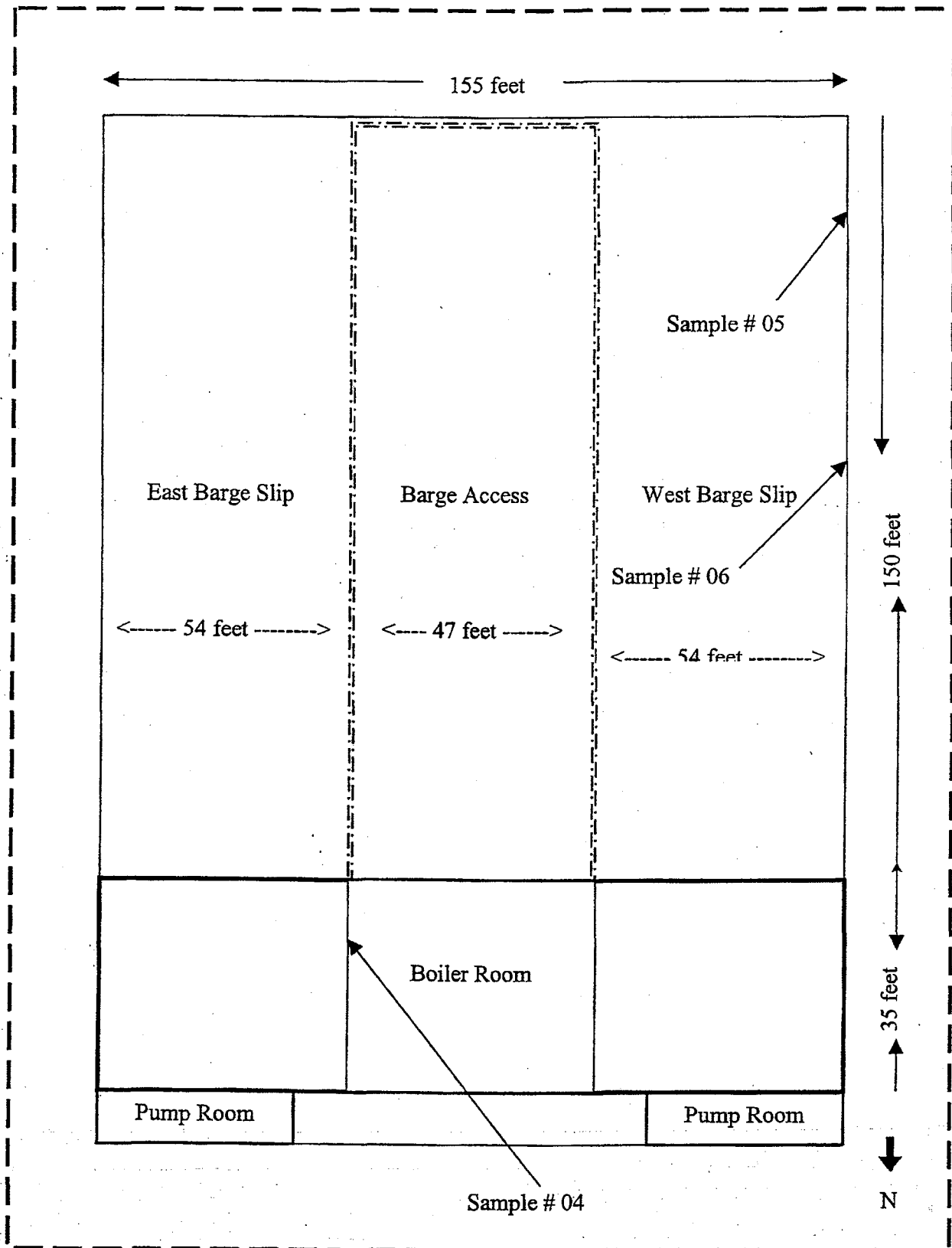
J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Attachment 2

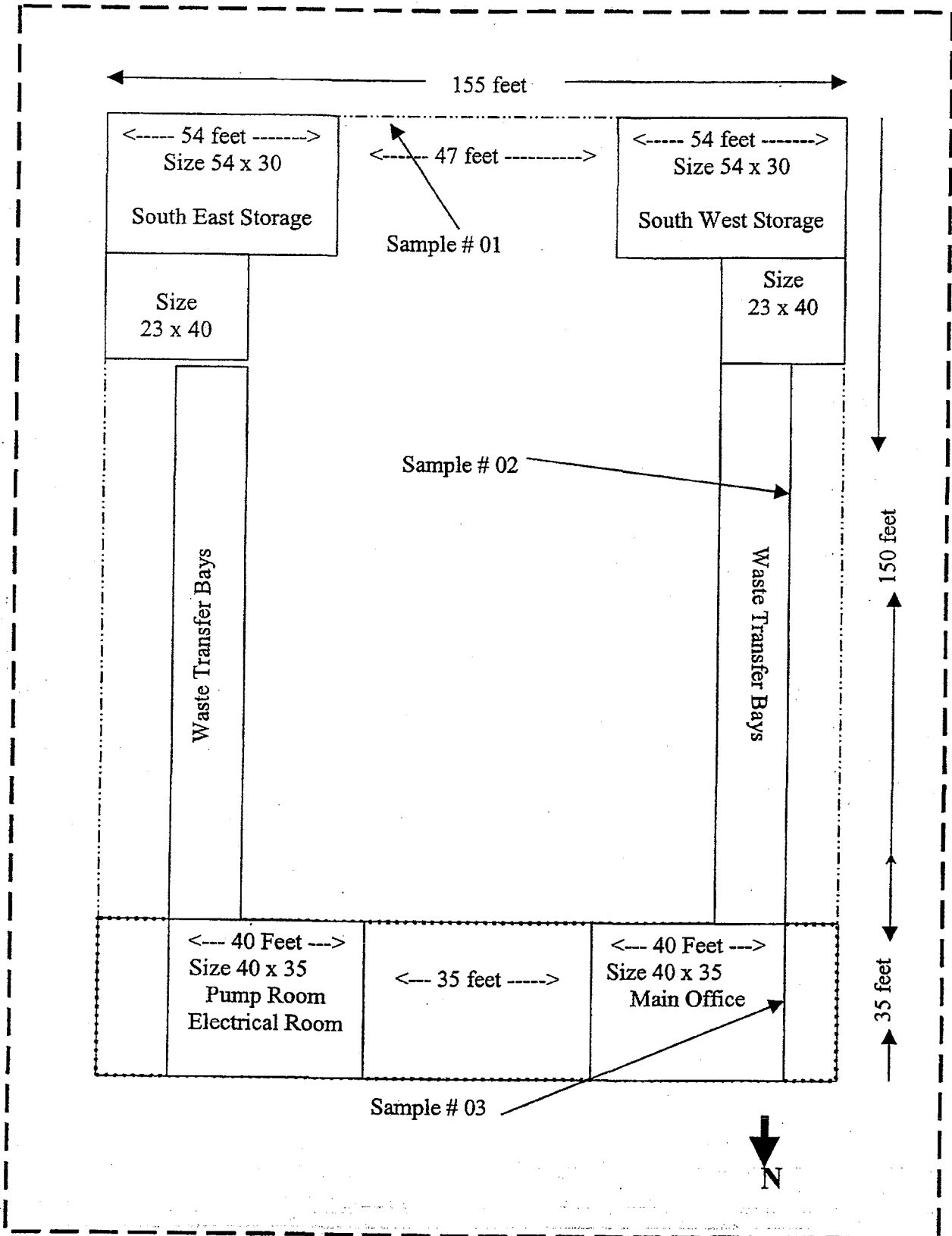
Laboratory Analytical Reports

BBL[®]
BLASLAND, BOUCK & LEE, INC.
engineers & scientists

DOS South Bronx Transfer Station
Lower Level
A-2 Lead Paint Chip sample location plan



DOS South Bronx Transfer Station
Upper Level
A-1 Lead Paint Chip sample location plan



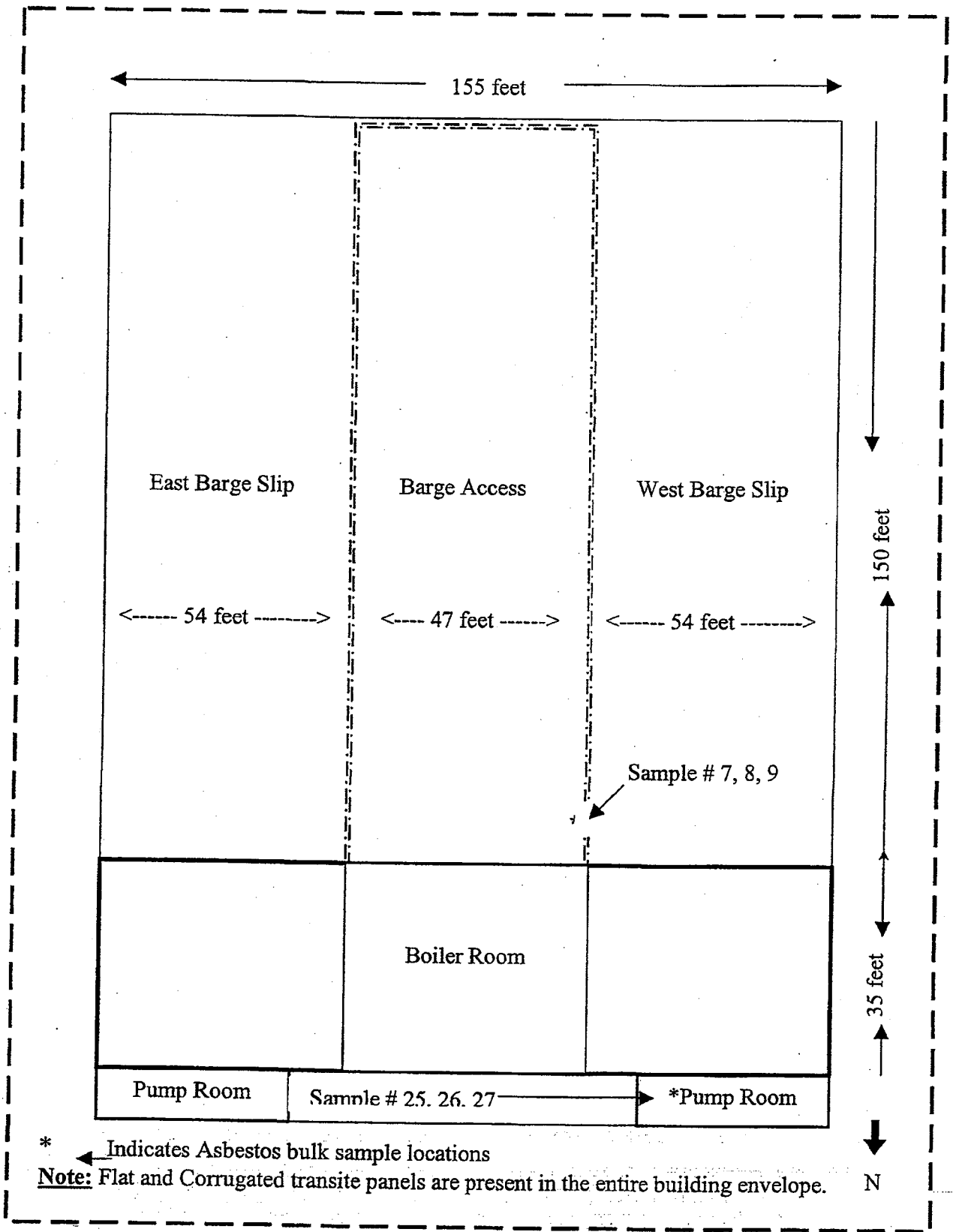
Asbestos & Lead Inspection Report
South Bronx Marine Transfer Station
Bronx, New York

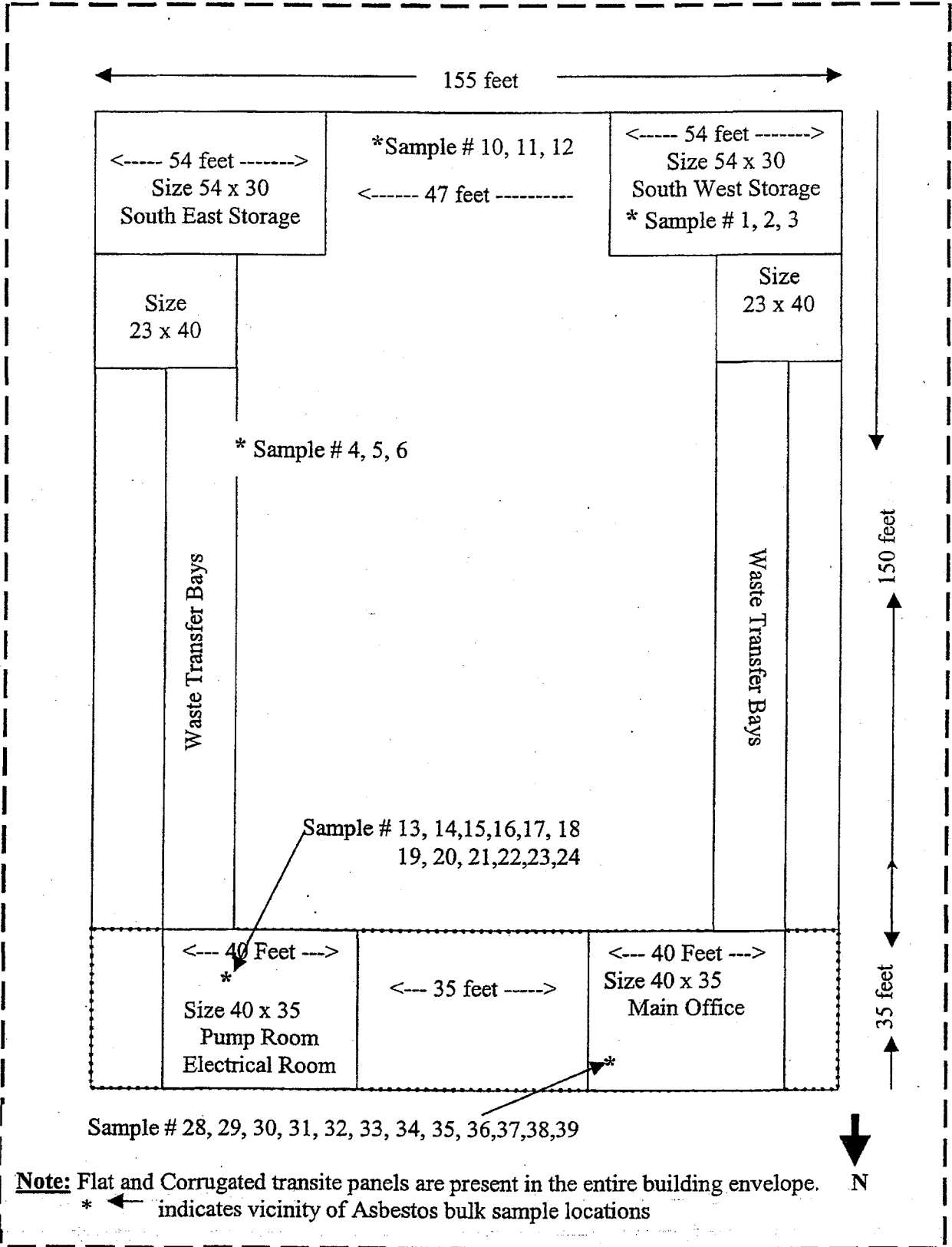
March 26, 2003

ATTACHMENT I

FLOOR PLANS

LOCATIONS OF LEAD & CADMIUM PAINT SAMPLES





Note: Flat and Corrugated transite panels are present in the entire building envelope.

* ← indicates vicinity of Asbestos bulk sample locations

ATTACHMENT H

FLOOR PLANS

ASBESTOS BULK SAMPLES AND CONFIRMED ACM

ATC ASSOCIATES INC.

