



# BROWNFIELD CLEANUP PROGRAM (BCP) APPLICATION FORM

DEC requires an application to request major changes to the description of the property set forth in a Brownfield Cleanup Agreement, or "BCA" (e.g., adding a significant amount of new property, or adding property that could affect an eligibility determination due to contamination levels or intended land use). Such application must be submitted and processed in the same manner as the original application, including the required public comment period. **Is this an application to amend an existing BCA?**

**Yes**                      **No**                      **If yes, provide existing site number:** \_\_\_\_\_

**PART A (note: application is separated into Parts A and B for DEC review purposes)      *BCP App Rev 10***

<b>Section I. Requestor Information - See Instructions for Further Guidance</b>		DEC USE ONLY BCP SITE #:
NAME		
ADDRESS		
CITY/TOWN		ZIP CODE
PHONE	FAX	E-MAIL
<p>Is the requestor authorized to conduct business in New York State (NYS)?                      Yes      No</p> <ul style="list-style-type: none"> <li>• If the requestor is a Corporation, LLC, LLP or other entity requiring authorization from the NYS Department of State to conduct business in NYS, the requestor's name must appear, exactly as given above, in the <a href="#">NYS Department of State's Corporation &amp; Business Entity Database</a>. A print-out of entity information from the database must be submitted to the New York State Department of Environmental Conservation (DEC) with the application to document that the requestor is authorized to do business in NYS. <b>Please note:</b> If the requestor is an LLC, the members/owners names need to be provided on a separate attachment. <b>SEE ATTACHMENT A</b></li> </ul> <p>Do all individuals that will be certifying documents meet the requirements detailed below?      Yes      No</p> <ul style="list-style-type: none"> <li>• Individuals that will be certifying BCP documents, as well as their employers, meet the requirements of Section 1.5 of <a href="#">DER-10: Technical Guidance for Site Investigation and Remediation</a> and Article 145 of New York State Education Law. <b>Documents that are not properly certified will be not approved under the BCP.</b></li> </ul>		
<b>Section II. Project Description</b>		
<p>1. What stage is the project starting at?                      Investigation                      Remediation</p> <p>NOTE: If the project is proposed to start at the remediation stage, a Remedial Investigation Report (RIR) at a minimum is required to be attached, resulting in a 30-day public comment period. If an Alternatives Analysis and Remedial Work Plan are also attached (see DER-10 / Technical Guidance for Site Investigation and Remediation for further guidance) then a 45-day public comment period is required.</p> <p>2. If a final RIR is included, please verify it meets the requirements of Environmental Conservation Law (ECL) Article 27-1415(2):                      Yes                      No</p> <p>3. Please attach a short description of the overall development project, including:</p> <ul style="list-style-type: none"> <li>• the date that the remedial program is to start; and</li> <li>• the date the Certificate of Completion is anticipated.                      <b>SEE ATTACHMENT B</b></li> </ul>		

**Section III. Property's Environmental History**

All applications **must include** an Investigation Report (per ECL 27-1407(1)). The report must be sufficient to establish contamination of environmental media on the site above applicable Standards, Criteria and Guidance (SCGs) based on the reasonably anticipated use of the property.

To the extent that existing information/studies/reports are available to the requestor, please attach the following (**please submit the information requested in this section in electronic format only**):

- 1. Reports:** an example of an Investigation Report is a Phase II Environmental Site Assessment report prepared in accordance with the latest American Society for Testing and Materials standard (ASTM E1903). **Please submit a separate electronic copy of each report in Portable Document Format (PDF). SEE ATTACHMENT C**

**2. SAMPLING DATA: INDICATE KNOWN CONTAMINANTS AND THE MEDIA WHICH ARE KNOWN TO HAVE BEEN AFFECTED. LABORATORY REPORTS SHOULD BE REFERENCED AND COPIES INCLUDED.**

<b>Contaminant Category</b>	<b>Soil</b>	<b>Groundwater</b>	<b>Soil Gas</b>
Petroleum			
Chlorinated Solvents			
Other VOCs			
SVOCs			
Metals			
Pesticides			
PCBs			
Other*			

\*Please describe: \_\_\_\_\_

**3. FOR EACH IMPACTED MEDIUM INDICATED ABOVE, INCLUDE A SITE DRAWING INDICATING:**

**SEE ATTACHMENT C**

- **SAMPLE LOCATION**
- **DATE OF SAMPLING EVENT**
- **KEY CONTAMINANTS AND CONCENTRATION DETECTED**
- **FOR SOIL, HIGHLIGHT IF ABOVE REASONABLY ANTICIPATED USE**
- **FOR GROUNDWATER, HIGHLIGHT EXCEEDANCES OF 6NYCRR PART 703.5**
- **FOR SOIL GAS/ SOIL VAPOR/ INDOOR AIR, HIGHLIGHT IF ABOVE MITIGATE LEVELS ON THE NEW YORK STATE DEPARTMENT OF HEALTH MATRIX**

**THESE DRAWINGS ARE TO BE REPRESENTATIVE OF ALL DATA BEING RELIED UPON TO MAKE THE CASE THAT THE SITE IS IN NEED OF REMEDIATION UNDER THE BCP. DRAWINGS SHOULD NOT BE BIGGER THAN 11" X 17". THESE DRAWINGS SHOULD BE PREPARED IN ACCORDANCE WITH ANY GUIDANCE PROVIDED.**

**ARE THE REQUIRED MAPS INCLUDED WITH THE APPLICATION?\***

(\*answering No will result in an incomplete application)

Yes      No

**4. INDICATE PAST LAND USES (CHECK ALL THAT APPLY):**

Coal Gas Manufacturing	Manufacturing	Agricultural Co-op	Dry Cleaner
Salvage Yard	Bulk Plant	Pipeline	Service Station
Landfill	Tannery	Electroplating	Unknown

Other: \_\_\_\_\_

**Section IV. Property Information - See Instructions for Further Guidance**

PROPOSED SITE NAME

ADDRESS/LOCATION

CITY/TOWN

ZIP CODE

MUNICIPALITY(IF MORE THAN ONE, LIST ALL):

COUNTY

SITE SIZE (ACRES)

LATITUDE (degrees/minutes/seconds)

LONGITUDE (degrees/minutes/seconds)

**Complete tax map information for all tax parcels included within the proposed site boundary. If a portion of any lot is proposed, please indicate as such by inserting "P/O" in front of the lot number in the appropriate box below, and only include the acreage for that portion of the tax parcel in the corresponding far right column. ATTACH REQUIRED MAPS PER THE APPLICATION INSTRUCTIONS.**

Parcel Address	<b>SEE ATTACHMENT D</b>	Section No.	Block No.	Lot No.	Acreage

1. Do the proposed site boundaries correspond to tax map metes and bounds?  
If no, please attach an accurate map of the proposed site. Yes    No

2. Is the required property map attached to the application?  
(application will not be processed without map) Yes    No

3. Is the property within a designated Environmental Zone (En-zone) pursuant to Tax Law 21(b)(6)?  
(See [DEC's website](#) for more information) Yes    No

If yes, identify census tract : \_\_\_\_\_

Percentage of property in En-zone (check one):      0-49%                  50-99%                  100%

4. Is this application one of multiple applications for a large development project, where the development project spans more than 25 acres (see additional criteria in BCP application instructions)? Yes    No

If yes, identify name of properties (and site numbers if available) in related BCP applications: \_\_\_\_\_

5. Is the contamination from groundwater or soil vapor solely emanating from property other than the site subject to the present application? Yes    No

6. Has the property previously been remediated pursuant to Titles 9, 13, or 14 of ECL Article 27, Title 5 of ECL Article 56, or Article 12 of Navigation Law? Yes    No

If yes, attach relevant supporting documentation.

7. Are there any lands under water? Yes    No

If yes, these lands should be clearly delineated on the site map.

**Section IV. Property Information (continued)**

8. Are there any easements or existing rights of way that would preclude remediation in these areas?  
 If yes, identify here and attach appropriate information. Yes    No

<u>Easement/Right-of-way Holder</u>	<u>Description</u>
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9. List of Permits issued by the DEC or USEPA Relating to the Proposed Site (type here or attach information)

<u>Type</u>	<u>Issuing Agency</u>	<u>Description</u>
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10. Property Description and Environmental Assessment – **please refer to application instructions for the proper format of each narrative requested.**

Are the Property Description and Environmental Assessment narratives included in the **prescribed format**? Yes    No

**Note: Questions 11 through 13 only pertain to sites located within the five counties comprising New York City**

11. Is the requestor seeking a determination that the site is eligible for tangible property tax credits? Yes    No

If yes, requestor must answer questions on the supplement at the end of this form.

12. Is the Requestor now, or will the Requestor in the future, seek a determination that the property is Upside Down? Yes    No

13. If you have answered Yes to Question 12, above, is an independent appraisal of the value of the property, as of the date of application, prepared under the hypothetical condition that the property is not contaminated, included with the application? Yes    No

**NOTE:** If a tangible property tax credit determination is not being requested in the application to participate in the BCP, the applicant may seek this determination at any time before issuance of a certificate of completion by using the BCP Amendment Application, except for sites seeking eligibility under the underutilized category.

If any changes to Section IV are required prior to application approval, a new page, initialed by each requestor, must be submitted.

Initials of each Requestor: \_\_\_\_\_

**BCP application - PART B (note: application is separated into Parts A and B for DEC review purposes)**

<b>Section V. Additional Requestor Information</b> <b>See Instructions for Further Guidance</b>	DEC USE ONLY BCP SITE NAME: _____ BCP SITE #: _____
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NAME OF REQUESTOR'S AUTHORIZED REPRESENTATIVE

ADDRESS

CITY/TOWN	ZIP CODE
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PHONE	FAX	E-MAIL
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NAME OF REQUESTOR'S CONSULTANT

ADDRESS

CITY/TOWN	ZIP CODE
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PHONE	FAX	E-MAIL
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NAME OF REQUESTOR'S ATTORNEY

ADDRESS

CITY/TOWN	ZIP CODE
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PHONE	FAX	E-MAIL
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**Section VI. Current Property Owner/Operator Information – if not a Requestor SEE ATTACHMENT E**

CURRENT OWNER'S NAME	OWNERSHIP START DATE:
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ADDRESS

CITY/TOWN	ZIP CODE
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PHONE	FAX	E-MAIL
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CURRENT OPERATOR'S NAME

ADDRESS

CITY/TOWN	ZIP CODE
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PHONE	FAX	E-MAIL
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**PROVIDE A LIST OF PREVIOUS PROPERTY OWNERS AND OPERATORS WITH NAMES, LAST KNOWN ADDRESSES AND TELEPHONE NUMBERS AS AN ATTACHMENT. DESCRIBE REQUESTOR'S RELATIONSHIP, TO EACH PREVIOUS OWNER AND OPERATOR, INCLUDING ANY RELATIONSHIP BETWEEN REQUESTOR'S CORPORATE MEMBERS AND PREVIOUS OWNER AND OPERATOR. IF NO RELATIONSHIP, PUT "NONE".**

**IF REQUESTOR IS NOT THE CURRENT OWNER, DESCRIBE REQUESTOR'S RELATIONSHIP TO THE CURRENT OWNER, INCLUDING ANY RELATIONSHIP BETWEEN REQUESTOR'S CORPORATE MEMBERS AND THE CURRENT OWNER.**

**Section VII. Requestor Eligibility Information (Please refer to ECL § 27-1407)**

If answering "yes" to any of the following questions, please provide an explanation as an attachment.

1. Are any enforcement actions pending against the requestor regarding this site? Yes    No
2. Is the requestor subject to an existing order for the investigation, removal or remediation of contamination at the site? Yes    No
3. Is the requestor subject to an outstanding claim by the Spill Fund for this site? Any questions regarding whether a party is subject to a spill claim should be discussed with the Spill Fund Administrator. Yes    No

**Section VII. Requestor Eligibility Information (continued)**

4. Has the requestor been determined in an administrative, civil or criminal proceeding to be in violation of i) any provision of the ECL Article 27; ii) any order or determination; iii) any regulation implementing Title 14; or iv) any similar statute, regulation of the state or federal government? If so, provide an explanation on a separate attachment. Yes No
5. Has the requestor previously been denied entry to the BCP? If so, include information relative to the application, such as name, address, DEC assigned site number, the reason for denial, and other relevant information. Yes No
6. Has the requestor been found in a civil proceeding to have committed a negligent or intentionally tortious act involving the handling, storing, treating, disposing or transporting of contaminants? Yes No
7. Has the requestor been convicted of a criminal offense i) involving the handling, storing, treating, disposing or transporting of contaminants; or ii) that involves a violent felony, fraud, bribery, perjury, theft, or offense against public administration (as that term is used in Article 195 of the Penal Law) under federal law or the laws of any state? Yes No
8. Has the requestor knowingly falsified statements or concealed material facts in any matter within the jurisdiction of DEC, or submitted a false statement or made use of or made a false statement in connection with any document or application submitted to DEC? Yes No
9. Is the requestor an individual or entity of the type set forth in ECL 27-1407.9 (f) that committed an act or failed to act, and such act or failure to act could be the basis for denial of a BCP application? Yes No
10. Was the requestor's participation in any remedial program under DEC's oversight terminated by DEC or by a court for failure to substantially comply with an agreement or order? Yes No
11. Are there any unregistered bulk storage tanks on-site which require registration? Yes No

THE REQUESTOR MUST CERTIFY THAT HE/SHE IS EITHER A PARTICIPANT OR VOLUNTEER IN ACCORDANCE WITH ECL 27-1405 (1) BY CHECKING ONE OF THE BOXES BELOW:

**PARTICIPANT**

A requestor who either 1) was the owner of the site at the time of the disposal of hazardous waste or discharge of petroleum or 2) is otherwise a person responsible for the contamination, unless the liability arises solely as a result of ownership, operation of, or involvement with the site subsequent to the disposal of hazardous waste or discharge of petroleum.

**VOLUNTEER**

A requestor other than a participant, including a requestor whose liability arises solely as a result of ownership, operation of or involvement with the site subsequent to the disposal of hazardous waste or discharge of petroleum.

NOTE: By checking this box, a requestor whose liability arises solely as a result of ownership, operation of or involvement with the site certifies that he/she has exercised appropriate care with respect to the hazardous waste found at the facility by taking reasonable steps to: i) stop any continuing discharge; ii) prevent any threatened future release; iii) prevent or limit human, environmental, or natural resource exposure to any previously released hazardous waste.

**If a requestor whose liability arises solely as a result of ownership, operation of or involvement with the site, submit a statement describing why you should be considered a volunteer – be specific as to the appropriate care taken.**

**Section VII. Requestor Eligibility Information (continued)**

Requestor Relationship to Property (check one):

Previous Owner    Current Owner    Potential /Future Purchaser    Other \_\_\_\_\_

If requestor is not the current site owner, **proof of site access sufficient to complete the remediation must be submitted**. Proof must show that the requestor will have access to the property before signing the BCA and throughout the BCP project, including the ability to place an easement on the site. Is this proof attached?

Yes

No

**SEE ATTACHMENT F**

**Note: a purchase contract does not suffice as proof of access.**

**Section VIII. Property Eligibility Information - See Instructions for Further Guidance**

1. Is / was the property, or any portion of the property, listed on the National Priorities List?  
If yes, please provide relevant information as an attachment. Yes    No
2. Is / was the property, or any portion of the property, listed on the NYS Registry of Inactive Hazardous Waste Disposal Sites pursuant to ECL 27-1305? Yes    No  
If yes, please provide:    Site # \_\_\_\_\_    Class # \_\_\_\_\_
3. Is / was the property subject to a permit under ECL Article 27, Title 9, other than an Interim Status facility? Yes    No  
If yes, please provide:    Permit type: \_\_\_\_\_    EPA ID Number: \_\_\_\_\_  
Date permit issued: \_\_\_\_\_    Permit expiration date: \_\_\_\_\_
4. If the answer to question 2 or 3 above is yes, is the site owned by a volunteer as defined under ECL 27-1405(1)(b), or under contract to be transferred to a volunteer? Attach any information available to the requestor related to previous owners or operators of the facility or property and their financial viability, including any bankruptcy filing and corporate dissolution documentation. N/A    Yes    No
5. Is the property subject to a cleanup order under Navigation Law Article 12 or ECL Article 17 Title 10? Yes    No  
If yes, please provide:    Order # \_\_\_\_\_
6. Is the property subject to a state or federal enforcement action related to hazardous waste or petroleum? Yes    No  
If yes, please provide explanation as an attachment.

**Section IX. Contact List Information**

**SEE ATTACHMENT G**

To be considered complete, the application must include the Brownfield Site Contact List in accordance with [DER-23 / Citizen Participation Handbook for Remedial Programs](#). Please attach, at a minimum, the names and addresses of the following:

1. The chief executive officer and planning board chairperson of each county, city, town and village in which the property is located.
2. Residents, owners, and occupants of the property and properties adjacent to the property.
3. Local news media from which the community typically obtains information.
4. The public water supplier which services the area in which the property is located.
5. Any person who has requested to be placed on the contact list.
6. The administrator of any school or day care facility located on or near the property.
7. The location of a document repository for the project (e.g., local library). **If the site is located in a city with a population of one million or more, add the appropriate community board as an additional document repository.** In addition, attach a copy of an acknowledgement from each repository indicating that it agrees to act as the document repository for the site.

**Section X. Land Use Factors**

**SEE ATTACHMENT H**

1. What is the current municipal zoning designation for the site? \_\_\_\_\_

What uses are allowed by the current zoning? (Check boxes, below)

Residential      Commercial      Industrial

If zoning change is imminent, please provide documentation from the appropriate zoning authority.

2. Current Use:    Residential    Commercial    Industrial    Vacant    Recreational    (check all that apply)

**Attach a summary of current business operations or uses, with an emphasis on identifying possible contaminant source areas. If operations or uses have ceased, provide the date.**

3. Reasonably anticipated use Post Remediation:    Residential    Commercial    Industrial (check all that apply) **Attach a statement detailing the specific proposed use.**

If residential, does it qualify as single family housing? Yes    No

4. Do current historical and/or recent development patterns support the proposed use?

Yes    No

5. Is the proposed use consistent with applicable zoning laws/maps? Briefly explain below, or attach additional information and documentation if necessary.

Yes    No

6. Is the proposed use consistent with applicable comprehensive community master plans, local waterfront revitalization plans, or other adopted land use plans? Briefly explain below, or attach additional information and documentation if necessary.

Yes    No

## XI. Statement of Certification and Signatures

(By requestor who is an individual)

If this application is approved, I hereby acknowledge and agree: (1) to execute a Brownfield Cleanup Agreement (BCA) within 60 days of the date of DEC's approval letter; (2) to the general terms and conditions set forth in the *DER-32, Brownfield Cleanup Program Applications and Agreements*; and (3) that in the event of a conflict between the general terms and conditions of participation and the terms contained in a site-specific BCA, the terms in the site-specific BCA shall control. Further, I hereby affirm that information provided on this form and its attachments is true and complete to the best of my knowledge and belief. I am aware that any false statement made herein is punishable as a Class A misdemeanor pursuant to section 210.45 of the Penal Law.

Date: \_\_\_\_\_ Signature: \_\_\_\_\_

Print Name: \_\_\_\_\_

(By a requestor other than an individual)

I hereby affirm that I am member (title) of MD87JGGS, LLC (entity); that I am authorized by that entity to make this application and execute the Brownfield Cleanup Agreement (BCA) and all subsequent amendments; that this application was prepared by me or under my supervision and direction. If this application is approved, I acknowledge and agree: (1) to execute a BCA within 60 days of the date of DEC's approval letter; (2) to the general terms and conditions set forth in the *DER-32, Brownfield Cleanup Program Applications and Agreements*; and (3) that in the event of a conflict between the general terms and conditions of participation and the terms contained in a site-specific BCA, the terms in the site-specific BCA shall control. Further, I hereby affirm that information provided on this form and its attachments is true and complete to the best of my knowledge and belief. I am aware that any false statement made herein is punishable as a Class A misdemeanor pursuant to Section 210.45 of the Penal Law.

Date: 2/25/19 Signature: \_\_\_\_\_

Print Name: MICHAEL DAVIS

### SUBMITTAL INFORMATION:

- **Two (2)** copies, one paper copy with original signatures and one electronic copy in Portable Document Format (PDF), must be sent to:
  - Chief, Site Control Section
  - New York State Department of Environmental Conservation
  - Division of Environmental Remediation
  - 625 Broadway
  - Albany, NY 12233-7020

**FOR DEC USE ONLY**

**BCP SITE T&A CODE:** \_\_\_\_\_ **LEAD OFFICE:** \_\_\_\_\_

**Supplemental Questions for Sites Seeking Tangible Property Credits in New York City ONLY.** Sufficient information to demonstrate that the site meets one or more of the criteria identified in ECL 27 1407(1-a) must be submitted if requestor is seeking this determination.

**BCP App Rev 10**

Property is in Bronx, Kings, New York, Queens, or Richmond counties.	Yes	No
Requestor seeks a determination that the site is eligible for the tangible property credit component of the brownfield redevelopment tax credit.	Yes	No
<b>Please answer questions below and provide documentation necessary to support answers.</b>		
1. Is at least 50% of the site area located within an environmental zone pursuant to NYS Tax Law 21(b)(6)? Please see <a href="#">DEC's website</a> for more information.	Yes	No
2. Is the property upside down or underutilized as defined below?	Upside Down?	Yes No
	Underutilized?	Yes No
<b>From ECL 27-1405(31):</b>		
<p>"Upside down" shall mean a property where the projected and incurred cost of the investigation and remediation which is protective for the anticipated use of the property equals or exceeds seventy-five percent of its independent appraised value, as of the date of submission of the application for participation in the brownfield cleanup program, developed under the hypothetical condition that the property is not contaminated.</p>		
<p><b>From 6 NYCRR 375-3.2(I) as of August 12, 2016:</b> (Please note: Eligibility determination for the underutilized category can only be made at the time of application)</p>		
<p>375-3.2:</p> <p>(I) "Underutilized" means, as of the date of application, real property on which no more than fifty percent of the permissible floor area of the building or buildings is certified by the applicant to have been used under the applicable base zoning for at least three years prior to the application, which zoning has been in effect for at least three years; and</p> <p>(1) the proposed use is at least 75 percent for industrial uses; or</p> <p>(2) at which:</p> <p>(i) the proposed use is at least 75 percent for commercial or commercial and industrial uses;</p> <p>(ii) the proposed development could not take place without substantial government assistance, as certified by the municipality in which the site is located; and</p> <p>(iii) one or more of the following conditions exists, as certified by the applicant:</p> <p>(a) property tax payments have been in arrears for at least five years immediately prior to the application;</p> <p>(b) a building is presently condemned, or presently exhibits documented structural deficiencies, as certified by a professional engineer, which present a public health or safety hazard; or</p> <p>(c) there are no structures.</p> <p>"Substantial government assistance" shall mean a substantial loan, grant, land purchase subsidy, land purchase cost exemption or waiver, or tax credit, or some combination thereof, from a governmental entity.</p>		

## Supplemental Questions for Sites Seeking Tangible Property Credits in New York City (continued)

3. If you are seeking a formal determination as to whether your project is eligible for Tangible Property Tax Credits based in whole or in part on its status as an affordable housing project (defined below), you must attach the regulatory agreement with the appropriate housing agency (typically, these would be with the *New York City Department of Housing, Preservation and Development*; the *New York State Housing Trust Fund Corporation*; the *New York State Department of Housing and Community Renewal*; or the *New York State Housing Finance Agency*, though other entities may be acceptable pending Department review). **Check appropriate box, below:**

Project is an Affordable Housing Project - Regulatory Agreement Attached;

Project is Planned as Affordable Housing, But Agreement is Not Yet Available\*  
(\*Checking this box will result in a “pending” status. The Regulatory Agreement will need to be provided to the Department and the Brownfield Cleanup Agreement will need to be amended prior to issuance of the CoC in order for a positive determination to be made.);

This is Not an Affordable Housing Project.

### From 6 NYCRR 375- 3.2(a) as of August 12, 2016:

(a) “Affordable housing project” means, for purposes of this part, title fourteen of article twenty seven of the environmental conservation law and section twenty-one of the tax law only, a project that is developed for residential use or mixed residential use that must include affordable residential rental units and/or affordable home ownership units.

(1) Affordable residential rental projects under this subdivision must be subject to a federal, state, or local government housing agency’s affordable housing program, or a local government’s regulatory agreement or legally binding restriction, which defines (i) a percentage of the residential rental units in the affordable housing project to be dedicated to (ii) tenants at a defined maximum percentage of the area median income based on the occupants’ households annual gross income.

(2) Affordable home ownership projects under this subdivision must be subject to a federal, state, or local government housing agency’s affordable housing program, or a local government’s regulatory agreement or legally binding restriction, which sets affordable units aside for home owners at a defined maximum percentage of the area median income.

(3) “Area median income” means, for purposes of this subdivision, the area median income for the primary metropolitan statistical area, or for the county if located outside a metropolitan statistical area, as determined by the United States department of housing and urban development, or its successor, for a family of four, as adjusted for family size.

**BCP Application Summary (for DEC use only)**

<b>Site Name:</b>	<b>Site Address:</b>		
<b>City:</b>	<b>County:</b>	<b>Zip:</b>	
<b>Tax Block &amp; Lot Section (if applicable):</b>	<b>Block:</b>	<b>Lot:</b>	
<b>Requestor Name:</b>	<b>Requestor Address:</b>		
<b>City:</b>	<b>Zip:</b>	<b>Email:</b>	
<b>Requestor's Representative (for billing purposes)</b>			
<b>Name:</b>	<b>Address:</b>		
<b>City:</b>	<b>Zip:</b>	<b>Email:</b>	
<b>Requestor's Attorney</b>			
<b>Name:</b>	<b>Address:</b>		
<b>City:</b>	<b>Zip:</b>	<b>Email:</b>	
<b>Requestor's Consultant</b>			
<b>Name:</b>	<b>Address:</b>		
<b>City:</b>	<b>Zip:</b>	<b>Email:</b>	
<b>Percentage claimed within an En-Zone:</b>	<b>0%</b>	<b>&lt;50%</b>	<b>50-99%</b> <b>100%</b>
<b>DER Determination:</b>	Agree	Disagree	
<b>Requestor's Requested Status:</b>	<b>Volunteer</b>	<b>Participant</b>	
<b>DER/OGC Determination:</b>	Agree	Disagree	
Notes:			
<b>For NYC Sites, is the Requestor Seeking Tangible Property Credits:</b>	Yes	No	
<b>Does Requestor Claim Property is Upside Down:</b>	Yes	No	
<b>DER/OGC Determination:</b>	Agree	Disagree	Undetermined
Notes:			
<b>Does Requestor Claim Property is Underutilized:</b>	Yes	No	
<b>DER/OGC Determination:</b>	Agree	Disagree	Undetermined
Notes:			
<b>Does Requestor Claim Affordable Housing Status:</b>	Yes	No	Planned, No Contract
<b>DER/OGC Determination:</b>	Agree	Disagree	Undetermined
Notes:			

## **ATTACHMENT A**

### **SECTION I: REQUESTOR INFORMATION**

A copy of the entity information for MDBZJGGS, LLC (Requestor) from the NYS Department of State Division of Corporations is included with this attachment.

Pursuant to ECL 27-1405 (1), MDBZJGGS, LLC is designated as a Volunteer and has full access to the site. A letter from CSX Transportation Inc. indicating that they have granted site access to the Requestor throughout the Brownfield Cleanup Program (BCP) project is attached.

Since the requestor is a Limited Liability Company, the member/owner names are provided below:

Founding Principal: Michael Davis, Managing member

Principal: Joshua Goldman, Member

# NYS Department of State

## Division of Corporations

### Entity Information

The information contained in this database is current through January 18, 2019.

