NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

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***

Section I. Requestor Information - See Instructions for Further Guidance DEC USE ONLY BCP SITE #:

NAME BFC 475 Residential LLC

ADDRESS c/o BFC Partners, 150 Myrtle Avenue, Suite 2

CITY/TOWN Brooklyn, New York ZIP CODE 11201

PHONE 718-422-9999 ext. 137 | FAX 718-422-9960 | E-MAIL dcapoccia@bfcnyc.com

Is the requestor authorized to conduct business in New York State (NYS)? ☑ Yes ☐ No

- 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 NYS Department of State's Corporation & Business Entity Database. 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. **Please note:** If the requestor is an LLC, the members/owners names need to be provided on a separate attachment. **Included in Attachment A**

Do all individuals that will be certifying documents meet the requirements detailed below? ☑ Yes ☐ No

- Individuals that will be certifying BCP documents, as well as their employers, meet the requirements of Section 1.5 of *DER-10: Technical Guidance for Site Investigation and Remediation* and Article 145 of New York State Education Law. **Documents that are not properly certified will be not approved under the BCP**.

Section II. Project Description **Included in Attachment B**

1. What stage is the project starting at? ☑ Investigation ☐ Remediation

   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.

2. If a final RIR is included, please verify it meets the requirements of Environmental Conservation Law (ECL) Article 27-1415(2): ☐ Yes ☑ No

3. Please attach a short description of the overall development project, including:
   - the date that the remedial program is to start; and
   - the date the Certificate of Completion is anticipated.

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).** Included in 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.

Contaminant Category	Soil	Groundwater	Soil Gas
Petroleum			
Chlorinated Solvents			X
Other VOCs	X		X
SVOCs	X	X	
Metals	X	X	
Pesticides	X		
PCBs	X		
Other*		X	

***Please describe:** Per- and polyfluoroalkyl substances (PFOA and PFOS)

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

Included in 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?* ☑ **Yes** ☐ **No**
(*answering No will result in an incomplete application)

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: Carpenter shop, automobile dismantling facility, lumber yard, coal yard, sand and gravel yard, auto painting and repair, unidentified manufacturing, iron works

Section IV. Property Information - See Instructions for Further Guidance

Included in Attachment D

PROPOSED SITE NAME 475 Bay Street and 31 Wave Street

ADDRESS/LOCATION 475 Bay Street and 31 Wave Street

CITY/TOWN Staten Island, New York ZIP CODE 10304

MUNICIPALITY(IF MORE THAN ONE, LIST ALL): Borough of Staten Island, New York City

COUNTY Richmond SITE SIZE (ACRES) 1.53 acres

LATITUDE (degrees/minutes/seconds)	LONGITUDE (degrees/minutes/seconds)
40 ° 37 ‘ 49 “	-74 ° 4 ‘ 34 “

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	Section No.	Block No.	Lot No.	Acreage
475 Bay Street, Staten Island, New York	5	488	9	1.22
31 Wave Street, Staten Island, New York	5	488	157, 162, 164	0.31

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

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

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 : Census Tract 21

   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. *Not Applicable ☐ Yes ☑ No

Easement/Right-of-way Holder	Description

9. List of Permits issued by the DEC or USEPA Relating to the Proposed Site (type here or attach information) *Not Applicable

Type	Issuing Agency	Description

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**? Included in Attachment D ☑ 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)

Section V. Additional Requestor Information
See Instructions for Further Guidance

DEC USE ONLY
BCP SITE NAME: _____
BCP SITE #: _____

NAME OF REQUESTOR'S AUTHORIZED REPRESENTATIVE Donald Capoccia, BFC 475 Residential LLC		
ADDRESS c/o BFC Partners, 150 Myrtle Avenue, Suite 2		
CITY/TOWN Brooklyn, New York		ZIP CODE 11201
PHONE 718-422-9999	FAX 718-422-9960	E-MAIL dcapoccia@bfcnyc.com
NAME OF REQUESTOR'S CONSULTANT Michael Burke - Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C		
ADDRESS 360 West 31st Street, 8th Floor		
CITY/TOWN New York, New York		ZIP CODE 10001
PHONE 212-479-5413	FAX 212-479-5444	E-MAIL mburke@langan.com
NAME OF REQUESTOR'S ATTORNEY Michael Bogin of Sive, Paget & Riesel, P.C.		
ADDRESS 560 Lexington Avenue, 15th Floor		
CITY/TOWN New York, New York		ZIP CODE 10022
PHONE 646-378-7210	FAX 212-421-2035	E-MAIL mbogin@sprlaw.com

Section VI. Current Property Owner/Operator Information – if not a Requestor Attachment E