SAMPLE CHAIN OF CUSTODY

104 E. 25th Street
New York, NY 10010
Phone 212-353-8280
Fax 212-979-8447

0303-211

CLIENT: NYC DOS

PROJECT: Bronx

CLIENT NUMBER: 8101398.0039

PROJECT MANGER: A. Javay

INSPECTOR: M. Medina

PAGE: 1 OF 1

DATE: 03-13-03

SAMPLE #	SAMPLE TYPE	ROOM	SAMPLED SURFACE	SUBSTRATE	CONDITION I/F/P	COLOR	SURFACE DIRTY		SAMPLE COMMENTS	RESULTS
							LENGTH	WIDTH		
01	Paint chip	Upper level inside	Upper level I beam vert.	M	F	Green			W#3	
02	"	"	I beam HORIZ.	"	P	"			W#4	
03	"	"	Wind sill	"	F	"			W#3	
04	"	Lower level inside	Lower level floor	"	P	"			W#2	
05	"	"	I beam vert.	"	P	White			inside Door	
06	"	"	I beam hor.	"	F	brown			by Door	

COMMENTS:
ANALYSIS REQUESTED:

TURN-AROUND TIME:

TOTAL # OF SAMPLES:

RELINQUISHED BY: (Print Name) M. Medina	RECEIVED BY: (Print Name) R. Rodriguez	LABORATORY: (Print Name)
SIGNATURE: M. Medina	SIGNATURE: R. Rodriguez	SIGNATURE:
Date/Time 03-13-03	Date/Time 3/14/03 0830	Date/Time

SCILAB

Customer: ATC Associates

Workorder No. 0303-00211

To the best of my knowledge this report is true and accurate.

Authorized By:



John J. Sulkowski, Laboratory Director

Certifications: MA: MA069 NY:10982 CT: PH0119 RI:A45 CA:2050 NJ: 59744

Page: 3 of 3

Sample: 004 LOWER LEVEL INSIDE-CLEAT-GREEN
(Continued)

Date: 03/13/2003
Matrix: CHIP

Parameter	Method	Results	Units	PQL	Analyst	Analysis Date	Qual
Lead	7420, SW-846	6620	mg/Kg	194	TDJ	03/19/2003	
Cadmium	6010B, SW-846	3.59	mg/Kg	0.29	VEN	03/18/2003	
Percent Solids		100	%		TLL	03/18/2003	

Sample: 005 LOWER LEVEL INSIDE-I BEAM VERTICAL-WHITE
Date: 03/13/2003
Matrix: CHIP

Parameter	Method	Results	Units	PQL	Analyst	Analysis Date	Qual
Lead	7420, SW-846	32.6	mg/Kg	19.2	TDJ	03/19/2003	
Cadmium	6010B, SW-846	1.44	mg/Kg	0.29	VEN	03/18/2003	
Percent Solids		100	%		TLL	03/18/2003	

Sample: 006 LOWER LEVEL INSIDE-I BEAM HORIZONTAL-BROWN
Date: 03/13/2003
Matrix: CHIP

Parameter	Method	Results	Units	PQL	Analyst	Analysis Date	Qual
Lead	7420, SW-846	39.8	mg/Kg	18.5	TDJ	03/19/2003	
Cadmium	6010B, SW-846	2.01	mg/Kg	0.28	VEN	03/18/2003	
Percent Solids		100	%		TLL	03/18/2003	

Laboratory Report

 Report Date 03/19/2003
 Workorder No. 0303-00211

 Customer: ATC Associates
 104 East 25th Street
 New York, NY 10010

 Attention: Arnel Javal
 Subject: NYCDOS: BRONX-PAINT CHIPS

Sample: 001 UPPER LEVEL INSIDE-I BEAM VERTICAL-GREEN
Date: 03/13/2003
Matrix: CHIP

Parameter	Method	Results	Units	PQL	Analyst	Analysis Date	Qual
Lead	7420, SW-846	103000	mg/Kg	3600	TDJ	03/19/2003	
Cadmium	6010B, SW-846	8.66	mg/Kg	0.27	VEN	03/18/2003	
Percent Solids		100	%		TLL	03/18/2003	

Sample: 002 UPPER LEVEL INSIDE-I BEAM HORIZONTAL-GREEN
Date: 03/13/2003
Matrix: CHIP

Parameter	Method	Results	Units	PQL	Analyst	Analysis Date	Qual
Lead	7420, SW-846	74300	mg/Kg	1980	TDJ	03/19/2003	
Cadmium	6010B, SW-846	8.72	mg/Kg	0.30	VEN	03/18/2003	
Percent Solids		100	%		TLL	03/18/2003	

Sample: 003 UPPER LEVEL INSIDE-WINDOW SILL LOCKER ROOM-GREEN
Date: 03/13/2003
Matrix: CHIP

Parameter	Method	Results	Units	PQL	Analyst	Analysis Date	Qual
Lead	7420, SW-846	2460	mg/Kg	86.2	TDJ	03/19/2003	
Cadmium	6010B, SW-846	7.47	mg/Kg	0.26	VEN	03/18/2003	
Percent Solids		100	%		TLL	03/18/2003	

Sample: 004 LOWER LEVEL INSIDE-CLEAT-GREEN

Certifications: MA: MA069 NY:10982 CT: PH0119 RI:A45 CA:2050 NJ: 59744

Sample: 004 LOWER LEVEL INSIDE-CLEAT-GREEN
(Continued)

Date: 03/13/2003
Matrix: CHIP

Parameter	Method	Results	Units	PQL	Analyst	Analysis Date	Qual
Lead	7420, SW-846	6620	mg/Kg	194	TDJ	03/19/2003	
Cadmium	6010B, SW-846	3.59	mg/Kg	0.29	VEN	03/18/2003	
Percent Solids		100	%		TLL	03/18/2003	

Sample: 005 LOWER LEVEL INSIDE-I BEAM VERTICAL-WHITE
Date: 03/13/2003
Matrix: CHIP

Parameter	Method	Results	Units	PQL	Analyst	Analysis Date	Qual
Lead	7420, SW-846	32.6	mg/Kg	19.2	TDJ	03/19/2003	
Cadmium	6010B, SW-846	1.44	mg/Kg	0.29	VEN	03/18/2003	
Percent Solids		100	%		TLL	03/18/2003	

Sample: 006 LOWER LEVEL INSIDE-I BEAM HORIZONTAL-BROWN
Date: 03/13/2003
Matrix: CHIP

Parameter	Method	Results	Units	PQL	Analyst	Analysis Date	Qual
Lead	7420, SW-846	39.8	mg/Kg	18.5	TDJ	03/19/2003	
Cadmium	6010B, SW-846	2.01	mg/Kg	0.28	VEN	03/18/2003	
Percent Solids		100	%		TLL	03/18/2003	

Laboratory Report

 Report Date 03/19/2003
 Workorder No. 0303-00211

 Customer: ATC Associates
 104 East 25th Street
 New York, NY 10010

 Attention: Arnel Javal
 Subject: NYCDOS: BRONX-PAINT CHIPS

Sample: 001 UPPER LEVEL INSIDE-I BEAM VERTICAL-GREEN
Date: 03/13/2003
Matrix: CHIP

Parameter	Method	Results	Units	PQL	Analyst	Analysis Date	Qual
Lead	7420, SW-846	103000	mg/Kg	3600	TDJ	03/19/2003	
Cadmium	6010B, SW-846	8.66	mg/Kg	0.27	VEN	03/18/2003	
Percent Solids		100	%		TLL	03/18/2003	

Sample: 002 UPPER LEVEL INSIDE-I BEAM HORIZONTAL-GREEN
Date: 03/13/2003
Matrix: CHIP

Parameter	Method	Results	Units	PQL	Analyst	Analysis Date	Qual
Lead	7420, SW-846	74300	mg/Kg	1980	TDJ	03/19/2003	
Cadmium	6010B, SW-846	8.72	mg/Kg	0.30	VEN	03/18/2003	
Percent Solids		100	%		TLL	03/18/2003	

Sample: 003 UPPER LEVEL INSIDE-WINDOW SILL LOCKER ROOM-GREEN
Date: 03/13/2003
Matrix: CHIP

Parameter	Method	Results	Units	PQL	Analyst	Analysis Date	Qual
Lead	7420, SW-846	2460	mg/Kg	86.2	TDJ	03/19/2003	
Cadmium	6010B, SW-846	7.47	mg/Kg	0.26	VEN	03/18/2003	
Percent Solids		100	%		TLL	03/18/2003	

Sample: 004 LOWER LEVEL INSIDE-CLEAT-GREEN

Locations: MA: MA069 NY:10982 CT: PH0119 RI:A45 CA:2050 NJ: 59744

Asbestos & Lead Inspection Report
South Bronx Marine Transfer Station
Bronx, New York

March 26, 2003

ATTACHMENT G

**LABORATORY REPORTS/CHAIN-OF-CUSTODY
(LEAD & CADMIUM PAINT CHIP RESULTS)**



BATCH NO. 3-163

BULK SAMPLE DATA AND CHAIN OF CUSTODY FORM

PROJECT INFORMATION

1. Client: <u>BBL</u>	2. Project Name: <u>South Bronx HST</u>	3. Project No: <u>81.01398.39</u>	4. Project Manager: <u>A. Savel</u>
	2a. Project Address: <u>Paragon St & Duane Ave</u>		4a. Investigator: <u>A. Kowalski</u>
5. Date: <u>3/13/03</u>	6. Building Name:	8. Turnaround Time: <input type="checkbox"/> STAT <input checked="" type="checkbox"/> 24 HRS <input type="checkbox"/> 72 HRS <input type="checkbox"/> OTHER <input type="checkbox"/> 6 HRS <input type="checkbox"/> 48 HRS <input type="checkbox"/> NORMAL	9. Comments (Field)
	7. Sampling Areas:		

BULK SAMPLE LOCATION

10. Homogenous Area No.	11. Bulk Sample ID No.	12. Material	13. Thermal System	14. Sample Location		15. Material Total Quantity (LF, SF, PCS)	16. Asbestos Content (Type & %)
				Floor	Sample Coordinates		
07	19	FIBERGLASS ELBOWS	Y	UPPER LEVEL			
↓	20	↓	↓				
↓	21	↓	↓				
08	22	FIBERGLASS INSUL. WRAPPING PAPER	Y	UPPER LEVEL			
↓	23	↓	↓				
↓	24	↓	↓				
09	25	DOOR WINDOW PUTTY	N	LOWER LEVEL			
↓	26	↓	↓				
↓	27	↓	↓				
10	28	CERAMIC TILES MORTAR	N	UPPER LEVEL			
↓	29	↓	↓				
↓	30	↓	↓				
11	31	WINDOWS PUTTY	N	UPPER LEVEL			
↓	32	↓	↓				
↓	33	↓	↓				
12	34	12'x12" BRWN FT	N	UPPER LEVEL			
↓	35	↓	↓				
↓	36	↓	↓				

CHAIN OF CUSTODY

17. Relinquished By: <u>[Signature]</u>	18. Date: <u>3/14</u>	19. Time:	20. Received By: <u>E. A. CHARTERS</u>	21. Date: <u>3/14/03</u>	22. Time: <u>1600</u>	23. Method of Submital: FIELD <input type="checkbox"/> WALK IN <input type="checkbox"/> US MAIL <input type="checkbox"/> FED EX <input type="checkbox"/> OTHER <input type="checkbox"/>
II						
III						

LAB INFORMATION

24. Name and Signature	25. Date: <u>3/14/03</u>	26. Time: <u>PM</u>	27. Comments (Lab)
24a. Analyzed By: <u>E. A. Charters</u>			
24b. Analyzed By:			
24c. QC By:			



BATCH NO. 3-163

PROJECT INFORMATION

BULK SAMPLE DATA AND CHAIN OF CUSTODY FORM

1. Client: BBL	2. Project Name: South Brent MST	3. Project No: 81.C1298.39	4. Project Manager: A. Gaval
5. Date: 3/13/03	2a. Project Address: FARROSET ST & RUAWA AVE	4a. Investigator: A. KUCLODENAS	
6. Building Name:	7. Sampling Areas:	8. Turnaround Time: <input type="checkbox"/> STAT <input checked="" type="checkbox"/> 24 HRS <input type="checkbox"/> 72 HRS <input type="checkbox"/> OTHER <input type="checkbox"/> 6 HRS <input type="checkbox"/> 48 HRS <input type="checkbox"/> NORMAL <input type="checkbox"/> _____	9. Comments (Field): S

BULK SAMPLE LOCATION

10. Homogenous Area No.	11. Bulk Sample ID No.	12. Material	13. Thermal System	14. Sample Location		15. Material Total Quantity (LF, SF, PCS)	16. Asbestos Content (Type & %)
				Floor	Sample Coordinates		
01	01	CORRUGATED ^{PANELS} TRANSITE	N	UPPER LEVEL			
↓	02	↓	↓	↓			
↓	03	↓	↓	↓			
02	04	FLAT TRANSITE PANELS		UPPER LEVEL			
↓	05	↓	↓	↓			
↓	06	↓	↓	↓			
03	07	FLAT TRANSITE PANELS CRACKING		LOWER LEVEL			
↓	08	↓	↓	↓			
↓	09	↓	↓	↓			
04	10	GREEN CORRUGATED SHEETING		UPPER LEVEL			
↓	11	↓	↓	↓			
↓	12	↓	↓	↓			
05	13	ROBE HAIR INSULATION	Y	UPPER LEVEL			
↓	14	↓	↓	↓			
↓	15	↓	↓	↓			
06	16	WRAPPING PAPER OF ROBE HAIR INS.	Y				
↓	17	↓	↓	↓			
↓	18	↓	↓	↓			

CHAIN OF CUSTODY

17. Relinquished By: A. Kuclo Denas	18. Date: 3/14	19. Time:	20. Received By: E. A. Quarterns	21. Date: 3/14/03	22. Time: 1100	23. Method of Submital:	
I						FIELD	
II						WALK IN	
III						US MAIL	
						FED EX	
						OTHER	

LAB INFORMATION

24. Name and Signature	25. Date:	26. Time:	27. Comments (Lab) 35 PLM 17 NOB FEM 4 NOB PLM
24a. Analyzed By: E. A. Quarterns	3/14/03	PM	
24b. Analyzed By:			
24c. QC By:			

ATC Associates Inc.

104 E. 25th St., 10th Floor, New York, NY 10010-2917
(212) 353-8280 Fax (212) 353 8306

BULK ASBESTOS ANALYSIS RESULTS

Client : BBL/81-01398-0039
South Bronx Marine Transfer Station
Farragut St. & Ruawa Ave.

Batch # : 3-163
Date Collected : 3/13/03

Page : 8

SAMPLE INFORMATION	Asbestos Result	Fibrous Material	Non-Fibrous Material	NOB Result
Field # : 36 Date Analyzed: 3/14/03 Color : Brown Location : Upper Level Type of Mat: 12"x12" Brown FT Homogeneity : Y By : EC/RP Method : ELAP+EPA PLM,NOB-PLM/TEM	Trace% CHRYSOTILE			19.0 % Organic 4.0 % Residue 77.0 % Carbonate
Comment:				
Field # : 37 Date Analyzed: 3/14/03 Color : Black Location : Upper Type of Mat: Mastic of 12x12 FT Homogeneity : Y By : EC/RP Method : ELAP+EPA PLM,NOB-PLM/TEM	Trace% CHRYSOTILE			67.8 % Organic 13.8 % Residue 18.4 % Carbonate
Comment:				
Field # : 38 Date Analyzed: 3/14/03 Color : Black Location : Upper Type of Mat: Mastic of 12x12 FT Homogeneity : Y By : EC/RP Method : ELAP+EPA PLM,NOB-PLM/TEM	0.1 % CHRYSOTILE			71.6 % Organic 12.9 % Residue 15.4 % Carbonate
Comment:				
Field # : 39 Date Analyzed: 3/14/03 Color : Black Location : Upper Type of Mat: Mastic of 12x12 FT Homogeneity : Y By : EC/RP Method : ELAP+EPA PLM,NOB-PLM/TEM	Trace% CHRYSOTILE			59.2 % Organic 15.1 % Residue 25.7 % Carbonate
Comment:				

Legend: TRACE = LESS THAN LIMIT OF QUANTITATION (<0.25%)

Note 1: For point counts the limit of quantitation of 0.25% is based on one asbestos point counted over 400 non-empty points.