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Selected Entity Name: MDBZJGGS, LLC

Selected Entity Status Information

**Current Entity Name:** MDBZJGGS, LLC

**DOS ID #:** 5374456

**Initial DOS Filing Date:** JULY 12, 2018

**County:** NASSAU

**Jurisdiction:** NEW YORK

**Entity Type:** DOMESTIC LIMITED LIABILITY COMPANY

**Current Entity Status:** ACTIVE

Selected Entity Address Information

**DOS Process (Address to which DOS will mail process if accepted on behalf of the entity)**

THE LIMITED LIABILITY COMPANY

C/O THE PLYMOUTH GROUP

311 PLYMOUTH ST

WEST HEMPSTEAD, NEW YORK, 11552

**Registered Agent**

NONE

This office does not require or maintain information regarding the names and addresses of members or managers of nonprofessional limited liability companies. Professional limited liability companies must include the name(s) and address(es) of the original members, however this information is not recorded and only available by [viewing the certificate](#).

**\*Stock Information**

# of Shares	Type of Stock	\$ Value per Share
No Information Available		

\*Stock information is applicable to domestic business corporations.

### Name History

Filing Date	Name Type	Entity Name
JUL 12, 2018	Actual	MDBZJGGS, LLC

A **Fictitious** name must be used when the **Actual** name of a foreign entity is unavailable for use in New York State. The entity must use the fictitious name when conducting its activities or business in New York State.

NOTE: New York State does not issue organizational identification numbers.

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500 Water Street  
Jacksonville, FL 32202  
(904) 279-4503

David J. Schulte  
Director Real Estate

February 22, 2019

Kelly A. Lewandowski,  
Site Control Section  
New York State Department of Environmental Conservation  
650 Broadway 11<sup>th</sup> Floor  
Albany, NY 12233

Re: Proof of Access for BCP Site - Former University Heights Yard  
Development Site: Block 3244, Lot 1 and Block 3245, Lot 3

Dear Ms. Lewandowski:

I am writing with regard to MDBZJGGS, LLC's application to the Brownfield Cleanup Program ("BCP"). MDBZJGGS, LLC and its contractors will have the necessary access to the above referenced lots also known as the Former University Heights Yard project (the "Development Site"), for the duration of the BCP work to be performed.

The Development Site is currently owned by CSX Transportation, Inc. ("CSX"). CSX and MDBZJGGS, LLC are working toward a financial closing and the commencement of remediation and construction by October 2020. CSX will provide MDBZJGGS, LLC access to the Development Site to complete investigation and/or remedial activities required by the New York State Department of Environmental Conservation under the BCP. If during the period necessary to complete activities required under the BCP application, further access is required and/or environmental easement on the Development Site is required, CSX will facilitate (i) further necessary access to the Developer to the site pursuant to the terms of an access or license agreement to be negotiated and (ii) an environmental easement on the site subject to land use approvals, if any.

Please accept this letter to serve as **proof of site access**. If you have any further questions, please feel free to contact the CSX project contact, David Schulte at (904) 279-4503.

Sincerely,

A handwritten signature in blue ink, appearing to read "D. Schulte", with a stylized flourish at the end.

David J. Schulte  
Director

## **ATTACHMENT B**

### **SECTION II: PROJECT DESCRIPTION**

#### **Purpose and Scope of Project**

The purpose of the Project is to redevelop an underutilized and contaminated parcel of vacant land. The proposed redevelopment project is still in the early planning stages and is subject to change. The project will be developed for residential and associated recreational space. An access road to the recreational space and western adjoining parcels will be constructed on the southern portion of Block 3244 Lot 1.

The proposed development will include demolition of the concrete surface cover and inactive railroad tracks, removal of geotechnically unsuitable material, stockpiled soil, and debris, and removal of contaminated historic fill material and soil to accommodate construction of a park, access road, and buildings. Remediation will be performed concurrently with the proposed development and in accordance with an approved Remedial Action Work Plan (RAWP) and Construction Health and Safety Plan (CHASP).

The estimated project schedule is included as a separate sheet in this attachment. The remedial program is anticipated to begin with the remedial investigation on or around December 1, 2019. Implementation of the RAWP is expected to begin around December 2020, and the project is expected to obtain its Certificate of Completion by the end of 2021.



## **ATTACHMENT C**

### **SECTION III: PROPERTY'S ENVIRONMENTAL HISTORY**

#### Item 1- Reports

Environmental reports prepared for the site are summarized below and include the following:

- *Phase I Environmental Site Assessment (ESA) for University Heights Yard, Bronx, New York, prepared by TRC Engineers Inc. (TRC), dated June 29, 2017*
- *Phase I Environmental Site Assessment, dated January 24, 2019, prepared by Langan*
- *Phase II Environmental Site Investigation Report, dated January 18, 2019, prepared by Langan*
- *Supplemental Subsurface Investigation Technical Memorandum, dated January 15, 2019, prepared by Langan*

#### **Phase I Environmental Site Assessment for University Heights Yard, Bronx, New York, prepared by TRC Engineers Inc. (TRC), dated June 29, 2017**

TRC conducted a Phase I ESA on behalf of CSX Transportation, the site owner, in June 2017 in accordance with ASTM E1527-13. The site was vacant at the time of the site inspection. The Phase I ESA identified the following Recognized Environmental Conditions (RECs):

- The site was historically partially submerged in the Harlem River and subsequently backfilled between 1914 and 1977. Additionally, up to 18 inches of crushed concrete were placed on the site by the neighboring concrete plant facility. The origin of the backfill material was unknown.
- Concrete washout associated with the neighboring concrete facility was present on the site.
- The southern portion of the site was historically utilized by the neighboring concrete plant facility for concrete truck repair operations.
- A single-story structure with a basement located up-gradient of the site was used as a New York Central and Hudson Railroad transformer house with a battery room as late as 1907.
- Regulatory listings indicated that adjacent and surrounding properties were listed as generators of hazardous waste and petroleum spill incidents, and contain petroleum storage tanks, historical vehicle repair facilities, and historical dry cleaners.
- A historical manufactured gas plant was located on a surrounding property.

The Phase I ESA also identified the following environmental concern:

- A cement mixer cylinder, railway car, and abandoned vehicles (four trucks and one car) were observed along the access road. No evidence of a release was identified in connection with these vehicles.

Surface staining in the southwestern corner of the site was identified as a de minimis condition.

**Phase I Environmental Site Assessment, dated January 24, 2019, prepared by Langan**

Langan prepared a Phase I ESA for the site on behalf of The Plymouth Group III LLC in accordance with the ASTM E1527-13 standards and the United States Environmental Protection Agency's (EPA) All Appropriate Inquiries (AAI) Rule. The Phase I ESA identified the following RECs:

- Two stockpiles of soil from an unknown source were observed on the northern portion of the site. Potential contaminants within the stockpiled soil may adversely impact soil, soil vapor and groundwater.
- Along the Exterior Street portion of Lot 1, oil staining and a sheen were observed. Oil spilled from vehicles staged on and adjacent to Lot 1 may have infiltrated soil and groundwater through cracks in the pavement.
- Historical uses of the site that are associated with the potential release of petroleum compounds, polychlorinated biphenyls (PCBs), and other hazardous substances include the following:
  - Railroad operations on the eastern portion of the site between the late 1800s and the early 1970s.
  - Potential vehicle repair operations on the southern portion of Lot 3 associated with parked concrete mixing trucks and a vehicle repair facility at the adjoining concrete mixing plant (1984-2007).
  - Presence of material stockpiles and other material of unknown origin (1991-1995).
- Potential releases of petroleum and other hazardous substances from the following off-site properties may have adversely impacted groundwater and soil vapor:
  - Vehicle repair operations immediately bordering Lot 3 at the southern adjoining concrete mixing plant (1984-2007).
  - Metropolitan Transportation Authority (MTA) transformer house adjoining the site to the north (1907-2017).
  - Filling station and petroleum bulk storage facility located about 200 feet east and up-gradient of Lot 1 (1945-2007).

In addition to the RECs, the report identified a Business Environmental Risk (BER) in association with the backfilling of the central and southwestern shoreline areas with material from an

unknown source during the early and middle 20<sup>th</sup> century. Other BERs identified were associated with potential NYSDEC violations related to the material stockpiles and other material of unknown origin on the northern portion of the site, the presence of impermeable concrete cover on the southern portion of the site, and concrete blocks along the shoreline.

**Phase II Environmental Site Investigation Report, dated January 18, 2019, prepared by Langan**

The Phase II Environmental Site Investigation (ESI) was conducted to investigate the findings of the September 2018 Phase I ESA prepared by Langan. The Phase II ESI included a geophysical survey, advancement of ten hand-augured and nine drilled soil borings, installation of six temporary groundwater monitoring wells, and collection and laboratory analysis of 31 soil samples, six groundwater samples, and five soil vapor samples. The following observations were made during the Phase II ESI:

- The geophysical survey did not identify subsurface anomalies indicative of underground storage tanks (USTs) or vaults. Electrical, gas and water lines, along with apparent empty conduits were observed along Exterior Street on the southern portion of the site. The utility structures entered the western adjoining properties containing warehouse buildings (Lots 120 and 125), a scrap metal yard (Lot 130), and a concrete manufacturing facility (Lots 145 and 160).
- Historic fill material, generally consisting of brown, fine- to medium-grained sand with varying amounts of gravel, brick, concrete and silt, was identified from below the surface cover to depths between about 8.5 feet below ground surface (bgs) and 13 feet bgs. An approximately 1- to 3-foot-thick surficial layer of concrete outwash was observed in southern portions of Lot 3, north of the concrete plant (Lot 160). Native soil typically consisting of brown, fine sand with varying amounts of silt, organic material, and fine- to medium-grained sand and gravel was encountered beneath the historic fill. Bedrock was not encountered.
- Groundwater was encountered at depths between about 5.1 feet bgs in the central portion of the site and 14.6 feet bgs in the northern portion of the site. Inferred groundwater flow is to the northwest towards the adjoining Harlem River. Based on the proximity of the site to the Harlem River estuary, groundwater elevations within the site are likely subject to tidal fluctuations.
- Petroleum impacts, such as staining, petroleum or chemical-like odors, photoionization detector (PID) measurements above background, or other indications of a release were not observed in soil samples.

- The VOC acetone was detected in soil sample SP09\_1-2 at a concentration above the UU SCOs. Acetone was not detected above the UU SCOs in other soil samples or in groundwater samples above the TOGS SGVs.
- Semivolatile organic compounds (SVOCs), pesticides, cyanide and metals were detected at concentrations above the 6 NYCRR Part 375 UU and Restricted Use Residential (RRU) SCOs in 23 soil samples collected from depths between 0 and 11 feet bgs and from the two stockpiles. The SVOC and metal with maximum detected concentrations were benzo(a)anthracene (3.99 milligrams per kilogram [mg/kg]) and lead (674 mg/kg).
- SVOCs and metals (total and dissolved) were detected in groundwater throughout the site at concentrations above the NYSDEC Technical Operational Guidance Series (TOGS) 1.1.1 Standards and Guidance Values (SGVs) for Class GA Drinking Water. Per- and Polyfluoroalkyl substances (PFAS) were detected below the United States Environmental Protection Agency (USEPA) Health Advisory Limits in groundwater samples collected from two monitoring wells located on the central and northern portions of the site.
- Several VOCs were detected in each soil vapor sample. A soil vapor sample collected from the southern portion of the site contained a total VOC concentration of 24,983 micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ ) and concentrations of petroleum-related VOCs one order of magnitude above those detected in other samples. Two soil vapor samples collected from the southern portion of the site contained tetrachlorethylene (PCE) and trichloroethene (TCE) at concentrations above the New York State Department of Health (NYSDOH) Air Guideline Values (AGVs). The samples also contained cis-1,2-dichloroethene and TCE at concentrations above the minimum thresholds for which mitigation would be recommended during the development of future occupied structures, according to the May 2017 NYSDOH Decision Matrices for soil vapor intrusion.
- Methane was detected in two soil vapor samples at concentrations of 63 ppm and 9,000 ppm. The concentrations do not exceed the commonly used action level of 25% (12,500 parts per million [ppm]) of the lower explosivity limit (LEL) of methane.

**Supplemental Subsurface Investigation Technical Memorandum, dated January 15, 2019, prepared by Langan**

The Supplemental Subsurface Investigation (SSI) was conducted to further investigate impacts to soil, groundwater, and soil vapor in the southern portion of Lot 3, where an up to 3-foot-thick layer of concrete washout and aggregate precluded advancement of borings and sample

collection during a previous Phase II ESI. The investigation included advancement of two soil borings (SP-21 and SP-22), installation of two temporary groundwater monitoring wells (TMW-21 and TMW-22), installation of one soil vapor sample point (SV-21), and collection and laboratory analysis of five soil samples, two groundwater samples, and one soil vapor sample. The following observations were made during the investigation:

- Historic fill material was encountered from below the approximately 3-foot-thick layer of concrete washout and aggregate and predominantly consisted of brown, fine- to medium-grained sand with varying amounts of silt, gravel, concrete, brick, coal, slag, and wood. The fill was observed to depths varying between about 14 and 15 feet bgs. Native soil consisting of medium- to coarse-grained sand with varying amounts of gravel and silt was observed below the fill to the boring termination depth (about 19 feet bgs). Bedrock was not encountered.
- Staining, petroleum or chemical-like odors, PID measurements above background, or other indications of a release were not observed in the soil borings.
- VOCs were not detected above the UU SCOs in soil or above the TOGS SGVs in groundwater.
- SVOCs were detected at concentrations above the RRU SCOs in soil boring SP-22 from 9 to 11 feet bgs. The SVOC with maximum detected concentration was benzo(a)anthracene (12.9 mg/kg). SVOCs were not detected in groundwater samples.
- Metals, including chromium, mercury, lead, and zinc, were detected at concentrations above the UU SCOs in samples collected from soil borings SP-21 and SP-22 between 3 and 15 feet bgs. Total and dissolved metals, including cadmium, sodium, magnesium, selenium, manganese, and iron, were also detected above the TOGS SGVs in the groundwater samples.
- Several petroleum-related and chlorinated VOCs were detected in soil vapor sample SV-21. The total VOC concentration in SV-21 was 152  $\mu\text{g}/\text{m}^3$ . PCE was detected at a concentration of 4.1  $\mu\text{g}/\text{m}^3$ , which corresponds with soil vapor mitigation actions ranging from "no further action" to "identify source(s) and resample or mitigate" in NYSDOH Decision Matrix B.

### Item 2- Sampling Data

Known contaminants at the site were identified in the November 2018 Phase II ESI and the January 2019 SSI reports. The environmental and available laboratory analytical reports for the investigations are included in this attachment. Analytes detected above applicable regulatory

standards for each media tested during the November 2018 Phase II ESI and January 2019 SSI are summarized below:

**Soil:**

Soil sample results were compared to the 6 NYCRR Part 375 UU and RRU SCOs. No PCBs were detected above the UU or RRU SCOs. As depicted in Figure C-1, the following contaminants were detected at concentrations above the UU or RRU SCOs. RRU exceedances are shown in bold and maximum detections are shown in parentheses.

VOCs:

- acetone (0.054 mg/kg)

SVOCs:

- **benzo(a)anthracene** (12.9 mg/kg)
- **benzo(a)pyrene** (10.4 mg/kg)
- **benzo(b)fluoranthene** (9.75 mg/kg)
- **benzo(k)fluoranthene** (7.52 mg/kg)
- **chrysene** (12 mg/kg)
- **dibenzo(a,h)anthracene** (2.64 mg/kg)
- **indeno(1,2,3-c,d)pyrene** (8.13 mg/kg)

Pesticides:

- 4,4'-DDD (0.0233 mg/kg)
- 4,4'-DDE (0.00377 mg/kg)
- 4,4'-DDT (0.0174 mg/kg)

Metals:

- arsenic (13.9 mg/kg)
- hexavalent chromium (5.79 mg/kg)
- trivalent chromium (66.1 mg/kg)
- copper (243 mg/kg)
- **lead** (674 mg/kg)
- mercury (0.578 mg/kg)
- nickel (76.8 mg/kg)
- selenium (27.7 mg/kg)
- zinc (559 mg/kg)
- cyanide (39.4 mg/kg)

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### **Groundwater:**

Groundwater sample analytical results were compared to NYSDEC Title 6 of the Official Compilation of New York Codes, Rules and Regulations (NYCRR) Part 703.5 and the NYSDEC TOGS SGVs. PFAS sample results were compared to the United States Environmental Protection Agency (USEPA) Lifetime Health Advisory Limits. Contaminants that were detected at concentrations above the TOGS SGVs are depicted in Figure C-2 and summarized below. Maximum detected concentrations are shown in parentheses.

### **SVOCs:**

- benzo(a)anthracene (0.303 µg/L)
- benzo(a)pyrene (0.454 µg/L)
- benzo(b)fluoranthene (0.400 µg/L)
- benzo(k)fluoranthene (0.357 µg/L)
- bis(2-ethylhexyl)phthalate (8.940 µg/L)
- chrysene (0.292 µg/L)
- indeno(1,2,3-c,d)pyrene (0.389 µg/L)

### **Dissolved Metals:**

- antimony (15.3 µg/L)
- cadmium (12.8 µg/L)
- magnesium (357,000 µg/L)
- manganese (2,790 µg/L)
- selenium (114 µg/L)
- sodium (3,700,000 µg/L)

### **PFAS**

PFAS compounds were detected below the USEPA Health Advisory Limits in samples collected from temporary monitoring wells TMW15 and TMW20. The maximum PFAS detections are listed below:

- Perfluorobutanesulfonic acid (PFBS) (0.0025 µg/L)
- Perfluorohexanoic acid (PFHxA) (0.0038 µg/L)
- Perfluoroheptanoic acid (PFHpA) (0.0025 µg/L)
- Perfluoropentanoic acid (PFPeA) (0.0041 µg/L)
- Perfluorohexanesulfonic acid (PFHxS) (0.0027 µg/L)
- Perfluorooctanoic acid (PFOA) (0.026 µg/L)
- Perfluorooctanesulfonic acid (PFOS) (0.0098 µg/L)

## **Soil Vapor**

Soil vapor sample results, depicted in Figure C-3, were evaluated using the NYSDOH AGVs and Decision Matrices published in the 2006 NYSDOH Soil Vapor Intrusion Guidance, updated in 2017, as comparison criteria for soil vapor concentrations. The matrix evaluation requires both soil vapor and indoor air data. Indoor air samples were not collected in the November 2018 Phase II ESI or January 2019 SSI; however, the matrices provide a minimum soil vapor concentration above which monitoring and/or mitigation is recommended, regardless of indoor air concentrations. The analytical results are summarized below.

- PCE was detected at a concentration above the AGV ( $32 \mu\text{g}/\text{m}^3$ ) in a soil vapor sample collected from the southern portion of the site. The recommendations provided in NYSDOH Decision Matrix B for the detected PCE concentration range from “no further action” to “identify source and resample or mitigate”.
- TCE was detected at concentrations above the AGV ( $46 \mu\text{g}/\text{m}^3$  and  $6.3 \mu\text{g}/\text{m}^3$ ) in samples collected from the southern portion of the site. The corresponding recommendations in NYSDOH Decision Matrix A for the detected TCE concentrations range from “no further action” to “mitigate”.
- Methylene chloride was detected at concentrations below the AGV and minimum threshold for mitigation in the NYSDOH Decision Matrix.
- Cis-1,2-dichloroethene was detected in a sample collected from the southern portion of the site at a concentration of  $53 \mu\text{g}/\text{m}^3$ . The corresponding recommendations in NYSDOH Decision Matrix B range from “no further action” to “mitigate”.
- Several VOCs were detected in each soil vapor sample. Petroleum-related VOCs, including benzene, toluene, ethyl benzene, and xylenes, were detected in a sample collected from the southern portion of the site at concentrations up to two orders of magnitude above those detected elsewhere at the site. The total VOC concentration in that sample was  $24,983 \mu\text{g}/\text{m}^3$ .
- The remaining four VOCs that are evaluated by the NYSDOH Decision Matrices (1,1-dichloroethene, carbon tetrachloride, 1,1,1-trichloroethane, and vinyl chloride) were not detected in the soil vapor samples.
- Methane was detected in two soil vapor samples at concentrations of 63 ppm and 9000 ppm, respectively. Compared to the commonly used action level of 25% (12,500 parts per million [ppm]) of the lower explosivity limit (LEL), the concentrations do not exceed the action level.

### Item 3 –Site Drawings

The following figures summarize the detectable concentration of each contaminant by media type using the analytical results collected for the November 2018 Phase II ESI and the January 2019 SSI.

- Figure C-1 –Soil Sample Location and Analytical Results Map
- Figure C-2 –Groundwater Sample Location and Analytical Results Map
- Figure C-3 –Soil Vapor Sample Location and Analytical Results Map
- Table C-1 - Soil Sample Analytical Results
- Table C-2 - Groundwater Sample Analytical Results
- Table C-3 - Soil Vapor Sample Analytical Results

### Item 4- Past Land Use

A timber bulkhead was constructed along the Harlem River shoreline by 1900, and the western shoreline was incrementally backfilled with material from an unknown source between about 1914 and 1977. The southwestern and northwestern boundaries of Lot 3 extend outboard of the Harlem River shoreline (i.e., the high water line) by distances that vary between about 30 and 60 feet. Active railroad tracks and associated freight operations occurred on the eastern portion of the site between about 1897 and the early 1970s. The southern portion of Lot 3 was used for the storage, maintenance, and cleaning of concrete trucks operated by the southern adjoining concrete plant between about 1984 and 2007. The southern portion of Lot 3 was covered with up to three feet of annealed, concrete washout from the cleaning of concrete trucks during this period of time. Concrete materials, material of unknown origin, and other debris were apparent at the site between about 1991 and present day. The southern portion of Lot 1 was occupied by Exterior Street between about 1945 and present day. Remaining portions of the site have been covered with discontinuous vegetation, asphalt, and soil of unknown origin, gravel, concrete and construction debris between about 1900 and present day. The site has been under the ownership of CSX Transportation, Inc. since 1999.



Analyte	NYSDEC Part 375 Unrestricted Use SCOs	NYSDEC Part 375 Restricted-Residential SCOs
<b>VOCs (mg/kg)</b>		
Acetone	0.05	100
<b>SVOCs (mg/kg)</b>		
Benzol(a)anthracene	1	1
Benzol(a)pyrene	1	1
Benzol(b)fluoranthene	1	1
Benzol(k)fluoranthene	0.8	3.9
Chrysene	1	3.9
Dibenzol(a,h)anthracene	0.33	0.33
Indeno(1,2,3-cd)pyrene	0.5	0.5
<b>Pesticides (mg/kg)</b>		
4,4'-DDD	0.0033	13.0
4,4'-DDE	0.0033	8.9
4,4'-DDT	0.0033	7.9
<b>Inorganics (mg/kg)</b>		
Arsenic	13	16
Copper	50	270
Cyanide	27	27
Chromium, Hexavalent	1	110
Chromium, Trivalent	30	180
Lead	63	400
Mercury	0.18	0.81
Nickel	30	310
Selenium	3.9	180
Zinc	109	10000

Sample ID	SP12_0-2	SP12_6-7
Lab Sample ID	18H1425-09	18H1425-10
Sampling Date	8/30/2018	8/30/2018
Sample Depth (ft)	0 to 2	6 to 7
<b>VOCs (mg/kg)</b>		
Total VOCs	NE	NE
<b>SVOCs (mg/kg)</b>		
Indeno(1,2,3-cd)pyrene	NE	0.54 D
<b>Pesticides (mg/kg)</b>		
4,4'-DDD	0.0233 DP	ND
4,4'-DDE	0.00377 D	ND
4,4'-DDT	0.00506 DP	ND
<b>PCBs (mg/kg)</b>		
Total PCBs	ND	ND
<b>Inorganics (mg/kg)</b>		
Chromium, Trivalent	52.5	NE
Lead	71.2	201
Mercury	0.578	NE
Zinc	NE	155

Sample ID	SP11_1-2	SP11_5-6
Lab Sample ID	18I0021-01	18I0021-02
Sampling Date	8/31/2018	8/31/2018
Sample Depth (ft)	1 to 2	5 to 6
<b>VOCs (mg/kg)</b>		
Total VOCs	NE	NE
<b>SVOCs (mg/kg)</b>		
Total SVOCs	NE	NE
<b>Pesticides (mg/kg)</b>		
4,4'-DDT	0.00825 D	ND
<b>PCBs (mg/kg)</b>		
Total PCBs	NE	ND
<b>Inorganics (mg/kg)</b>		
Chromium, Trivalent	NE	34.2
Copper	68.6	NE
Lead	191	108 B
Mercury	NE	0.441
Nickel	31	NE
Zinc	559	NE

- GENERAL NOTES:**
- THE SOIL SAMPLE ANALYTICAL RESULTS ARE COMPARED TO THE NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION (NYSDEC) TITLE 6 OF THE OFFICIAL COMPILATION OF NEW YORK CODES, RULES, AND REGULATIONS (6 NYCRR) PART 375 UNRESTRICTED USE AND RESTRICTED USE RESTRICTED-RESIDENTIAL SOIL CLEANUP OBJECTIVES (SCOs).
  - EXISTING INFORMATION TAKEN FROM TOPOGRAPHIC AND BOUNDARY SURVEY PREPARED BY FEHRINGER SURVEYING, P.C., DATED 14 MARCH 2011.
  - ALL SAMPLE LOCATIONS ARE APPROXIMATE.
  - ALL ELEVATIONS ARE SHOWN IN THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
  - FT = FEET
  - NYSDEC PART 375 UNRESTRICTED USE SCOs EXCEEDANCES ARE IN BOLD.
  - NYSDEC PART 375 RESTRICTED-RESIDENTIAL SCOs EXCEEDANCES ARE HIGHLIGHTED.
  - MG/KG = MILLIGRAMS PER KILOGRAM.
  - VOCs = VOLATILE ORGANIC COMPOUNDS
  - SVOCs = SEMI-VOLATILE ORGANIC COMPOUNDS
  - PCBs = POLYCHLORINATED BIPHENYLS
  - ND = NOT DETECTED.
  - NE = DETECTED AT CONCENTRATION(S) NOT EXCEEDING SCOs.
  - P = THIS FLAG IS USED FOR PESTICIDE AND PCB (AROCLO) TARGET COMPOUNDS WHEN THERE IS A % DIFFERENCE FOR DETECTED CONCENTRATIONS THAT EXCEED METHOD DICTATED LIMITS BETWEEN THE TWO GC COLUMNS USED FOR ANALYSIS.