CURRENT OWNER'S NAME Same as Requestor		OWNERSHIP START DATE:
ADDRESS		
CITY/TOWN	ZIP CODE	
PHONE	FAX	E-MAIL
CURRENT OPERATOR'S NAME Same as Requestor		
ADDRESS		
CITY/TOWN	ZIP CODE	
PHONE	FAX	E-MAIL

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 Attachment F

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

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. ☐ Yes ☐ No
5. Is the property subject to a cleanup order under Navigation Law Article 12 or ECL Article 17 Title 10?
   If yes, please provide: Order #_____ ☐ Yes ☑ No
6. Is the property subject to a state or federal enforcement action related to hazardous waste or petroleum?
   If yes, please provide explanation as an attachment. ☐ Yes ☑ No

Section IX. Contact List Information

Included in 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

Included in Attachment H

1. What is the current municipal zoning designation for the site? R6 & C2-3

   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

   Included in Attachment H

5. Is the proposed use consistent with applicable zoning laws/maps? Briefly explain below, or attach additional information and documentation if necessary. ☑ Yes ☐ No

   Included in Attachment H

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

   Included in Attachment H

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 Authorized Signatory (title) of BFC 475 Residential 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: 6/22/20 Signature: _____

Print Name: Donald Capoccia

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
Please answer questions below and provide documentation necessary to support answers.	
1. Is at least 50% of the site area located within an environmental zone pursuant to NYS Tax Law 21(b)(6)? Please see DEC's website for more information.	☑ Yes ☐ No
2. Is the property upside down or underutilized as defined below? Upside Down?	☐ Yes ☑ No
Underutilized?	☐ Yes ☑ No

From ECL 27-1405(31):

"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.

From 6 NYCRR 375-3.2(l) as of August 12, 2016: (Please note: Eligibility determination for the underutilized category can only be made at the time of application)

375-3.2:

(l) "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

(1) the proposed use is at least 75 percent for industrial uses; or

(2) at which:

(i) the proposed use is at least 75 percent for commercial or commercial and industrial uses;

(ii) the proposed development could not take place without substantial government assistance, as certified by the municipality in which the site is located; and

(iii) one or more of the following conditions exists, as certified by the applicant:

(a) property tax payments have been in arrears for at least five years immediately prior to the application;

(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

(c) there are no structures.

"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.

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.); See Attachment I

☐ 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)

Site Name: 475 Bay Street and 31 Wave Street **Site Address:** 475 Bay Street and 31 Wave Street
City: Staten Island, New York **County:** Richmond **Zip:** 10304

Tax Block & Lot
Section (if applicable): **Block:** 488 **Lot:** 9

Requestor Name: BFC 475 Residential LLC **Requestor Address:** c/o BFC Partners, 150 Myrtle Avenue, Suite 2
City: Brooklyn, New York **Zip:** 11201 **Email:** dcapoccia@bfcnyc.com

Requestor's Representative (for billing purposes)
Name: Donald Capoccia, BFC 475 Residential LLC **Address:** c/o BFC Partners, 150 Myrtle Avenue, Suite 2
City: Brooklyn, New York **Zip:** 11201 **Email:** dcapoccia@bfcnyc.com

Requestor's Attorney
Name: Michael Bogin of Sive, Paget & Riesel, P.C. **Address:** 560 Lexington Avenue, 15th Floor
City: New York, New York **Zip:** 10022 **Email:** mbogin@sprlaw.com

Requestor's Consultant
Name: Michael Burke - Langan Engineering, Environmental, Surveying, Landscape Arch **Address:** 360 West 31st Street, 8th Floor
City: New York, New York **Zip:** 10001 **Email:** mburke@langan.com
Percentage claimed within an En-Zone: ☐ **0%** ☐ **<50%** ☐ **50-99%** ☑ **100%**
DER Determination: ☐ Agree ☐ Disagree

Requestor's Requested Status: ☑ **Volunteer** ☐ **Participant**

DER/OGC Determination: ☐ Agree ☐ Disagree
Notes:

For NYC Sites, is the Requestor Seeking Tangible Property Credits: ☑ Yes ☐ No

Does Requestor Claim Property is Upside Down: ☐ Yes ☑ No
DER/OGC Determination: ☐ Agree ☐ Disagree ☐ Undetermined
Notes:

Does Requestor Claim Property is Underutilized: ☐ Yes ☑ No
DER/OGC Determination: ☐ Agree ☐ Disagree ☐ Undetermined
Notes:

Does Requestor Claim Affordable Housing Status: ☐ Yes ☐ No ☑ Planned, No Contract
DER/OGC Determination: ☐ Agree ☐ Disagree ☐ Undetermined
Notes:

ATTACHMENT A

SECTION I: REQUESTOR INFORMATION

ATTACHMENT A
SECTION I: REQUESTOR INFORMATION

The Requestor, BFC 475 Residential LLC, a New York limited liability company, is the owner and developer of the proposed Brownfield Cleanup Program (BCP) property located at 475 Bay Street and 31 Wave Street, identified as Block 488, Lots 9, 157, 162 and 164 (herein referred to as "the site"). A copy of the NYS Department of State Division of Corporations entity information for BFC 475 Residential LLC (herein referred to as the "Requestor") is included with this attachment along with copies of the deeds for the site. Operating agreements, authorizing signatory Donald Capoccia to bind the Requestor, BFC 475 Residential LLC, through BFC 100th Street LLC, to take all actions necessary to enter into and carry out the obligations of the Requestor, including the actions required by the BCP, is included as an attachment.

An organizational chart for BFC 475 Residential LLC is included as an attachment. The members include:

- BFC 100th Street LLC
- Donald Capoccia
- Joseph Ferrara
- Brandon Baron
- 475 Bay Street LLC
- 475 Bay Street HDFC
- LIHTC Investor Member Entity
- 475 Bay Street MM LLC
- BFC 475 Bay Street LLC
- C-W Master LLC
- DAC Master, LLC
- Wharton Holdings, LLC
- Winthrop Wharton

The Requestor certifies it is a Volunteer. The Requestor or its affiliated entities do not have nor have they ever had a relationship with the past owners or operators of the site that caused the existing contamination.

NYS Department of State

Division of Corporations

Entity Information

The information contained in this database is current through .

Selected Entity Name: BFC 475 RESIDENTIAL LLC
Selected Entity Status Information

Current Entity Name:	BFC 475 RESIDENTIAL LLC
DOS ID #:	4649055
Initial DOS Filing Date:	OCTOBER 09, 2014
County:	KINGS
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
150 MYRTLE AVENUE, 2ND FLOOR
BROOKLYN, NEW YORK, 11201

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
OCT 09, 2014	Actual	BFC 475 RESIDENTIAL 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.

Search Results New Search

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Office of the
Richmond County Clerk
130 Stuyvesant Place
Staten Island, NY 10301

Hon. Stephen J. Fiala, County Clerk

ACS-00000000535597-00000000712363-006

Recording and Endorsement Cover Page

Document Type: DEED VACANT
Document Page Count: 6

PRESENTER:	RETURN TO:
ALL NEW YORK TITLE AGENCY, INC.	ROBERT SAKOSKY, ESQ.
222 BLOOMINGDALE ROAD 8401C!	ELLENOFF GROSSMAN & SCHOLE LLP
STE 306(SJ CARROLL TO PICK UP)	1345 AVE OF THE AMERICAS 11TH
WHITE PLAINS,NY 10605	NEW YORK,NY 10105

PROPERTY DATA # OF BLOCKS 1 # OF LOTS 1

Block	Lot	Unit
488	9	Entire Lot

PARTIES

GRANTOR	GRANTEE
KATHLEEN RAMPAUL	BFC 475 RESIDENTIAL LLC
5 MOTLEY AVENUE	150 MYRTLE AVENUE
	2ND FLOOR
STATEN ISLAND,NY 10313	BROOKLYN,NY 11201

SUPPORTING DOCUMENTS

RPT
TP-584
RP5217 NYC(1 Original & 1 Copy with Document)
HOUSING AFFIDAVIT

RETT Cons: $3,450,000.00 RPT Cons: $3,450,000.00

PAYMENT DETAIL

Make Checks Payable to:

Richmond County Clerk:	297.00	Recording Fees
Richmond County Clerk:	13,800.00	RETT
Commissioner of Finance:	90,562.50	RPT (Certified Check Required)
Total Payments For This Document:	104,659.50	

FEES PAID

EXAM ff DATE 12/7/16

RECORDED IN RICHMOND COUNTY

LAND DOC# 631946
23M-DEEDS
RETT: 3583 $13,800.00
RPT: 3583 $90,562.50
12/08/2016 11:30:05 A.M.
RECEIPT: 55814 FEE: $297.00
RICHMOND COUNTY CLERK

DEC 08 2016

COUNTY CLERK

BARGAIN AND SALE DEED WITH COVENANT AGAINST GRANTOR'S ACTS (INDIVIDUAL OR CORPORATION)

CAUTION: THIS AGREEMENT SHOULD BE PREPARED BY AN ATTORNEY AND REVIEWED BY ATTORNEYS FOR SELLER AND PURCHASER BEFORE SIGNING.