Note 2: > 1% asbestos by weight is considered an ACM (Asbestos Containing Material).

Analyst:

Reviewed and Signed for the Company by:

Handwritten signature

Handwritten signature

Director of Laboratory Services

ATC Associates Inc.

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BULK ASBESTOS ANALYSIS RESULTS

Client : BBL/81-01398-0039
 South Bronx Marine Transfer Station
 Farragut St. & Ruawa Ave.

Batch # : 3-163
 Date Collected : 3/13/03

Page : 7

SAMPLE INFORMATION		Asbestos Result	Fibrous Material	Non-Fibrous Material	NOB Result
Field # : 31 Color : White Location : Upper & Lower Type of Mat: Windows Putty Homogeneity : Y Method : ELAP+EPA PLM.NOB-PLM/TEM	Date Analyzed: 3/14/03 By : EC/RP	0.3 % ANTHOPHYLITE			11.7 % Organic 3.0 % Residue 85.0 % Carbonate
Comment:					
Field # : 32 Color : White Location : Upper & Lower Type of Mat: Windows Putty Homogeneity : Y Method : ELAP+EPA NOB-PLM	Date Analyzed: 3/14/03 By : E.C.	NONE-DETECTED			8.8 % Organic 0 % Residue 91.2 % Carbonate
Comment:					
Field # : 33 Color : White Location : Upper & Lower Type of Mat: Windows Putty Homogeneity : Y Method : ELAP+EPA NOB-PLM	Date Analyzed: 3/14/03 By : E.C.	NONE-DETECTED			6.7 % Organic 0.8 % Residue 92.5 % Carbonate
Comment: Residue less than 1%					
Field # : 34 Color : Brown Location : Upper Level Type of Mat: 12"x12" Brown FT Homogeneity : Y Method : ELAP+EPA PLM.NOB-PLM/TEM	Date Analyzed: 3/14/03 By : EC/RP	Trace% CHRYSOTILE			20.7 % Organic 5.5 % Residue 73.8 % Carbonate
Comment:					
Field # : 35 Color : Brown Location : Upper Level Type of Mat: 12"x12" Brown FT Homogeneity : Y Method : ELAP+EPA PLM.NOB-PLM/TEM	Date Analyzed: 3/14/03 By : EC/RP	Trace% CHRYSOTILE			19.7 % Organic 3.9 % Residue 76.4 % Carbonate
Comment:					

Legend: TRACE = LESS THAN LIMIT OF QUANTITATION (<0.25%)

Note 1: For point counts the limit of quantitation of 0.25% is based on one asbestos point counted over 400 non-empty points.

Note 2: > 1% asbestos by weight is considered an ACM (Asbestos Containing Material).

Analyst:

[Handwritten Signature]

Reviewed and Signed for the Company by:

[Handwritten Signature]

Director of Laboratory Services

ATC Associates Inc.

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BULK ASBESTOS ANALYSIS RESULTS

Client : BBL/81-01398-0039
 South Bronx Marine Transfer Station
 Farragut St. & Ruawa Ave.

Batch # : 3-163
 Date Collected : 3/13/03

Page : 6

SAMPLE INFORMATION	Asbestos Result	Fibrous Material	Non-Fibrous Material	NOB Result
Field # : 26 Date Analyzed: 3/14/03 Color : Off White Location : Lower Level Type of Mat: Door Window Putty Homogeneity : Y By : EC/RP Method : ELAP+EPA PLM,NOB-PLM/TEM	0.1 % CHRYSOTILE			5.6 % Organic 1.1 % Residue 93.2 % Carbonate
Comment:				
Field # : 27 Date Analyzed: 3/14/03 Color : Off White Location : Lower Level Type of Mat: Door Window Putty Homogeneity : Y By : EC/RP Method : ELAP+EPA PLM,NOB-PLM/TEM	0.1 % CHRYSOTILE			10.7 % Organic 1.3 % Residue 87.9 % Carbonate
Comment:				
Field # : 28 Date Analyzed: 3/14/03 Color : Tan Location : Upper Level Type of Mat: Ceramic Tiles Mottar Homogeneity : Y By : E.C. Method : ELAP+EPA PLM	NONE-DETECTED		100 % Mineral Filler	
Comment:				
Field # : 29 Date Analyzed: 3/14/03 Color : Tan Location : Upper Level Type of Mat: Ceramic Tiles Mottar Homogeneity : Y By : E.C. Method : ELAP+EPA PLM	NONE-DETECTED		100 % Mineral Filler	
Comment:				
Field # : 30 Date Analyzed: 3/14/03 Color : Tan Location : Upper Level Type of Mat: Ceramic Tiles Mottar Homogeneity : Y By : E.C. Method : ELAP+EPA PLM	NONE-DETECTED		100 % Mineral Filler	
Comment:				

Legend: TRACE = LESS THAN LIMIT OF QUANTITATION (<0.25%)

Note 1: For point counts the limit of quantitation of 0.25% is based on one asbestos point counted over 400 non-empty points.

Note 2: >1% asbestos by weight is considered an ACM (Asbestos Containing Material).

Analyst:

Reviewed and Signed for the Company by:

W. J. [Signature]

[Signature]

Director of Laboratory Services

ATC Associates Inc.

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BULK ASBESTOS ANALYSIS RESULTS

Client : BBL/81-01398-0039
 South Bronx Marine Transfer Station
 Farragut St. & Ruawa Ave.

Batch # : 3-163
 Date Collected : 3/13/03

Page : 5

SAMPLE INFORMATION		Asbestos Result	Fibrous Material	Non-Fibrous Material	NOB Result
Field # : 21 Color : Tan Location : Upper & Lower Type of Mat: Fiberglass Elbowing Homogeneity : Y Method : ELAP+EPA PLM	Date Analyzed: 3/14/03 By : E.C.	NONE-DETECTED	3 % Cellulose 42 % Fiberglass	55 % Mineral Filler	
Comment:					
Field # : 22 Color : Yellow/White Location : Upper & Lower Type of Mat: Fiberglass Insulation Wrapping Paper Homogeneity : N Method : ELAP+EPA PLM	Date Analyzed: 3/14/03 By : E.C.	NONE-DETECTED	10 % Cellulose 90 % Fiberglass	Paint % Trace	
Comment:					
Field # : 23 Color : Yellow/White/Gray Location : Upper & Lower Type of Mat: Fiberglass Insulation Wrapping Paper Homogeneity : N Method : ELAP+EPA PLM	Date Analyzed: 3/14/03 By : E.C.	NONE-DETECTED	24 % Cellulose 70 % Fiberglass	5 % Mineral Filler 1 % Paint	
Comment:					
Field # : 24 Color : Yellow/White Location : Upper & Lower Type of Mat: Fiberglass Insulation Wrapping Paper Homogeneity : N Method : ELAP+EPA PLM	Date Analyzed: 3/14/03 By : E.C.	NONE-DETECTED	15 % Cellulose 85 % Fiberglass		
Comment:					
Field # : 25 Color : Off White Location : Lower Level Type of Mat: Doors Window Putty Homogeneity : Y Method : ELAP+EPA PLM, NOB-PLM/TEM	Date Analyzed: 3/14/03 By : EC/RP	0.1 % CHRYSOTILE			8.0 % Organic 1.0 % Residue 90.9 % Carbonate
Comment:					

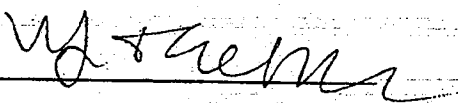
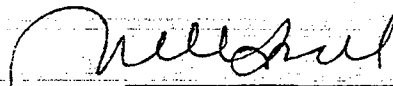
Legend: TRACE = LESS THAN LIMIT OF QUANTITATION (<0.25%)

Note 1: For point counts the limit of quantitation of 0.25% is based on one asbestos point counted over 400 non-empty points.

Note 2: > 1% asbestos by weight is considered an ACM (Asbestos Containing Material).

Analyst:

Reviewed and Signed for the Company by:

Director of Laboratory Services

ATC Associates Inc.

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BULK ASBESTOS ANALYSIS RESULTS

Client : BBL/81-01398-0039
 South Bronx Marine Transfer Station
 Farragut St. & Ruawa Ave.

Batch # : 3-163
 Date Collected : 3/13/03

Page : 4

SAMPLE INFORMATION	Asbestos Result	Fibrous Material	Non-Fibrous Material	NOB Result
Field # : 16 Date Analyzed: 3/14/03 Color : Black Location : Upper Level Type of Mat: Wrapping Paper of Horse Hair Insul. Homogeneity : Y By : EC/RP Method : ELAP+EPA PLM,NOB-PLM/TEM	Trace% CHRYSOTILE			95.6 % Organic 2.2 % Residue 2.2 % Carbonate
Comment:				
Field # : 17 Date Analyzed: 3/14/03 Color : Black Location : Upper Level Type of Mat: Wrapping paper of Horse Hair Insul. Homogeneity : Y By : EC/RP Method : ELAP+EPA PLM,NOB-PLM/TEM	Trace% CHRYSOTILE			95.3 % Organic 2.3 % Residue 2.4 % Carbonate
Comment:				
Field # : 18 Date Analyzed: 3/14/03 Color : Black Location : Upper Level Type of Mat: Wrapping Paper of Horse Hair Insul. Homogeneity : Y By : EC/RP Method : ELAP+EPA PLM,NOB-PLM/TEM	Trace% CHRYSOTILE			94.8 % Organic 1.8 % Residue 3.4 % Carbonate
Comment:				
Field # : 19 Date Analyzed: 3/14/03 Color : Tan Location : Upper & Lower Type of Mat: Fiberglass Elbowing Homogeneity : Y By : E.C. Method : ELAP+EPA PLM	NONE-DETECTED	2 % Cellulose 43 % Fiberglass	55 % Mineral Filler	
Comment:				
Field # : 20 Date Analyzed: 3/14/03 Color : Tan Location : Upper & Lower Type of Mat: Fiberglass Elbowing Homogeneity : Y By : E.C. Method : ELAP+EPA PLM	NONE-DETECTED	3 % Cellulose 40 % Fiberglass	57 % Mineral Filler	
Comment:				

Legend: TRACE = LESS THAN LIMIT OF QUANTITATION (<0.25%)

Note 1: For point counts the limit of quantitation of 0.25% is based on one asbestos point counted over 400 non-empty points.

Note 2: > 1% asbestos by weight is considered an ACM (Asbestos Containing Material).

Analyst:

Reviewed and Signed for the Company by:

[Handwritten Signature]

[Handwritten Signature]

Director of Laboratory Services

ATC Associates Inc.

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BULK ASBESTOS ANALYSIS RESULTS

Client : BBL/81-01398-0039
 South Bronx Marine Transfer Station
 Farragut St. & Ruawa Ave.

Batch # : 3-163
 Date Collected : 3/13/03

Page : 3

SAMPLE INFORMATION		Asbestos Result	Fibrous Material	Non-Fibrous Material	NOB Result
Field # : 11	Date Analyzed: 3/14/03	Trace% CHRYSOTILE			60.1 % Organic 38.7 % Residue 1.2 % Carbonate
Color : Green					
Location : Upper & Lower Level					
Type of Mat: Green Corrugated Sheeting					
Homogeneity : Y By : EC/RP					
Method : ELAP+EPA PLM.NOB-PLM/TEM		Comment:			
Field # : 12	Date Analyzed: 3/14/03	Trace% CHRYSOTILE			61.1 % Organic 38.7 % Residue 0.2 % Carbonate
Color : Green					
Location : Upper & Lower Level					
Type of Mat: Green Corrugated Sheeting					
Homogeneity : Y By : EC/RP					
Method : ELAP+EPA PLM.NOB-PLM/TEM		Comment:			
Field # : 13	Date Analyzed: 3/14/03	NONE-DETECTED	100 % Horse Hair		
Color : Brown					
Location : Upper Level					
Type of Mat: Horse Hair Insulation					
Homogeneity : Y By : E.C.					
Method : ELAP+EPA PLM		Comment:			
Field # : 14	Date Analyzed: 3/14/03	NONE-DETECTED	100 % Horse Hair		
Color : Brown					
Location : Upper Level					
Type of Mat: Horse Hair Insulation					
Homogeneity : Y By : E.C.					
Method : ELAP+EPA PLM		Comment:			
Field # : 15	Date Analyzed: 3/14/03	NONE-DETECTED	100 % Horse Hair		
Color : Brown					
Location : Upper Level					
Type of Mat: Horse Hair Insulation					
Homogeneity : Y By : E.C.					
Method : ELAP+EPA PLM		Comment:			

Legend: TRACE = LESS THAN LIMIT OF QUANTITATION (<0.25%)

Note 1: For point counts the limit of quantitation of 0.25% is based on one asbestos point counted over 400 non-empty points.

Note 2: > 1% asbestos by weight is considered an ACM (Asbestos Containing Material).

Analyst:

WJ O'Connell

Reviewed and Signed for the Company by:

M. J. ...

Director of Laboratory Services

ATC Associates Inc.

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 (212) 353-8280 Fax (212) 353 8306

BULK ASBESTOS ANALYSIS RESULTS

Client : BBL/81-01398-0039
 South Bronx Marine Transfer Station
 Farragut St. & Ruawa Ave.

Batch # : 3-163
 Date Collected : 3/13/03

Page : 2

SAMPLE INFORMATION	Asbestos Result	Fibrous Material	Non-Fibrous Material	NOB Result
Field # : 6 Color : Location : Type of Mat: Homogeneity : Y Method : Date Analyzed: / / By :				
Comment: Sample not tested See #04				
Field # : 7 Color : Gray Location : Lower Level Type of Mat: Flat Transite Panels Caulking Homogeneity : Y Method : ELAP+EPA PLM, NOB-PLM/TEM Date Analyzed: 3/14/03 By : EC/RP	4.5 % CHRYSOTILE 4.5 % ANTHOPHYLITE			44.7 % Organic 35.9 % Residue 10.4 % Carbonate
Comment:				
Field # : 8 Color : Gray Location : Lower Level Type of Mat: Flat Transite Panels Caulking Homogeneity : Y Method : ELAP+EPA NOB-PLM Date Analyzed: 3/14/03 By : E.C.	Trace% CHRYSOTILE			36.6 % Organic 49.5 % Residue 13.9 % Carbonate
Comment:				
Field # : 9 Color : Gray Location : Lower Level Type of Mat: Flat Transite Panels Caulking Homogeneity : Y Method : ELAP+EPA NOB-PLM Date Analyzed: 3/14/03 By : E.C.	NONE-DETECTED			42.9 % Organic 40.5 % Residue 16.6 % Carbonate
Comment:				
Field # : 10 Color : Green Location : Upper & Lower Level Type of Mat: Green Corrugated Sheeting Homogeneity : Y Method : ELAP+EPA PLM, NOB-PLM/TEM Date Analyzed: 3/14/03 By : EC/RP	Trace% CHRYSOTILE			62.7 % Organic 36.6 % Residue 0.7 % Carbonate
Comment:				

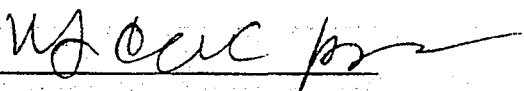
Legend: TRACE = LESS THAN LIMIT OF QUANTITATION (<0.25%)


Note 1: For point counts the limit of quantitation of 0.25% is based on one asbestos point counted over 400 non-empty points.