Sample ID	SP14_0-2	SP14_9-10
Lab Sample ID	18H1425-05	18H1425-06
Sampling Date	8/30/2018	8/30/2018
Sample Depth (ft)	0 to 2	9 to 10
<b>VOCs (mg/kg)</b>		
Total VOCs	NE	NE
<b>SVOCs (mg/kg)</b>		
Total SVOCs	NE	ND
<b>Pesticides (mg/kg)</b>		
Total Pesticides	ND	ND
<b>PCBs (mg/kg)</b>		
Total PCBs	ND	ND
<b>Inorganics (mg/kg)</b>		
Copper	64.6	NE
Cyanide	39.4	ND
Lead	102	NE
Mercury	0.502	ND
Zinc	159	NE

Sample ID	SP21_3-5	SP21_8-10	SP21_13-15
Lab Sample ID	18L0827-01	18L0827-02	18L0827-03
Sampling Date	12/18/2018	12/18/2018	12/18/2018
Sample Depth (ft)	3 to 5	8 to 10	13 to 15
<b>VOCs (mg/kg)</b>			
Total VOCs	NE	NE	NE
<b>SVOCs (mg/kg)</b>			
Total SVOCs	NE	ND	ND
<b>Pesticides (mg/kg)</b>			
Total Pesticides	ND	ND	ND
<b>PCBs (mg/kg)</b>			
Total PCBs	ND	ND	ND
<b>Inorganics (mg/kg)</b>			
Copper	75.3	NE	NE
Lead	157	NE	NE
Mercury	0.218	ND	0.261
Zinc	110	NE	NE

Sample ID	SP13_0-2	SP13_7-8
Lab Sample ID	18H1425-07	18H1425-08
Sampling Date	8/30/2018	8/30/2018
Sample Depth (ft)	0 to 2	7 to 8
<b>VOCs (mg/kg)</b>		
Total VOCs	ND	ND
<b>SVOCs (mg/kg)</b>		
Total SVOCs	NE	NE
<b>Pesticides (mg/kg)</b>		
Total Pesticides	NE	ND
<b>PCBs (mg/kg)</b>		
Total PCBs	ND	ND
<b>Inorganics (mg/kg)</b>		
Copper	52	NE
Lead	226	91
Mercury	0.436	NE
Nickel	NE	76.8 B
Selenium	5.91	ND
Zinc	175	122

Sample ID	SP22_3-5	SP22_9-11
Lab Sample ID	18L0827-04	18L0827-05
Sampling Date	12/18/2018	12/18/2018
Sample Depth (ft)	3 to 5	9 to 11
<b>VOCs (mg/kg)</b>		
Total VOCs	NE	ND
<b>SVOCs (mg/kg)</b>		
Benzol(a)anthracene	NE	12.9 D
Benzol(a)pyrene	NE	10.4 D
Benzol(b)fluoranthene	NE	9.75 D
Benzol(k)fluoranthene	NE	7.52 D
Chrysene	NE	12 D
Dibenzol(a,h)anthracene	ND	2.64 D
Indeno(1,2,3-cd)pyrene	NE	8.13 D
<b>Pesticides (mg/kg)</b>		
Total Pesticides	ND	ND
<b>PCBs (mg/kg)</b>		
Total PCBs	ND	ND
<b>Inorganics (mg/kg)</b>		
Chromium, Trivalent	NE	66.1
Mercury	NE	0.332
Selenium	27.7	ND

Sample ID	SP15_0-2	SP15_10-11
Lab Sample ID	18H1425-03	18H1425-04
Sampling Date	8/30/2018	8/30/2018
Sample Depth (ft)	0 to 2	10 to 11
<b>VOCs (mg/kg)</b>		
Total VOCs	NE	NE
<b>SVOCs (mg/kg)</b>		
Total SVOCs	ND	ND
<b>Pesticides (mg/kg)</b>		
4,4'-DDD	0.00343 DP	ND
<b>PCBs (mg/kg)</b>		
Total PCBs	ND	ND
<b>Inorganics (mg/kg)</b>		
Chromium, Trivalent	NE	47.5

Sample ID	SP04_0-1
Lab Sample ID	18G1148-04
Sampling Date	7/26/2018
Sample Depth (ft)	0 to 1
<b>VOCs (mg/kg)</b>	
Total VOCs	NE
<b>SVOCs (mg/kg)</b>	
Total SVOCs	NE
<b>Pesticides (mg/kg)</b>	
Total Pesticides	ND
<b>PCBs (mg/kg)</b>	
Total PCBs	ND
<b>Inorganics (mg/kg)</b>	
Copper	60.8
Selenium	3.92

Sample ID	SP01_0-1
Lab Sample ID	18G1148-01
Sampling Date	7/26/2018
Sample Depth (ft)	0 to 1
<b>VOCs (mg/kg)</b>	
Total VOCs	NE
<b>SVOCs (mg/kg)</b>	
Total SVOCs	NE
<b>Pesticides (mg/kg)</b>	
Total Pesticides	ND
<b>PCBs (mg/kg)</b>	
Total PCBs	ND
<b>Inorganics (mg/kg)</b>	
Chromium, Hexavalent	5.79
Copper	59.4

Sample ID	SP02_0-1
Lab Sample ID	18G1148-02
Sampling Date	7/26/2018
Sample Depth (ft)	0 to 1
<b>VOCs (mg/kg)</b>	
Total VOCs	NE
<b>SVOCs (mg/kg)</b>	
Benzol(b)fluoranthene	1.09 D
Benzol(k)fluoranthene	0.932 D
Indeno(1,2,3-cd)pyrene	0.548 D
<b>Pesticides (mg/kg)</b>	
Total Pesticides	ND
<b>PCBs (mg/kg)</b>	
Total PCBs	ND
<b>Inorganics (mg/kg)</b>	
Copper	69.8
Lead	64.7
Zinc	183

Sample ID	SP03_0-1
Lab Sample ID	18G1148-03
Sampling Date	7/26/2018
Sample Depth (ft)	0 to 1
<b>VOCs (mg/kg)</b>	
Total VOCs	NE
<b>SVOCs (mg/kg)</b>	
Total SVOCs	NE
<b>Pesticides (mg/kg)</b>	
Total Pesticides	ND
<b>PCBs (mg/kg)</b>	
Total PCBs	ND
<b>Inorganics (mg/kg)</b>	
Chromium, Hexavalent	4.39
Copper	67.8

Sample ID	SP18_0-2	SP18_8-9
Lab Sample ID	18H1343-05	18H1343-06
Sampling Date	8/29/2018	8/29/2018
Sample Depth (ft)	0 to 2	8 to 9
<b>VOCs (mg/kg)</b>		
Total VOCs	NE	NE
<b>SVOCs (mg/kg)</b>		
Indeno(1,2,3-cd)pyrene	NE	0.582 D
<b>Pesticides (mg/kg)</b>		
Total Pesticides	NE	ND
<b>PCBs (mg/kg)</b>		
Total PCBs	ND	ND
<b>Inorganics (mg/kg)</b>		
Chromium, Trivalent	34.4	NE
Lead	NE	415
Mercury	NE	0.446
Zinc	NE	138

Sample ID	SP16_0-2	SP16_10-11
Lab Sample ID	18H1425-01	18H1425-02
Sampling Date	8/30/2018	8/30/2018
Sample Depth (ft)	0 to 2	10 to 11
<b>VOCs (mg/kg)</b>		
Total VOCs	NE	ND
<b>SVOCs (mg/kg)</b>		
Total SVOCs	NE	ND
<b>Pesticides (mg/kg)</b>		
4,4'-DDE	0.00496 DP	ND
<b>PCBs (mg/kg)</b>		
Total PCBs	ND	ND
<b>Inorganics (mg/kg)</b>		
Total Metals	NE	NE

Sample ID	SP05_0-1
Lab Sample ID	18G1148-05
Sampling Date	7/26/2018
Sample Depth (ft)	0 to 1
<b>VOCs (mg/kg)</b>	
Total VOCs	NE
<b>SVOCs (mg/kg)</b>	
Total SVOCs	NE
<b>Pesticides (mg/kg)</b>	
Total Pesticides	ND
<b>PCBs (mg/kg)</b>	
Total PCBs	ND
<b>Inorganics (mg/kg)</b>	
Copper	62.8
Selenium	4.04

Sample ID	SP06_0-1
Lab Sample ID	18G1148-06
Sampling Date	7/26/2018
Sample Depth (ft)	0 to 1
<b>VOCs (mg/kg)</b>	
Total VOCs	NE
<b>SVOCs (mg/kg)</b>	
Benzol(a)anthracene	2.08 D
Benzol(a)pyrene	1.63 D
Benzol(b)fluoranthene	1.43 D
Benzol(k)fluoranthene	1.46 D
Chrysene	1.88 D
Dibenzol(a,h)anthracene	0.362 JD
Indeno(1,2,3-cd)pyrene	1.09 D
<b>Pesticides (mg/kg)</b>	
4,4'-DDT	0.00840 D
<b>PCBs (mg/kg)</b>	
Total PCBs	ND
<b>Inorganics (mg/kg)</b>	
Chromium, Trivalent	34.9
Lead	79.2
Zinc	133

Sample ID	SP07_1-2
Lab Sample ID	18G1148-07
Sampling Date	7/26/2018
Sample Depth (ft)	1 to 2
<b>VOCs (mg/kg)</b>	
Total VOCs	NE
<b>SVOCs (mg/kg)</b>	
Total SVOCs	NE
<b>Pesticides (mg/kg)</b>	
Total Pesticides	ND
<b>PCBs (mg/kg)</b>	
Total PCBs	NE
<b>Inorganics (mg/kg)</b>	
Lead	674

Sample ID	SP09_1-2
Lab Sample ID	18G1148-09
Sampling Date	7/26/2018
Sample Depth (ft)	1 to 2
<b>VOCs (mg/kg)</b>	
Total VOCs	0.054
<b>SVOCs (mg/kg)</b>	
Total SVOCs	NE
<b>Pesticides (mg/kg)</b>	
Total Pesticides	ND
<b>PCBs (mg/kg)</b>	
Total PCBs	ND
<b>Inorganics (mg/kg)</b>	
Lead	68.8

Sample ID	SP10_1-2
Lab Sample ID	18G1148-10
Sampling Date	7/26/2018
Sample Depth (ft)	1 to 2
<b>VOCs (mg/kg)</b>	
Total VOCs	NE
<b>SVOCs (mg/kg)</b>	
Total SVOCs	NE
<b>Pesticides (mg/kg)</b>	
4,4'-DDT	0.00419 D
<b>PCBs (mg/kg)</b>	
Total PCBs	NE
<b>Inorganics (mg/kg)</b>	
Lead	115
Mercury	0.207
Zinc	213

Sample ID	SP08_0-1
Lab Sample ID	18G1148-08
Sampling Date	7/26/2018
Sample Depth (ft)	0 to 1
<b>VOCs (mg/kg)</b>	
Total VOCs	NE
<b>SVOCs (mg/kg)</b>	
Total SVOCs	NE
<b>Pesticides (mg/kg)</b>	
4,4'-DDT	0.01000 D
<b>PCBs (mg/kg)</b>	
Total PCBs	ND
<b>Inorganics</b>	



Analyte	NYSDEC TOGS Standards and Guidance Values - GA
<b>SVOCs (µg/l)</b>	
Benzo(a)anthracene	0.002
Benzo(a)pyrene	0.002
Benzo(b)fluoranthene	0.002
Benzo(k)fluoranthene	0.002
Bis(2-ethylhexyl)phthalate	5
Chrysene	0.002
Indeno(1,2,3-cd)pyrene	0.002
<b>Inorganics (µg/l)</b>	
Antimony	3
Barium	1000
Cadmium	5
Chromium	50
Copper	200
Cyanide	200
Iron	300
Lead	25
Magnesium	35000
Manganese	300
Selenium	10
Sodium	20000
Zinc	2000

TMW21	
Sample ID	TMW21_121818
Lab Sample ID	18L0827-06
Sample Date	12/18/2018
<b>VOCs (µg/l)</b>	
Total VOCs	ND
<b>SVOCs (µg/l)</b>	
Total SVOCs	ND
<b>PCBs (µg/l)</b>	
Total PCBs	ND
<b>Inorganics (µg/l)</b>	
Magnesium	207,000
Magnesium (Dissolved)	218,000
Selenium	16
Sodium	3,250,000
Sodium (Dissolved)	2,030,000

TMW14	
Sample ID	TMW14_083118
Lab Sample ID	18L0021-05
Sample Date	8/31/2018
<b>VOCs (µg/l)</b>	
Total VOCs	NE
<b>SVOCs (µg/l)</b>	
Bis(2-ethylhexyl)phthalate	8.94
<b>PCBs (µg/l)</b>	
Total PCBs	ND
<b>Inorganics (µg/l)</b>	
Antimony	3.15
Cadmium	12
Chromium	50.7
Cyanide	3330
Iron	21400
Iron (Dissolved)	2020
Lead	460
Magnesium	70200
Magnesium (Dissolved)	49000
Manganese	10200
Selenium	57.7
Selenium (Dissolved)	33.4
Sodium	1240000
Sodium (Dissolved)	1240000
Zinc	3700

TMW15	
Sample ID	TMW15_083018
Lab Sample ID	18H1425-11
Sample Date	8/30/2018
<b>VOCs (µg/l)</b>	
Total VOCs	NE
<b>SVOCs (µg/l)</b>	
Total SVOCs	NE
<b>PCBs (µg/l)</b>	
Total PCBs	ND
<b>Inorganics (µg/l)</b>	
Iron	327
Magnesium	360000
Magnesium (Dissolved)	357000
Manganese	516
Manganese (Dissolved)	516
Selenium	105
Selenium (Dissolved)	114
Sodium	3590000
Sodium (Dissolved)	3700000

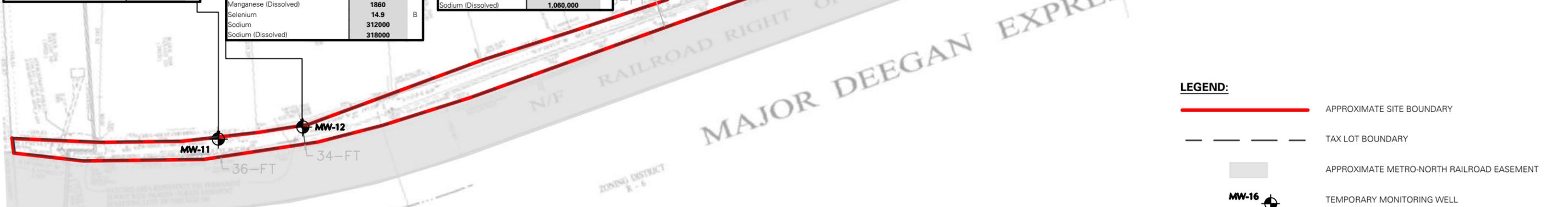
TMW18	
Sample ID	TMW18_090418
Lab Sample ID	18L0093-01
Sample Date	9/4/2018
<b>VOCs (µg/l)</b>	
Total VOCs	NE
<b>SVOCs (µg/l)</b>	
Total SVOCs	NE
<b>PCBs (µg/l)</b>	
Total PCBs	ND
<b>Inorganics (µg/l)</b>	
Antimony	15.3
Antimony (Dissolved)	14.8
Barium	1280
Cadmium	12.7
Chromium	69.7
Copper	363
Iron	62500
Lead	9520
Magnesium	36400
Magnesium (Dissolved)	647
Manganese	3360
Selenium	23.7
Sodium	409000
Sodium (Dissolved)	404000
Zinc	2150

TMW20	
Sample ID	TMW20_090418
Lab Sample ID	18L0093-02
Sample Date	9/4/2018
<b>VOCs (µg/l)</b>	
Total VOCs	NE
<b>SVOCs (µg/l)</b>	
Benzo(a)anthracene	0.0615
Benzo(a)pyrene	0.0513
Benzo(b)fluoranthene	0.0615
Benzo(k)fluoranthene	0.0513
Chrysene	0.0615
<b>PCBs (µg/l)</b>	
Total PCBs	ND
<b>Inorganics (µg/l)</b>	
Antimony	4.79
Copper	223
Iron	4810
Lead	651
Manganese	712
Manganese (Dissolved)	487
Sodium	165000
Sodium (Dissolved)	159000

TMW11	
Sample ID	TMW11_083118
Lab Sample ID	18L0021-04
Sample Date	8/31/2018
<b>VOCs (µg/l)</b>	
Total VOCs	NE
<b>SVOCs (µg/l)</b>	
Chrysene	0.051
<b>PCBs (µg/l)</b>	
Total PCBs	ND
<b>Inorganics (µg/l)</b>	
Iron	3820
Iron (Dissolved)	3410
Lead	175
Manganese	697
Manganese (Dissolved)	675
Sodium	234000
Sodium (Dissolved)	245000

TMW12	
Sample ID	TMW12_083118
Lab Sample ID	18L0021-03
Sample Date	8/31/2018
<b>VOCs (µg/l)</b>	
Total VOCs	NE
<b>SVOCs (µg/l)</b>	
Benzo(a)anthracene	0.303
Benzo(a)pyrene	0.454
Benzo(b)fluoranthene	0.400
Benzo(k)fluoranthene	0.357
Chrysene	0.292
Indeno(1,2,3-cd)pyrene	0.389
<b>PCBs (µg/l)</b>	
Total PCBs	ND
<b>Inorganics (µg/l)</b>	
Iron	14000
Iron (Dissolved)	2020
Lead	999
Manganese	2460
Manganese (Dissolved)	1860
Selenium	14.9
Sodium	312000
Sodium (Dissolved)	318000

TMW22	
Sample ID	TMW22_121818
Lab Sample ID	18L0827-07
Sample Date	12/18/2018
<b>VOCs (µg/l)</b>	
Total VOCs	NE
<b>SVOCs (µg/l)</b>	
Total SVOCs	NE
<b>PCBs (µg/l)</b>	
Total PCBs	ND
<b>Inorganics (µg/l)</b>	
Cadmium	12.8
Cadmium (Dissolved)	12.8
Iron	7,690
Magnesium	39,800
Magnesium (Dissolved)	38,000
Manganese	3,070
Manganese (Dissolved)	2,790
Selenium	12.2
Sodium	1,290,000
Sodium (Dissolved)	1,060,000



**GENERAL NOTES:**

- GROUNDWATER SAMPLE ANALYTICAL RESULTS ARE COMPARED TO THE 6 NEW YORK CODES, RULES AND REGULATIONS (NYCRR) PART 703.5 WHICH ARE INCLUDED IN THE NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION (NYSDEC) TECHNICAL AND OPERATIONAL GUIDANCE SERIES (TOGS) AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES (SGVs) FOR CLASS GA WATERS (AS SHOWN IN THE TABLE BELOW).
- EXISTING INFORMATION TAKEN FROM TOPOGRAPHIC AND BOUNDARY SURVEY PREPARED BY FEHRINGER SURVEYING, P.C., DATED 14 MARCH 2011.
- ALL SAMPLE LOCATIONS ARE APPROXIMATE.
- ALL ELEVATIONS ARE SHOWN IN THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
- FT = FEET
- NYSDEC TOGS STANDARDS AND GUIDANCE VALUES EXCEEDANCES ARE SHADED AND IN BOLD.
- µg/l = MICROGRAMS PER LITER.
- VOCs = VOLATILE ORGANIC COMPOUNDS
- SVOCs = SEMIVOLATILE ORGANIC COMPOUNDS
- ND = NOT DETECTED.
- NE = DETECTED AT CONCENTRATION(S) NOT EXCEEDING THE TOGS 1.1.1 SGVs.
- PCBs = POLYCHLORINATED BIPHENYLS
- D = THE SAMPLE WAS DILUTED; SEE LABORATORY ANALYTICAL REPORT FOR DILUTION FACTOR.
- B = ANALYTE FOUND IN THE ANALYSIS BATCH BLANK.
- E = THE RESULT IS ESTIMATED AND CANNOT BE ACCURATELY REPORTED DUE TO LEVELS ENCOUNTERED OR INTERFERENCES.



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Project  
**FORMER UNIVERSITY HEIGHTS YARD**  
 BLOCK No. 3244, LOT No. 1  
 BLOCK No. 3245, LOT No. 3  
 BRONX NEW YORK

Figure Title  
**GROUNDWATER SAMPLE LOCATION AND ANALYTICAL RESULTS MAP**

Project No.  
 170502901  
 Date  
 01/03/2019  
 Drawn By  
 SS  
 Checked By  
 JL

Figure No.  
**C-2**  
 Sheet 2 of 3



SV11	
Sample ID	SV11_083118
Lab Sample ID	1810007-03
Sampling Date	8/31/2018
<b>VOCs (µg/m³)</b>	
1,2,4-Trimethylbenzene	350.0 D
1,3,5-Trimethylbenzene	300.0 D
1,3-Butadiene	120.0 D
2-Butanone	440.0 D
4-Methyl-2-pentanone	340.0 DE
Acetone	1800.0 D
Benzene	1500.0 D
Carbon disulfide	1400.0 D
Chloromethane	15.0 D
cis-1,2-Dichloroethylene	53.0 D
Cyclohexane	760.0 D
Ethyl Benzene	1000.0 D
Isopropanol	17.0 D
Methyl tert-butyl ether (MTBE)	5600.0 D
n-Heptane	1600.0 D
n-Hexane	2000.0 D
o-Xylene	1100.0 D
p- & m- Xylenes	2000.0 D
p-Ethyltoluene	610.0 D
Propylene	2300.0 D
Tetrachloroethylene	<b>32.0</b> D
Toluene	1600.0 D
Trichloroethylene	<b>46.0</b> D
<b>Methane (µg/m³)</b>	
Methane	5.887 D

SV12	
Sample ID	SV12_083118
Lab Sample ID	1810007-02
Sampling Date	8/31/2018
<b>VOCs (µg/m³)</b>	
1,2,4-Trimethylbenzene	25.0 D
1,3,5-Trimethylbenzene	10.0 D
2-Butanone	60.0 D
2-Hexanone	23.0 D
4-Methyl-2-pentanone	9.9 D
Acetone	240.0 D
Benzene	47.0 D
Bromodichloromethane	66.0 D
Carbon disulfide	510.0 D
Chloroform	440.0 D
Cyclohexane	10.0 D
Dibromochloromethane	6.9 D
Ethyl Benzene	24.0 D
Isopropanol	5.2 D
Methyl tert-butyl ether (MTBE)	4.3 D
Methylene chloride	7.9 D
n-Heptane	15.0 D
n-Hexane	13.0 D
o-Xylene	23.0 D
p- & m- Xylenes	46.0 D
p-Ethyltoluene	23.0 D
Propylene	26.0 D
Styrene	9.9 D
Tetrachloroethylene	11.0 D
Toluene	33.0 D
Trichloroethylene	<b>6.3</b> D
Trichlorofluoromethane (Freon 11)	37.0 D
<b>Methane (µg/m³)</b>	
Methane	0.041 D

SV15	
Sample ID	SV15_083118
Lab Sample ID	1810007-01
Sampling Date	8/31/2018
<b>VOCs (µg/m³)</b>	
1,2,4-Trimethylbenzene	25.0 D
1,3,5-Trimethylbenzene	9.9 D
2-Butanone	36.0 D
2-Hexanone	18.0 D
Acetone	130.0 D
Benzene	2.6 D
Carbon disulfide	22.0 D
Chloroform	8.1 D
Ethyl Benzene	12.0 D
Isopropanol	4.3 D
Methylene chloride	5.0 D
n-Heptane	4.2 D
n-Hexane	3.8 D
o-Xylene	22.0 D
p- & m- Xylenes	45.0 D
p-Ethyltoluene	24.0 D
Propylene	24.0 D
Tetrachloroethylene	17.0 D
Toluene	19.0 D
<b>Methane (µg/m³)</b>	
Methane	ND

SV18	
Sample ID	SV18_090418
Lab Sample ID	1810094-01
Sampling Date	9/4/2018
<b>VOCs (µg/m³)</b>	
1,2,4-Trimethylbenzene	13.8 D
1,3,5-Trimethylbenzene	6.4 D
2-Butanone	85.5 D
2-Hexanone	49.1 D
Acetone	92.6 D
Carbon disulfide	5.6 D
Chloroform	8.3 D
Ethyl Benzene	4.3 D
o-Xylene	11.3 D
p- & m- Xylenes	17.4 D
p-Ethyltoluene	10.8 D
Propylene	6.5 D
Toluene	4.1 D
<b>Methane (µg/m³)</b>	
Methane	ND

SV20	
Sample ID	SV20_090418
Lab Sample ID	1810094-02
Sampling Date	9/4/2018
<b>VOCs (µg/m³)</b>	
1,2,4-Trimethylbenzene	29.0 D
1,3,5-Trimethylbenzene	11.8 D
2-Butanone	147.4 D
2-Hexanone	86.0 D
Acetone	332.4 D
Carbon disulfide	5.3 D
Ethyl Benzene	6.5 D
n-Heptane	5.3 D
o-Xylene	17.4 D
p- & m- Xylenes	27.3 D
p-Ethyltoluene	20.6 D
Propylene	11.2 D
Tetrachloroethylene	21.0 D
Toluene	5.7 D
Trichlorofluoromethane (Freon 11)	54.5 D
<b>Methane (µg/m³)</b>	
Methane	ND

Analyte	NYSDOH AGV
<b>VOCs (µg/m³)</b>	
1,2,4-Trimethylbenzene	-
1,3,5-Trimethylbenzene	-
1,3-Butadiene	-
2-Butanone	-
2-Hexanone	-
4-Methyl-2-pentanone	-
Acetone	-
Benzene	-
Bromodichloromethane	-
Carbon disulfide	-
Chloroform	-
Chloromethane	-
cis-1,2-Dichloroethylene	-
Cyclohexane	-
Dibromochloromethane	-
Ethyl Benzene	-
Isopropanol	-
Methyl tert-butyl ether (MTBE)	-
Methylene chloride	60
n-Heptane	-
n-Hexane	-
o-Xylene	-
p- & m- Xylenes	-
p-Ethyltoluene	-
Propylene	-
Styrene	-
Tetrachloroethylene	30
Toluene	-
Trichloroethylene	2
Trichlorofluoromethane (Freon 11)	-

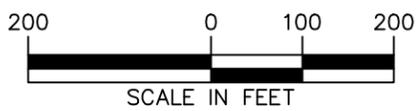
SV21	
Sample ID	SV21_121818
Lab Sample ID	18L0829-01
Sampling Date	12/18/2018
<b>VOCs (µg/m³)</b>	
1,2,4-Trimethylbenzene	11 D
1,3,5-Trimethylbenzene	2.1 D
2-Butanone	41 D
2-Hexanone	7 D
Acetone	9 D
Benzene	0.79 D
Carbon disulfide	2.4 D
Dichlorodifluoromethane	1.5 D
Ethyl Benzene	5.1 D
n-Heptane	1.8 D
n-Hexane	1.2 D
o-Xylene	6.2 D
p- & m- Xylenes	27 D
p-Ethyltoluene	14 D
Propylene	6 D
Styrene	0.64 D
Tetrachloroethylene	4.1 D
Toluene	10 D
Trichlorofluoromethane (Freon 11)	1 D
<b>Methane (µg/m³)</b>	
Methane	ND

**LEGEND:**

- APPROXIMATE SITE BOUNDARY
- - - TAX LOT BOUNDARY
- APPROXIMATE METRO-NORTH RAILROAD EASEMENT
- SV-21** SOIL VAPOR PROBE

**GENERAL NOTES:**

1. SOIL VAPOR SAMPLE ANALYTICAL RESULTS ARE COMPARED TO THE NEW YORK STATE DEPARTMENT OF HEALTH (NYSDOH) AIR GUIDELINE VALUES (AGVs).
2. EXISTING INFORMATION TAKEN FROM TOPOGRAPHIC AND BOUNDARY SURVEY PREPARED BY FEHRINGER SURVEYING, P.C., DATED 14 MARCH 2011.
3. ALL SAMPLE LOCATIONS ARE APPROXIMATE.
4. ALL ELEVATIONS ARE SHOWN IN THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
5. ONLY DETECTED COMPOUNDS ARE SHOWN.
6. ANALYTES WITH CONCENTRATIONS EXCEEDING NYSDOH AGVs ARE SHADED AND IN BOLD.
7. VOCs = VOLATILE ORGANIC COMPOUNDS
8. µg/m³ = MICROGRAMS PER CUBIC METER
9. FT = FEET
10. ND = NOT DETECTED.
11. D = RESULT IS FROM AN ANALYSIS THAT REQUIRED A DILUTION.



 Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C. 21 Penn Plaza, 360 West 31st Street, 8th Floor New York, NY 10001 T: 212.479.5400 F: 212.479.5444 www.langan.com	<b>Project</b> <b>FORMER UNIVERSITY HEIGHTS YARD</b> BLOCK No. 3244, LOT No. 1 BLOCK No. 3245, LOT No. 3 BRONX NEW YORK	<b>Figure Title</b> <b>SOIL VAPOR SAMPLE LOCATION AND ANALYTICAL RESULTS MAP</b>	<b>Project No.</b> 170502901 <b>Date</b> 01/03/2019 <b>Drawn By</b> SS <b>Checked By</b> JL	<b>Figure No.</b> <span style="font-size: 2em; font-weight: bold;">C-3</span> Sheet 3 of 3
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**Table C-1**  
**Soil Summary Report**  
**Soil Sample Analytical Results**

Former University Heights Yard  
Bronx, New York  
Langan Project No.: 170502901

**Notes:**

1. Soil sample analytical results are compared to the New York State Department of Environmental Conservation (NYSDEC) Title 6 of the Official Compilation of New York Codes, Rules, and Regulations (NYCRR) Part 375 Unrestricted Use and Restricted Use Restricted-Residential Soil Cleanup Objectives (SCO).
2. Only detected analytes are shown in the table.
3. Analytes detected with concentrations above Unrestricted Use SCOs are bolded.
4. Analytes detected with concentrations above Restricted Use Restricted-Residential SCOs are bolded and shaded.
5. Analytical results with reporting limits (RL) above Unrestricted Use SCOs are italicized.
6. ~ = Regulatory limit for this analyte does not exist
7. bgs = below grade surface
8. mg/kg = milligrams per kilogram
9. % = percent
10. NA = Not analyzed

**Qualifiers:**

- D = The concentration reported is a result of a diluted sample.  
E = The result is estimated and cannot be accurately reported due to levels encountered or interferences.  
J = The analyte was detected above the Method Detection Limit (MDL), but below the Reporting Limit (RL); therefore, the result is an estimated concentration.  
P = The relative percent difference (RPD) between the results for the two columns exceeds the method-specified criteria.  
U = The analyte was analyzed for, but was not detected at a level greater than or equal to the RL; the value shown in the table is the RL.  
B = The analyte was found in the associated analysis batch blank.

**Table C-1  
Soil Summary Report  
Soil Sample Analytical Results**

Former University Heights Yard  
Bronx, New York  
Langan Project No.: 170502901

Location Sample ID Laboratory ID Sample Date Sample Depth (feet bgs)	NYSDEC Part 375 Unrestricted Use SCOs	NYSDEC Part 375 Restricted Use Restricted- Residential SCOs	SP01 SP01_0-1 18G1148-01 7/26/2018 0-1	SP02 SP02_0-1 18G1148-02 7/26/2018 0-1	SP03 SP03_0-1 18G1148-03 7/26/2018 0-1	SP04 SP04_0-1 18G1148-04 7/26/2018 0-1	SP05 SP05_0-1 18G1148-05 7/26/2018 0-1	SP06 SP06_0-1 18G1148-06 7/26/2018 0-1
<b>Volatile Organic Compounds (mg/kg)</b>								
1,2,4-Trimethylbenzene	3.6	52	0.0023 U	0.0026 U	0.004 U	0.0024 U	0.0026 U	0.0022 U
1,3,5-Trimethylbenzene (Mesitylene)	8.4	52	0.0023 U	0.0026 U	0.004 U	0.0024 U	0.0026 U	0.0022 U
Acetone	0.05	100	0.03	0.0093 J	0.029	0.043	0.017	0.0087 J
Carbon Disulfide	~	~	0.0023 U	0.0026 U	0.004 U	0.0024 U	0.0026 U	0.0022 U
Isopropylbenzene (Cumene)	~	~	0.0023 U	0.0026 U	0.004 U	0.0024 U	0.0026 U	0.0022 U
Methyl Ethyl Ketone (2-Butanone)	0.12	100	0.0031 J	0.0026 U	0.004 U	0.003 J	0.0026 U	0.0022 U
Methylene Chloride	0.05	100	0.0054 J	0.0052 U	0.008 U	0.0068 J	0.0072 J	0.0052 J
n-Butylbenzene	12	100	0.0023 U	0.0026 U	0.004 U	0.0024 U	0.0026 U	0.0022 U
p-Cymene (p-Isopropyltoluene)	~	~	0.0023 U	0.0026 U	0.004 U	0.0024 U	0.0026 U	0.0022 U
Sec-Butylbenzene	11	100	0.0023 U	0.0026 U	0.004 U	0.0024 U	0.0026 U	0.0022 U
Tert-Butyl Alcohol	~	~	0.0023 U	0.0026 U	0.004 U	0.0024 U	0.0026 U	0.0068 U
Tert-Butyl Methyl Ether	0.93	100	0.0023 U	0.0026 U	0.004 U	0.0024 U	0.0026 U	0.0022 U
<b>Semivolatile Organic Compounds (mg/kg)</b>								
2,4-Dinitrotoluene	~	~	0.0528 U	1.08 D	0.0476 U	0.227 U	0.231 U	0.223 U
2-Methylnaphthalene	~	~	0.0528 U	0.0497 U	0.0476 U	0.227 U	0.231 U	0.223 U
Acenaphthene	20	100	0.0528 U	0.0497 U	0.0476 U	0.227 U	0.231 U	0.223 U
Acenaphthylene	100	100	0.0528 U	0.432 D	0.0476 U	0.227 U	0.231 U	0.405 JD
Anthracene	100	100	0.0528 U	0.219 D	0.0476 U	0.227 U	0.231 U	0.938 D
Benzo(a)Anthracene	1	1	0.0528 U	0.731 D	0.0476 U	0.442 JD	0.231 U	2.08 D
Benzo(a)Pyrene	1	1	0.0528 U	0.784 D	0.0476 U	0.398 JD	0.231 U	1.63 D
Benzo(b)Fluoranthene	1	1	0.0528 U	1.09 D	0.0476 U	0.387 JD	0.231 U	1.43 D
Benzo(g,h,i)Perylene	100	100	0.0528 U	0.587 D	0.0476 U	0.264 JD	0.231 U	1.19 D
Benzo(k)Fluoranthene	0.8	3.9	0.0528 U	0.932 D	0.0476 U	0.337 JD	0.231 U	1.46 D
Benzyl Butyl Phthalate	~	~	0.0528 U	0.0497 U	0.0476 U	0.227 U	0.231 U	0.223 U
Bis(2-Ethylhexyl) Phthalate	~	~	0.0581 JBD	31 BDE	0.0478 JBD	0.227 U	0.231 U	0.223 U
Carbazole	~	~	0.0528 U	0.0761 JD	0.0476 U	0.227 U	0.231 U	0.281 JD
Chrysene	1	3.9	0.0528 U	0.891 D	0.0476 U	0.5 D	0.231 U	1.88 D
Dibenz(a,h)Anthracene	0.33	0.33	0.0528 U	0.201 D	0.0476 U	0.227 U	0.231 U	0.362 JD
Dibenzofuran	7	59	0.0528 U	0.0497 U	0.0476 U	0.227 U	0.231 U	0.341 JD
Di-N-Octylphthalate	~	~	0.0528 U	0.0856 JD	0.0476 U	0.227 U	0.231 U	0.223 U
Fluoranthene	100	100	0.132 D	1.27 D	0.115 D	0.866 D	0.231 U	4.27 D
Fluorene	30	100	0.0528 U	0.0497 U	0.0476 U	0.227 U	0.231 U	0.604 D
Indeno(1,2,3-c,d)Pyrene	0.5	0.5	0.0528 U	0.548 D	0.0476 U	0.261 JD	0.231 U	1.09 D
Naphthalene	12	100	0.0528 U	0.0497 U	0.0476 U	0.227 U	0.231 U	0.259 JD
Phenanthrene	100	100	0.096 JD	0.153 D	0.0729 JD	0.435 JD	0.231 U	3.2 D
Pyrene	100	100	0.101 JD	1.07 D	0.0851 JD	0.775 D	0.279 JD	3.8 D
<b>Pesticides (mg/kg)</b>								
4,4'-DDD	0.0033	13	0.00209 U	0.00197 U	0.00189 U	0.00179 U	0.00183 U	0.00176 U
4,4'-DDE	0.0033	8.9	0.00209 U	0.00197 U	0.00189 U	0.00179 U	0.00183 U	0.00176 U
4,4'-DDT	0.0033	7.9	0.00209 U	0.00197 U	0.00189 U	0.00179 U	0.00183 U	0.0084 D
Aldrin	0.005	0.097	0.00209 U	0.00197 U	0.00189 U	0.00179 U	0.00183 U	0.00176 U
Alpha Chlordane	0.094	4.2	0.00209 U	0.00197 U	0.00189 U	0.00179 U	0.00183 U	0.0117 DP
Beta Endosulfan	2.4	24	0.00209 U	0.00197 U	0.00189 U	0.00179 U	0.00183 U	0.00176 U
Chlordane	~	~	0.0419 U	0.0394 U	0.0377 U	0.0359 U	0.0366 U	0.0352 U
Dieldrin	0.005	0.2	0.00209 U	0.00197 U	0.00189 U	0.00179 U	0.00183 U	0.00176 U
Endrin	0.014	11	0.00209 U	0.00197 U	0.00189 U	0.00179 U	0.00183 U	0.00176 U
Endrin Aldehyde	~	~	0.00209 U	0.00197 U	0.00189 U	0.00179 U	0.00183 U	0.00176 U
Gamma-Chlordane	~	~	0.00209 U	0.00197 U	0.00189 U	0.00179 U	0.00183 U	0.00961 DP
Heptachlor	0.042	2.1	0.00209 U	0.00197 U	0.00189 U	0.00179 U	0.00183 U	0.00176 U
<b>Polychlorinated Biphenyls (mg/kg)</b>								
PCB-1248 (Aroclor 1248)	~	~	0.0212 U	0.0199 U	0.019 U	0.0181 U	0.0185 U	0.0177 U
PCB-1254 (Aroclor 1254)	~	~	0.0212 U	0.0199 U	0.019 U	0.0181 U	0.0185 U	0.0177 U
PCB-1260 (Aroclor 1260)	~	~	0.0212 U	0.0199 U	0.019 U	0.0181 U	0.0185 U	0.0177 U
Total PCBs	0.1	1	0.0212 U	0.0199 U	0.019 U	0.0181 U	0.0185 U	0.0177 U
<b>Inorganics (mg/kg)</b>								
Aluminum	~	~	8190	7450	9000	6070	6220	8230
Antimony	~	~	2.29	1.11	2.84	1.24	0.954	1.47
Arsenic	13	16	7.32	8.21	7.46	4.44	2.2	4.33
Barium	350	400	60.6	73.5	70	59.9	46	86.4
Beryllium	7.2	72	0.127 U	0.151 U	0.114 U	0.109 U	0.111 U	0.107 U
Cadmium	2.5	4.3	0.381 U	0.744	0.346	0.326 U	0.332 U	0.372 U
Calcium	~	~	79900	52200	82700	55700	86300	35800
Chromium, Hexavalent	1	110	5.79	0.597 U	4.39	0.544 U	0.554 U	0.534 U
Chromium, Total	~	~	26.8	24.5	29.6	15.1	11.1	19.1
Chromium, Trivalent	30	180	21	24.5	25.2	15.1	11.1	19.1
Cobalt	~	~	5.04	6.53	6.37	10.6	6.92	7.8
Copper	50	270	59.4	69.8	67.8	60.8	62.8	29.7
Cyanide	27	27	0.635 U	1.25	0.572 U	0.707	1.66	0.534 U
Iron	~	~	8950	20600	10800	12700	14600	13600
Lead	63	400	20.4	64.7	19	34.7	14.3	52.5
Magnesium	~	~	4630	9300	5160	17500	26400	11500
Manganese	1600	2000	146	254	167	181	199	224
Mercury	0.18	0.81	0.0381 U	0.118	0.0343 U	0.0443	0.0332 U	0.0888
Nickel	30	310	22.5	21.7	24.3	20.8	13	16.7
Potassium	~	~	420	1020	379	1360	1680	1700
Selenium	3.9	180	1.27 U	1.19 U	1.14 U	3.92	4.04	1.07 U
Sodium	~	~	198	262	192	234	490	218
Vanadium	~	~	44.8	35	42.7	32.6	32.8	27.8
Zinc	109	10000	77.7	183	81.1	69.8	43.4	87
<b>General Chemistry (mg/kg)</b>								
Solids, Percent	~	~	78.8	83.8	87.5	92	90.2	93.6

**Table C-1  
Soil Summary Report  
Soil Sample Analytical Results**

Former University Heights Yard  
Bronx, New York  
Langan Project No.: 170502901

Location Sample ID Laboratory ID Sample Date Sample Depth (feet bgs)	NYSDEC Part 375 Unrestricted Use SCOs	NYSDEC Part 375 Restricted Use Restricted- Residential SCOs	SP07 SP07_1-2 18G1148-07 7/26/2018 1-2	SP08 SP08_0-1 18G1148-08 7/26/2018 0-1	SP09 SP09_1-2 18G1148-09 7/26/2018 1-2	SP10 SP10_1-2 18G1148-10 7/26/2018 1-2	SP11 SP11_1-2 18I0021-01 8/31/2018 1-2	SP11 SP11_5-6 18I0021-02 8/31/2018 5-6
<b>Volatile Organic Compounds (mg/kg)</b>								
1,2,4-Trimethylbenzene	3.6	52	0.0021 U	0.0026 U	0.014	0.0018 U	0.0015 U	0.0025 U
1,3,5-Trimethylbenzene (Mesitylene)	8.4	52	0.0021 U	0.0026 U	0.0067	0.0018 U	0.0016 J	0.0025 U
Acetone	0.05	100	0.027	0.018	<b>0.054</b>	0.03	0.0092	0.037
Carbon Disulfide	~	~	0.0021 U	0.0026 U	0.0032 J	0.0019 J	0.0015 U	0.0025 U
Isopropylbenzene (Cumene)	~	~	0.0021 U	0.0026 U	0.0024 U	0.015	0.0015 U	0.0025 U
Methyl Ethyl Ketone (2-Butanone)	0.12	100	0.0021 U	0.0026 U	0.0046 J	0.0034 J	0.0025 J	0.0086 U
Methylene Chloride	0.05	100	0.0054 J	0.0058 J	0.0059 J	0.0036 U	0.0031 U	0.0051 U
n-Butylbenzene	12	100	0.0021 U	0.0026 U	0.0056	0.0018 U	0.0015 U	0.0025 U
p-Cymene (p-Isopropyltoluene)	~	~	0.0021 U	0.0026 U	0.005	0.047	0.0015 U	0.0025 U
Sec-Butylbenzene	11	100	0.0021 U	0.0026 U	0.0028 J	0.0018 U	0.0015 U	0.0025 U
Tert-Butyl Alcohol	~	~	0.0021 U	0.0026 U	0.0024 U	0.0018 U	0.0015 U	0.034
Tert-Butyl Methyl Ether	0.93	100	0.0021 U	0.0026 U	0.0024 U	0.0018 U	0.0015 U	0.012
<b>Semivolatile Organic Compounds (mg/kg)</b>								
2,4-Dinitrotoluene	~	~	0.0472 U	0.0545 U	0.0465 U	0.0489 U	0.0455 U	0.0503 U
2-Methylnaphthalene	~	~	0.0472 U	0.0545 U	0.0571 JD	0.0489 U	0.131 D	0.0503 U
Acenaphthene	20	100	0.0472 U	0.0545 U	0.0608 JD	0.0489 U	0.0455 U	0.0503 U
Acenaphthylene	100	100	0.0542 JD	0.0774 JD	0.08	0.0866 JD	0.241 D	0.0503 U
Anthracene	100	100	0.0692 JD	0.112 D	0.131 D	0.172 D	0.143 D	0.0503 U
Benzo(a)Anthracene	1	1	0.254 D	0.417 D	0.325 D	0.514 D	0.448 D	0.0883 JD
Benzo(a)Pyrene	1	1	0.29 D	0.434 D	0.265 D	0.357 D	0.603 D	0.101 D
Benzo(b)Fluoranthene	1	1	0.259 D	0.376 D	0.23 D	0.3	0.574 D	0.0883 JD
Benzo(g,h,i)Perylene	100	100	0.225 D	0.298 D	0.192 D	0.3	0.364 D	0.0674 JD
Benzo(k)Fluoranthene	0.8	3.9	0.236 D	0.365 D	0.229 D	0.354 D	0.472 D	0.0835 JD
Benzyl Butyl Phthalate	~	~	0.0472 U	0.0939 JD	0.0465 U	0.0585 JD	1.08 D	0.0503 U
Bis(2-Ethylhexyl) Phthalate	~	~	0.123 BD	0.0748 JBD	0.11 BD	0.0489 U	8.02 BD	0.0503 U
Carbazole	~	~	0.0472 U	0.0545 U	0.0465 U	0.0489 U	0.0455 U	0.0503 U
Chrysene	1	3.9	0.294 D	0.415 D	0.33 D	0.479 D	0.516 D	0.0923 JD
Dibenz(a,h)Anthracene	0.33	0.33	0.0722 JD	0.11 D	0.0645 JD	0.141 D	0.118 D	0.0503 U
Dibenzofuran	7	59	0.0472 U	0.0545 U	0.0465 U	0.0489 U	0.0455 U	0.0503 U
Di-N-Octylphthalate	~	~	0.0472 U	0.0545 U	0.0465 U	0.0489 U	0.0455 U	0.0503 U
Fluoranthene	100	100	0.46 D	0.775 D	0.664 D	0.951 D	0.934 D	0.203 D
Fluorene	30	100	0.0472 U	0.0545 U	0.0941 D	0.0489 U	0.0588 JD	0.0503 U
Indeno(1,2,3-c,d)Pyrene	0.5	0.5	0.186 D	0.256 D	0.166 D	0.255 D	0.349 D	0.0594 JD
Naphthalene	12	100	0.0472 U	0.0545 U	0.0465 U	0.0489 U	0.0937 D	0.0503 U
Phenanthrene	100	100	0.163 D	0.327 D	0.419 D	0.567 D	0.25 D	0.127 D
Pyrene	100	100	0.464 D	0.717 D	0.664 D	0.942 D	0.939 D	0.159 D
<b>Pesticides (mg/kg)</b>								
4,4'-DDD	0.0033	13	0.00187 U	0.00216 U	0.00184 U	0.00194 U	0.00179 U	0.00199 U
4,4'-DDE	0.0033	8.9	0.00187 U	0.00216 U	0.00184 U	0.00194 U	0.00179 U	0.00199 U
4,4'-DDT	0.0033	7.9	0.00187 U	<b>0.01</b> D	0.00184 U	<b>0.00419</b> D	<b>0.00825</b> D	0.00199 U
Aldrin	0.005	0.097	0.00187 U	0.00216 U	0.00184 U	0.00194 U	0.00179 U	0.00199 U
Alpha Chlordane	0.094	4.2	0.00187 U	0.00577 D	0.00184 U	0.014 D	0.00179 U	0.00199 U
Beta Endosulfan	2.4	24	0.00187 U	0.00216 U	0.00184 U	0.00194 U	0.00639 D	0.00199 U
Chlordane	~	~	0.0374 U	0.0432 U	0.0367 U	0.0387 U	0.0358 U	0.0399 U
Dieldrin	0.005	0.2	0.00187 U	0.00216 U	0.00184 U	0.00194 U	0.00179 U	0.00199 U
Endrin	0.014	11	0.00187 U	0.00216 U	0.00184 U	0.00194 U	0.0117 D	0.00199 U
Endrin Aldehyde	~	~	0.00187 U	0.00216 U	0.00184 U	0.00194 U	0.00179 U	0.00199 U
Gamma-Chlordane	~	~	0.00187 U	0.00938 DP	0.00184 U	0.0102 DP	0.00179 U	0.00199 U
Heptachlor	0.042	2.1	0.00187 U	0.00216 U	0.00184 U	0.00194 U	0.00179 U	0.00199 U
<b>Polychlorinated Biphenyls (mg/kg)</b>								
PCB-1248 (Aroclor 1248)	~	~	0.0189 U	0.0218 U	0.0185 U	0.0195 U	0.03 P	0.0201 U
PCB-1254 (Aroclor 1254)	~	~	0.0189 U	0.0218 U	0.0185 U	0.0195 U	0.0181 U	0.0201 U
PCB-1260 (Aroclor 1260)	~	~	0.0189 U	0.0218 U	0.0185 U	0.0246	0.0508	0.0201 U
Total PCBs	0.1	1	0.0331	0.0218 U	0.0185 U	0.0246	0.0808	0.0201 U
<b>Inorganics (mg/kg)</b>								
Aluminum	~	~	8610	11500	9380	8480	8990	17100
Antimony	~	~	1.44	3.22	1.34	1.37	2.24	2.29
Arsenic	13	16	3.61	3.77	3.94	5.22	6.11	4.91
Barium	350	400	84.8	177	90.2	119	141	133
Beryllium	7.2	72	0.113 U	0.131 U	0.112 U	0.118 U	0.109 U	0.121 U
Cadmium	2.5	4.3	0.466	0.727	0.376	0.547	1.72	0.363 U
Calcium	~	~	45100	56600	26500	26900	79700	1530
Chromium, Hexavalent	1	110	0.567 U	0.655 U	0.558 U	0.588 U	0.545 U	0.605 U
Chromium, Total	~	~	19.4	34.9	19.4	22.6	25.8	34.2
Chromium, Trivalent	30	180	19.4	<b>34.9</b>	19.4	22.6	25.8	<b>34.2</b>
Cobalt	~	~	7.06	11.2	7.7	8.2	15.9	12.5
Copper	50	270	20.4	43.7	40.9	42.7	<b>68.6</b>	30.8
Cyanide	27	27	0.567 U	0.655 U	0.558 U	0.588 U	0.545 U	0.605 U
Iron	~	~	14300	21300	14700	16400	23800 B	22500 B
Lead	63	400	<b>674</b>	<b>79.2</b>	<b>68.8</b>	<b>115</b>	<b>191</b> B	<b>108</b> B
Magnesium	~	~	20500	15500	7960	10100	12300	5630
Manganese	1600	2000	227	336	276	234	363	259
Mercury	0.18	0.81	0.053	0.105	0.11	<b>0.207</b>	0.164	<b>0.441</b>
Nickel	30	310	15.9	25.6	16.7	19.2	<b>31</b>	22.5
Potassium	~	~	3160	4940	1530	2430	2370 B	1770 B
Selenium	3.9	180	3.7	1.31 U	1.12 U	1.18 U	1.09 U	1.21 U
Sodium	~	~	520	340	1790	174	840 B	1850 B
Vanadium	~	~	26.3	42.8	30.9	29.5	34.6	42.3
Zinc	109	10000	64	<b>133</b>	79.8	<b>213</b>	<b>559</b>	95.3
<b>General Chemistry (mg/kg)</b>								
Solids, Percent	~	~	88.3	76.3	89.6	85	91.7	82.6

**Table C-1  
Soil Summary Report  
Soil Sample Analytical Results**

Former University Heights Yard  
Bronx, New York  
Langan Project No.: 170502901

Location Sample ID Laboratory ID Sample Date Sample Depth (feet bgs)	NYSDEC Part 375 Unrestricted Use SCOs	NYSDEC Part 375 Restricted- Use Restricted- Residential SCOs	SP12 SP12_0-2 18H1425-09 8/30/2018 0-2	SP12 SP12_6-7 18H1425-10 8/30/2018 6-7	SP13 SP13_0-2 18H1425-07 8/30/2018 0-2	SP13 SP13_7-8 18H1425-08 8/30/2018 7-8	SP14 SP14_0-2 18H1425-05 8/30/2018 0-2	SP14 SP14_9-10 18H1425-06 8/30/2018 9-10
<b>Volatile Organic Compounds (mg/kg)</b>								
1,2,4-Trimethylbenzene	3.6	52	0.0017 U	0.0022 U	0.0022 U	0.0019 U	0.0021 U	0.0017 U
1,3,5-Trimethylbenzene (Mesitylene)	8.4	52	0.0017 U	0.0022 U	0.0022 U	0.0019 U	0.0021 U	0.0017 U
Acetone	0.05	100	0.0091 U	0.02 U	0.0044 U	0.0038 U	0.0042 U	0.0034 U
Carbon Disulfide	~	~	0.0017 U	0.0022 U	0.0022 U	0.0019 U	0.0021 U	0.0017 U
Isopropylbenzene (Cumene)	~	~	0.0017 U	0.0022 U	0.0022 U	0.0019 U	0.0021 U	0.0017 U
Methyl Ethyl Ketone (2-Butanone)	0.12	100	0.0017 U	0.0038 J	0.0022 U	0.0019 U	0.0021 U	0.0017 U
Methylene Chloride	0.05	100	0.0033 U	0.0044 U	0.0044 U	0.0038 U	0.0042 U	0.0034 U
n-Butylbenzene	12	100	0.0017 U	0.0022 U	0.0022 U	0.0019 U	0.0021 U	0.0017 U
p-Cymene (p-Isopropyltoluene)	~	~	0.0017 U	0.0022 U	0.0022 U	0.0019 U	0.0021 U	0.0017 U
Sec-Butylbenzene	11	100	0.0017 U	0.0022 U	0.0022 U	0.0019 U	0.0021 U	0.0017 U
Tert-Butyl Alcohol	~	~	0.0017 U	0.0022 U	0.0022 U	0.0019 U	0.0021 U	0.0017 U
Tert-Butyl Methyl Ether	0.93	100	0.0017 U	0.0022 U	0.0022 U	0.0019 U	0.0021 U	0.0017 U
<b>Semivolatile Organic Compounds (mg/kg)</b>								
2,4-Dinitrotoluene	~	~	0.0449 U	0.0492 U	0.0456 U	0.0471 U	0.0454 U	0.0518 U
2-Methylnaphthalene	~	~	0.0449 U	0.0492 U	0.0456 U	0.0471 U	0.0454 U	0.0518 U
Acenaphthene	20	100	0.0449 U	0.0492 U	0.0456 U	0.0471 U	0.0454 U	0.0518 U
Acenaphthylene	100	100	0.0845 JD	0.216 D	0.0456 U	0.0496 JD	0.0752 JD	0.0518 U
Anthracene	100	100	0.123 D	0.207 D	0.0456 U	0.0471 U	0.0528 JD	0.0518 U
Benzo(a)Anthracene	1	1	0.386 D	0.818 D	0.234 D	0.163 D	0.27 D	0.0518 U
Benzo(a)Pyrene	1	1	0.382 D	0.723 D	0.217 D	0.169 D	0.218 D	0.0518 U
Benzo(b)Fluoranthene	1	1	0.34 D	0.637 D	0.193 D	0.169 D	0.2 D	0.0518 U
Benzo(g,h,i)Perylene	100	100	0.294 D	0.52 D	0.158 D	0.107 D	0.137 D	0.0518 U
Benzo(k)Fluoranthene	0.8	3.9	0.403 D	0.648 D	0.172 D	0.161 D	0.206 D	0.0518 U
Benzyl Butyl Phthalate	~	~	0.0594 JD	0.0492 U	0.0456 U	0.0471 U	0.0454 U	0.0518 U
Bis(2-Ethylhexyl) Phthalate	~	~	0.198 D	0.0492 U	0.0456 U	0.0471 U	0.0454 U	0.0518 U
Carbazole	~	~	0.0449 U	0.0492 U	0.0456 U	0.0471 U	0.0454 U	0.0518 U
Chrysene	1	3.9	0.411 D	0.787 D	0.229 D	0.166 D	0.296 D	0.0518 U
Dibenz(a,h)Anthracene	0.33	0.33	0.0702 JD	0.136 D	0.0456 U	0.0471 U	0.0454 U	0.0518 U
Dibenzofuran	7	59	0.0449 U	0.0492 U	0.0456 U	0.0471 U	0.0454 U	0.0518 U
Di-N-Octylphthalate	~	~	0.0449 U	0.0492 U	0.0456 U	0.0471 U	0.0454 U	0.0518 U
Fluoranthene	100	100	0.673 D	1.45 D	0.311 D	0.18 D	0.558 D	0.0518 U
Fluorene	30	100	0.0449 U	0.0492 U	0.0456 U	0.0471 U	0.0454 U	0.0518 U
Indeno(1,2,3-c,d)Pyrene	0.5	0.5	0.304 D	<b>0.54</b> D	0.161 D	0.123 D	0.167 D	0.0518 U
Naphthalene	12	100	0.0449 U	0.0492 U	0.0456 U	0.0471 U	0.0454 U	0.0518 U
Phenanthrene	100	100	0.345 D	0.538 D	0.0872 JD	0.0534 JD	0.328 D	0.0518 U
Pyrene	100	100	0.699 D	1.27 D	0.351 D	0.186 D	0.528 D	0.0518 U
<b>Pesticides (mg/kg)</b>								
4,4'-DDD	0.0033	13	<b>0.0233</b> DP	0.00195 U	0.0018 U	0.00185 U	0.00179 U	0.00204 U
4,4'-DDE	0.0033	8.9	<b>0.00377</b> D	0.00195 U	0.0018 U	0.00185 U	0.00179 U	0.00204 U
4,4'-DDT	0.0033	7.9	<b>0.00506</b> DP	0.00195 U	0.0018 U	0.00185 U	0.00179 U	0.00204 U
Aldrin	0.005	0.097	0.00177 U	0.00195 U	0.0018 U	0.00185 U	0.00179 U	0.00204 U
Alpha Chlordane	0.094	4.2	0.00177 U	0.00195 U	0.0018 U	0.00185 U	0.00179 U	0.00204 U
Beta Endosulfan	2.4	24	0.00177 U	0.00195 U	0.0018 U	0.00185 U	0.00179 U	0.00204 U
Chlordane	~	~	0.0354 U	0.0389 U	0.036 U	0.0371 U	0.0357 U	0.0407 U
Dieldrin	0.005	0.2	0.00177 U	0.00195 U	0.00204 DP	0.00185 U	0.00179 U	0.00204 U
Endrin	0.014	11	0.00177 U	0.00195 U	0.0018 U	0.00185 U	0.00179 U	0.00204 U
Endrin Aldehyde	~	~	0.00177 U	0.00195 U	0.0018 U	0.00185 U	0.00179 U	0.00204 U
Gamma-Chlordane	~	~	0.00177 U	0.00195 U	0.0018 U	0.00185 U	0.00179 U	0.00204 U
Heptachlor	0.042	2.1	0.00177 U	0.00195 U	0.0018 U	0.00185 U	0.00179 U	0.00204 U
<b>Polychlorinated Biphenyls (mg/kg)</b>								
PCB-1248 (Aroclor 1248)	~	~	0.0179 U	0.0196 U	0.0182 U	0.0187 U	0.018 U	0.0206 U
PCB-1254 (Aroclor 1254)	~	~	0.0179 U	0.0196 U	0.0182 U	0.0187 U	0.018 U	0.0206 U
PCB-1260 (Aroclor 1260)	~	~	0.0179 U	0.0196 U	0.0182 U	0.0187 U	0.018 U	0.0206 U
Total PCBs	0.1	1	0.0179 U	0.0196 U	0.0182 U	0.0187 U	0.018 U	0.0206 U
<b>Inorganics (mg/kg)</b>								
Aluminum	~	~	13000	9480	6730	7680	9610	9880
Antimony	~	~	0.537 U	0.591 U	0.547 U	0.564 U	0.542 U	0.62 U
Arsenic	13	16	3.77	4.37	6.63	4.15	9.1	2.1
Barium	350	400	60.2	129	114	95.9	159	66.8
Beryllium	7.2	72	0.107 U	0.118 U	0.109 U	0.113 U	0.108 U	0.124 U
Cadmium	2.5	4.3	0.322 U	0.354 U	0.328 U	0.389	0.325 U	0.372 U
Calcium	~	~	6980	17500	61800	50500	43700	4880
Chromium, Hexavalent	1	110	1.07 U	0.591 U	0.547 U	0.564 U	0.542 U	0.62 U
Chromium, Total	~	~	52.5	26.1	13.2	23.6	21.4	18.8
Chromium, Trivalent	30	180	<b>52.5</b>	26.1	13.2	23.6	21.4	18.8
Cobalt	~	~	9.65	7.76	6.39	10.2	9.07	9.46
Copper	50	270	14.5	36.4	<b>52</b>	46.1	<b>64.6</b>	19.9
Cyanide	27	27	0.569	0.591 U	0.613	0.564 U	<b>39.4</b>	0.62 U
Iron	~	~	17600	13800	13400	16900	19400	18900
Lead	63	400	<b>71.2</b>	<b>201</b>	<b>226</b>	<b>91</b>	<b>102</b>	7.84
Magnesium	~	~	7210	4590	30100	16800	25100	6060
Manganese	1600	2000	387	242	199	249	200	464
Mercury	0.18	0.81	<b>0.578</b>	0.127	<b>0.436</b>	0.107	<b>0.502</b>	0.0372 U
Nickel	30	310	27.8 B	18.3 B	15.6 B	<b>76.8</b> B	18.4 B	23.1 B
Potassium	~	~	3200 B	1500 B	1550 B	1610 B	2670 B	2980 B
Selenium	3.9	180	1.07 U	1.18 U	<b>5.91</b>	1.13 U	1.08 U	1.24 U
Sodium	~	~	762 B	555 B	232 B	775 B	428 B	1300 B
Vanadium	~	~	27.7	29.2	19.2	454	29.5	23.3
Zinc	109	10000	73.4	<b>155</b>	<b>175</b>	<b>122</b>	<b>159</b>	45.9
<b>General Chemistry (mg/kg)</b>								
Solids, Percent	~	~	93.1	84.6	91.4	88.7	92.2	80.6