Note 2: > 1% asbestos by weight is considered an ACM (Asbestos Containing Material).

Analyst:

Reviewed and Signed for the Company by:




 Director of Laboratory Services

ATC Associates Inc.

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(212) 353-8280 Fax (212) 353 8306

BULK ASBESTOS ANALYSIS RESULTS

Client : BBL/81-01398-0039
South Bronx Marine Transfer Station
Farragut St. & Ruawa Ave.

Batch # : 3-163
Date Collected : 3/13/03

Page : 1

SAMPLE INFORMATION	Asbestos Result	Fibrous Material	Non-Fibrous Material	NOB Result
Field # : 1 Color : Gray Location : Upper Level Type of Mat: Corrugated Transite Panels Homogeneity : Y Method : ELAP+EPA PLM Date Analyzed: 3/14/03 By : E.C.	18 % CHRYSOTILE	2 % Cellulose	80 % Mineral Filler	
Comment:				
Field # : 2 Color : Location : Type of Mat: Homogeneity : Y Method : Date Analyzed: / / By :				
Comment: Sample not tested See #01				
Field # : 3 Color : Location : Type of Mat: Homogeneity : Y Method : Date Analyzed: / / By :				
Comment: Sample not tested See #01				
Field # : 4 Color : Gray Location : Upper Level Type of Mat: Flat Transite Panels Homogeneity : Y Method : ELAP+EPA PLM Date Analyzed: 3/14/03 By : E.C.	19 % CHRYSOTILE	4 % Cellulose	77 % Mineral Filler	
Comment:				
Field # : 5 Color : Location : Type of Mat: Homogeneity : Y Method : Date Analyzed: / / By :				
Comment: Sample not tested See #04				

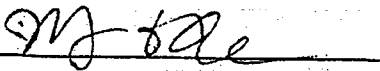
Legend: TRACE = LESS THAN LIMIT OF QUANTITATION (<0.25%)

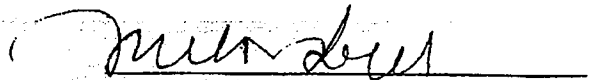
Note 1: For point counts the limit of quantitation of 0.25% is based on one asbestos point counted over 400 non-empty points.

Note 2: > 1% asbestos by weight is considered an ACM (Asbestos Containing Material).

Analyst:

Reviewed and Signed for the Company by:




Director of Laboratory Services

Asbestos & Lead Inspection Report
South Bronx Marine Transfer Station
Bronx, New York

March 26, 2003

ATTACHMENT F

**LABORATORY REPORTS/CHAIN-OF-CUSTODY
(TEM ASBESTOS)**



BATCH NO. 3-163

BULK SAMPLE DATA AND CHAIN OF CUSTODY FORM

PROJECT INFORMATION

1. Client: <u>BBL</u>	2. Project Name: <u>South Bronx HHSF</u>	3. Project No: <u>81.01398.39</u>	4. Project Manager: <u>A. Savel</u>
5. Date: <u>3/13/03</u>	6. Building Name: <u>Foreman St & Duane Ave</u>	7. Sampling Areas:	8. Turnaround Time: <input type="checkbox"/> STAT <input checked="" type="checkbox"/> 24 HRS <input type="checkbox"/> 72 HRS <input type="checkbox"/> OTHER <input type="checkbox"/> 6 HRS <input type="checkbox"/> 48 HRS <input type="checkbox"/> NORMAL <input type="checkbox"/>
			9. Comments (Field)

BULK SAMPLE LOCATION

10. Homogenous Area No.	11. Bulk Sample ID No.	12. Material	13. Thermal System	14. Sample Location		15. Material Total Quantity (LF, SF, PCS)	16. Asbestos Content (Type & %)
				Floor	Sample Coordinates		
07	19	FIBERGLASS ELBOWS	Y	UPPER LEVEL			
↓	20	↓	↓				
↓	21	↓	↓				
08	22	FIBERGLASS INSUL. WRAPPING PAPER	Y	UPPER LEVEL			
↓	23	↓	↓				
↓	24	↓	↓				
09	25	DOOR WINDOW PUTTY	N	LOWER LEVEL			
↓	26	↓	↓				
↓	27	↓	↓				
10	28	CERAMIC TILES MORTAR	N	UPPER LEVEL			
↓	29	↓	↓				
↓	30	↓	↓				
11	31	WINDOWS PUTTY	N	UPPER LEVEL			
↓	32	↓	↓				
↓	33	↓	↓				
12	34	12X12" BRICK FT	N	UPPER LEVEL			
↓	35	↓	↓				
↓	36	↓	↓				

CHAIN OF CUSTODY

17. Relinquished By: <u>[Signature]</u>	18. Date: <u>3/14</u>	19. Time:	20. Received By: <u>E. A. CARTEROS</u>	21. Date: <u>3/14/03</u>	22. Time: <u>1600</u>	23. Method of Submital:	
						FIELD	
						WALK IN	
						US MAIL	
						FED EX	
						OTHER	

LAB INFORMATION

24. Name and Signature	25. Date:	26. Time:	27. Comments (Lab)
24a. Analyzed By: <u>E. A. CARTEROS</u>	<u>3/14/03</u>	<u>11</u>	
24b. Analyzed By:			
24c. QC By:			



BATCH NO. 3-163

PROJECT INFORMATION

BULK SAMPLE DATA AND CHAIN OF CUSTODY FORM

1. Client: BBL		2. Project Name: South Bronx MST		3. Project No: 81.01398.39		4. Project Manager: A. SavaL	
5. Date: 3/13/03		6. Building Name:		8. Turnaround Time:		9. Comments (Field)	
7. Sampling Areas:		2a. Project Address: Farnsworth St & Duane Ave		<input type="checkbox"/> STAT <input checked="" type="checkbox"/> 24 HRS <input type="checkbox"/> 72 HRS <input type="checkbox"/> OTHER <input type="checkbox"/> 6 HRS <input type="checkbox"/> 48 HRS <input type="checkbox"/> NORMAL <input type="checkbox"/>		5	
4a. Investigator: A. KUCLODENIC							

BULK SAMPLE LOCATION

10. Homogenous Area No.	11. Bulk Sample ID No.	12. Material	13. Thermal System	14. Sample Location		15. Material Total Quantity (LF, SF, PCS)	16. Asbestos Content (Type & %)
				Floor	Sample Coordinates		
01	01	CORRUGATED TRANSITE PANELS	N	UPPER LEVEL			
↓	02	↓	↓	↓			
↓	03	↓	↓	↓			
02	04	FLAT TRANSITE PANELS		UPPER LEVEL			
↓	05	↓	↓	↓			
↓	06	↓	↓	↓			
03	07	FLAT TRANSITE PANELS CAULKING		LOWER LEVEL			
↓	08	↓	↓	↓			
↓	09	↓	↓	↓			
04	10	GREEN CORRUGATED SHEETING		UPPER LEVEL			
↓	11	↓	↓	↓			
↓	12	↓	↓	↓			
05	13	HORSE HAIR INSULATION	Y	UPPER LEVEL			
↓	14	↓	↓	↓			
↓	15	↓	↓	↓			
06	16	WRAPPING PAPER OF HORSE HAIR INS.	Y				
↓	17	↓	↓	↓			
↓	18	↓	↓	↓			

CHAIN OF CUSTODY

17. Relinquished By: I A. KucloDenic	18. Date: 3/14	19. Time:	20. Received By: E. A. Charters	21. Date: 3/14/03	22. Time: 1600	23. Method of Submittal:	
II						FIELD	
III						WALK IN	
						US MAIL	
						FED EX	
						OTHER	

LAB INFORMATION

24. Name and Signature	25. Date: 3/14/03	26. Time: 2M	27. Comments (Lab) 35 PLM 17 NOB FCU 4 NOB PLM
24a. Analyzed By: E. A. Charters			
24b. Analyzed By:			
24c. QC By:			

ATC Associates Inc.

104 E. 25th St., 10th Floor, New York, NY 10010-2917
 (212) 363-8280 Fax (212) 363 8306

BULK ASBESTOS ANALYSIS RESULTS

Client : BBL/81-01398-0039
 South Bronx Marine Transfer Station
 Farragut St. & Ruawa Ave.

Batch # : 3-163
 Date Collected : 3/13/03

Page : 8

SAMPLE INFORMATION	Asbestos Result	Fibrous Material	Non-Fibrous Material	NOB Result
Field # : 36 Date Analyzed: 3/14/03 Color : Brown Location : Upper Level Type of Mat: 12"x12" Brown FT Homogeneity : Y By : EC/RP Method : ELAP+EPA PLM,NOB-PLM/TEM	Trace% CHRYSOTILE			19.0 % Organic 4.0 % Residue 77.0 % Carbonate
Comment:				
Field # : 37 Date Analyzed: 3/14/03 Color : Black Location : Upper Type of Mat: Mastic of 12x12 FT Homogeneity : Y By : EC/RP Method : ELAP+EPA PLM,NOB-PLM/TEM	Trace% CHRYSOTILE			67.8 % Organic 13.8 % Residue 18.4 % Carbonate
Comment:				
Field # : 38 Date Analyzed: 3/14/03 Color : Black Location : Upper Type of Mat: Mastic of 12x12 FT Homogeneity : Y By : EC/RP Method : ELAP+EPA PLM,NOB-PLM/TEM	0.1 % CHRYSOTILE			71.6 % Organic 12.9 % Residue 15.4 % Carbonate
Comment:				
Field # : 39 Date Analyzed: 3/14/03 Color : Black Location : Upper Type of Mat: Mastic of 12x12 FT Homogeneity : Y By : EC/RP Method : ELAP+EPA PLM,NOB-PLM/TEM	Trace% CHRYSOTILE			59.2 % Organic 15.1 % Residue 25.7 % Carbonate
Comment:				

Legend: TRACE = LESS THAN LIMIT OF QUANTITATION (< 0.25%)

Note 1: For point counts the limit of quantitation of 0.25% is based on one asbestos point counted over 400 non-empty points.

Note 2: > 1% asbestos by weight is considered an ACM (Asbestos Containing Material).

Analyst:

Reviewed and Signed for the Company by:

WA Buc

[Signature]

Director of Laboratory Services

ATC Associates Inc.

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 (212) 353-8280 Fax (212) 353 8306

BULK ASBESTOS ANALYSIS RESULTS

Client : BBL/81-01398-0039
 South Bronx Marine Transfer Station
 Farragut St. & Ruawa Ave.

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SAMPLE INFORMATION	Asbestos Result	Fibrous Material	Non-Fibrous Material	NOB Result
Field # : 31 Date Analyzed: 3/14/03 Color : White Location : Upper & Lower Type of Mat: Windows Putty Homogeneity : Y By : EC/RP Method : ELAP+EPA PLM,NOB-PLM/TEM	0.3 % ANTHOPHYLITE			11.7 % Organic 3.0 % Residue 85.0 % Carbonate
Comment:				
Field # : 32 Date Analyzed: 3/14/03 Color : White Location : Upper & Lower Type of Mat: Windows Putty Homogeneity : Y By : E.C. Method : ELAP+EPA NOB-PLM	NONE-DETECTED			8.8 % Organic 0 % Residue 91.2 % Carbonate
Comment:				
Field # : 33 Date Analyzed: 3/14/03 Color : White Location : Upper & Lower Type of Mat: Windows Putty Homogeneity : Y By : E.C. Method : ELAP+EPA NOB-PLM	NONE-DETECTED			6.7 % Organic 0.8 % Residue 92.5 % Carbonate
Comment: Residue less than 1%				
Field # : 34 Date Analyzed: 3/14/03 Color : Brown Location : Upper Level Type of Mat: 12"x12" Brown FT Homogeneity : Y By : EC/RP Method : ELAP+EPA PLM,NOB-PLM/TEM	Trace% CHRYSOTILE			20.7 % Organic 5.5 % Residue 73.8 % Carbonate
Comment:				
Field # : 35 Date Analyzed: 3/14/03 Color : Brown Location : Upper Level Type of Mat: 12"x12" Brown FT Homogeneity : Y By : EC/RP Method : ELAP+EPA PLM,NOB-PLM/TEM	Trace% CHRYSOTILE			19.7 % Organic 3.9 % Residue 76.4 % Carbonate
Comment:				

Legend: TRACE = LESS THAN LIMIT OF QUANTITATION (<0.25%)

Note 1: For point counts the limit of quantitation of 0.25% is based on one asbestos point counted over 400 non-empty points.

Note 2: >1% asbestos by weight is considered an ACM (Asbestos Containing Material).

Analyst:

Reviewed and Signed for the Company by:

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BULK ASBESTOS ANALYSIS RESULTS

Client : BBL/81-01398-0039
 South Bronx Marine Transfer Station
 Farragut St. & Ruawa Ave.

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SAMPLE INFORMATION	Asbestos Result	Fibrous Material	Non-Fibrous Material	NOB Result
Field # : 26 Date Analyzed: 3/14/03 Color : Off White Location : Lower Level Type of Mat: Door Window Putty Homogeneity : Y By : EC/RP Method : ELAP+EPA PLM,NOB-PLM/TEM	0.1 % CHRYSOTILE			5.6 % Organic 1.1 % Residue 93.2 % Carbonate
Comment:				
Field # : 27 Date Analyzed: 3/14/03 Color : Off White Location : Lower Level Type of Mat: Door Window Putty Homogeneity : Y By : EC/RP Method : ELAP+EPA PLM,NOB-PLM/TEM	0.1 % CHRYSOTILE			10.7 % Organic 1.3 % Residue 87.9 % Carbonate
Comment:				
Field # : 28 Date Analyzed: 3/14/03 Color : Tan Location : Upper Level Type of Mat: Ceramic Tiles Mottar Homogeneity : Y By : E.C. Method : ELAP+EPA PLM	NONE-DETECTED		100 % Mineral Filler	
Comment:				
Field # : 29 Date Analyzed: 3/14/03 Color : Tan Location : Upper Level Type of Mat: Ceramic Tiles Mottar Homogeneity : Y By : E.C. Method : ELAP+EPA PLM	NONE-DETECTED		100 % Mineral Filler	
Comment:				
Field # : 30 Date Analyzed: 3/14/03 Color : Tan Location : Upper Level Type of Mat: Ceramic Tiles Mottar Homogeneity : Y By : E.C. Method : ELAP+EPA PLM	NONE-DETECTED		100 % Mineral Filler	
Comment:				

Legend: TRACE = LESS THAN LIMIT OF QUANTITATION (<0.25%)

Note 1: For point counts the limit of quantitation of 0.25% is based on one asbestos point counted over 400 non-empty points.

Note 2: >1% asbestos by weight is considered an ACM (Asbestos Containing Material).

Analyst:

Reviewed and Signed for the Company by:

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BULK ASBESTOS ANALYSIS RESULTS

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 South Bronx Marine Transfer Station
 Farragut St. & Ruawa Ave.