**Table C-1  
Soil Summary Report  
Soil Sample Analytical Results**

Former University Heights Yard  
Bronx, New York  
Langan Project No.: 170502901

Location Sample ID Laboratory ID Sample Date Sample Depth (feet bgs)	NYSDEC Part 375 Unrestricted Use SCOs	NYSDEC Part 375 Restricted Use Restricted- Residential SCOs	SP15 SP15_0-2 18H1425-03 8/30/2018 0-2	SP15 SP15_10-11 18H1425-04 8/30/2018 10-11	SP16 SP16_0-2 18H1425-01 8/30/2018 0-2	SP16 SP16_10-11 18H1425-02 8/30/2018 10-11	SP18 SP18_0-2 18H1343-05 8/29/2018 0-2	SP18 SP18_8-9 18H1343-06 8/29/2018 8-9
<b>Volatile Organic Compounds (mg/kg)</b>								
1,2,4-Trimethylbenzene	3.6	52	0.0022 U	0.002 U	0.0033 U	0.002 U	0.0028 U	0.0013 U
1,3,5-Trimethylbenzene (Mesitylene)	8.4	52	0.0022 U	0.002 U	0.0033 U	0.002 U	0.0028 U	0.0013 U
Acetone	0.05	100	0.013	0.0063 J	0.0098 J	0.004 U	0.026	0.0093
Carbon Disulfide	~	~	0.0022 U	0.002 U	0.0033 U	0.002 U	0.0028 U	0.0013 U
Isopropylbenzene (Cumene)	~	~	0.0022 U	0.002 U	0.0033 U	0.002 U	0.0028 U	0.0013 U
Methyl Ethyl Ketone (2-Butanone)	0.12	100	0.0022 U	0.002 U	0.0033 U	0.002 U	0.0028 U	0.0025 J
Methylene Chloride	0.05	100	0.0044 U	0.0039 U	0.0066 U	0.004 U	0.0062 J	0.0027 U
n-Butylbenzene	12	100	0.0022 U	0.002 U	0.0033 U	0.002 U	0.0028 U	0.0013 U
p-Cymene (p-Isopropyltoluene)	~	~	0.0022 U	0.002 U	0.0033 U	0.002 U	0.0028 U	0.0013 U
Sec-Butylbenzene	11	100	0.0022 U	0.002 U	0.0033 U	0.002 U	0.0028 U	0.0013 U
Tert-Butyl Alcohol	~	~	0.0022 U	0.002 U	0.0033 U	0.002 U	0.0028 U	0.0013 U
Tert-Butyl Methyl Ether	0.93	100	0.0022 U	0.002 U	0.0033 U	0.002 U	0.0028 U	0.0013 U
<b>Semivolatile Organic Compounds (mg/kg)</b>								
2,4-Dinitrotoluene	~	~	0.227 U	0.237 U	0.0528 U	0.0489 U	0.0471 U	0.0526 U
2-Methylnaphthalene	~	~	0.227 U	0.237 U	0.0528 U	0.0489 U	0.0471 U	0.0526 U
Acenaphthene	20	100	0.227 U	0.237 U	0.0528 U	0.0489 U	0.0471 U	0.179 D
Acenaphthylene	100	100	0.227 U	0.237 U	0.0528 U	0.0489 U	0.0471 U	0.0526 U
Anthracene	100	100	0.227 U	0.237 U	0.123 D	0.0489 U	0.0471 U	0.444 D
Benzo(a)Anthracene	1	1	0.227 U	0.237 U	0.596 D	0.0489 U	0.0871 JD	0.981 D
Benzo(a)Pyrene	1	1	0.227 U	0.237 U	0.577 D	0.0489 U	0.0871 JD	0.904 D
Benzo(b)Fluoranthene	1	1	0.227 U	0.237 U	0.511 D	0.0489 U	0.0803 JD	0.657 D
Benzo(g,h,i)Perylene	100	100	0.227 U	0.237 U	0.433 D	0.0489 U	0.0471 U	0.536 D
Benzo(k)Fluoranthene	0.8	3.9	0.227 U	0.237 U	0.52 D	0.0489 U	0.0796 JD	0.694 D
Benzyl Butyl Phthalate	~	~	0.227 U	0.237 U	0.0528 U	0.0489 U	0.0471 U	0.0526 U
Bis(2-Ethylhexyl) Phthalate	~	~	0.227 U	0.237 U	0.104 JD	0.0489 U	0.0471 U	0.0526 U
Carbazole	~	~	0.227 U	0.237 U	0.0528 U	0.0489 U	0.0471 U	0.113 D
Chrysene	1	3.9	0.227 U	0.237 U	0.622 D	0.0489 U	0.0916 JD	0.918 D
Dibenz(a,h)Anthracene	0.33	0.33	0.227 U	0.237 U	0.0817 JD	0.0489 U	0.0471 U	0.127 D
Dibenzofuran	7	59	0.227 U	0.237 U	0.0528 U	0.0489 U	0.0471 U	0.0746 JD
Di-N-Octylphthalate	~	~	0.227 U	0.237 U	0.0528 U	0.0489 U	0.0471 U	0.0526 U
Fluoranthene	100	100	0.227 U	0.237 U	1.21 D	0.0489 U	0.11 D	2.22 D
Fluorene	30	100	0.227 U	0.237 U	0.0528 U	0.0489 U	0.0471 U	0.154 D
Indeno(1,2,3-c,d)Pyrene	0.5	0.5	0.227 U	0.237 U	0.427 D	0.0489 U	0.0471 U	<b>0.582</b> D
Naphthalene	12	100	0.227 U	0.237 U	0.0528 U	0.0489 U	0.0471 U	0.0855 JD
Phenanthrene	100	100	0.227 U	0.237 U	0.468 D	0.0489 U	0.0471 U	1.75 D
Pyrene	100	100	0.227 U	0.237 U	1.15 D	0.0489 U	0.134 D	2.3 D
<b>Pesticides (mg/kg)</b>								
4,4'-DDD	0.0033	13	<b>0.00343</b> DP	0.00187 U	0.00208 U	0.00193 U	0.00186 U	0.00207 U
4,4'-DDE	0.0033	8.9	0.00261 D	0.00187 U	<b>0.00496</b> DP	0.00193 U	0.00186 U	0.00207 U
4,4'-DDT	0.0033	7.9	0.00179 U	0.00187 U	0.00208 U	0.00193 U	0.00186 U	0.00207 U
Aldrin	0.005	0.097	0.00179 U	0.00187 U	0.00298 DP	0.00193 U	0.00186 U	0.00207 U
Alpha Chlordane	0.094	4.2	0.00179 U	0.00187 U	0.00208 U	0.00193 U	0.00186 U	0.00207 U
Beta Endosulfan	2.4	24	0.00179 U	0.00187 U	0.00208 U	0.00193 U	0.00186 U	0.00207 U
Chlordane	~	~	0.0357 U	0.0375 U	0.0416 U	0.0385 U	0.0371 U	0.0415 U
Dieldrin	0.005	0.2	0.00179 U	0.00187 U	0.00208 U	0.00193 U	0.00186 U	0.00207 U
Endrin	0.014	11	0.00179 U	0.00187 U	0.00208 U	0.00193 U	0.00186 U	0.00207 U
Endrin Aldehyde	~	~	0.00179 U	0.00187 U	0.00208 U	0.00193 U	0.00313 DP	0.00207 U
Gamma-Chlordane	~	~	0.00384 D	0.00187 U	0.00208 U	0.00193 U	0.00186 U	0.00207 U
Heptachlor	0.042	2.1	0.00179 U	0.00187 U	0.00208 U	0.00193 U	0.00186 U	0.00207 U
<b>Polychlorinated Biphenyls (mg/kg)</b>								
PCB-1248 (Aroclor 1248)	~	~	0.018 U	0.0189 U	0.021 U	0.0195 U	0.0188 U	0.0209 U
PCB-1254 (Aroclor 1254)	~	~	0.018 U	0.0189 U	0.021 U	0.0195 U	0.0188 U	0.0209 U
PCB-1260 (Aroclor 1260)	~	~	0.018 U	0.0189 U	0.021 U	0.0195 U	0.0188 U	0.0209 U
Total PCBs	0.1	1	0.018 U	0.0189 U	0.021 U	0.0195 U	0.0188 U	0.0209 U
<b>Inorganics (mg/kg)</b>								
Aluminum	~	~	5330	15100	9140	12200	10900	10600
Antimony	~	~	0.543 U	0.57 U	0.632 U	0.587 U	1.63	1.75
Arsenic	13	16	4.82	3.76	5.21	2.02	3.53	3.5
Barium	350	400	40.7	176	78.7	169	96.1	177
Beryllium	7.2	72	0.109 U	0.114 U	0.126 U	0.117 U	0.113 U	0.126 U
Cadmium	2.5	4.3	0.326 U	0.371	0.379 U	0.352 U	0.59	0.712
Calcium	~	~	37700	20900	74300	2500	32500	14100
Chromium, Hexavalent	1	110	0.543 U	0.57 U	0.859	0.587 U	0.563 U	0.629 U
Chromium, Total	~	~	5.57	47.5	21	17.4	34.4	20.8
Chromium, Trivalent	30	180	5.57	<b>47.5</b>	20.1	17.4	<b>34.4</b>	20.8
Cobalt	~	~	8.94	14.6	6.16	10.2	8.66	11.7
Copper	50	270	22	32.4	35.3	21.5	31.1	39.9
Cyanide	27	27	4.55	0.57 U	0.708	0.611	6.16	2.91
Iron	~	~	10200	24900	14000	18400	15400	19600
Lead	63	400	11.3	37.7	54	33.6	49.8	<b>415</b>
Magnesium	~	~	5650	12300	14000	4490	10000	5840
Manganese	1600	2000	84.9	339	209	417	290	479
Mercury	0.18	0.81	0.0326 U	0.17	0.0412	0.0352 U	0.0342	<b>0.446</b>
Nickel	30	310	19.3 B	27.2 B	17.8 B	13.8 B	21	17.1
Potassium	~	~	1460 B	6870 B	1970 B	4080 B	4720	3700
Selenium	3.9	180	1.09 U	1.14 U	1.26 U	1.17 U	1.13 U	1.26 U
Sodium	~	~	437 B	1790 B	324 B	1030 B	217	704
Vanadium	~	~	16.6	60.8	30.6	30.7	38.9	31
Zinc	109	10000	28.9	86.3	89.6	51.1	67.4	<b>138</b>
<b>General Chemistry (mg/kg)</b>								
Solids, Percent	~	~	92.1	87.7	79.1	85.2	88.8	79.5

**Table C-1  
Soil Summary Report  
Soil Sample Analytical Results**

Former University Heights Yard  
Bronx, New York  
Langan Project No.: 170502901

Location Sample ID Laboratory ID Sample Date Sample Depth (feet bgs)	NYSDEC Part 375 Unrestricted Use SCOs	NYSDEC Part 375 Restricted Use Restricted- Residential SCOs	SP19 SP19_0-2 18H1343-03 8/29/2018 0-2	SP19 SP19_12-13 18H1343-04 8/29/2018 12-13	SP20 SP20_0-2 18H1343-01 8/29/2018 0-2	SP20 SP20_10-11 18H1343-02 8/29/2018 10-11	SP21 SP21_3-5 18L0827-01 12/18/2018 3-5	SP21 SP21_8-10 18L0827-02 12/18/2018 8-10
<b>Volatile Organic Compounds (mg/kg)</b>								
1,2,4-Trimethylbenzene	3.6	52	0.0023 U	0.0028 U	0.0028 U	0.0027 U	0.0026 U	0.0029 U
1,3,5-Trimethylbenzene (Mesitylene)	8.4	52	0.0023 U	0.0028 U	0.0028 U	0.0027 U	0.0026 U	0.0029 U
Acetone	0.05	100	0.0058 J	0.026	0.0094 J	0.0054 U	0.0053 U	0.014
Carbon Disulfide	~	~	0.0023 U	0.0028 U	0.0028 U	0.0027 U	0.0026 U	0.0029 U
Isopropylbenzene (Cumene)	~	~	0.0023 U	0.0028 U	0.0028 U	0.0027 U	0.0026 U	0.0029 U
Methyl Ethyl Ketone (2-Butanone)	0.12	100	0.0023 U	0.0028 U	0.0028 U	0.0027 U	0.0026 U	0.0029 U
Methylene Chloride	0.05	100	0.0046 U	0.0056 U	0.011	0.0054 U	0.012	0.017
n-Butylbenzene	12	100	0.0023 U	0.0028 U	0.0028 U	0.0027 U	0.0026 U	0.0029 U
p-Cymene (p-Isopropyltoluene)	~	~	0.0023 U	0.0028 U	0.0028 U	0.0027 U	0.0026 U	0.0029 U
Sec-Butylbenzene	11	100	0.0023 U	0.0028 U	0.0028 U	0.0027 U	0.0026 U	0.0029 U
Tert-Butyl Alcohol	~	~	0.0023 U	0.0028 U	0.0028 U	0.0027 U	0.0026 U	0.0029 U
Tert-Butyl Methyl Ether	0.93	100	0.0023 U	0.0028 U	0.0028 U	0.0027 U	0.0026 U	0.0029 U
<b>Semivolatile Organic Compounds (mg/kg)</b>								
2,4-Dinitrotoluene	~	~	0.0448 U	0.0544 U	0.044 U	0.0506 U	0.0449 U	0.0446 U
2-Methylnaphthalene	~	~	0.0448 U	0.0544 U	0.044 U	0.0506 U	0.0449 U	0.0446 U
Acenaphthene	20	100	0.0448 U	0.0544 U	0.047 JD	0.0928 JD	0.0449 U	0.0446 U
Acenaphthylene	100	100	0.114 D	0.0544 U	0.136 D	0.0506 U	0.0449 U	0.0446 U
Anthracene	100	100	0.259 D	0.0544 U	0.31 D	0.218 D	0.0449 U	0.0446 U
Benzo(a)Anthracene	1	1	0.892 D	0.0544 U	0.959 D	0.616 D	0.0687 JD	0.0446 U
Benzo(a)Pyrene	1	1	0.907 D	0.0544 U	0.96 D	0.567 D	0.122 D	0.0446 U
Benzo(b)Fluoranthene	1	1	0.76 D	0.0544 U	0.816 D	0.483 D	0.107 D	0.0446 U
Benzo(g,h,i)Perylene	100	100	0.662 D	0.0544 U	0.607 D	0.358 D	0.116 D	0.0446 U
Benzo(k)Fluoranthene	0.8	3.9	0.792 D	0.0544 U	<b>0.864</b> D	0.456 D	0.0765 JD	0.0446 U
Benzyl Butyl Phthalate	~	~	0.0448 U	0.0544 U	0.502 D	0.0506 U	0.0449 U	0.0446 U
Bis(2-Ethylhexyl) Phthalate	~	~	0.0448 U	0.0544 U	0.0604 JD	0.0506 U	0.0449 U	0.0446 U
Carbazole	~	~	0.0448 U	0.0544 U	0.0667 JD	0.119 D	0.0449 U	0.0446 U
Chrysene	1	3.9	0.833 D	0.0544 U	0.921 D	0.625 D	0.0715 JD	0.0446 U
Dibenz(a,h)Anthracene	0.33	0.33	0.22 D	0.0544 U	0.13 D	0.0783 JD	0.0449 U	0.0446 U
Dibenzofuran	7	59	0.0448 U	0.0544 U	0.044 U	0.0506 U	0.0449 U	0.0446 U
Di-N-Octylphthalate	~	~	0.0448 U	0.0544 U	0.044 U	0.0506 U	0.0449 U	0.0446 U
Fluoranthene	100	100	1.37 D	0.0544 U	1.65 D	1.32 D	0.0715 JD	0.0446 U
Fluorene	30	100	0.0448 U	0.0544 U	0.0786 JD	0.0855 JD	0.0449 U	0.0446 U
Indeno(1,2,3-c,d)Pyrene	0.5	0.5	<b>0.682</b> D	0.0544 U	<b>0.661</b> D	0.39 D	0.118 D	0.0446 U
Naphthalene	12	100	0.0448 U	0.0544 U	0.044 U	0.0506 U	0.0449 U	0.0446 U
Phenanthrene	100	100	0.474 D	0.0544 U	0.936 D	1.1 D	0.0449 U	0.0446 U
Pyrene	100	100	1.39 D	0.0544 U	1.68 D	1.39 D	0.0916 D	0.0446 U
<b>Pesticides (mg/kg)</b>								
4,4'-DDD	0.0033	13	0.00233 D	0.00214 U	<b>0.00508</b> DP	0.00199 U	0.00178 U	0.00177 U
4,4'-DDE	0.0033	8.9	0.00246 D	0.00214 U	<b>0.00374</b> D	0.00199 U	0.00178 U	0.00177 U
4,4'-DDT	0.0033	7.9	0.00177 U	0.00214 U	<b>0.00422</b> D	0.00199 U	0.00178 U	0.00177 U
Aldrin	0.005	0.097	0.00177 U	0.00214 U	0.00173 U	0.00199 U	0.00178 U	0.00177 U
Alpha Chlordane	0.094	4.2	0.0107 D	0.00214 U	0.0191 D	0.00199 U	0.00178 U	0.00177 U
Beta Endosulfan	2.4	24	0.00177 U	0.00214 U	0.00173 U	0.00199 U	0.00178 U	0.00177 U
Chlordane	~	~	0.0655 DP	0.0429 U	0.118 D	0.0398 U	0.0355 U	0.0354 U
Dieldrin	0.005	0.2	0.00206 D	0.00214 U	0.00424 D	0.00199 U	0.00178 U	0.00177 U
Endrin	0.014	11	0.00177 U	0.00214 U	0.00173 U	0.00199 U	0.00178 U	0.00177 U
Endrin Aldehyde	~	~	0.00327 D	0.00214 U	0.00173 U	0.00199 U	0.00178 U	0.00177 U
Gamma-Chlordane	~	~	0.00768 D	0.00214 U	0.0112 D	0.00199 U	0.00178 U	0.00177 U
Heptachlor	0.042	2.1	0.00177 U	0.00214 U	0.00308 D	0.00199 U	0.00178 U	0.00177 U
<b>Polychlorinated Biphenyls (mg/kg)</b>								
PCB-1248 (Aroclor 1248)	~	~	0.0178 U	0.0217 U	0.0175 U	0.0201 U	0.0179 U	0.0178 U
PCB-1254 (Aroclor 1254)	~	~	0.0178 U	0.0217 U	0.0175 U	0.0201 U	0.0179 U	0.0178 U
PCB-1260 (Aroclor 1260)	~	~	0.0178 U	0.0217 U	0.0175 U	0.0201 U	0.0179 U	0.0178 U
Total PCBs	0.1	1	0.0178 U	0.0217 U	0.0175 U	0.0201 U	0.0179 U	0.0178 U
<b>Inorganics (mg/kg)</b>								
Aluminum	~	~	6370	6770	5960	7140	11500	10400
Antimony	~	~	0.538 U	0.65 U	0.527 U	2.3	2.69 U	2.68 U
Arsenic	13	16	3.41	1.37	4.37	<b>13.9</b>	2.58	1.61 U
Barium	350	400	67	22.4	61.5	159	161	191
Beryllium	7.2	72	0.108 U	0.198	0.105 U	0.525	0.054 U	0.054 U
Cadmium	2.5	4.3	0.43	0.39 U	0.316 U	1.9	0.603	0.322 U
Calcium	~	~	40700	1850	38800	18300	36600	2850
Chromium, Hexavalent	1	110	0.538 U	0.65 U	0.527 U	0.607 U	0.539 U	0.537 U
Chromium, Total	~	~	14	19.1	12.9	18.5	21.9	9.33
Chromium, Trivalent	30	180	14	19.1	12.9	18.5	20.4	8.69
Cobalt	~	~	5.56	5.44	5.25	5.56	10.1	8.25
Copper	50	270	26.7	9.98	39.3	<b>243</b>	<b>75.3</b>	23.8
Cyanide	27	27	0.538 U	0.65 U	0.527 U	1.46	0.539 U	0.537 U
Iron	~	~	9750	10300	9600	25400	20000	17400
Lead	63	400	38.6	30.7	49	<b>488</b>	<b>157</b>	7.09
Magnesium	~	~	9420	2840	8440	1000	19700	3910
Manganese	1600	2000	215	113	188	271	303	365
Mercury	0.18	0.81	0.0754	0.039 U	0.0872	0.111	<b>0.218</b>	0.0322 U
Nickel	30	310	12.1	14.5	11.3	<b>56.7</b>	19.5	6.28
Potassium	~	~	1280	827	1210	811	3670 B	4060 B
Selenium	3.9	180	1.08 U	1.3 U	1.05 U	1.21 U	2.69 U	2.68 U
Sodium	~	~	154	1240	120	737	1340	741
Vanadium	~	~	18.7	19.3	19	20.3	46.8	21.5
Zinc	109	10000	55.6	33.1	59.1	<b>636</b>	<b>110</b>	49.7
<b>General Chemistry (mg/kg)</b>								
Solids, Percent	~	~	93	76.9	95	82.4	92.8	93.2