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SAMPLE INFORMATION		Asbestos Result	Fibrous Material	Non-Fibrous Material	NOB Result
Field # : 21	Date Analyzed: 3/14/03	NONE-DETECTED	3 % Cellulose 42 % Fiberglass	55 % Mineral Filler	
Color : Tan					
Location : Upper & Lower					
Type of Mat: Fiberglass Elbowing					
Homogeneity : Y	By : E.C.				
Method : ELAP+EPA PLM					
Comment:					
Field # : 22	Date Analyzed: 3/14/03	NONE-DETECTED	10 % Cellulose 90 % Fiberglass	Paint & Trace	
Color : Yellow/White					
Location : Upper & Lower					
Type of Mat: Fiberglass Insulation Wrapping Paper					
Homogeneity : N	By : E.C.				
Method : ELAP+EPA PLM					
Comment:					
Field # : 23	Date Analyzed: 3/14/03	NONE-DETECTED	24 % Cellulose 70 % Fiberglass	5 % Mineral Filler 1 % Paint	
Color : Yellow/White/Gray					
Location : Upper & Lower					
Type of Mat: Fiberglass Insulation Wrapping Paper					
Homogeneity : N	By : E.C.				
Method : ELAP+EPA PLM					
Comment:					
Field # : 24	Date Analyzed: 3/14/03	NONE-DETECTED	15 % Cellulose 85 % Fiberglass		
Color : Yellow/White					
Location : Upper & Lower					
Type of Mat: Fiberglass Insulation Wrapping Paper					
Homogeneity : N	By : E.C.				
Method : ELAP+EPA PLM					
Comment:					
Field # : 25	Date Analyzed: 3/14/03	0.1 % CHRYSOTILE			8.0 % Organic 1.0 % Residue 90.9 % Carbonate
Color : Off White					
Location : Lower Level					
Type of Mat: Doors Window Putty					
Homogeneity : Y	By : EC/RP				
Method : ELAP+EPA .PLM,NOB-PLM/TEM					
Comment:					

Legend: TRACE = LESS THAN LIMIT OF QUANTITATION (<0.25%)

Note 1: For point counts the limit of quantitation of 0.25% is based on one asbestos point counted over 400 non-empty points.

Note 2: >1% asbestos by weight is considered an ACM (Asbestos Containing Material).

Analyst:

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BULK ASBESTOS ANALYSIS RESULTS

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 South Bronx Marine Transfer Station
 Farragut St. & Ruawa Ave.

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SAMPLE INFORMATION	Asbestos Result	Fibrous Material	Non-Fibrous Material	NOB Result
Field # : 16 Date Analyzed: 3/14/03 Color : Black Location : Upper Level Type of Mat: Wrapping Paper of Horse Hair Insul. Homogeneity : Y By : EC/RP Method : ELAP+EPA PLM,NOB-PLM/TEM	Trace% CHRYSOTILE			95.6 % Organic 2.2 % Residue 2.2 % Carbonate
Comment:				
Field # : 17 Date Analyzed: 3/14/03 Color : Black Location : Upper Level Type of Mat: Wrapping paper of Horse Hair Insul. Homogeneity : Y By : EC/RP Method : ELAP+EPA PLM,NOB-PLM/TEM	Trace% CHRYSOTILE			95.3 % Organic 2.3 % Residue 2.4 % Carbonate
Comment:				
Field # : 18 Date Analyzed: 3/14/03 Color : Black Location : Upper Level Type of Mat: Wrapping Paper of Horse Hair Insul. Homogeneity : Y By : EC/RP Method : ELAP+EPA PLM,NOB-PLM/TEM	Trace% CHRYSOTILE			94.8 % Organic 1.8 % Residue 3.4 % Carbonate
Comment:				
Field # : 19 Date Analyzed: 3/14/03 Color : Tan Location : Upper & Lower Type of Mat: Fiberglass Elbowing Homogeneity : Y By : E.C. Method : ELAP+EPA PLM	NONE-DETECTED	2 % Cellulose 43 % Fiberglass	55 % Mineral Filler	
Comment:				
Field # : 20 Date Analyzed: 3/14/03 Color : Tan Location : Upper & Lower Type of Mat: Fiberglass Elbowing Homogeneity : Y By : E.C. Method : ELAP+EPA PLM	NONE-DETECTED	3 % Cellulose 40 % Fiberglass	57 % Mineral Filler	
Comment:				

Legend: TRACE = LESS THAN LIMIT OF QUANTITATION (<0.25%)

Note 1: For point counts the limit of quantitation of 0.25% is based on one asbestos point counted over 400 non-empty points.

Note 2: > 1% asbestos by weight is considered an ACM (Asbestos Containing Material).

Analyst:

WJ/EC/102

Reviewed and Signed for the Company by:

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Director of Laboratory Services

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BULK ASBESTOS ANALYSIS RESULTS

Client : BBL/81-01398-0039
South Bronx Marine Transfer Station
Farragut St. & Ruawa Ave.

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SAMPLE INFORMATION	Asbestos Result	Fibrous Material	Non-Fibrous Material	NOB Result
Field # : 11 Date Analyzed: 3/14/03 Color : Green Location : Upper & Lower Level Type of Mat: Green Corrugated Sheeting Homogeneity : Y By : EC/RP Method : ELAP+EPA PLM,NOB-PLM/TEM	Trace% CHRYSOTILE			60.1 % Organic 38.7 % Residue 1.2 % Carbonate
Comment:				
Field # : 12 Date Analyzed: 3/14/03 Color : Green Location : Upper & Lower Level Type of Mat: Green Corrugated Sheeting Homogeneity : Y By : EC/RP Method : ELAP+EPA PLM,NOB-PLM/TEM	Trace% CHRYSOTILE			61.1 % Organic 38.7 % Residue 0.2 % Carbonate
Comment:				
Field # : 13 Date Analyzed: 3/14/03 Color : Brown Location : Upper Level Type of Mat: Horse Hair Insulation Homogeneity : Y By : E.C. Method : ELAP+EPA PLM	NONE-DETECTED	100 % Horse Hair		
Comment:				
Field # : 14 Date Analyzed: 3/14/03 Color : Brown Location : Upper Level Type of Mat: Horse Hair Insulation Homogeneity : Y By : E.C. Method : ELAP+EPA PLM	NONE-DETECTED	100 % Horse Hair		
Comment:				
Field # : 15 Date Analyzed: 3/14/03 Color : Brown Location : Upper Level Type of Mat: Horse Hair Insulation Homogeneity : Y By : E.C. Method : ELAP+EPA PLM	NONE-DETECTED	100 % Horse Hair		
Comment:				

Legend: TRACE = LESS THAN LIMIT OF QUANTITATION (<0.25%)

Note 1: For point counts the limit of quantitation of 0.25% is based on one asbestos point counted over 400 non-empty points.

Note 2: >1% asbestos by weight is considered an ACM (Asbestos Containing Material).

Analyst:

Reviewed and Signed for the Company by:

WJ [Signature]

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BULK ASBESTOS ANALYSIS RESULTS

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SAMPLE INFORMATION	Asbestos Result	Fibrous Material	Non-Fibrous Material	NOB Result
Field # : 6 Color : Location : Type of Mat : Homogeneity : Y Method : Date Analyzed: / / By :				
Comment: Sample not tested See #04				
Field # : 7 Color : Gray Location : Lower Level Type of Mat : Flat Transite Panels Caulking Homogeneity : Y Method : ELAP+EPA PLM,NOB-PLM/TEM Date Analyzed: 3/14/03 By : EC/RP	4.5 % CHRYSOTILE 4.5 % ANTHOPHYLITE			44.7 % Organic 35.9 % Residue 10.4 % Carbonate
Comment:				
Field # : 8 Color : Gray Location : Lower Level Type of Mat : Flat Transite Panels Caulking Homogeneity : Y Method : ELAP+EPA NOB-PLM Date Analyzed: 3/14/03 By : E.C.	Trace% CHRYSOTILE			36.6 % Organic 49.5 % Residue 13.9 % Carbonate
Comment:				
Field # : 9 Color : Gray Location : Lower Level Type of Mat : Flat Transite Panels Caulking Homogeneity : Y Method : ELAP+EPA NOB-PLM Date Analyzed: 3/14/03 By : E.C.	NONE-DETECTED			42.9 % Organic 40.5 % Residue 16.6 % Carbonate
Comment:				
Field # : 10 Color : Green Location : Upper & Lower Level Type of Mat : Green Corrugated Sheeting Homogeneity : Y Method : ELAP+EPA PLM,NOB-PLM/TEM Date Analyzed: 3/14/03 By : EC/RP	Trace% CHRYSOTILE			62.7 % Organic 36.6 % Residue 0.7 % Carbonate
Comment:				

Legend: TRACE = LESS THAN LIMIT OF QUANTITATION (<0.25%)

Note 1: For point counts the limit of quantitation of 0.25% is based on one asbestos point counted over 400 non-empty points.

Note 2: > 1% asbestos by weight is considered an ACM (Asbestos Containing Material).

Analyst:

Reviewed and Signed for the Company by:

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BULK ASBESTOS ANALYSIS RESULTS

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South Bronx Marine Transfer Station
Farragut St. & Ruawa Ave.

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SAMPLE INFORMATION		Asbestos Result	Fibrous Material	Non-Fibrous Material	NOB Result
Field # : 1	Date Analyzed: 3/14/03	18 % CHRYSOTILE	2 % Cellulose	80 % Mineral Filler	
Color : Gray					
Location : Upper Level					
Type of Mat: Corrugated Transite Panels					
Homogeneity : Y	By : E.C.				
Method : ELAP+EPA PLM					
		Comment:			
Field # : 2	Date Analyzed: / /				
Color :					
Location :					
Type of Mat:					
Homogeneity : Y	By :				
Method :					
		Comment: Sample not tested See #01			
Field # : 3	Date Analyzed: / /				
Color :					
Location :					
Type of Mat:					
Homogeneity : Y	By :				
Method :					
		Comment: Sample not tested See #01			
Field # : 4	Date Analyzed: 3/14/03	19 % CHRYSOTILE	4 % Cellulose	77 % Mineral Filler	
Color : Gray					
Location : Upper Level					
Type of Mat: Flat Transite Panels					
Homogeneity : Y	By : E.C.				
Method : ELAP+EPA PLM					
		Comment:			
Field # : 5	Date Analyzed: / /				
Color :					
Location :					
Type of Mat:					
Homogeneity : Y	By :				
Method :					
		Comment: Sample not tested See #04			

Legend: TRACE = LESS THAN LIMIT OF QUANTITATION (<0.25%)

Note 1: For point counts the limit of quantitation of 0.25% is based on one asbestos point counted over 400 non-empty points.

Note 2: >1% asbestos by weight is considered an ACM (Asbestos Containing Material).

Analyst:

Reviewed and Signed for the Company by:

[Signature]

[Signature]

Director of Laboratory Services

Asbestos & Lead Inspection Report
South Bronx Marine Transfer Station
Bronx, New York

March 26, 2003

ATTACHMENT E

**LABORATORY REPORTS/CHAIN-OF-CUSTODY
(PLM ASBESTOS)**

ATTACHMENT D			
SUMMARY OF CADMIUM-CONTAINING MATERIALS (PAINT CHIP ANALYSIS) SOUTH BRONX MARINE TRANSFER STATION			
(SAMPLE #) COMPONENT	SUBSTRATE	CONDITION	RESULTS
(01), Green Paint, Upper Level, Inside, Vertical I-Beam, Wall #3	Metal	Fair	8.66 mg/kg
(02), Green Paint, Upper Level, Inside, Horizontal I-Beam, Wall #4	Metal	Poor	8.72 mg/kg
(03), Green Paint, Upper Level, Inside, Window Sill (Locker Room), Wall #3	Metal	Fair	7.47 mg/kg
(04), Green Paint, Lower Level, Inside, Cleat, Wall #2	Metal	Poor	3.59 mg/kg
(05), White Paint, Lower Level, Inside, Vertical I- Beam (Inside Dock)	Metal	Poor	1.44 mg/kg
(06), Brown Paint, Lower Level, Inside, Horizontal I-Beam, By the Dock	Metal	Fair	2.01 mg/kg

Asbestos & Lead Inspection Report
South Bronx Marine Transfer Station
Bronx, New York

March 26, 2003

ATTACHMENT D

**SUMMARY OF CADMIUM-CONTAINING MATERIALS
(PAINT CHIP ANALYSIS)**

ATTACHMENT C

**SUMMARY OF LEAD-CONTAINING MATERIALS
(PAINT CHIP ANALYSIS)
SOUTH BRONX MARINE TRANSFER STATION**

(SAMPLE #) COMPONENT	SUBSTRATE	CONDITION	RESULTS
(01), Green Paint, Upper Level, Inside, Vertical I-Beam, Wall #3	Metal	Fair	103,000 mg/kg
(02), Green Paint, Upper Level, Inside, Horizontal I-Beam, Wall #4	Metal	Poor	74,300 mg/kg
(03), Green Paint, Upper Level, Inside, Window Sill (Locker Room), Wall #3	Metal	Fair	2,460 mg/kg
(04), Green Paint, Lower Level, Inside, Cleat, Wall #2	Metal	Poor	6,620 mg/kg
(05), White Paint, Lower Level, Inside, Vertical I- Beam (Inside Dock)	Metal	Poor	32.6 mg/kg
(06), Brown Paint, Lower Level, Inside, Horizontal I-Beam, By the Dock	Metal	Fair	39.8 mg/kg

ATTACHMENT C

**SUMMARY OF LEAD-CONTAINING MATERIALS
(PAINT CHIP ANALYSIS)**

ATTACHMENT B

**SUMMARY OF LEAD-CONTAINING MATERIALS (XRF ANALYSIS)
SOUTH BRONX MARINE TRANSFER STATION**

Shot #	Room	Component	Wall #	Substrate	Color	Condition	XRF Reading	Classification
	level							
78	Exterior lower level	Handrail	2	Metal	Black	Fair	0.1	Negative
79	Exterior lower level	Stringer	2	Metal	Black	Fair	0.0	Negative
80	Exterior lower level	Door	1	Metal	Green	Fair	-0.2	Negative
81	Exterior lower level	Door case	1	Metal	Green	Fair	-0.0	Negative
82	Exterior lower level	Anchor Bell	1	Metal	Green	Poor	0.7	Negative
83	Exterior lower level	Cleat	1	Metal	Green	Poor	0.7	Negative
84	Calibration						1.0	Positive
85	Calibration						0.8	
86	Calibration						1.0	Positive

ATTACHMENT B

**SUMMARY OF LEAD-CONTAINING MATERIALS (XRF ANALYSIS)
 SOUTH BRONX MARINE TRANSFER STATION**

Shot #	Room	Component	Wall #	Substrate	Color	Condition	XRF Reading	Classification
53	Lower level inside	Door case	1	Metal	Rusted	Poor	0.3	Negative
54	Lower level inside	Railing	1	Metal	Rusted	Poor	0.6	Negative
55	Lower level inside	Railing	1	Metal	Rusted	Poor	-0.1	Negative
56	Pump Room #2	Door	1	Metal	Green	Poor	-0.1	Negative
57	Pump Room #2	Door case	1	Metal	Green	Poor	0.3	Negative
58	Pump Room #2	Equip. (Motor)	1	Metal	Green	Poor	-0.2	Negative
59	Lower level inside	Door	2	Metal	Black	Fair	0.0	Negative
60	Lower level inside	Door case	2	Metal	Black	Fair	-0.1	Negative
61	Lower level inside	Railing	2	Metal	Rusted	Poor	0.6	Negative
62	Lower level inside	Support I beam vertical	2	Metal	White	Poor	0.0	Negative
63	Lower level inside	Support I beam horizontal	2	Metal	Black	Fair	-0.1	Negative
64	Lower level inside	Parapet	2	Wood	Brown	Poor	0.0	Negative
65	Lower level inside	Cleat	2	Wood	Rusted	Poor	-0.2	Negative
66	Lower level inside	Support column I	4	Metal	White	Poor	-0.1	Negative
67	Lower level inside	Railing	4	Metal	Rusted	Poor	0.5	Negative
68	Lower level inside	Support I beam vertical	3	Metal	Rusted	Poor	0.4	Negative
69	Lower level inside	Support I beam horizontal	3	Metal	Rusted	Poor	0.6	Negative
70	Exterior lower level	Wall	1	Concrete	White	Poor	-0.4	Negative
71	Exterior lower level	Door	1	Metal	Rusted	Poor	-0.3	Negative
72	Exterior lower level	Door case	1	Metal	Rusted	Poor	0.2	Negative
73	Exterior lower level	Handrail	1	Metal	Black	Fair	0.3	Negative
74	Exterior lower level	Stringer	12	Metal	Black	Fair	0.7	Negative
75	Exterior lower level	Wall	2	Concrete	White	Poor	0.1	Negative
76	Exterior lower level	Cleat	2	Metal	Green	Poor	7.7	Positive (2 LF)
77	Exterior lower	Anchor Bell	2	Metal	Green	Poor	-0.3	Negative