**Table C-1  
Soil Summary Report  
Soil Sample Analytical Results**

Former University Heights Yard  
Bronx, New York  
Langan Project No.: 170502901

Location Sample ID Laboratory ID Sample Date Sample Depth (feet bgs)	NYSDEC Part 375 Unrestricted Use SCOs	NYSDEC Part 375 Restricted- Use Restricted- Residential SCOs	SP21 SP21_13-15 18L0827-03 12/18/2018 13-15	SP22 SP22_3-5 18L0827-04 12/18/2018 3-5	SP22 SP22_9-11 18L0827-05 12/18/2018 9-11	STOCKPILE-NE STOCKPILE-NE 18H1425-13 8/30/2018 --	STOCKPILE-NW STOCKPILE-NW 18H1425-14 8/30/2018 --	STOCKPILE-S STOCKPILE-S 18H1425-12 8/30/2018 --
<b>Volatile Organic Compounds (mg/kg)</b>								
1,2,4-Trimethylbenzene	3.6	52	0.0025 U	0.0028 U	0.0025 U	0.0022 U	0.0023 U	0.0023 U
1,3,5-Trimethylbenzene (Mesitylene)	8.4	52	0.0025 U	0.0028 U	0.0025 U	0.0022 U	0.0023 U	0.0023 U
Acetone	0.05	100	0.02	0.0056 U	0.0051 U	0.0043 U	0.0047 U	0.0046 U
Carbon Disulfide	~	~	0.0025 U	0.0028 U	0.0025 U	0.0022 U	0.0023 U	0.0023 U
Isopropylbenzene (Cumene)	~	~	0.0025 U	0.0028 U	0.0025 U	0.0022 U	0.0023 U	0.0023 U
Methyl Ethyl Ketone (2-Butanone)	0.12	100	0.004 J	0.0028 U	0.0025 U	0.0022 U	0.0023 U	0.0023 U
Methylene Chloride	0.05	100	0.014	0.0081 J	0.0051 U	0.0043 U	0.0047 U	0.0046 U
n-Butylbenzene	12	100	0.0025 U	0.0028 U	0.0025 U	0.0022 U	0.0023 U	0.0023 U
p-Cymene (p-Isopropyltoluene)	~	~	0.0025 U	0.0028 U	0.0025 U	0.0022 U	0.0023 U	0.0023 U
Sec-Butylbenzene	11	100	0.0025 U	0.0028 U	0.0025 U	0.0022 U	0.0023 U	0.0023 U
Tert-Butyl Alcohol	~	~	0.0025 U	0.0028 U	0.0025 U	0.0022 U	0.0023 U	0.0023 U
Tert-Butyl Methyl Ether	0.93	100	0.0025 U	0.0028 U	0.0025 U	0.0022 U	0.0023 U	0.0023 U
<b>Semivolatile Organic Compounds (mg/kg)</b>								
2,4-Dinitrotoluene	~	~	0.0488 U	0.044 U	0.227 U	0.0452 U	0.0449 U	0.0439 U
2-Methylnaphthalene	~	~	0.0488 U	0.044 U	0.341 JD	0.0452 U	0.0449 U	0.0439 U
Acenaphthene	20	100	0.0488 U	0.044 U	1.98 D	0.14 D	0.115 D	0.221 D
Acenaphthylene	100	100	0.0488 U	0.044 U	0.227 U	0.188 D	0.0651 JD	0.0693 JD
Anthracene	100	100	0.0488 U	0.044 U	6.39 D	0.588 D	0.562 D	0.687 D
Benzo(a)Anthracene	1	1	0.0488 U	0.0891 D	<b>12.9</b> D	<b>3.99</b> D	<b>2.73</b> DE	<b>3.66</b> D
Benzo(a)Pyrene	1	1	0.0488 U	0.0982 D	<b>10.4</b> D	<b>3.64</b> D	<b>2.82</b> DE	<b>3.8</b> D
Benzo(b)Fluoranthene	1	1	0.0488 U	0.0926 D	<b>9.75</b> D	<b>2.8</b> DE	<b>2.37</b> DE	<b>2.66</b> DE
Benzo(g,h,i)Perylene	100	100	0.0488 U	0.0814 JD	7.57 D	2.21 D	1.93 D	2.08 D
Benzo(k)Fluoranthene	0.8	3.9	0.0488 U	0.0842 JD	<b>7.52</b> D	<b>2.71</b> DE	<b>2.44</b> DE	<b>2.67</b> DE
Benzyl Butyl Phthalate	~	~	0.0488 U	0.044 U	0.227 U	0.0452 U	0.0449 U	0.0439 U
Bis(2-Ethylhexyl) Phthalate	~	~	0.0488 U	0.044 U	0.227 U	0.0452 U	0.0449 U	0.177 D
Carbazole	~	~	0.0488 U	0.044 U	1.45 D	0.201 D	0.193 D	0.278 D
Chrysene	1	3.9	0.0488 U	0.107 D	<b>12</b> D	<b>3.75</b> D	<b>2.78</b> DE	<b>3.74</b> D
Dibenz(a,h)Anthracene	0.33	0.33	0.0488 U	0.044 U	<b>2.64</b> D	<b>0.752</b> D	<b>0.679</b> D	<b>0.696</b> D
Dibenzofuran	7	59	0.0488 U	0.044 U	1.25 D	0.07 JD	0.0501 JD	0.0812 JD
Di-N-Octylphthalate	~	~	0.0488 U	0.044 U	0.227 U	0.0452 U	0.0449 U	0.0439 U
Fluoranthene	100	100	0.0488 U	0.114 D	31.4 D	7.16 DE	6.3 D	6.95 D
Fluorene	30	100	0.0488 U	0.044 U	1.49 D	0.136 D	0.098 D	0.176 D
Indeno(1,2,3-c,d)Pyrene	0.5	0.5	0.0488 U	0.0758 JD	<b>8.13</b> D	<b>2.29</b> D	<b>1.99</b> D	<b>2.21</b> D
Naphthalene	12	100	0.0488 U	0.044 U	0.29 JD	0.0483 JD	0.0449 U	0.0439 U
Phenanthrene	100	100	0.0488 U	0.0617 JD	27.5 D	2.09 DE	1.89 D	2.55 DE
Pyrene	100	100	0.0488 U	0.147 D	30.2 D	6.53 DE	5.45 D	6.53 D
<b>Pesticides (mg/kg)</b>								
4,4'-DDD	0.0033	13	0.00193 U	0.00173 U	0.0018 U	0.00179 U	0.00177 U	0.00173 U
4,4'-DDE	0.0033	8.9	0.00193 U	0.00173 U	0.0018 U	0.00179 U	0.00177 U	0.00213 D
4,4'-DDT	0.0033	7.9	0.00193 U	0.00173 U	0.0018 U	<b>0.0174</b> D	<b>0.0116</b> D	<b>0.00737</b> D
Aldrin	0.005	0.097	0.00193 U	0.00173 U	0.0018 U	0.00179 U	0.00177 U	0.00173 U
Alpha Chlordane	0.094	4.2	0.00193 U	0.00173 U	0.0018 U	0.00179 U	0.00177 U	0.00173 U
Beta Endosulfan	2.4	24	0.00193 U	0.00173 U	0.0018 U	0.00179 U	0.00177 U	0.00173 U
Chlordane	~	~	0.0385 U	0.0346 U	0.036 U	0.0357 U	0.0353 U	0.0346 U
Dieldrin	0.005	0.2	0.00193 U	0.00173 U	0.0018 U	0.00179 U	0.00177 U	0.00173 U
Endrin	0.014	11	0.00193 U	0.00173 U	0.0018 U	0.00179 U	0.00177 U	0.00358 D
Endrin Aldehyde	~	~	0.00193 U	0.00173 U	0.0018 U	0.00413 D	0.00177 U	0.00173 U
Gamma-Chlordane	~	~	0.00193 U	0.00173 U	0.0018 U	0.00179 U	0.00177 U	0.00173 U
Heptachlor	0.042	2.1	0.00193 U	0.00173 U	0.0018 U	0.00179 U	0.00177 U	0.00173 U
<b>Polychlorinated Biphenyls (mg/kg)</b>								
PCB-1248 (Aroclor 1248)	~	~	0.0195 U	0.0175 U	0.0182 U	0.0361 U	0.0178 U	0.0175 U
PCB-1254 (Aroclor 1254)	~	~	0.0195 U	0.0175 U	0.0182 U	0.0924 D	0.0578 U	0.0705 U
PCB-1260 (Aroclor 1260)	~	~	0.0195 U	0.0175 U	0.0182 U	0.0361 U	0.0178 U	0.0175 U
Total PCBs	0.1	1	0.0195 U	0.0175 U	0.0182 U	0.0924 D	0.0578 U	0.0705 U
<b>Inorganics (mg/kg)</b>								
Aluminum	~	~	13600	2790	9950	8980	8770	10300
Antimony	~	~	2.93 U	2.63 U	2.73 U	0.543 U	0.537 U	0.525 U
Arsenic	13	16	2.4	2.89	1.85	2.83	2.88	2.52
Barium	350	400	113	6.88	87.8	90.1	91.1	115
Beryllium	7.2	72	0.121	0.066	0.055 U	0.109 U	0.107 U	0.105 U
Cadmium	2.5	4.3	0.352 U	0.316 U	0.361	0.388	0.423	0.972
Calcium	~	~	1850	166000	13100	46700	42100	39800
Chromium, Hexavalent	1	110	0.586 U	0.527 U	0.547 U	0.543 U	0.537 U	0.525 U
Chromium, Total	~	~	19.8	7.22	72.2	27.3	16.7	23.8
Chromium, Trivalent	30	180	16.9	6.85	<b>66.1</b>	27.3	16.7	23.8
Cobalt	~	~	10.3	3.73	9.96	6.54	6.09	8.08
Copper	50	270	24.6	7.6	48.2	21.1	17.7	23.9
Cyanide	27	27	0.586 U	0.527 U	0.547 U	0.543 U	0.537 U	0.525 U
Iron	~	~	15400	6160	17100	12300	11600	14600
Lead	63	400	32.7	5.62	38.8	42.4	46.5	<b>80.1</b>
Magnesium	~	~	3790	87400	7480	4820	3820	5110
Manganese	1600	2000	206	126	212	223	201	274
Mercury	0.18	0.81	<b>0.261</b>	0.036	<b>0.332</b>	0.0863	0.0877	0.112
Nickel	30	310	15.6	8.33	29.1	14.3 B	12.5 B	16.2 B
Potassium	~	~	1800 B	2020 B	4680 B	1900 B	1690 B	2230 B
Selenium	3.9	180	2.93 U	<b>27.7</b>	2.73 U	1.09 U	1.07 U	1.05 U
Sodium	~	~	1580	63.8	323	225 B	287 B	249 B
Vanadium	~	~	27.9	8.98	37.3	21	19.7	25.6
Zinc	109	10000	41.4	9.24	83.9	<b>118</b>	<b>134</b>	<b>316</b>
<b>General Chemistry (mg/kg)</b>								
Solids, Percent	~	~	85.3	94.9	91.5	92.1	93.2	95.2

**Table C-2**  
**Groundwater Summary Report**  
**Groundwater Sample Analytical Results**

Former University Heights Yard  
**Bronx, New York**  
**Langan Project No.: 170502901**

**Notes:**

1. Groundwater sample analytical results are compared to the New York State Department of Environmental Conservation (NYSDEC) Title 6 of the Official Compilation of New York Codes, Rules and Regulations (NYCRR) Part 703.5 and the NYSDEC Technical and Operational Guidance Series (TOGS) 1.1.1 Ambient Water Quality Standards and Guidance Values for Class GA Water (NYSDEC SGVs).
2. Only detected analytes are shown in the table.
3. Analytes detected with concentrations above NYSDEC SGVs are bolded and shaded.
4. Analytical results with reporting limits (RL) above NYSDEC SGVs are italicized.
5. ~ = Regulatory limit for this analyte does not exist
6. µg/L = micrograms per liter
7. NA = Not Analyzed
8. ND = Not Detected

**Qualifiers:**

D = The concentration reported is a result of a diluted sample.

E = The result is estimated and cannot be accurately reported due to levels encountered or interferences.

J = The analyte was detected above the Method Detection Limit (MDL), but below the Reporting Limit (RL); therefore, the result is an estimated concentration.

U = The analyte was analyzed for, but was not detected at a level greater than or equal to the RL; the value shown in the table is the RL.

B = The analyte was found in the associated analysis batch blank.

**Table C-2  
Groundwater Summary Report  
Groundwater Sample Analytical Results**

Former University Heights Yard  
Bronx, New York  
Langan Project No.: 170502901

Location Sample ID Laboratory ID Sample Date	NYSDEC SGVs	TMW11 TMW11_083118 1810021-04 8/31/2018	TMW12 TMW12_083118 1810021-03 8/31/2018	TMW14 TMW14_083118 1810021-05 8/31/2018	TMW15 TMW15_083018 18H1425-11 8/30/2018	TMW18 TMW18_090418 1810093-01 9/4/2018	TMW20 TMW20_090418 1810093-02 9/4/2018
<b>Volatile Organic Compounds (µg/L)</b>							
Acetone	50	2.06	1 U	1.46 J	1.88 J	23.9	2
Carbon Disulfide	60	0.31 J	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Ethylbenzene	5	0.26 J	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Isopropylbenzene (Cumene)	5	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Methyl Ethyl Ketone (2-Butanone)	50	0.2 U	0.2 U	0.2 U	0.2 U	0.96	0.2 U
Tert-Butyl Alcohol	~	5.43	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Tert-Butyl Methyl Ether	10	2.33	0.22 J	0.2 U	0.2 U	0.2 U	0.2 U
<b>Semivolatile Organic Compounds (µg/L)</b>							
Acenaphthene	20	0.349	0.0541 U	0.0615	0.0526 U	0.14	0.0513 U
Acenaphthylene	~	0.0615	0.184	0.0513 U	0.0526 U	0.05 U	0.0513 U
Anthracene	50	0.205	0.205	0.0513	0.0526 U	0.1	0.0513 U
Benzo(a)Anthracene	0.002	0.0513 U	<b>0.303</b>	0.0513 U	0.0526 U	0.05 U	<b>0.0615</b>
Benzo(a)Pyrene	0	0.0513 U	<b>0.454</b>	0.0513 U	0.0526 U	0.05 U	<b>0.0513</b>
Benzo(b)Fluoranthene	0.002	0.0513 U	<b>0.4</b>	0.0513 U	0.0526 U	0.05 U	<b>0.0615</b>
Benzo(g,h,i)Perylene	~	0.0513 U	0.476	0.0513 U	0.0526 U	0.05 U	0.0513 U
Benzo(k)Fluoranthene	0.002	0.0513 U	<b>0.357</b>	0.0513 U	0.0526 U	0.05 U	<b>0.0513</b>
Bis(2-Ethylhexyl) Phthalate	5	1.37	0.919	<b>8.94</b> D	0.832	2.49	0.513 U
Chrysene	0.002	<b>0.0513</b>	<b>0.292</b>	0.0513 U	0.0526 U	0.05 U	<b>0.0615</b>
Dibenz(a,h)Anthracene	~	0.0513 U	0.13	0.0513 U	0.0526 U	0.05 U	0.0513 U
Fluoranthene	50	0.185	0.389	0.0513 U	0.0526 U	0.14	0.103
Fluorene	50	0.226	0.0541 U	0.0513 U	0.0526 U	0.11	0.0513 U
Indeno(1,2,3-c,d)Pyrene	0.002	0.0513 U	<b>0.389</b>	0.0513 U	0.0526 U	0.05 U	0.0513 U
Naphthalene	10	0.226	0.0541 U	0.0513 U	0.0526 U	0.06	0.0513 U
Phenanthrene	50	0.349	0.141	0.133	0.0526 U	0.36	0.0513
Pyrene	50	0.174	0.378	0.0615	0.0526 U	0.12	0.0821
<b>Polychlorinated Biphenyls (µg/L)</b>							
Total Polychlorinated Biphenyls	0.09	ND	ND	ND	ND	ND	ND
<b>Inorganics (µg/L)</b>							
Aluminum	~	576	8970	13900	68	36400	6180
Aluminum (Dissolved)	~	70.6	55.6 U	185	55.6 U	114	55.6 U
Antimony	3	1.11 U	1.45	<b>3.15</b>	1 U	<b>15.3</b>	<b>4.79</b>
Antimony (Dissolved)	3	1.11 U	1.11 U	2.63	1.11 U	<b>14.8</b>	1.97
Arsenic	25	4.02	10.2	15.1	1.17	15.4	6.21
Arsenic (Dissolved)	25	3.29	5.15	5.99	1.65	6.1	1.11 U
Barium	1000	222	361	227	93.3	<b>1280</b>	255
Barium (Dissolved)	1000	187	169	78.5	93.1	263	82.2
Beryllium	3	1.11 U	1.11 U	1.11 U	1 U	1.31	1 U
Cadmium	5	1.11 U	2.03	<b>12</b>	1 U	<b>12.7</b>	2.97
Cadmium (Dissolved)	5	1.11 U	1.11 U	1.11 U	1.11 U	1.11 U	1.11 U
Calcium	~	85800	214000	183000	180000	273000	146000
Calcium (Dissolved)	~	86800	147000	86400	179000	102000	119000
Chromium, Total	50	5	39.6	<b>50.7</b>	5.56 U	<b>69.7</b>	13.5
Chromium, Total (Dissolved)	50	5.56 U	5.56 U	5.9	5.56 U	5.56 U	5.56 U
Chromium, Trivalent	~	10 U	39.6	50.7	10 U	400 U	400 U
Cobalt	~	5 U	13.5	55.1	5.56 U	51.6	5.56 U
Cobalt (Dissolved)	~	5.56 U	5.56 U	5.56 U	5.56 U	5.56 U	5.56 U
Copper	200	8.54	173	20.7	15.5	<b>363</b>	<b>223</b>
Copper (Dissolved)	200	5.56 U	5.56 U	16.6	15.1	5.67	15.1
Cyanide	200	10 U	10 U	<b>3330</b> D	10 U	99.8	10 U
Iron	300	<b>3820</b>	<b>14000</b>	<b>21400</b>	<b>327</b>	<b>62500</b> B	<b>4810</b> B
Iron (Dissolved)	300	<b>3410</b> B	<b>2020</b> B	<b>965</b> B	281 B	122	112
Lead	25	<b>175</b>	<b>999</b>	<b>460</b>	5.56 U	<b>9520</b>	<b>651</b>
Lead (Dissolved)	25	5.56 U	7.09	8.85	5.56 U	5.56 U	5.56 U
Magnesium	35000	11500	25100	<b>70200</b>	<b>360000</b>	<b>36400</b>	31100
Magnesium (Dissolved)	35000	11500	14200	<b>49000</b>	<b>357000</b>	23900	29500
Manganese	300	<b>697</b>	<b>2460</b>	<b>10200</b>	<b>516</b>	<b>3360</b>	<b>712</b>
Manganese (Dissolved)	300	<b>675</b>	<b>1860</b>	286	<b>516</b>	<b>647</b>	<b>487</b>
Nickel	100	5 U	36.4	94.9	5.56 U	73.2	23.6
Nickel (Dissolved)	100	5.56 U	8.83	5.56 U	5.56 U	5.56 U	5.56 U
Potassium	~	11400 B	19300 B	45600 B	138000 B	23700	14700
Potassium (Dissolved)	~	12700	18900	44000	140000 B	17300	14200
Selenium	10	6.95 B	<b>14.9</b> B	<b>57.7</b> B	<b>105</b>	<b>23.7</b>	3.68
Selenium (Dissolved)	10	5.15 B	6.17 B	<b>33.4</b> B	<b>114</b>	1.51	2.44
Sodium	20000	<b>234000</b>	<b>312000</b>	<b>1240000</b>	<b>3590000</b> BD	<b>409000</b>	<b>165000</b>
Sodium (Dissolved)	20000	<b>245000</b>	<b>318000</b>	<b>1240000</b>	<b>3700000</b> BD	<b>404000</b>	<b>159000</b>
Vanadium	~	10 U	146	86.4	11.1 U	154	14.6
Zinc	2000	42.1	602	<b>3700</b>	16.7 U	<b>2150</b>	975
Zinc (Dissolved)	2000	17.5	19.9	16.7 U	16.7 U	16.7 U	236
<b>Per and Polyfluoroalkyl Substances (µg/L)</b>							
Perfluorobutanesulfonic Acid	~	NA	NA	NA	0.0025	NA	NA
Perfluorohexanoic Acid	~	NA	NA	NA	0.0029	NA	NA
Perfluorooctanesulfonic acid	~	NA	NA	NA	0.0051	NA	NA
Perfluorooctanoic Acid	~	NA	NA	NA	0.004	NA	NA
Perfluoropentanoic Acid	~	NA	NA	NA	0.0041	NA	NA

**Table C-2  
Groundwater Summary Report  
Groundwater Sample Analytical Results**

Former University Heights Yard  
Bronx, New York  
Langan Project No.: 170502901

Location Sample ID Laboratory ID Sample Date	NYSDEC SGVs	TMW21 TMW21_121818 18L0827-06 12/18/2018	TMW22 TMW22_121818 18L0827-07 12/18/2018
<b>Volatile Organic Compounds (µg/L)</b>			
Acetone	50	1 U	1 U
Carbon Disulfide	60	0.2 U	0.2 U
Ethylbenzene	5	0.2 U	0.2 U
Isopropylbenzene (Cumene)	5	0.2 U	0.39 J
Methyl Ethyl Ketone (2-Butanone)	50	0.2 U	0.2 U
Tert-Butyl Alcohol	~	0.5 U	0.5 U
Tert-Butyl Methyl Ether	10	0.2 U	0.2 U
<b>Semivolatile Organic Compounds (µg/L)</b>			
Acenaphthene	20	0.0556 U	0.0889 U
Acenaphthylene	~	0.0556 U	0.0556 U
Anthracene	50	0.0556 U	0.133 U
Benzo(a)Anthracene	0.002	0.0556 U	0.0556 U
Benzo(a)Pyrene	0	0.0556 U	0.0556 U
Benzo(b)Fluoranthene	0.002	0.0556 U	0.0556 U
Benzo(g,h,i)Perylene	~	0.0556 U	0.0556 U
Benzo(k)Fluoranthene	0.002	0.0556 U	0.0556 U
Bis(2-Ethylhexyl) Phthalate	5	0.556 U	0.556 U
Chrysene	0.002	0.0556 U	0.0556 U
Dibenz(a,h)Anthracene	~	0.0556 U	0.0556 U
Fluoranthene	50	0.0556 U	0.167 U
Fluorene	50	0.0556 U	0.0667 U
Indeno(1,2,3-c,d)Pyrene	0.002	0.0556 U	0.0556 U
Naphthalene	10	0.0556 U	0.0667 U
Phenanthrene	50	0.0556 U	0.467 U
Pyrene	50	0.0556 U	0.156 U
<b>Polychlorinated Biphenyls (µg/L)</b>			
Total Polychlorinated Biphenyls	0.09	ND	ND
<b>Inorganics (µg/L)</b>			
Aluminum	~	199	5180
Aluminum (Dissolved)	~	55.6 U	55.6 U
Antimony	3	1.11 U	1.11 U
Antimony (Dissolved)	3	1.11 U	1.11 U
Arsenic	25	1.58	2.83
Arsenic (Dissolved)	25	1.5	1.11 U
Barium	1000	27.8 U	214
Barium (Dissolved)	1000	27.8 U	114
Beryllium	3	0.333 U	0.333 U
Cadmium	5	0.556 U	<b>12.8</b>
Cadmium (Dissolved)	5	0.556 U	<b>12.8</b>
Calcium	~	93800	22100
Calcium (Dissolved)	~	94200	20800
Chromium, Total	50	5.56 U	26.8
Chromium, Total (Dissolved)	50	5.56 U	5.56 U
Chromium, Trivalent	~	NA	NA
Cobalt	~	4.44 U	25.9
Cobalt (Dissolved)	~	4.44 U	22.7
Copper	200	22.2 U	45.5
Copper (Dissolved)	200	22.2 U	35.9
Cyanide	200	NA	NA
Iron	300	278 U	<b>7690</b>
Iron (Dissolved)	300	278 U	278 U
Lead	25	5.56 U	5.56 U
Lead (Dissolved)	25	5.56 U	5.56 U
Magnesium	35000	<b>207000</b>	<b>39800</b>
Magnesium (Dissolved)	35000	<b>218000</b>	<b>38000</b>
Manganese	300	13.6	<b>3070</b>
Manganese (Dissolved)	300	8.71	<b>2790</b>
Nickel	100	11.1 U	43.8
Nickel (Dissolved)	100	11.1 U	30.1
Potassium	~	77000 B	21800 B
Potassium (Dissolved)	~	80200 B	20500 B
Selenium	10	<b>16</b> D	<b>12.2</b> D
Selenium (Dissolved)	10	2.22 U	2.22 U
Sodium	20000	<b>3250000</b> D	<b>1290000</b>
Sodium (Dissolved)	20000	<b>2030000</b> E	<b>1060000</b>
Vanadium	~	11.1 U	19.5
Zinc	2000	27.8 U	33.3
Zinc (Dissolved)	2000	218	27.8 U
<b>Per and Polyfluoroalkyl Substances (µg/L)</b>			
Perfluorobutanesulfonic Acid	~	NA	NA
Perfluorohexanoic Acid	~	NA	NA
Perfluorooctanesulfonic acid	~	NA	NA
Perfluorooctanoic Acid	~	NA	NA
Perfluoropentanoic Acid	~	NA	NA

**Table C-3**  
**Soil Vapor Summary Report**  
**Soil Vapor Sample Analytical Results**

Former University Heights Yard  
Bronx, New York  
Langan Project No.: 170502901

**Notes:**

1. Indoor air sample analytical results are compared to the New York State Department of Health Air Guideline Values (AGVs) as set forth in the New York State Department of Health (NYSDOH) October 2006 Guidance for Evaluating Soil Vapor Intrusion in the State of New York and subsequent updates (2013, 2015).
2. Only detected analytes are shown in the table.
3. Analytes detected with concentrations above the minimum concentrations are bolded and shaded.
4. ~ = Regulatory limit for this analyte does not exist
5.  $\mu\text{g}/\text{m}^3$  = micrograms per cubic meter
6. SV = soil vapor

**Qualifiers:**

D = The concentration reported is a result of a diluted sample.

U = The analyte was analyzed for, but was not detected at a level greater than or equal to the RL; the value shown in the table is the RL.

**Table C-3**  
**Soil Vapor Summary Report**  
**Soil Vapor Sample Analytical Results**

Former University Heights Yard  
 Bronx, New York  
 Langan Project No.: 170502901

Location		SV11	SV12	SV15	SV18	SV20	SV21
Sample ID	NYSDOH	SV11_083118	SV12_083118	SV15_083118	SV18_090418	SV20_090418	SV21_121818
Laboratory ID	AGVs	18I0007-03	18I0007-02	18I0007-01	18I0094-01	18I0094-02	18L0829-01
Sample Date		8/31/2018	8/31/2018	8/31/2018	9/4/2018	9/4/2018	12/18/2018
Sample Type		SV	SV	SV	SV	SV	SV
<b>Volatile Organic Compounds (µg/m³)</b>							
1,2,4-Trimethylbenzene	~	350 D	25 D	25 D	14 D	29 D	11 D
1,3,5-Trimethylbenzene (Mesitylene)	~	300 D	10 D	9.9 D	6.2 D	12 D	2.1 D
1,3-Butadiene	~	120 D	1.1 U	1.1 U	1 U	1.1 U	0.91 U
2-Hexanone	~	1.4 U	23 D	18 D	48 D	87 D	7 D
4-Ethyltoluene	~	610 D	23 D	24 D	11 D	21 D	14 D
Acetone	~	1800 D	240 D	130 D	92 D	330 D	9 D
Benzene	~	1500 D	47 D	2.6 D	0.5 U	0.54 U	0.79 D
Bromodichloromethane	~	1.1 U	66 D	1.1 U	1.1 U	1.1 U	0.92 U
Carbon Disulfide	~	1400 D	510 D	22 D	5.6 D	5.3 D	2.4 D
Chloroform	~	0.81 U	440 D	8.1 D	8.2 D	0.83 U	0.67 U
Chloromethane	~	15 D	0.33 U	0.33 U	0.32 U	0.35 U	0.28 U
Cis-1,2-Dichloroethylene	~	53 D	0.16 U	0.16 U	0.16 U	0.17 U	0.14 U
Cyclohexane	~	760 D	10 D	0.55 U	0.54 U	0.59 U	0.47 U
Dibromochloromethane	~	1.4 U	6.9 D	1.4 U	1.3 U	1.5 U	1.2 U
Dichlorodifluoromethane	~	0.82 U	0.79 U	0.79 U	0.78 U	0.84 U	1.5 D
Ethylbenzene	~	1000 D	24 D	12 D	4.4 D	6.7 D	5.1 D
Isopropanol	~	17 D	5.2 D	4.3 D	0.77 U	0.84 U	0.67 U
M,P-Xylene	~	2000 D	46 D	45 D	17 D	27 D	27 D
Methyl Ethyl Ketone (2-Butanone)	~	440 D	60 D	36 D	86 D	150 D	41 D
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	~	340 D	9.9 D	0.66 U	0.64 U	0.7 U	0.56 U
Methylene Chloride	60	1.2 U	7.9 D	5 D	1.1 U	1.2 U	0.95 U
n-Heptane	~	1600 D	15 D	4.2 D	0.64 U	5.3 D	1.8 D
n-Hexane	~	2000 D	13 D	3.8 D	0.55 U	0.6 U	1.2 D
o-Xylene (1,2-Dimethylbenzene)	~	1100 D	23 D	22 D	11 D	17 D	6.2 D
Propylene	~	2300 D	26 D	24 D	6.5 D	11 D	6 D
Styrene	~	0.71 U	9.9 D	0.68 U	0.67 U	0.73 U	0.64 D
Tert-Butyl Methyl Ether	~	5600 D	4.3 D	0.58 U	0.57 U	0.61 U	0.49 U
Tetrachloroethene (PCE)	30	<b>32</b> D	11 D	17 D	0.27 U	21 D	4.1 D
Toluene	~	1600 D	33 D	19 D	4 D	5.6 D	10 D
Trichloroethene (TCE)	2	<b>46</b> D	<b>6.3</b> D	0.22 U	0.21 U	0.23 U	0.18 U
Trichlorofluoromethane	~	0.94 U	37 D	0.9 U	0.88 U	54 D	1 D
<b>General Chemistry (µg/m³)</b>							
Methane	~	5900000 D	41000 D	10000 U	10000 U	11000 U	9000 U

## **ATTACHMENT D**

### **SECTION IV: PROPERTY INFORMATION**

The Reference Point for the given latitude (40° 52' 1.21") and longitude (-73° 54' 35.81") is the approximate center of the site

Figure D-1 is a Digital Tax Map from the New York City Department of Finance (NYCDOF) showing the proposed brownfield site boundary.