ATTACHMENT B

**SUMMARY OF LEAD-CONTAINING MATERIALS (XRF ANALYSIS)
 SOUTH BRONX MARINE TRANSFER STATION**

Shot #	Room	Component	Wall #	Substrate	Color	Condition	XRF Reading	Classification
								(24 LF)
28	Bathroom	Window sash	3	Metal	Green	Poor	8.4	Positive (128 LF)
29	Bathroom	Radiator	3	Metal	Green	Poor	0.6	Negative
30	Locker Room	Door case	1	Metal	Green	Fair	-0.3	Negative
31	Locker Room	Wall	1	Concrete	Green	Fair	0.2	Negative
32	Locker Room	Wall	2	Concrete	Beige	Fair	0.1	Negative
33	Locker Room	Wall	3	Concrete	Beige	Fair	0.3	Negative
34	Locker Room	Wall	4	Concrete	Beige	Fair	0.2	Negative
35	Locker Room	Ceiling	5	Concrete	Beige	Fair	-0.0	Negative
36	Locker Room	Window sill	3	Metal	Green	Poor	8.6	Positive (36 LF)
37	Locker Room	Window case	3	Metal	Green	Poor	3.7	Positive (20 LF)
38	Locker Room	Window sash	3	Metal	Green	Fair	79.9	Positive (352 LF)
39	Locker Room	Radiator	3	Metal	Green	Poor	0.6	Negative
40	Upper level inside	Support beam vertical	4	Metal	Rusted	Poor	0.7	Negative
41	Upper level inside	Support beam horizontal	4	Metal	Rusted	Poor	0.4	Negative
42	Upper level inside	Window sill	3	Metal	Rusted	Poor	-0.0	Negative
43	Upper level inside	Window case	1	Metal	Rusted	Poor	0.3	Negative
44	Upper level inside	Support beam vertical	3	Metal	Rusted	Poor	0.7	Negative
45	Upper level inside	Support beam horizontal	3	Metal	Rusted	Poor	0.5	Negative
46	Upper level inside	Parapet Wall	3	Metal	Rusted	Poor	8.0	Positive (100 SF)
47	Upper level inside	Support I beam vertical	2	Metal	Green	Fair	79.9	Positive (560 LF)
48	Upper level inside	Support I beam horizontal	2	Metal	Green	Fair	79.9	Positive (1120 LF)
49	Upper level inside	Support I beam vertical	2	Metal	Yellow	Fair	6.0	Positive (20 LF)
50	Upper level inside	Door case	2	Metal	Green	Poor	-0.1	Negative
51	Machine Room #1	Door	1	Metal	Rusted	Poor	0.3	Negative
52	Machine Room #1	Door case	1	Metal	Green	Poor	0.0	Negative

ATTACHMENT B

**SUMMARY OF LEAD-CONTAINING MATERIALS (XRF ANALYSIS)
 SOUTH BRONX MARINE TRANSFER STATION**

Shot #	Room	Component	Wall #	Substrate	Color	Condition	XRF Reading	Classification
01	Calibration						1.0	Positive
02	Calibration						0.9	Negative
03	Calibration						1.1	Positive
04	Office Bldg. Security Room	Door case	1	Metal	Green	Fair	1.0	Positive (15 LF)
05	Office Bldg. Security Room	Window sash	1	Metal	Green	Fair	-0.0	Negative
06	Office Bldg. Security Room	Radiator	2	Metal	Green	Fair	0.2	Negative
07	Office Bldg. Security Room	Door	3	Metal	Green	Fair	-0.1	Negative
08	Office Bldg. Security Room	Wall	1	Concrete	Beige	Fair	-0.3	Negative
09	Office Bldg. Security Room	Wall	2	Concrete	Beige	Fair	0.1	Negative
10	Office Bldg. Security Room	Wall	3	Concrete	White	Fair	0.3	Negative
11	Office Bldg. Security Room	Wall	4	Concrete	White	Fair	0.2	Negative
12	Office Bldg. Security Room	Ceiling	5	Concrete	Beige	Fair	-0.0	Negative
13	Hallway	Door	1	Metal	Green	Fair	0.2	Negative
14	Hallway	Door case	1	Metal	Green	Fair	0.2	Negative
15	Hallway	Wall	1	Concrete	Beige	Fair	0.1	Negative
16	Hallway	Wall	2	Concrete	Beige	Fair	-0.0	Negative
17	Hallway	Wall	3	Concrete	Beige	Fair	0.3	Negative
18	Hallway	Wall	4	Concrete	Beige	Fair	0.2	Negative
19	Hallway	Ailing	5	Concrete	Beige	Fair	0.1	Negative
20	Bathroom	Door case	1	Metal	Green	Fair	0.4	Negative
21	Bathroom	Wall	1	Concrete	Beige	Fair	0.3	Negative
22	Bathroom	Wall	2	Concrete	Beige	Fair	-0.2	Negative
23	Bathroom	Wall	3	Concrete	Beige	Fair	0.3	Negative
24	Bathroom	Wall	4	Concrete	Beige	Fair	0.4	Negative
25	Bathroom	Ceiling	5	Concrete	Beige	Poor	0.3	Negative
26	Bathroom	Window Sill	3	Metal	Green	Poor	79.9	Positive (12 LF)
27	Bathroom	Window case	3	Metal	Green	Poor	79.9	Positive

ATTACHMENT B

**SUMMARY OF LEAD-CONTAINING MATERIALS
(XRF ANALYSIS)**

SUMMARY OF ASBESTOS TESTING RESULTS - (Continued)				
SOUTH BRONX MARINE TRANSFER STATION				
MATERIAL	LOCATION	RESULT	QUANTITY	NOTES
Windows Putty (Sample # 31)	Upper Level	Negative	Not Applicable	Trace Asbestos
Windows Putty (Sample # 32)	Upper Level	Negative	Not Applicable	
Windows Putty (Sample # 33)	Upper Level	Negative	Not Applicable	
12' x 12' Brown floor tile (Sample # 34)	Upper Level	Negative	Not Applicable	Trace Chrysotile
12' x 12' Brown floor tile (Sample # 35)	Upper Level	Negative	Not Applicable	Trace Chrysotile
12' x 12' Brown floor tile (Sample # 36)	Upper Level	Negative	Not Applicable	Trace Chrysotile
Mastic under 12' x 12' Brown floor tile (Sample # 37)	Upper Level	Negative	Not Applicable	Trace Chrysotile
Mastic under 12' x 12' Brown floor tile (Sample # 38)	Upper Level	Negative	Not Applicable	Trace Chrysotile
Mastic under 12' x 12' Brown floor tile (Sample # 39)	Upper Level	Negative	Not Applicable	Trace Chrysotile

SUMMARY OF ASBESTOS TESTING RESULTS – (Continued)
SOUTH BRONX MARINE TRANSFER STATION

MATERIAL	LOCATION	RESULT	QUANTITY	NOTES
Horse Hair (Sample # 15)	Upper Level	Negative	Not Applicable	
Wrapping paper on Horse Hair (Sample # 16)	Upper Level	Negative	Not Applicable	Trace Chrysotile
Wrapping paper on Horse Hair (Sample # 17)	Upper Level	Negative	Not Applicable	Trace Chrysotile
Wrapping paper on Horse Hair (Sample # 18)	Upper Level	Negative	Not Applicable	Trace Chrysotile
Fiber Glass Elbows (Sample # 19)	Upper Level	Negative	Not Applicable	
Fiber Glass Elbows (Sample # 20)	Upper Level	Negative	Not Applicable	
Fiber Glass Elbows (Sample # 21)	Upper Level	Negative	Not Applicable	
Fiber Glass Insulation Wrapping paper (Sample # 22)	Upper Level	Negative	Not Applicable	
Fiber Glass Insulation Wrapping paper (Sample # 23)	Upper Level	Negative	Not Applicable	
Fiber Glass Insulation Wrapping paper (Sample # 24)	Upper Level	Negative	Not Applicable	
Doors Windows Putty (Sample # 25)	Lower Level	Negative	Not Applicable	Trace Chrysotile
Doors Windows Putty (Sample # 26)	Lower Level	Negative	Not Applicable	Trace Chrysotile
Doors Windows Putty (Sample # 27)	Lower Level	Negative	Not Applicable	Trace Chrysotile
Ceramic Tile Mortar (Sample # 28)	Upper Level	Negative	Not Applicable	
Ceramic Tile Mortar (Sample # 29)	Upper Level	Negative	Not Applicable	
Ceramic Tile Mortar (Sample # 30)	Upper Level	Negative	Not Applicable	

ATTACHMENT A

**SUMMARY OF ASBESTOS TESTING RESULTS
 SOUTH BRONX MARINE TRANSFER STATION**

MATERIAL	LOCATION	RESULT	QUANTITY	NOTES
Corrugated Transite Panels (Sample # 1)	Upper Level Perimeter	Positive	41,000 SF	18 % Chrysotile
Corrugated Transite Panels (Sample # 2)	Upper Level Perimeter	Positive		
Corrugated Transite Panels (Sample # 3)	Upper Level Perimeter	Positive		
Flat Transite Panels (Sample # 4)	Upper Level Perimeter	Positive	15,000 SF	19 % Chrysotile
Flat Transite Panels (Sample # 5)	Upper Level Perimeter	Positive		
Flat Transite Panels (Sample # 6)	Upper Level Perimeter	Positive		
Flat Transite Panel Caulking (Sample # 7)	Lower Level Perimeter	Positive	500 LF	9 % Asbestos
Flat Transite Panel Caulking (Sample # 8)	Lower Level Perimeter	Positive		
Flat Transite Panel Caulking (Sample # 9)	Lower Level Perimeter	Positive		
Green Corrugated Panels (Sample # 10)	Upper Level Perimeter	Negative	Not Applicable	Trace Chrysotile
Green Corrugated Panels (Sample # 11)	Upper Level Perimeter	Negative	Not Applicable	Trace Chrysotile
Green Corrugated Panels (Sample # 12)	Upper Level Perimeter	Negative	Not Applicable	Trace Chrysotile
Horse Hair (Sample # 13)	Upper Level	Negative	Not Applicable	
Horse Hair (Sample # 14)	Upper Level	Negative	Not Applicable	

ATTACHMENT A

SUMMARY OF ASBESTOS TESTING RESULTS

6.0 CONCLUSIONS

The majority of the asbestos, lead and cadmium materials were found to be in fair/poor condition and are located throughout the building. As previously stated in this report, the building is scheduled for demolition which will require the following response actions be implemented as part of the demolition project:

- A. Pursuant to the requirements presented in ICR 56, all asbestos-containing materials identified at the facility must be removed prior to advertising for bid and/or awarding the contract for demolition work unless a variance from this state requirement is granted by the NYCDEP (application for any variance from the ICR 56 rules or the NYCDEP asbestos regulations must be made directly to the NYCDEP).
- B. All demolition work that disturbs lead or cadmium containing materials will be subject to OSHA 29 CFR 1926.62 "Lead in Construction Regulations" and OSHA 29 CFR 1926.1127 "Cadmium Regulations". Under OSHA, the employer is responsible for protection of their employees when performing renovation and/or demolition work that disturbs lead materials. Compliance shall include written programs, medical monitoring, exposure assessment testing and engineering controls.

4.5 Sample Results

Any result greater than 0.0 for lead or cadmium respectively, constitutes the material to be regulated under the Occupational Safety and Health Administration (OSHA) as follows:

- 29 CFR 1926.62 - "Lead In Construction"
- 29 CFR 1926.1127 - "Cadmium"

5.0 FINDINGS

Asbestos, lead and cadmium-containing materials were detected in select material applications sampled by ATC at the site. Refer to the following Attachments for a summary of each materials tested, location, and analysis result. In addition, refer the laboratory analysis reports found under Attachments E through G.

Asbestos Testing Results:

Refer to Attachment A

Lead-Containing Materials (XRF):

Refer to Attachment B

Lead-Containing Materials (Paint Chip Analysis):

Refer to Attachment C

Cadmium-Containing Materials (Paint Chip Analysis):

Refer to Attachment D

4.0 LEAD & CADMIUM PAINT INSPECTION

ATC performed a lead and cadmium inspection of painted, stained or varnished components located in the building. Outlined below is a description of ATC's testing methodology.

4.1 Testing Protocol

Representative testing of random components throughout the facility was performed for the presence of lead and cadmium in paint. Testing was performed utilizing X-Ray Fluorescent (XRF) Analysis and by Atomic Absorption Spectrophotometry (AAS). Trained and certified inspectors licensed in the State of New York performed all testing and sample collection.

4.2 XRF Analysis

A Niton XL-309 spectrum analyzer lead detector, serial number U10314364LY was used for all on-site XRF testing for lead in paint. The instrument adjusts the length of each reading based upon the substrate, until a 95% confidence level is achieved. All personnel who operated the portable XRF analyzer were trained by the manufacturer in safety measures and testing protocols. In addition to XRF testing, paint chip samples were collected and analyzed for lead from select substrates to confirm XRF testing results.

4.3 Paint Chip Analysis

Paint chip samples were collected from select substrates to confirm the presence of lead as well as cadmium in paint. All paint chip samples collected were transported for analysis under strict chain-of-custody protocol to Scientific Laboratories (SciLab) located in Weymouth, Massachusetts. All samples of paint were analyzed for both lead and cadmium by Atomic Absorption Spectrophotometry (AAS) 6010B, SW-846 Method. All samples analyzed by AAS are measured in percent by weight and reported in milligram per kilogram (mg/kg).

3.3 Sample Collection

Samples collected for asbestos analysis were obtained by qualified and certified (Licensed New York City Investigators) personnel utilizing proper safety measures such as wetting the material prior to sampling, cleaning up the area by wet wiping any resulting residual debris, and wearing proper personal protective equipment, as needed. In order to be certain of sampling the entire thickness of a material, coring tools and knives were utilized to penetrate all layers of a material. All collected samples were then placed in appropriately labeled airtight containers for shipment to the laboratory for analysis.

3.4 Sample Analysis (PLM)

All asbestos samples collected were transported under strict chain-of-custody protocol for asbestos analysis to ATC Associates in-house laboratory located in New York, New York. All bulk samples were analyzed for asbestos content using Polarized Light Microscopy (PLM) with Dispersion Staining (EPA Method 600/M4-82-020: Interim Method for the Determination of Asbestos in Bulk Building Materials). To qualify as asbestos-containing, the material must be determined to contain *greater than one percent (>1%)* asbestos from a homogeneous material area set of samples.

Consequently, according to the EPA/AHERA criteria, all bulk samples from a homogeneous area must be found to contain *less than or equal to one percent ($\leq 1\%$)* asbestos in order to be classified as non-asbestos-containing.

3.5 Sample Analysis (TEM)

In addition, in accordance with New York State Department of Health Regulations, floor tile and other non-friable organically bound (NOB) materials that initially tested negative by PLM analysis were reanalyzed by Transmission Electron Microscopy (TEM). All TEM analysis was performed utilizing ELAP-198.4 TEM Method for Identifying and Quantifying Asbestos in NOB Bulk Samples.

2.0. SITE DESCRIPTION

The South Bronx Marine Transfer Station is located on the East River, on Farragut Street in the Bronx. The facility is marine-based and contains two slips.

3.0 ASBESTOS INSPECTION

ATC's Scope of Work included a comprehensive Asbestos Inspection of the building. Outlined below is a description of ATC's testing methodology.

3.1 Asbestos Protocol

ATC performed a comprehensive demolition survey to access all suspect asbestos-containing materials throughout the building. ATC was not responsible for repair of any building components and/or equipment, which became damaged as a result of ATC's inspection. The Asbestos Inspection included a visual assessment of suspect asbestos-containing materials throughout the building and subsequent bulk sampling and analysis was performed.

3.2 Sampling Methodology

EPA and OSHA define ACM as any material that contains greater than 1 percent asbestos. The ACM inspection and bulk sampling was performed in accordance with the methods outlined in the U.S. EPA guidance document titled, *Guidance for Controlling Asbestos-Containing Materials in Buildings* (Document No. 560/5-85/024). In addition, bulk sampling of asbestos was performed in accordance with 40 CFR Part 763, Asbestos Hazard Emergency Response Act (AHERA) requirements for number of samples and types of ACM to be sampled. According to these requirements, materials are classified as either surfacing (e.g., ceiling plaster, wall plaster, spray-applied fireproofing), thermal system insulation (e.g., pipe insulation, pipe fitting insulation, boiler insulation), or miscellaneous materials (e.g., floor tile, ceiling tile, wallboard). The number of samples collected from each material varies based on the classification of the material and increases as the potential for a non-uniform mixture of asbestos in the material increases.

1.0 SITE INSPECTION SUMMARY

SITE: South Bronx Marine Transfer Station
Bronx, New York

OWNER: New York City Department of Sanitation (NYC-DOS)
New York, New York

CLIENT: Blasland, Bouck & Lee, Inc.
6723 Towpath Road
Syracuse, New York


The enclosed Asbestos and Lead Inspection Report was performed and prepared by ATC Associates Inc. The survey included a comprehensive inspection of all areas of the building.

The following licensed and accredited inspectors performed the Inspection:

Prasad Doddapaneni
Asbestos Inspector #AH91-04694

Mariana Medinets
Lead Inspector USEPA/NY-01-102003-780

The Inspection Report was reviewed and approved by:



Derrick Wissman
Senior Project Manager

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PREPARED FOR:

**BLASLAND, BOUCK & LEE, INC.
6723 TOWPATH ROAD
P.O. BOX 66
SYRACUSE, NEW YORK 13214**

ASBESTOS & LEAD INSPECTION REPORT

FOR

**NEW YORK CITY DEPARTMENT OF SANITATION
SOUTH BRONX MARINE TRANSFER STATION
BRONX, NEW YORK**

PREPARED BY:

**ATC ASSOCIATES INC.
39 SPRUCE STREET
EAST LONGMEADOW, MASSACHUSETTS 01028**

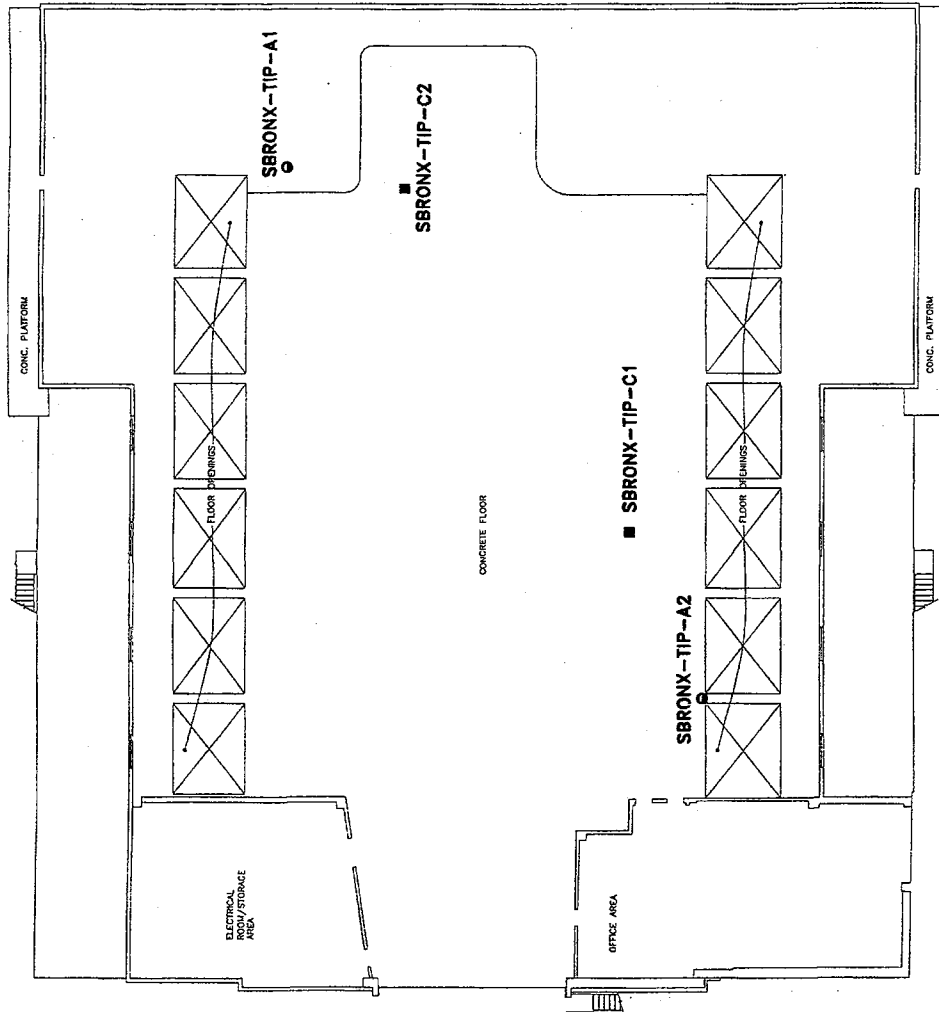
March 26, 2003

ENVIRONMENTAL, GEOTECHNICAL AND MATERIALS PROFESSIONALS

Attachment 1

Asbestos and Lead Report

BBL[®]
BLASLAND, BOUCK & LEE, INC.
engineers & scientists



- LEGEND:**
- SBRONX-TIP-C1 APPROXIMATE LOCATION OF CONCRETE CORE SAMPLE
 - SBRONX-TIP-A1 APPROXIMATE LOCATION OF WALL SAMPLE

NOTES:

1. THE BASE MAP IS BASED ON VISUAL OBSERVATIONS MADE BY ELISLAND, BOJICK & LEE, INC. (BBL) DURING FEBRUARY 27 AND MARCH 13, 2003 SITE VISITS AND REPRESENTS THE APPROXIMATE LAYOUT OF THE SOUTH BRONX MARINE TRANSFER STATION ONLY. AS OF MARCH 2003, A BASE MAP FOR THE SOUTH BRONX MARINE TRANSFER STATION WAS NOT AVAILABLE.
2. SAMPLE LOCATIONS ARE APPROXIMATE AND ARE BASED ON FIELD MEASUREMENTS OBTAINED BY BBL ON MARCH 13, 2003.
3. SAMPLES COLLECTED BY BBL ON MARCH 13, 2003.
4. SAMPLES ANALYZED FOR TOTAL PCBs BY ACCUTEST LABORATORIES OF DAYTON, OH USING USEPA SW-846 METHOD 8082.

NOT TO SCALE

NEW YORK CITY DEPARTMENT OF SANITATION
 NEW YORK, NEW YORK
 CONVERSION OF EIGHT MARINE
 TRANSFER STATIONS
 SOUTH BRONX MTS -
 TIPPING FLOOR LEVEL
 PCB SAMPLE LOCATIONS

BBL
 BROADBENT BUILDING
 100 WEST 42ND STREET
 NEW YORK, NY 10018

FIGURE
2

R. J. MONTGOMERY
 P. FARRIS/AL-EL
 20030224/030017/030211.DWG

Figures

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engineers & scientists

Table 1

New York City Department of Sanitation
Conversion of Eight Marine Transfer Stations

South Bronx Marine Transfer Station
Bronx, New York

Containerized Chemical Inventory

Number of Containers	Container Size	Description	% Full
Tipping Floor Level			
1	5 gal	Gasoline	--
1	5 gal	Wall Paint	50
1	5 gal	Unlabeled Solid ⁵	100
3	1 qt	Paint	100
Barge Slip Level			
1	1 gal	Oil-like Liquid (open container)	100

Notes:

1. Inventory prepared based on observations made by Blasland, Bouck, & Lee, Inc. (BBL) during a February 27, 2003 site visit. Actual container content may vary from the description presented on the containers and/or in the table above.
2. The approximate quantity of material remaining within each container (expressed as a percentage of the total container's capacity) was estimated based on visual observation and/or lifting/tilting each container.
3. Empty containers are not listed.
4. In addition to the above-listed chemicals, one pile and two 55-gallon drums (one full and one 2/3-full) of rock salt (approximately 4.5 cubic yards) were observed at the marine transfer station.
5. "Unlabeled Solid" manufactured by "National Starch and Chemical Company".
6. qt = quart.
7. gal = gallon.
8. -- = information not available.

Table

BBL[®]
BLASLAND, BOUCK & LEE, INC.
engineers & scientists

NYSDEC, the tank must be registered (and the registration fee paid) at the time that DSNY notifies NYSDEC of the planned closure.

Bird Excrement

Although bird excrement is not a regulated material, it may pose a health hazard to onsite workers and the surrounding community if disturbed or if workers come into contact with the excrement. Based on this, we recommend that the accumulated bird excrement be collected and removed prior to commencing the demolition activities.

Recommended Additional Building Material Sampling/Investigation Activities

- Additional building material sampling and analysis should be implemented to determine if the wooden structural components below the barge slip level exhibit any of the RCRA hazardous waste characteristics. The supplemental building material investigation should include collection of one composite full-core sample of wooden barge slip/bulkhead fenders and analyzing the sample for RCRA hazardous waste characteristics (TCLP VOCs, TCLP SVOCs, TCLP metals, ignitability, and reactivity).
- Two additional 7½-cm concrete core samples should be collected from the concrete floor adjacent to the inactive pumps located in the east and west pump rooms of the barge slip level for total PCB analysis.
- The wooden piles could not be sampled during the sampling activities because access is restricted. As such, the piles should be sampled as part of or following the demolition activities to determine proper disposition, if the piles are scheduled to be partially or entirely removed. Samples of the piles should be analyzed for the RCRA hazardous waste characteristics (TCLP VOCs, TCLP SVOCs, TCLP metals, ignitability, and reactivity).
- Access should be provided to the room labeled "Supplies", which was inaccessible during the visual review activities. Once access is granted, this area should be visually reviewed to identify building appurtenances or other potential environmental considerations (e.g., stains, equipment, etc.).

BBL will provide G&H with a scope of work and cost estimate to perform the above-identified additional predemolition review and sampling activities. Please feel free to call me if you have any questions.

AS/jlc

not regulated for disposal under RCRA, TSCA, or corresponding New York State hazardous waste regulations. As such, they can be disposed of at a smelting or steel reclamation facility or in a non-hazardous landfill.

- The inactive water pumps are regulated under RCRA and TSCA (due to the presence of PCBs) and must be managed for disposal in accordance with 40 CFR 761 (TSCA). Because oil samples collected from one of the inactive water pumps contained PCBs at regulated concentrations (i.e., above 50 ppm), handling and disposition of the water pumps and water pump oil is regulated under TSCA. The pumps can be classified as a "PCB Article"³ and, as such, must be disposed of as a "PCB Bulk Product Waste" in accordance with provisions specified in 40 CFR 761.62(a) or (c). These regulations require that PCB Articles (e.g., the pumps) that are no longer intact and non-leaking be disposed of in TSCA-approved incinerator, TSCA-approved chemical waste landfill, or RCRA-approved hazardous waste landfill. Oil contained within the pumps must be drained prior to, or as part of the disposal process, and incinerated in a TSCA-approved incinerator.

Containerized Chemicals

Prior to initiating the demolition activities, containerized chemicals should be collected, composited based on similar characteristics (e.g., oil with oil), containerized for disposal, and subsequently disposed of offsite in accordance with applicable regulations. Composited materials that cannot be profiled based on apparent characteristics and/or field characterization will require either "lab pack" containerization prior to transportation and disposal, or will need to be sampled to determine disposal characteristics. Most of the containerized chemicals (e.g., oil, oil-like liquids, janitorial supplies, etc.) appear to be amenable to direct consolidation and containerization ("lab packed") for transportation and disposal by the Contractor. The DSNY may wish to transfer select materials (e.g., rock salt) to an alternate location for future use. Disposal of empty containers is not regulated for disposal under RCRA or the New York State hazardous waste regulations (except for PCB containers, as defined in 40 CFR Part 761).

Fuel Oil Storage Tank

The fuel oil storage tanks should be permanently closed in accordance with tank closure requirements presented in 40 CFR Part 280 and 6NYCRR Parts 612 and 613. Part 613.9(c) of 6NYCRR specifies that:

"The owner of the tank (..) which is to be permanently closed, must notify the department (NYSDEC) within 30 days prior to permanent closure of the tank (..) pursuant to the requirements of Section 612.2(d) of this title."

All product and accumulated sludge must be removed from the tank and associated piping and disposed of in accordance with applicable regulations. The tank must be rendered free of petroleum vapors. The NYSDEC must be notified prior to initiating tank closure. The storage capacity of this tank is over 1,100 gallons and, therefore, must be registered with the NYSDEC as per 6NYCRR Part 612.1(b). Please note, if this tank has not been previously registered with

³ PCB Article is defined as "any manufactured article (..) that contains PCBs and whose surface has been in direct contact with PCBs. PCB Article includes (..) electric motors, pumps, pipes, and any other manufactured item (..).

construction work (including demolition, storage, transportation, etc.) where lead- and/or cadmium-containing materials are present must be conducted in accordance with OSHA standards 1926.62 and/or 1926.1127, respectively. These standards contain provisions for worker protection where an employee may be occupationally exposed to lead and/or cadmium. These standards apply to the demolition debris because lead- and cadmium-containing paint will remain adhered to the surfaces of the debris.

Building-Associated Appurtenances

- Fluorescent and HID lamps: Spent fluorescent and HID lamps must be managed in accordance with RCRA as either a universal waste (regulated under 40 CFR Part 273 and 6NYCRR Part 374) or as a RCRA hazardous waste. The universal waste rule streamlines the management (i.e., handling, manifesting, transporting, and reporting) of spent lamps that exhibit hazardous waste characteristics (i.e., due to mercury and/or lead toxicity) when compared to the RCRA requirements for the management and disposal of a characteristic hazardous waste. As both disposal scenarios are applicable, BBL recommends that both requirements be detailed in the environmental specifications to allow the Contractor to choose and inform the Engineer of which waste code will be used for transportation and disposal.
- Fluorescent and HID lamp ballasts: Unless the ballasts are clearly labeled "No PCBs," they should either be sampled (to determine the presence and concentration of PCBs) or assumed to contain PCBs. If the ballasts contain PCBs (or are assumed to contain PCBs), their handling and disposal is regulated under 40 CFR 761 (TSCA) and 6NYCRR Part 371. Based on BBL's past experience and taking into consideration the number of ballasts observed at the MTS, it would be more cost effective to assume that the unlabeled ballasts do, in fact, contain PCBs and to dispose of them accordingly, rather than to sample the oil and potting material in the ballasts to determine the PCB concentration.
- AC units, drinking water fountain, and refrigerators: The AC units, water fountain, and refrigerators may contain chlorofluorocarbons (CFCs). Prior to disposal, potential CFC-containing units must be inspected, and CFCs must be evacuated by a licensed technician in accordance with 40 CFR 82.161 and any state and local requirements. Chlorofluorocarbon refrigerant that is reclaimed for further use is not considered a hazardous waste pursuant to 40 CFR Part 261.4(b)(12).
- Fire extinguishers: Fire extinguishers are not regulated as a hazardous waste, but they may be pressurized and, as such, will require special handling (e.g., depressurization) prior to disposal.
- Microwave Oven: Microwave ovens are not regulated under federal or New York State regulations. However, their disposal may be governed by local laws, rules, or ordinances.