Figure D-2 is a Site Location Map showing the location of the proposed brownfield site.

Figure D-3 provides a site base map that shows i) a distance of at least 1,000 feet around the proposed brownfield site; and ii) map scale, north arrow orientation, date, and location of the site with respect to adjacent streets and roadways.

Figure D-4 provides a site base map that shows i) proposed brownfield site boundary lines, with adjacent site owners clearly identified; and ii) surrounding site land uses.

Figure D-5 is a Digital Tax map from NYCDOF showing the delineation of surface water on the site.

#### **Item 8 Response**

While the following easements have been identified for the site, the easements will not preclude, presently or potentially, the imposition of the obligations under the Brownfield Cleanup Program to investigate and remediate the site:

- The New York City Department of Finance Tax Map shows two New York City Department of Environmental Protection (NYCDEP) sewer easements that transect the central portion of the site and connect to combined sewer outfalls along the Harlem River shorefront. The easements are shown on Figure D-1.

#### **Item 10 Response**

##### **Location**

The Former University Heights Yard is about 480,000 square feet ( $\pm$ 11 acres) and occupies Block 3244, Lot 1 and Block 3245, Lot 3 on the Bronx Borough Tax Map. Lot 3 constitutes the waterfront portion of the Subject Property. Lot 1 occupies the eastern portion of the Subject Property and the Exterior Street roadway, which extends about 1,000 feet south of Lot 3 to within

about 700 feet of the University Heights Bridge. The site is bound by a Metro-North Railroad easement to the north and east; a concrete manufacturing facility (Block 3244, Lot 160) and an extension of Exterior Street to the south, and the Harlem River to the west.

### **Site Features**

The site is currently vacant, containing uncultivated vegetation, portions of asphalt-paved roadway, and discontinuous concrete cover. Two stockpiles containing soil of unknown origin and the remains of a timber bulkhead are located on the northern portion of the site. The southwestern and northwestern boundaries of the site extend outboard of the Harlem River shoreline (i.e., the high water line) by distances that vary between about 30 and 60 feet.

### **Current Zoning and Land Use**

According to the New York City Department of City Planning (NYCDCP) Zoning Map 3c, dated December 19, 2017, the northern portion of the site is located within an M1-1 manufacturing district, with the southern portion of the site located in an M3-1 manufacturing district. The adjoining parcels are used for commercial and light industrial purposes, with the surrounding area generally consisting of residential, institutional and public park use. An active commuter railway adjoins the eastern boundary of the site.

### **Past Use of the Site**

A timber bulkhead was constructed along the Harlem River shoreline by 1900, and the western shoreline was incrementally backfilled with material from an unknown source between about 1914 and 1977. Active railroad tracks and associated freight operations occurred on the eastern portion of the site between about 1897 and the early 1970s. The southern portion of Lot 3 was used for the storage, maintenance, and cleaning of concrete trucks operated by the southern adjoining concrete plant between about 1984 and 2007. The southern portion of Lot 3 was covered with up to three feet of annealed, concrete washout from the cleaning of concrete trucks during this period of time. Concrete materials, materials of unknown origin and other debris appears to have occurred at the site between about 1991 and present day. The southern portion of Lot 1 was occupied by Exterior Street between about 1945 and present day. Remaining portions of the site have been covered with discontinuous vegetation, asphalt, and soil of unknown origin, gravel, concrete and construction debris between about 1900 and present day. The site has been under the ownership of CSX Transportation, Inc. since 1999.

## **Site Geology and Hydrogeology**

Based on Langan's Phase II Environmental Site Investigation (ESI) report, dated November 2018, the general stratigraphy of the site consists of historical fill extending to depths of about 8.5 and 13 feet below ground surface (bgs). Native soil underlies the historic fill material. The historic fill layer generally consists of brown, fine- to medium-grained sand with varying amounts of gravel, silt, and brick and concrete fragments. Native soil consists of brown, fine sand with varying amounts of silt, organic material, fine- to medium-grained sand and gravel. Bedrock was not encountered during the Phase II ESI.

Groundwater was observed at depths between about 5.1 feet bgs in the southern portion of the site and 14.6 feet bgs in the northern portion of the site. Inferred groundwater flow is to the northwest towards the adjoining Harlem River. Based on proximity to the Harlem River estuary, groundwater elevations across the site are likely subject to tidal fluctuations.

## **Environmental Assessment**

Based upon previous investigations conducted, the primary contaminants of concern for the site include volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), pesticides, metals and cyanide. Potential historical sources of these impacts include material stockpiles and other materials of unknown origin, commercial vehicle staging and potential maintenance activities, and railroad freight operations. Potential impacts to soil, groundwater, and soil vapor will be further investigated during the remedial investigation.

### Soil

Seven SVOCs, including benzo(a)anthracene (maximum 12 milligrams per kilogram [mg/kg]), benzo(a)pyrene (maximum 10.4 mg/kg), benzo(b)fluoranthene (maximum 9.75 mg/kg), benzo(k)fluoranthene (maximum 7.52 mg/kg), chrysene (maximum 12 mg/kg), dibenzo(a,h)anthracene (maximum 2.64 mg/kg), and indeno(1,2,3-cd)pyrene (maximum 8.13 mg/kg) were detected above the Title 6 New York Codes, Rules and Regulations (NYCRR) Part 375 Unrestricted Use (UU) and Restricted Use Restricted-Residential (RRU) Soil Cleanup Objectives (SCOs) in soil samples collected between 0 and 11 feet bgs, and from the stockpiles present on site.

One VOC (acetone; maximum of 0.54 mg/kg), cyanide (maximum of 39.4 mg/kg), and three pesticides, including 4,4'-DDD (maximum of 0.0233 mg/kg), 4',4'-DDE (maximum 0.0050 mg/kg) and 4',4'-DDT (maximum 0.0174 mg/kg) were detected above the UU SCOs in samples collected from 0 to 2 feet bgs. Pesticides were also detected at concentrations above the UU SCOs in the stockpiles present on site.

Nine metals, including arsenic (maximum 13.9 mg/kg), hexavalent chromium (maximum 5.79 mg/kg), trivalent chromium (maximum 66.1 mg/kg), copper (maximum 243 mg/kg), lead (maximum 674 mg/kg), mercury (maximum 0.578 mg/kg), nickel (maximum 76.8 mg/kg), selenium (maximum 27.7 mg/kg), and zinc (maximum 636 mg/kg), were detected above the UU SCOs in multiple samples. Lead was detected above the RRU SCOs in three soil samples collected at depth intervals between 0 and 11 feet bgs.

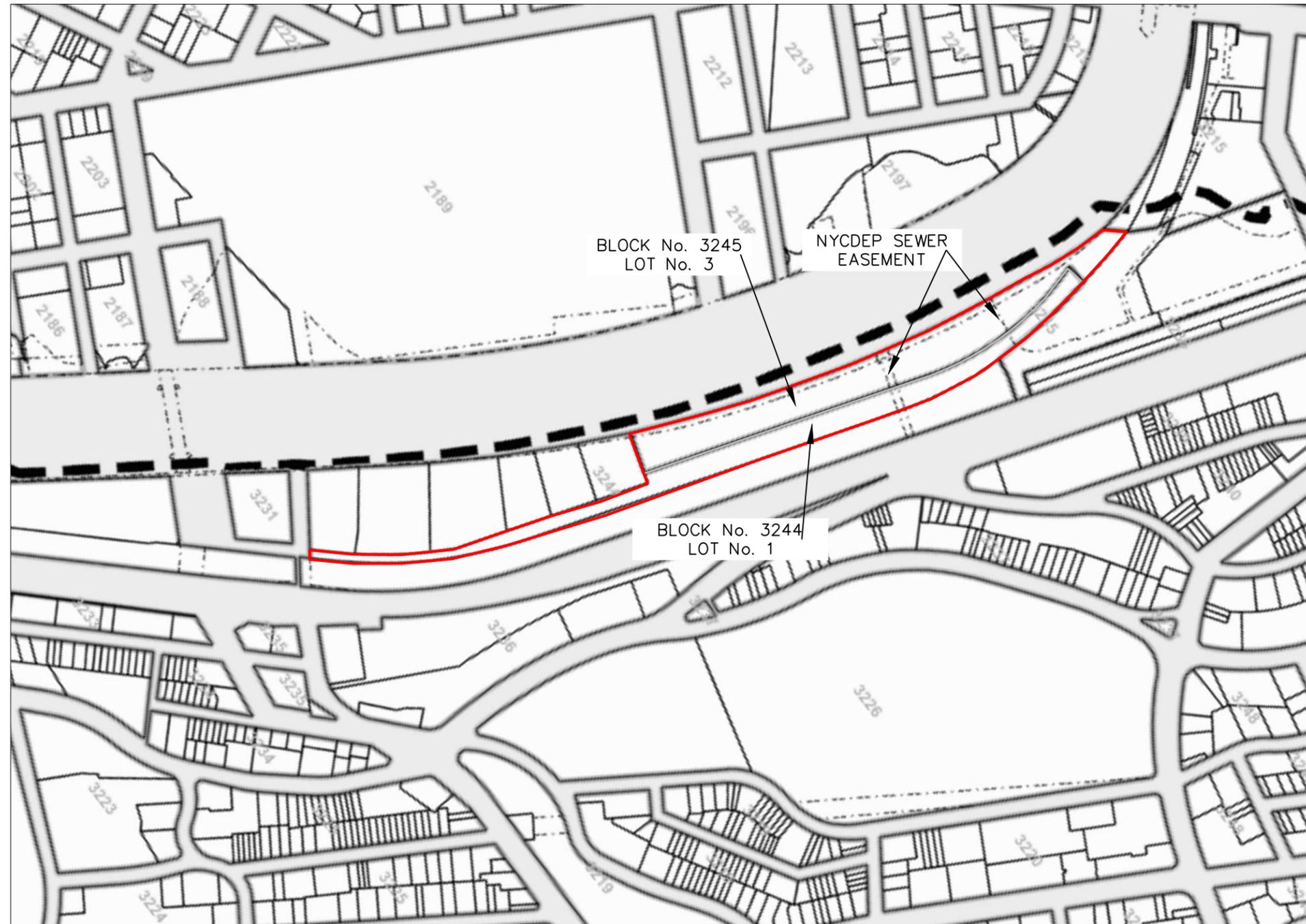
### Groundwater

SVOCs, including benzo(a)anthracene (maximum of 0.303 micrograms per liter [ $\mu\text{g/l}$ ]), benzo(a)pyrene (maximum 0.454  $\mu\text{g/l}$ ), benzo(b)fluoranthene (maximum 0.4  $\mu\text{g/l}$ ), benzo(k)fluoranthene (maximum 0.357  $\mu\text{g/l}$ ), bis(2-ethylhexyl)phthalate (maximum 8.94  $\mu\text{g/l}$ ), chrysene (maximum 0.292  $\mu\text{g/l}$ ), and indeno(1,2,3-cd)pyrene (maximum 0.389  $\mu\text{g/l}$ ), were detected in groundwater samples across the site at concentrations exceeding the NYSDEC Technical and Operational Guidance Series (TOGS) Ambient Water Quality Standards and Guidance Values (SGVs). Five dissolved metals, including antimony (maximum 14.8  $\mu\text{g/l}$ ), magnesium (maximum of 357,000  $\mu\text{g/l}$ ), selenium (maximum of 114  $\mu\text{g/l}$ ), and sodium (maximum of 3,700,000  $\mu\text{g/l}$ ), were also detected at concentrations above the TOGS SGVs.

### Soil Vapor

Soil vapor sample results were evaluated using the New York State Department of Health (NYSDOH) Air Guideline Values (AGVs) and Decision Matrices published in the 2006 NYSDOH Soil Vapor Intrusion Guide (updated in 2017). The decision matrices address the compounds 1,1-dichloroethene(1,1-DCE), 1,1,1-trichloroethane (1,1,1-TCA), cis-1,2-dichloroethene (cis-1,2-DCE), carbon tetrachloride, trichloroethylene (TCE), tetrachloroethylene (PCE), and vinyl chloride. Of the compounds addressed by the Decision Matrices, PCE (maximum of 32  $\mu\text{g/m}^3$ ) and TCE (maximum of 46  $\mu\text{g/m}^3$ ) were detected in up to four soil vapor samples and exceeded the NYSDOH AGVs in up to two samples on the southern portion of the site. Comparison of the PCE and TCE results to the applicable NYSDOH Decision Matrices corresponds with recommendations ranging from "no further action" to "mitigate". Cis-1,2-dichloroethene was detected in one soil vapor sample at a concentration that corresponds with NYSDOH recommendations ranging from "no further action" to "mitigate".

Petroleum-related VOCs, including benzene, toluene, ethyl benzene, and xylenes, were detected in a sample collected from the southern portion of the site at concentrations up to two orders of magnitude above those detected elsewhere at the site. The total VOC concentration in that sample was 24,983  $\mu\text{g/m}^3$ .

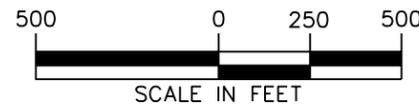


**LEGEND:**

- APPROXIMATE SITE BOUNDARY
- TAX BLOCK BOUNDARY
- 50** TAX BLOCK NUMBER
- TAX LOT BOUNDARY
- 50** TAX LOT NUMBER

**NOTES:**

1. BASEMAP ACCESSED FROM GIS.NYC.GOV/TAXMAP ON SEPTEMBER 22, 2017.
2. NYCDEP = NEW YORK CITY DEPARTMENT OF ENVIRONMENTAL PROTECTION



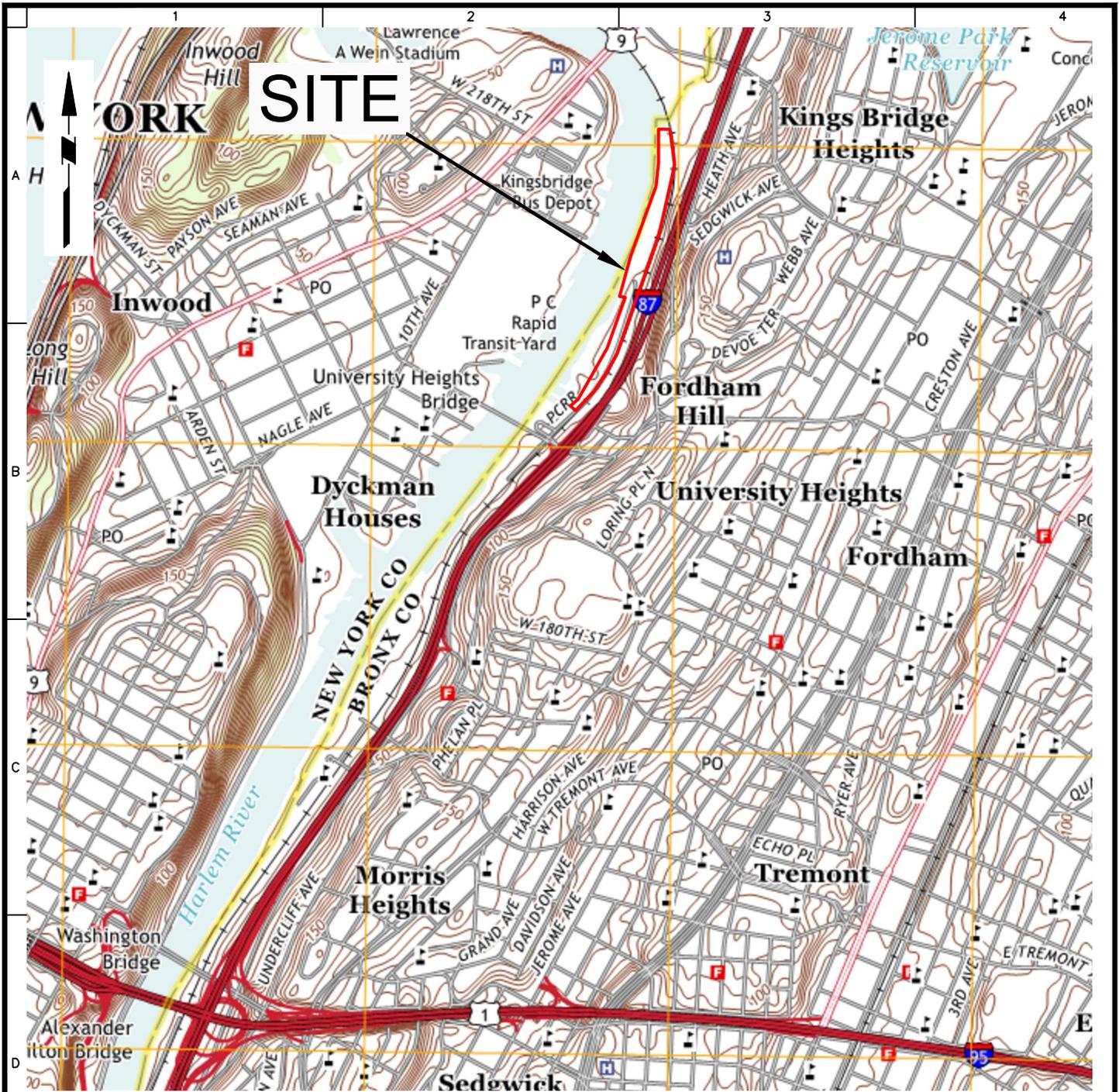
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Project  
**FORMER UNIVERSITY HEIGHTS YARD**  
 BLOCK No. 3244, LOT No. 1  
 BLOCK No. 3245, LOT No. 3  
 BRONX NEW YORK

Figure Title  
**TAX MAP**

Project No.  
170502901  
 Date  
09/10/2018  
 Drawn By  
AED  
 Checked By  
JL

Figure No.  
**D-1**  
 Sheet 1 of 5



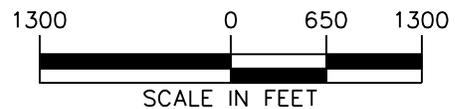
**LEGEND:**

— APPROXIMATE SITE BOUNDARY

**BASE MAP REFERENCE:**

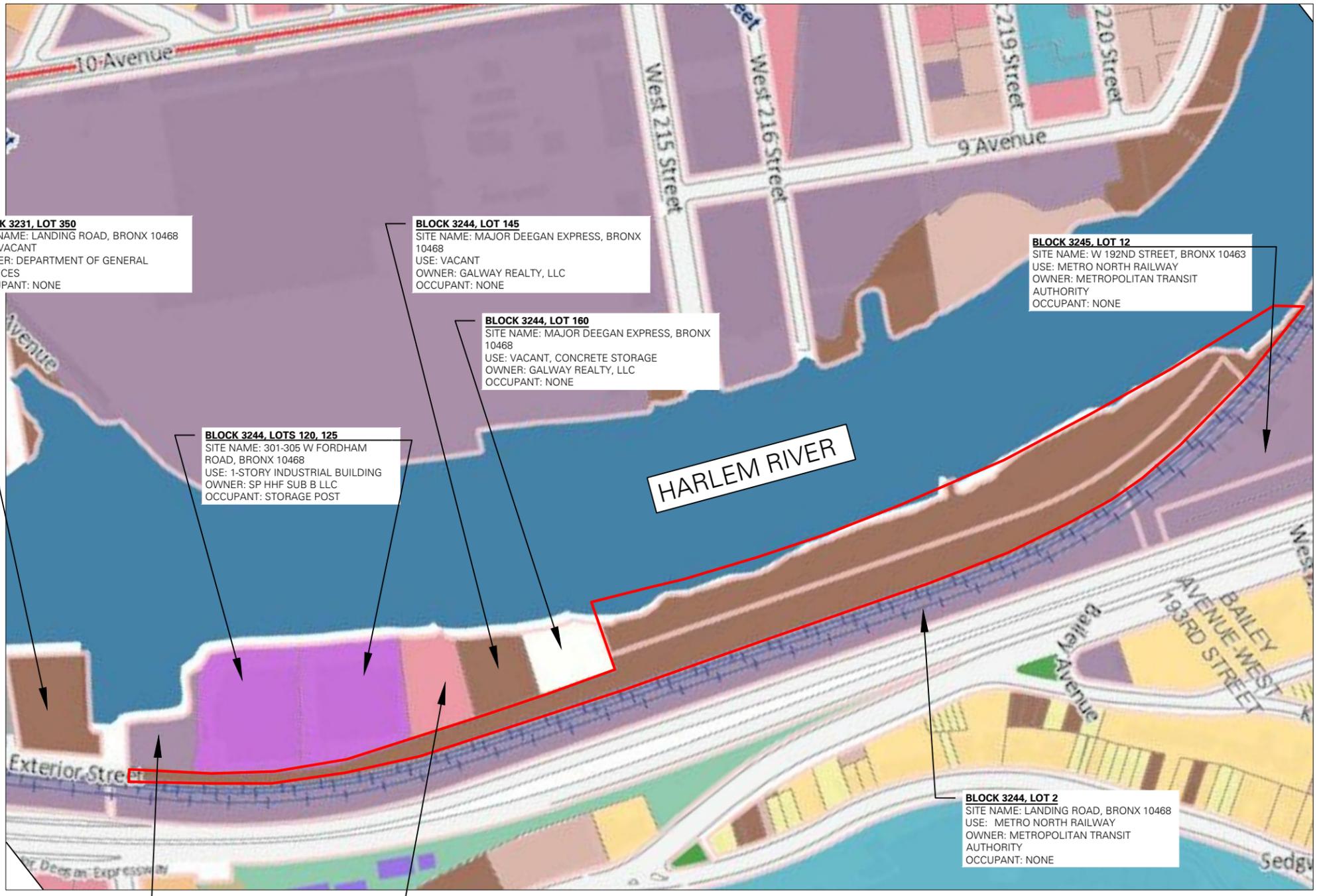
UNITED STATES GEOLOGICAL SURVEY (USGS) 7.5-MINUTE CENTRAL PARK, N.Y.-N.J.  
TOPOGRAPHIC QUADRANGLE MAP, DATED 2013

**WARNING:** IT IS A VIOLATION OF THE NYS EDUCATION LAW ARTICLE 145 FOR ANY PERSON, UNLESS HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS ITEM IN ANY WAY.



<p>Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C. 21 Penn Plaza, 360 West 31st Street, 8th Floor New York, NY 10001 T: 212.479.5400 F: 212.479.5444 www.langan.com</p>	<p>Project <b>FORMER UNIVERSITY HEIGHTS YARD</b></p> <p>BLOCK No. 3244, LOT No. 1 &amp; BLOCK 3245, LOT No. 3</p> <p>BRONX NEW YORK</p>	<p>Figure Title <b>SITE LOCATION MAP</b></p>	<p>Project No. 170502901</p> <p>Date 09/13/2018</p> <p>Drawn By WK</p> <p>Checked By JL</p>	<p>Figure No. <b>D-2</b></p> <p>Sheet 2 of 5</p>
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**BLOCK 3231, LOT 350**  
 SITE NAME: LANDING ROAD, BRONX 10468  
 USE: VACANT  
 OWNER: DEPARTMENT OF GENERAL SERVICES  
 OCCUPANT: NONE

**BLOCK 3244, LOT 145**  
 SITE NAME: MAJOR DEEGAN EXPRESS, BRONX 10468  
 USE: VACANT  
 OWNER: GALWAY REALTY, LLC  
 OCCUPANT: NONE

**BLOCK 3245, LOT 12**  
 SITE NAME: W 192ND STREET, BRONX 10463  
 USE: METRO NORTH RAILWAY  
 OWNER: METROPOLITAN TRANSIT AUTHORITY  
 OCCUPANT: NONE

**BLOCK 3244, LOTS 120, 125**  
 SITE NAME: 301-305 W FORDHAM ROAD, BRONX 10468  
 USE: 1-STORY INDUSTRIAL BUILDING  
 OWNER: SP HHF SUB B LLC  
 OCCUPANT: STORAGE POST

**BLOCK 3244, LOT 160**  
 SITE NAME: MAJOR DEEGAN EXPRESS, BRONX 10468  
 USE: VACANT, CONCRETE STORAGE  
 OWNER: GALWAY REALTY, LLC  
 OCCUPANT: NONE

**BLOCK 3244, LOT 2**  
 SITE NAME: LANDING ROAD, BRONX 10468  
 USE: METRO NORTH RAILWAY  
 OWNER: METROPOLITAN TRANSIT AUTHORITY  
 OCCUPANT: NONE

**BLOCK 3244, LOT 100**  
 SITE NAME: LANDING ROAD, BRONX 10468  
 USE: TRANSPORTATION/UTILITY PROPERTY  
 OWNER: CONSOLIDATED EDISON CO.  
 OCCUPANT: NONE

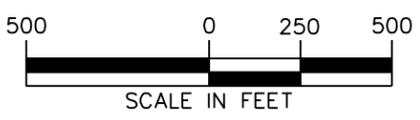
**BLOCK 3244, LOT 130**  
 SITE NAME: 2371 EXTERIOR STREET, BRONX 10468  
 USE: 3-STORY COMMERCIAL BUILDING  
 OWNER: 2371 EXTERIOR LLC  
 OCCUPANT: FORDHAM SCRAP METAL

**LEGEND:**

- APPROXIMATE SITE BOUNDARY
- 1- & 2-FAMILY RESIDENTIAL
- MULTI-FAMILY RESIDENTIAL
- MIXED USE
- OPEN SPACE & OUTDOOR RECREATION
- COMMERCIAL
- INSTITUTIONS
- INDUSTRIAL
- PARKING
- TRANSPORTATION/UTILITIES
- VACANT LOTS