Process-Associated Equipment (Capstans and Water Pumps)

- The capstans should be drained of oil prior to or as part of the disposal process. Oil collected from the capstans must be managed in accordance with 40 CFR Part 279 and 6NYCRR Part 360-14. Collected oil from the inactive motor pump was determined to be PCB-containing oil and must be managed in accordance with 40 CFR 761 (TSCA). The drained capstans are

Lead-In-Paint and Cadmium-In-Paint

The laboratory analytical results indicated that lead was present in each of the six paint chip samples at concentrations ranging from 32.6 ppm to 103,000 ppm. Cadmium was detected in each sample at concentrations ranging from 1.44 ppm to 8.72 ppm.

For more information regarding the laboratory analytical results for lead-in-paint and cadmium-in-paint samples, refer to the *Asbestos and Lead Inspection Report*, which is included as Attachment 1.

IV. Recommendations

Presented below are recommendations for addressing regulated (or potentially regulated) items identified during the February and March 2003 investigation activities, along with applicable regulatory citations. In addition, this section provides recommendations for conducting additional investigation activities to determine proper handling and disposal requirements for select building materials. The additional sampling activities identified are intended to refine the estimated quantity of materials to be addressed (and potentially lower removal/disposal costs) and to minimize potential contractor change orders during implementation.

Building Materials

- Based on the existing analytical results, none of the components of the MTS superstructure (e.g., exterior and interior walls, floors, structural steel) are regulated for disposal under RCRA (as described in 40 CFR Parts 260 through 263, and Part 268) and the corresponding New York State hazardous waste regulations (contained in 6 NYCRR Part 370 through 373 and Part 376). In addition, based on the PCB sample results, the materials are not regulated under 40 CFR 761 – TSCA. As a result, the building materials can be disposed of at a Subtitle D (nonhazardous) landfill and/or at a construction and demolition (C&D) landfill².
- Pursuant to the requirements presented in ICR 56, all asbestos containing materials identified at the facility must be removed prior to advertising for bid and/or awarding the contract for demolition work unless a variance from this state requirement is granted by the NYCDEP (application for any variance from the ICR 56 rules or the NYCDEP asbestos regulations must be made directly to the NYCDEP). As such, in order to accommodate the accelerated schedule for demolition of this MTS, the DSNY may wish to apply for a variance from this requirement. Please note that conformance with NYCDEP asbestos regulations will fulfill the New York State and federal asbestos requirements.
- Lead and cadmium were detected in all paint chip samples collected at the MTS. To mitigate potential worker and public exposure to airborne lead and cadmium during implementation of the demolition activities, loose or flaking paint should be removed from the building material surfaces within a short time frame prior to commencing the demolition activities and collected for subsequent containerization, profiling, transportation, and offsite disposal. All

² C&D landfill refers to a C&D landfill permitted by a state regulatory agency and should not be inferred to mean an unpermitted landfill deposition area. Please note that some permitted C&D landfills may not allow the disposal of organic material, including wood.

Lead-In-Paint and Cadmium-In-Paint Sampling

Six paint chip samples were collected by ATC and submitted for laboratory analysis for total lead and cadmium. For a detailed description of the paint sampled, sampling locations, and laboratory analytical methods, refer to the *Asbestos and Lead Inspection Report*, which is included as Attachment 1. The laboratory analytical results are summarized in Section III of this memorandum.

III. Summary of Laboratory Analytical Results

This section provides a summary of the laboratory analytical results for the building materials and equipment samples collected as part of the investigation activities.

Building Materials

The laboratory analytical results indicated that none of the composite building core samples submitted for RCRA hazardous waste characterization determination exhibited any of the characteristics of a RCRA-regulated hazardous waste, as specified in 40 CFR 261 Subpart C and 6 NYCRR Part 371.

None of the discrete building material samples submitted for total PCB analysis contained PCBs at concentrations above the laboratory detection limit.

A copy of the laboratory analytical report sheets for building material core samples is included as Attachment 2.

Equipment Oil

The laboratory analytical results indicated that the oil sample collected from one of the two capstans did not contain PCBs at concentrations above the laboratory detection limit. However, the oil sample collected from one of the two inactive pumps (SBRONX-SLIP-OIL2) contained PCBs at a total concentration of 387 parts per million (ppm).

A copy of the laboratory analytical report sheets for the equipment oil samples is included as Attachment 2.

ACM

The laboratory analytical results indicated that the corrugated and flat transite panels and the flat transite panel caulk (approximately 500 linear feet [lf]) contained asbestos at concentrations exceeding 1% by weight and are therefore classified as "asbestos-containing"¹. Asbestos was not detected at a concentration exceeding 1 percent by weight in the remaining samples.

For more information regarding the laboratory analytical results for asbestos, refer to the *Asbestos and Lead Inspection Report*, which is included as Attachment 1.

¹ Nonasbestos material is defined as "any material containing 1% or less by weight of asbestos."

04/18/03

DeWalt drill (for wood samples) using new or previously decontaminated 1-inch-diameter steel drill bits. Samples were collected in general conformance with the requirements presented in 40 CFR Part 761.286 (federal regulations which specify procedures for collecting samples from porous surfaces for PCB analysis). The discrete building material core samples were placed into laboratory-provided jars and submitted for laboratory analysis for total PCBs. The samples were collected from the following locations:

- two concrete floor samples from the tipping floor level in the main tipping floor area;
- two transite wall samples from the tipping floor level. One sample was collected from the corrugated transite wall panel, and one sample was collected from the flat transite wall panel;
- one concrete floor sample from the Mechanical Equipment Room area located at the barge slip level;
- two wooden catwalk samples at the barge slip level; and
- one wooden deck sample from the barge slip level.

A summary of the laboratory analytical results is presented in Section III of this memorandum. The approximate building material sampling locations for PCB analysis are presented on Figures 1 and 2.

Equipment Oil Sampling

Two equipment oil samples were collected at the barge slip level. One sample was collected from the capstan located on the South Pier and one sample was collected from an inactive water pump. The oil samples were collected using a disposable pipette, transferred to a laboratory-provided jar, and submitted for laboratory analysis for total PCBs. The laboratory analytical results are presented in Section III of this memorandum. The approximate location of the equipment samples (within the MTS) are presented on Figure 1.

The intent of collecting an oil sample from one of the two capstans and one of the two water pumps was to determine the presence/absence of PCBs in the sampled capstan and the water pump. Based on the visual observations made by BBL, both capstans and both water pumps present at the MTS appear to be of the same type and approximately the same age, respectively. Therefore, it is reasonable to assume that the oil sample collected from one of the capstans is likely representative of oil contained within both capstans, and that the oil sample collected from one of the water pumps is likely representative of oil contained within both pumps observed at the MTS.

ACM Sampling

Thirteen samples of homogeneous materials suspected to contain asbestos were collected by ATC and analyzed for total asbestos. For a detailed description of the types of materials sampled, sampling locations, and laboratory analytical methods, refer to the *Asbestos and Lead Inspection Report* (prepared by ATC), which is included as Attachment 1. The laboratory analytical results are summarized in Section III of this memorandum.

If any additional environmental concerns are noted in this area, this information will be outlined in the Phase II memorandum, a supplemental memorandum, and/or specifications, as appropriate.

II. Building Material and Equipment Sampling

The building materials and equipment sampling activities were conducted on March 13, 2003. The goal of the sampling activities was to identify regulated items/materials in the MTS and to determine environmental regulations that may apply to the demolition, handling, and disposal of facility components and building materials. The sampling program included collection of building material core samples, equipment oil samples, suspect asbestos-containing material (ACM) samples, and paint chip samples. The building material core and equipment oil samples were collected by BBL and submitted under chain of custody to Accutest Laboratories of Dayton, New Jersey, for laboratory analysis. BBL subcontracted ATC Associates, Inc. (ATC) (certified by the NYSDOL as asbestos inspectors and certified by the NYCDEP as asbestos investigators) to perform the ACM, lead-in-paint, and cadmium-in-paint survey. The suspect ACM samples were analyzed by ATC's in-house laboratory located in New York, New York. The paint chip samples were submitted by ATC under chain-of-custody procedures to Scientific Laboratories (SciLab) of Weymouth, Massachusetts, for laboratory analysis. A description of the sampling activities is presented below.

Building Material Core Sampling

Four full-core composite building material samples were collected for analysis to determine if the samples exhibited the characteristics of a Resource Conservation and Recovery Act (RCRA) hazardous waste. The sampling locations were selected to represent primary types of building materials/components (e.g., concrete floors, masonry walls, and wooden catwalk). Discrete samples of each building material were collected from four to five locations and field composited to form one representative "composite" sample. Each discrete sample was collected from the full depth of the building materials (i.e., floor, wall, catwalk) using a Hilti hammerdrill (for concrete samples) or a DeWalt drill (for wood samples) using new or previously decontaminated 1-inch-diameter steel drill bits. The composite samples were placed into laboratory-provided jars and submitted for laboratory analysis for Toxicity Characteristic Leaching Procedure (TCLP) volatile organic compounds (VOCs), TCLP semivolatile organic compounds (SVOCs), TCLP metals, ignitability, and reactivity to characterize the material pursuant to the requirements presented in 40 CFR 261 Subpart C and 6NYCRR Parts 370 and 371. The composite samples were collected from the following locations:

- one concrete floor sample from the tipping floor level;
- one concrete floor sample from the barge slip level;
- one masonry wall sample from the barge slip level; and
- one wooden catwalk sample from the barge slip level.

In addition, eight building material core samples were collected for laboratory analysis for total polychlorinated biphenyls (PCBs). The core samples were collected at discrete locations from a maximum depth of 7.5 centimeters (cms) using a Hilti hammerdrill (for concrete samples) or a

- 2 microwave ovens.

No smoke detectors were observed at this MTS. Recommendations for proper handling and disposition of the above-listed items, along with applicable regulatory considerations, are presented in Section IV of this memorandum.

Regulated Process-Associated Equipment

Equipment at the MTS was considered regulated if it contained oil or gasoline. Based on this, the following regulated process-associated equipment was observed during the visual survey of the MTS:

- 2 oil-containing capstans at the barge slip level; and
- 2 inactive internal combustion water pumps at the barge slip level. The water pumps were observed to contain oil in the cylinder chambers.

Recommendations for proper handling and disposition of the above-listed equipment, along with applicable regulatory considerations, are presented in Section IV of this memorandum.

Containerized Chemicals

Table 1 provides an inventory of containerized chemicals observed at the MTS during the visual survey. Recommendations for addressing the containerized chemicals are presented in Section IV of this memorandum.

Other Concerns

- A fuel oil-fired boiler and a fuel oil storage tank (with an approximate capacity of 2,750-gallons) were observed in the Mechanical Equipment Room on the tipping floor level. The storage tank was encased in concrete and, according to the petrometer reading, contained approximately 7 inches (120 gallons) of product.
- Bird excrement was observed on both floors and select structural components (e.g., horizontal beams, trusses) of the MTS.

Recommendations for addressing the fuel oil tank and bird excrement are presented in Section IV of this memorandum.

Inaccessible Areas

The room labeled "Supplies" adjacent to the men's locker room and restroom in the office area of the tipping floor level could not be accessed during the February and March 2003 investigation activities. As such, this memorandum does not address items of concern that could be present in the above-listed inaccessible area. BBL will coordinate with Greeley and Hansen LLC (G&H) and the New York City Department of Sanitation (DSNY) to gain access to this area.

summary of the investigation activities, a summary of the laboratory analytical results, and recommendations.

The South Bronx MTS is located on the East River, on Farragut Street in the Bronx. This facility is marine-based and includes two barge slips. The MTS superstructure consists of masonry, wood, and corrugated transite and translucent plastic panels over steel framing and includes two main floors: a tipping floor (upper level) and a barge slip floor (lower level). An elevated concrete ramp provides access to the tipping floor from Farragut Street.

I. Visual Survey

A visual survey of the MTS was conducted by BBL on February 27, 2003. The objective of the visual survey was to identify the presence, approximate locations, and quantities of potentially regulated items (e.g., equipment, stained building materials) and to gather information for preparing a building material and equipment sampling program. A summary of the visual survey is presented below.

Building Materials

Most of the exterior walls on the tipping floor level and the roof are constructed of unpainted corrugated transite panels over steel framing. Most of the exterior walls on the barge slip level are constructed of corrugated translucent plastic panels. The interior walls (at both levels) are constructed of flat transite panels, flat steel plates, or masonry (e.g., concrete, masonry block, terracotta, clay tiles). No visual staining was observed on the interior or exterior walls, columns, or steel framing. Peeling/flaking paint was observed on structural steel framing.

The tipping floor is constructed of unpainted concrete. No apparent dark staining (e.g., oil staining, etc.) was observed on the tipping floor (except for some apparent salt staining).

The barge slip floor consists of a combination of unpainted concrete and wooden catwalks/decks. No apparent staining was observed on the wooden or concrete floors at the barge slip level.

Potentially Regulated Building-Associated Appurtenances

The following potentially regulated building-associated appurtenances were observed during the visual survey of the MTS:

- 8 fluorescent lamps and 129 high-intensity discharge (HID) lamps;
- 133 fluorescent and HID lamp ballasts;
- 2 window air conditioning (AC) units;
- 1 drinking water fountain;
- 4 refrigerators;
- 1 fire extinguisher; and

To: Jay Lovelass, P.E.
 Greeley and Hansen LLC

Date: 4/18/03

From: Frederick Kirschenheiter, P.E.
 Blasland, Bouck & Lee, Inc.

cc: Harvey Brodsky, P.E., Greeley and Hansen LLC
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 Margaret Carrillo-Sheridan, P.E., Blasland, Bouck & Lee, Inc.
 Jay Keough, CIH, Blasland, Bouck & Lee, Inc.
 George Cebula, Blasland, Bouck & Lee, Inc.

Re: Building Materials and Equipment Investigation
 South Bronx Marine Transfer Station
 Bronx, New York
 Conversion of Eight Marine Transfer Stations

This memorandum presents a summary of the building materials and equipment investigation activities conducted by Blasland, Bouck & Lee, Inc. (BBL) at the above-referenced marine transfer station (MTS) in February and March 2003. The investigation activities were conducted in order to identify environmental considerations that should be addressed as part of the planned demolition of the South Bronx MTS. In general, the investigation activities consisted of the following:

- performance of a visual survey of the MTS; and
- collection of building materials and equipment samples for laboratory analysis.

In addition, BBL reviewed the following regulations to identify applicable handling and disposal requirements based on the results of the investigation:

- Title 29 of the Code of Federal Regulations (29 CFR) (Occupational Safety and Health Administration [OSHA] regulations);
- Title 40 of the Code of Federal Regulations (40 CFR) (United States Environmental Protection Agency [USEPA] regulations);
- Title 6 of the New York Compilation of Rules and Regulations (6NYCRR) (New York State Department of Environmental Conservation [NYSDEC] regulations);
- Title 12 of the New York Compilation of Rules and Regulations, Part 56, also known as Industrial Code Rule 56 (ICR 56) (New York State Department of Labor [NYSDOL] asbestos regulations); and
- Chapter 1 of the New York City Department of Environmental Protection (NYCDEP) Rules and Regulations.

This memorandum also presents recommendations for the handling of regulated (or potentially regulated) items during building demolition activities and recommendations for conducting additional investigation activities to determine handling and disposal requirements for select building materials. The MTS setting and site-specific features are described below, followed by a

South Bronx MTS

BLASLAND, BOUCK & LEE, INC.
engineers & scientists



FMS ID: S216-421



**THE CITY OF NEW YORK
DEPARTMENT OF DESIGN AND CONSTRUCTION
DIVISION OF PUBLIC BUILDINGS**

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

Contract for Furnishing all Labor and Material Necessary and Required for:

CONTRACT NO. 1 GENERAL CONSTRUCTION WORK

South Bronx Marine Transfer Station Demolition

LOCATION: **Terminus of Farragut Street**
BOROUGH: **Bronx, NY 10474**
CITY OF NEW YORK

Contractor _____

Dated _____, 20____

Entered in the Comptroller's Office

First Assistant Bookkeeper _____

Dated _____, 20____