**NOTES:**

- BASEMAP ACCESSED FROM WWW.OASIS.NET/MAPS ON DECEMBER 21, 2018



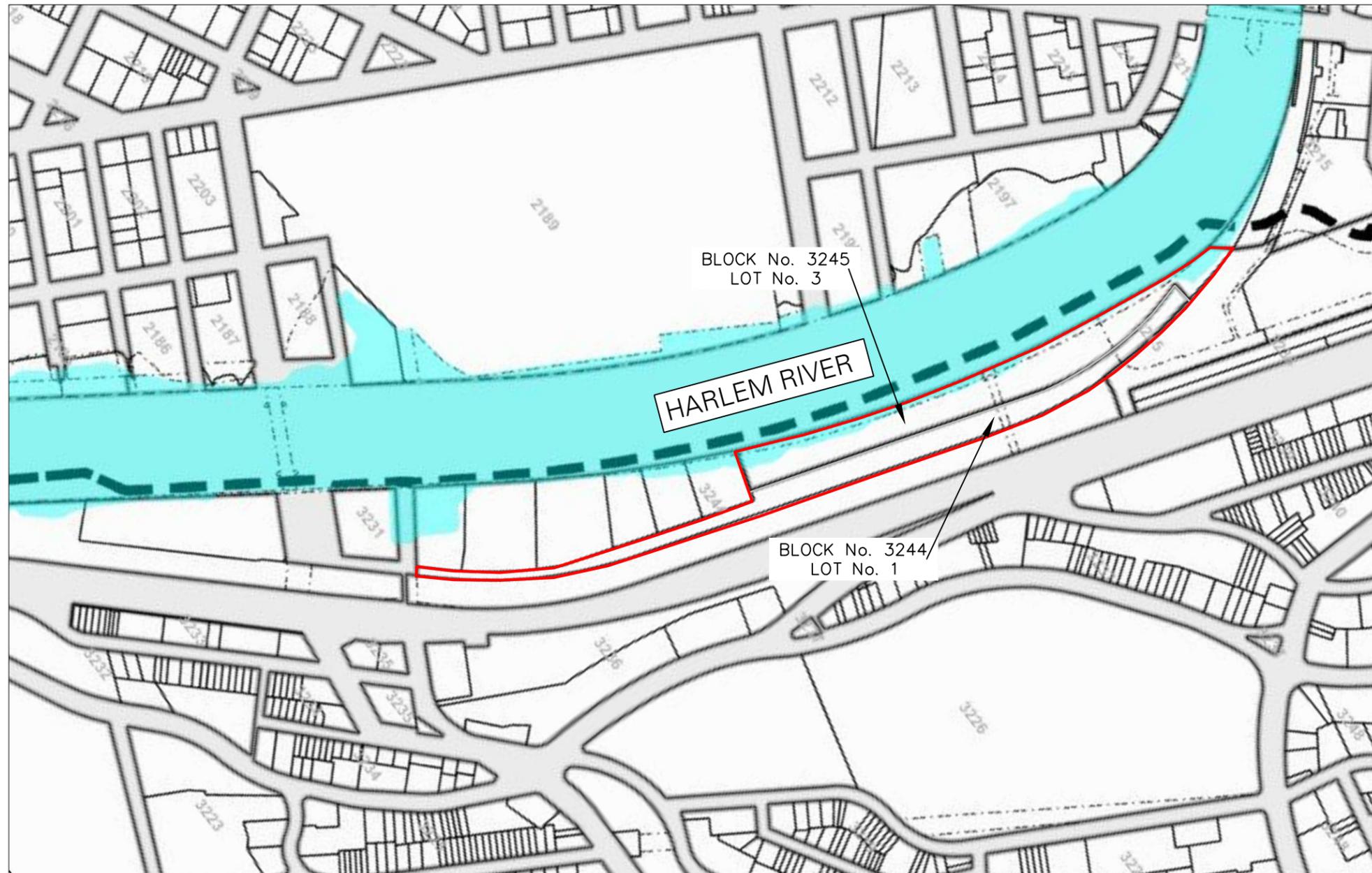
**LANGAN**  
 Langan Engineering, Environmental, Surveying,  
 Landscape Architecture and Geology, D.P.C.  
 21 Penn Plaza, 360 West 31st Street, 8th Floor  
 New York, NY 10001  
 T: 212.479.5400 F: 212.479.5444 www.langan.com

Project  
**FORMER UNIVERSITY HEIGHTS YARD**  
 BLOCK No. 3244, LOT No. 1  
 BLOCK No. 3245, LOT No. 3  
 BRONX NEW YORK

Figure Title  
**ADJOINING PROPERTY AND SURROUNDING LAND USE MAP**

Project No.  
 170502901  
 Date  
 12/21/2018  
 Drawn By  
 AED  
 Checked By  
 JL

Figure No.  
**D-4**  
 Sheet 4 of 5



**LEGEND:**

- APPROXIMATE SITE BOUNDARY
- APPROXIMATE EXTENT OF SURFACE WATER
- TAX BLOCK BOUNDARY
- 50** TAX BLOCK NUMBER
- TAX LOT BOUNDARY
- 50** TAX LOT NUMBER

**NOTES:**

1. BASEMAP ACCESSED FROM MAPS.NYC.GOV/TAXMAP/MAP.HTM ON DECEMBER 17, 2017.



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 Langan Engineering, Environmental, Surveying,  
 Landscape Architecture and Geology, D.P.C.  
 21 Penn Plaza, 360 West 31st Street, 8th Floor  
 New York, NY 10001  
 T: 212.479.5400 F: 212.479.5444 www.langan.com

Project  
**FORMER UNIVERSITY HEIGHTS YARD**  
 BLOCK No. 3244, LOT No. 1  
 BLOCK No. 3245, LOT No. 3  
 BRONX NEW YORK

Figure Title  
**DELINEATION OF SURFACE WATER ON SITE**

Project No.  
170502901  
 Date  
12/21/2018  
 Drawn By  
AED  
 Checked By  
JL

Figure No.  
**D-5**  
 Sheet 5 of 5

**ATTACHMENT E**  
**SECTION VI: PRIOR OWNER AND OPERATOR INFORMATION**

**Site Owner**

The Requestor is not the current owner of the site. The current owner, CSX Transportation, Inc., and the contact person information is provided below:

David Schulte  
 CSX Transportation, Inc.  
 500 Water Street, J150  
 Jacksonville, Florida 32202  
 (904) 279-4503

The Requestor is under contract with CSX to purchase the property. Closing is scheduled within the first quarter of 2019. There is no other relationship between the Requestor's corporate members and the current owner besides the above.

**Previous Site Owners**

Available ownership records prior to CSX Transportation, Inc. were ascertained through the New York City Department of Finance Automated City Register Information System (ACRIS) website (<http://a863-acris.nyc.gov/DS/DocumentSearch/Index>) and are summarized in the following table.

Block 3244, Lot 1					
Document Date	Document Type	First Party	Second Party	First Party Address and Phone Number	Relationship to Applicant
5/9/1966	Deed	Butler Louis M	JMB Holding Corporation	Address and phone number unknown	None
7/29/1966	Deed	NY Central Railroad Company and Dispatch Shops Inc	Howard Sakin	1633 Broadway New York, NY 10019 Phone number unknown	None
8/8/1978	Deed	Commissioner of Finance of the City of New York	The City of New York	One Center Street, 22 Floor New York, NY (212) 639-9675	None
12/19/1978	Deed	Penn Central Transportation Company	Consolidated Rail Corporation	301 E. 4 <sup>th</sup> Street Cincinnati, OH 45202 Phone number unknown	None
7/11/1984	Deed	Commissioner of Finance	City of New York	One Center Street, 22 Floor New York, NY 212-639-9675	None

<b>Block 3244, Lot 1</b>					
<b>Document Date</b>	<b>Document Type</b>	<b>First Party</b>	<b>Second Party</b>	<b>First Party Address and Phone Number</b>	<b>Relationship to Applicant</b>
6/1/1999	Deed	Consolidated Rail Corporation	New York Central Lines LLC	2 Commerce Square Philadelphia, PA 19103 (215) 209-2000	None
9/28/2007	Merger	New York Central LLC	CSX Transportation, Inc.	500 Water Street Jacksonville, FL 32202 (904) 359-1126	None

<b>Block 3245, Lot 3</b>					
<b>Document Date</b>	<b>Document Type</b>	<b>First Party</b>	<b>Second Party</b>	<b>First Party Address and Phone Number</b>	<b>Relationship to Applicant</b>
12/19/1978	Deed	Penn Central Transportation Company	Consolidated Rail Corporation	301 E. 4 <sup>th</sup> Street Cincinnati, OH 45202 Phone number unknown	None
7/11/1984	Deed	Commissioner of Finance	City of New York	One Center Street, 22 Floor New York, NY 212-639-9675	None
6/1/1999	Deed	Consolidated Rail Corporation	New York Central Lines LLC	2 Commerce Square Philadelphia, PA 19103 (215) 209-2000	None
9/28/2007	Merger	New York Central LLC	CSX Transportation, Inc.	500 Water Street Jacksonville, FL 32202 (904) 359-1126	None

**Previous Site Operators**

<b>Former Block/Lot</b>	<b>Name</b>	<b>Relationship to Site</b>	<b>Address and Phone Number</b>	<b>Relationship to Applicant</b>
Block 3244, Lot 1 and Block 3245, Lot 3	Arthur Beekman CSX Transportation, Inc.	Previous Owner/Operator	CSX Transportation, Inc. 500 Water Street, J150 Jacksonville, Florida 32202 (904) 359-1126	None

The Requestor qualifies as a Volunteer because their liability associated with the site will arise solely as a result of a pending acquisition. The Requestor does not have any affiliation to the current owner or with any responsible party.

## **ATTACHMENT F**

### **SECTION VII: REQUESTOR ELIGIBILITY INFORMATION**

Pursuant to ECL § 27-1405(1), MDBZJGGS, LLC is properly designated as a Volunteer because its liability arises solely from involvement with the site after the release/discharge and will take appropriate care to stop any continuing release, to prevent any threatened future release, and to prevent or limit human, environmental or natural resource exposures to any previously released hazardous waste after taking title to the property.

Under the planned cleanup, documented impacts at the site require remediation under Title 6 of the New York Codes, Rules and Regulations (6 NYCRR) Part 375, including soil impacted with metals, pesticides, and semivolatile organic compounds. Additional soil vapor impacts associated with the protracted history of vehicle repair are likely. Cost burdens will be associated with the removal and or/treatment, handling, and disposal of contaminated soil and administrative and engineering fees associated with regulatory agency coordination.

#### **Access Agreement**

A letter from CSX Transportation, Inc. indicating that they have granted site access to the Requestor throughout the BCP project is attached and also provided in Attachment A.



500 Water Street  
Jacksonville, FL 32202  
(904) 279-4503

David J. Schulte  
Director Real Estate

February 22, 2019

Kelly A. Lewandowski,  
Site Control Section  
New York State Department of Environmental Conservation  
650 Broadway 11<sup>th</sup> Floor  
Albany, NY 12233

Re: Proof of Access for BCP Site - Former University Heights Yard  
Development Site: Block 3244, Lot 1 and Block 3245, Lot 3

Dear Ms. Lewandowski:

I am writing with regard to MDBZJGGS, LLC's application to the Brownfield Cleanup Program ("BCP"). MDBZJGGS, LLC and its contractors will have the necessary access to the above referenced lots also known as the Former University Heights Yard project (the "Development Site"), for the duration of the BCP work to be performed.

The Development Site is currently owned by CSX Transportation, Inc. ("CSX"). CSX and MDBZJGGS, LLC are working toward a financial closing and the commencement of remediation and construction by October 2020. CSX will provide MDBZJGGS, LLC access to the Development Site to complete investigation and/or remedial activities required by the New York State Department of Environmental Conservation under the BCP. If during the period necessary to complete activities required under the BCP application, further access is required and/or environmental easement on the Development Site is required, CSX will facilitate (i) further necessary access to the Developer to the site pursuant to the terms of an access or license agreement to be negotiated and (ii) an environmental easement on the site subject to land use approvals, if any.

Please accept this letter to serve as **proof of site access**. If you have any further questions, please feel free to contact the CSX project contact, David Schulte at (904) 279-4503.

Sincerely,

A handwritten signature in blue ink, appearing to read "D. Schulte", with a stylized flourish at the end.

David J. Schulte  
Director

## **ATTACHMENT G**

### **SECTION IX: CONTACT LIST INFORMATION**

#### **Item 1 Response**

##### **Chief Executive Officer**

Mayor Bill de Blasio  
City Hall  
260 Broadway Avenue  
New York, New York 1000

##### **New York City Planning Commission**

Maria Lago, Chairperson  
102 Broadway, 31<sup>st</sup> Floor  
New York, New York 10271

##### **Borough of the Bronx, Borough President**

Rubén Diaz, Jr.  
851 Grand Concourse, 3<sup>rd</sup> Floor  
Bronx, New York 10451

##### **Borough of the Bronx, Planning and Development**

James Rausse  
851 Grand Concourse, 3<sup>rd</sup> Floor  
Bronx, New York 10451

#### **Item 2 Response**

##### **Residents, owners, and occupants of the site:**

The contact information for the current owner is:

David Schulte (Lots 1 and 3)  
CSX Transportation, Inc.  
500 Water Street, J150  
Jacksonville, Florida 32202

**Adjacent property owners include:**

Transportation/Utility

West 192<sup>nd</sup> Street

Bronx, NY 10463

**Owner: MTA – Metro North**

**420 Lexington Avenue**

**New York, NY 10017-3739**

Transportation/Utility

Landing Road

Bronx, NY 10468

**Owner: MTA – Metro North**

**420 Lexington Avenue**

**New York, NY 10017-3739**

Vacant Land

Major Deegan Expressway

Bronx, NY 10468

**Owner: Galway Realty, LLC**

**39 Sycamore Lane**

**Roslyn Heights, NY 11577**

Commercial/Office Building

2371 Exterior Street

Bronx, NY 10468

**Owner: 2371 Exterior LLC**

**716 South Columbus Ave**

**Mt Vernon, NY 10550**

Industrial/Manufacturing

305 West Fordham Road

Bronx, NY 10468

**Owner: SP HHF SUB B LLC**

**80 State Street**

**Albany, NY 12207-2543**

Industrial/Manufacturing

301 West Fordham Road

Bronx, NY 10468

**Owner: SP HHF SUB B LLC**

**80 State Street**

**Albany, NY 12207-2543**

Transportation/Utility  
Landing Road  
Bronx, NY 10468

**Owner: Consolidated Edison**  
**4 Irving Place RM 1875**  
**New York, NY 10003**

**Adjacent property occupants include:**

**Fordham Scrap Metal**

2371 Exterior Street  
Bronx, NY 10468  
(718) 933-7378

**Storage Post**

301 West Fordham Road  
Bronx, NY 10468  
(718) 208-4838

**Item 3 Response**

**Local news media from which the community typically obtains information:**

Bronx Times  
3604 East Tremont Avenue  
Bronx, NY 10456

Bronx Free Press  
5030 Broadway, Suite 801  
New York, NY 10034

**Item 4 Response**

**The public water supplier which services the area in which the property is located:**

The responsibility for supplying water in New York City is shared between the NYC Department of Environmental Protection (NYCDEP), the Municipal Water Finance Authority, and the New York City Water Board:

NYCDEP  
Emily Lloyd, Commissioner  
59-17 Junction Boulevard

Flushing, NY 11373

New York City Municipal Water Finance Authority  
255 Greenwich Street, 6<sup>th</sup> Floor  
New York, NY 10007

New York City Water Board  
Department of Environmental Protection  
59-17 Junction Boulevard, 8<sup>th</sup> Floor  
Flushing, NY 11373

**Item 5 Response**

**Any person who has requested to be placed on the contact list:**

We are unaware of any requests for inclusion on the contact list.

**Item 6 Response**

**The administrator of any school or day care facility located on or near the site:**

There are no schools or day care facilities located on the site. The following are schools or day care facilities located within a ½-mile radius of the site:

St. Nicholas of Tolentine School (approximately 0.38 miles southeast of the site)  
Principal: Mr. Kinsley R. Jabouin, MPA, M.S. Ed.  
2336 Andrews Avenue  
Bronx, NY 10468  
(718) 364-5110

Ps 310 Marble Hill (approximately 0.4 miles northeast of the site)  
Principal: Elizabeth Cardona  
260 W Kingsbridge Road  
Bronx, NY 10463  
(718) 796-9434

P.S. X015 Institute for Environmental Learning (approximately 0.42 miles southeast of the site)  
Principal: Tara Edmonds  
2195 Andrews Avenue  
Bronx, NY 10453  
(718) 563-0473

Luisa Pineiro Fuentes School of Science and Discovery (approximately 0.45 miles northeast of the site)

Principal: Yolanda Valez  
124 Eames Place  
Bronx, NY 10468  
(718) 601-2632

Little Shepard's Daycare Center (approximately 0.49 miles to the east of the site)

Administrator: NA  
2260 Andrews Avenue  
Bronx, NY 10468  
(718) 295-2740

Noemi's Group Family Day Care (approximately 0.5 miles southeast of the site)

Primary Daycare Provider: Noemi Torres  
2326 Loring Place North  
Bronx, NY 10468  
(646) 363-1425

### **Item 7 Response**

#### **The location of the document repository for the project (e.g. local library):**

New York Public Library – Francis Martin Library  
2150 University Avenue  
Bronx, NY 10453  
(718) 295-5287

A letter from the library acknowledging that it agrees to act as a document repository for the project is included in this attachment.

The local community board is Bronx Community Board 7.

#### **Bronx Community Board 7**

Jean Hill, Chair  
229-A East 204<sup>th</sup> Street  
Bronx, NY 10458  
(718) 933-5650

A letter from the community board acknowledging that it agrees to act as a document repository for the project is included in this attachment.

February 1, 2019

Ms. Jean Hill, Chair  
Bronx Community Board 7  
229-A East 204<sup>th</sup> Street  
Bronx, NY 10458

**RE: Brownfield Cleanup Program Application  
MGBZJGGS, LLC  
Site Name: Former University Heights Yard  
Site Address: West 192<sup>nd</sup> Street/Landing Road, Bronx, New York, 10468**

Dear Ms. Hill:

We represent MGBZJGGS, LLC in their anticipated New York State Department of Environmental Conservation (NYSDEC) Brownfield Cleanup Program (BCP) application for the site located at the above-referenced address. It is a NYSDEC requirement that we supply them a letter certifying that the community board office is willing and able to serve as a public repository for all documents pertaining to the cleanup of this property. Please sign below and return if you are able to certify that your office would be willing and able to act as a temporary public repository for this BCP project.

Sincerely,  
**Langan Engineering, Environmental, Surveying and  
Landscape Architecture, D.P.C.**



---

Julia Leung  
Project Engineer

Yes, the Bronx Community Board 7 office is willing and able to act as a public repository on behalf of MGBZJGGS, LLC in their cleanup of Former University Heights Yard (West 192<sup>nd</sup> Street/Landing Road) under the NYSDEC BCP.



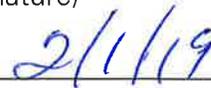
(Name)



(Title)



(Signature)



(Date)

February 1, 2019

Jacqueline Brown, Library Manager  
New York Public Library – Francis Martin Library  
2150 University Avenue  
Bronx, NY 10453

**RE: Brownfield Cleanup Program Application  
MDBZJGGS, LLC  
Site Name: Former University Heights Yard  
Site Address: West 192<sup>nd</sup> Street/Landing Road, Bronx, New York, 10468**

Dear Ms. Brown:

We represent MDBZJGGS, LLC in their anticipated New York State Department of Environmental Conservation (NYSDEC) Brownfield Cleanup Program (BCP) application for the site located at the above-referenced address. It is a NYSDEC requirement that we supply them a letter certifying that the local library is willing and able to serve as a public repository for all documents pertaining to the cleanup of this property. We will provide the New York Public Library with a link to these documents, which will be made available to the public for the duration of the Site's involvement with the BCP. The Site's involvement with the BCP will vary dependent on time to completion of remediation and receiving the certificate of completion from NYSDEC; at this time, we estimate December 2021. Please sign below and return if you are able to certify that your library would be willing and able to act as the temporary public repository for this BCP project.

Sincerely,  
**Langan Engineering, Environmental, Surveying and  
Landscape Architecture, D.P.C.**



Julia Leung  
Project Engineer

Yes, the New York Public Library – Francis Martin Library is willing and able to act as a public repository on behalf of MDBZJGGS, LLC in their cleanup of Former University Heights Yard (West 192<sup>nd</sup> Street/Landing Road) under the NYSDEC BCP.

Michael Alvarez

(Name)

Associate Director

(Title)

Michael Alvarez

(Signature)

2-5-2019

(Date)

## **ATTACHMENT H**

### **SECTION X: LAND USE FACTORS**

#### **Item 1 Response**

##### **Site Zoning Status**

According to the New York City Department of City Planning (NYCDCP) Zoning Map 3c, dated August 8, 2018, the northern portion of the site is located within an M1-1 manufacturing district and the southern portion of the site located in an M3-1 manufacturing district. The surrounding parcels are located in manufacturing and commercial zoning districts.

#### **Item 2 Response**

##### **Current Use**

The site is currently vacant land with uncultivated vegetation, portions of asphalt-paved roadway, and discontinuous concrete cover. The southwestern and northwestern boundaries of Lot 3 extend outboard of the Harlem River shoreline (i.e., the high water line) by distances that vary between about 30 and 60 feet. A timber bulkhead was constructed along the Harlem River shoreline by 1900, and the western shoreline was incrementally backfilled with material from an unknown source between about 1914 and 1977. Railroad tracks that are no longer in use are located on the eastern portion of the site on Lot 1. The railroad tracks were used for freight operations between about 1897 and the early 1970s.

Concrete materials, material of unknown origin, and other debris are located throughout the site. The southern portion of Lot 3 was used for the storage, maintenance, and cleaning of concrete trucks operated by the southern adjoining concrete plant between about 1984 and 2007. The southern portion of Lot 3 was covered with up to three feet of annealed, concrete washout from the cleaning of concrete trucks during this time.

#### **Item 3 Response**

##### **Post-Remediation Use**

The proposed redevelopment project is still in the early planning stages and is subject to change. The project will be developed for residential and associated recreational space. An access road to the recreational space and western adjoining parcels will be constructed on the southern portion of Block 3244 Lot 1.

#### **Item 4 Response**

##### **Historical/Current Development**

The proposed development will be incorporated into a larger-scale, mixed-use redevelopment project that encompasses seven tax lots south of the site. The waterfront park will serve an emerging community of tenants that include affordable housing residents, employees, and visitors to the planned commercial and residential areas to the south, as well as the existing University Heights neighborhood. The southern portion of the site may accommodate extended cellars for four mixed-use buildings to be constructed on Lots 100, 120, 125, 130, 145, and 160. The nine-lot redevelopment project will constitute a change in use for the site and surrounding area from historical manufacturing and transportation to mixed-use residential, commercial retail, and recreational.

#### **Item 5 Response**

##### **Applicable Zoning Laws/Maps**

The proposed development site is located within M1-1 and M3-1 manufacturing districts. The project will be incorporated into a larger nine-lot, mixed-use redevelopment project and will require discretionary rezoning allowing for construction of a public park and public facilities. The area rezoning will be reviewed by the New York City Department of City Planning pursuant to Uniform Land Use Review Procedure (ULURP), which incorporates the City Environmental Quality Review (CEQR) process.

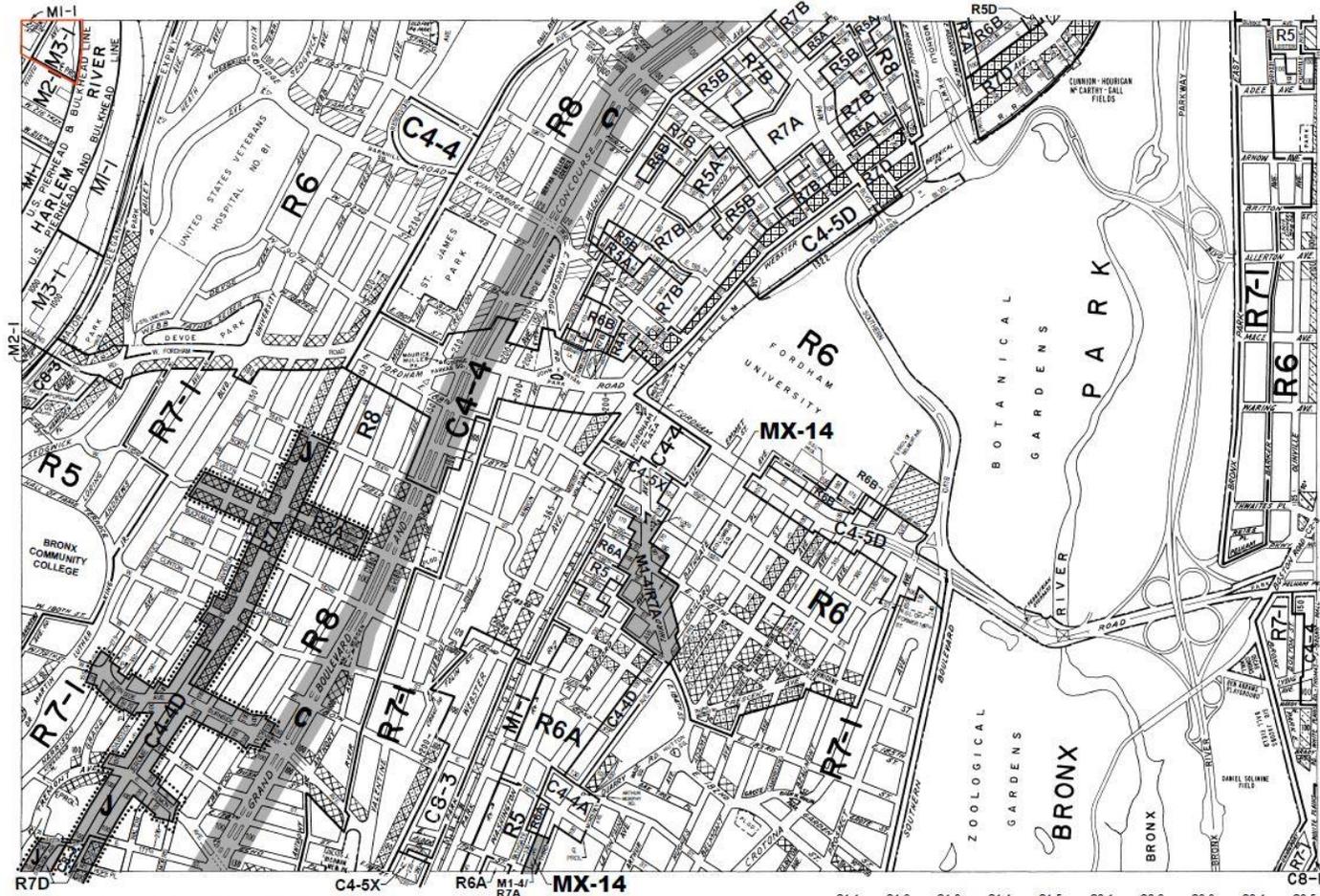
#### **Item 6 Response**

##### **Comprehensive Plans**

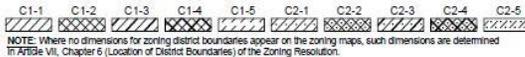
The proposed use is consistent with community visions for a revitalized Harlem River waterfront in University Heights as indicated by Urban Land Institute's New York District Council Technical Assistance Panel (TAP) on development potential for the University Heights waterfront and by New York City Department of Parks and Recreation/Bronx Council for Environmental Quality (BCEQ)'s nomination of the Harlem River waterfront as a Brownfield Opportunity Area.

Both community plans propose goals to reclaim the neighborhood's underutilized waterfront through the development of more open space and public-accessible areas and set the goal of connecting upland areas to the waterfront by creating a continuous waterfront greenway throughout the Bronx.

Click red outline on map to view diagram of adopted zoning change



600 0 600 1200 1800 FEET



NOTE: Where no dimensions for zoning district boundaries appear on the zoning maps, such dimensions are determined in Article VII, Chapter 6 (Location of District Boundaries) of the Zoning Resolution.

### ZONING MAP

THE NEW YORK CITY PLANNING COMMISSION

**Major Zoning Classifications:**  
The number(s) and/or letter(s) that follows an R, C or M District designation indicates use, bulk and other controls as described in the text of the Zoning Resolution.

- R – RESIDENTIAL DISTRICT
- C – COMMERCIAL DISTRICT
- M – MANUFACTURING DISTRICT
- SPECIAL PURPOSE DISTRICT**  
The letter(s) within the shaded area designates the special purpose district as described in the text of the Zoning Resolution.
- AREA(S) REZONED

**Effective Date(s) of Rezoning:**  
03-22-2018 C 180051(A) MX

**Special Requirements:**  
For a list of lots subject to CEQR environmental requirements, see APPENDIX C.  
For a list of lots subject to "D" restrictive declarations, see APPENDIX D.  
For Inclusionary Housing designated areas and Mandatory Inclusionary Housing areas on this map, see APPENDIX F.

MAP KEY

1b	1d	2b
3a	3c	4a
3b	3d	4b

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NOTE: Zoning information as shown on this map is subject to change. For the most up-to-date zoning information for this map, visit the Zoning section of the Department of City Planning website: [www.nyc.gov/planning](http://www.nyc.gov/planning) or contact the Zoning Information Desk at (212) 720-3251.

ZONING MAP 3C