THIS INDENTURE, made the 10th day of November, two thousand and sixteen

BETWEEN

Kathleen Rampaul, residing at 5 Motley Avenue, Staten Island, New York 10313

party of the first part,

and

BFC 475 Residential, LLC, located 150 Myrtle Avenue, 2nd Floor, Brooklyn, New York 11201

party of the second part;

WITNESSETH, that the party of the first part, in consideration of Dollars and No Cents ($10.00) lawful money of the United States, paid by the party of the second part, does hereby grant and release unto the party of the second part, the heirs or successors and assigns of the party of the second part forever;

ALL that certain plot, piece or parcel of land, with the buildings and improvements thereon erected, situate, lying and being in the Borough of Staten Island, County of Richmond, City and State of New York, more particularly described in Schedule A attached hereto;

TOGETHER with all right, title and interest, if any, of the party of the first part in and to any streets and roads abutting the above described premises to the center lines thereof,

TOGETHER with the appurtenances and all the estate and rights of the party of the first part in and to said premises,

TO HAVE AND TO HOLD the premises herein granted unto the party of the second part, the heirs or successors and assigns of the party of the second part forever.

AND the party of the first part, covenants that the party of the first part has not done or suffered anything whereby the said premises have been encumbered in any way whatever, except as aforesaid.

AND the party of the first part, in compliance with Section 13 of the Lien Law, covenants that the party of the first part will receive the consideration for this conveyance and will hold the right to receive such consideration as a trust fund to be applied first for the purpose of paying the cost of the improvement and will apply the same first to the payment of the cost of the improvement before using any part of the total of the same for any other purpose.

The word "party" shall be construed as if it read "parties" whenever the sense of this indenture so requires.

IN WITNESS WHEREOF, the party of the first part has duly executed this deed the day and year first above written.

KATHLEEN RAMPAUL

IN PRESENCE OF:

ANY2013-8401C

Acknowledgment by a Person Within New York State (RPL § 309-a)

STATE OF NEW YORK)
) ss.:
COUNTY OF RICHMOND)

On the 7 day of November, 2016, before me, the undersigned, personally appeared Kathleen Rampaul personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name(s) is (are) subscribed to the within instrument and acknowledged to me that he executed the same in his capacity(ies), and that by his signature(s) on the instrument, the individual(s), or the person upon behalf of which the individual(s) acted, executed the instrument.

(signature and office of individual taking acknowledgment)

ROBERT M FISHLER
Notary Public, State of New York
No. 02FI5019692
Qualified in Richmond County
Commission Expires October 25, 2017

Deed

Title No.

Kathleen Rampaul

To

475
BFC Residential LLC.

Section
Block 488
Lot 9
County or Town Richmond
Street Address 475 Bay Street
Staten Island, New York

Return By Mail To:

Robert Sakosky, Esq.
Ellenoff Grossman & Schole LLP.
1345 Avenue of the Americas, 11th Floor
New York, New York 10105

Reserve This Space For Use Of Recording Office

ALL NEW YORK TITLE AGENCY, INC.

Title Number: ANY2013-8401C

SCHEDULE A

BLOCK 488, LOT 9

ALL that certain plot, piece or parcel of land situate, lying and being in the Borough of Staten Island, County of Richmond, City and State of New York, more particularly bounded and described as follows:

BEGINNING at a point on the easterly side of Bay Street distant 166.50 feet northerly from the corner formed by the intersection of the easterly side of Bay Street and the northerly side of Wave Street;

RUNNING thence North 7 degrees 48' 16" West along the easterly side of Bay Street, 19.09 feet (U.S. Standard) 18.94 feet (Deed);

THENCE North 12 degrees 46' 12" East still along the easterly side of Bay Street 160.23 feet (U.S. Standard and Deed);

THENCE South 77 degrees 36' 05" East 280.06 feet (U.S. Standard and Deed) to land of the Staten Island Rapid Transit;

THENCE southerly along the westerly side of land of the Staten Island Rapid Transit on a curve to the left with a radius of 1462.69 feet, a distance of 187.46 feet (U.S. Standard) 187.40 feet (Deed);

THENCE North 76 degrees 48' 48" West 316.82 feet (U.S. Standard) 317.17 feet (Deed) to the easterly side of Bay Street at the point or place of BEGINNING.

FOR CONVEYANCING ONLY

The policy to be issued under this report will insure the title to such buildings and improvements erected on the premises which by law constitute real property.

TOGETHER with all the right, title and interest of the party in the first part, or, in and to the land lying in the street in front of and adjoining said premises.

2

COPY

FOR CITY USE ONLY

C1. County Code ____ C2. Date Deed Recorded ____ / ____ / ____ (Month / Day / Year)

C3. Book ____ C4. Page ____

OR

C5. CRFN ____

REAL PROPERTY TRANSFER REPORT

STATE OF NEW YORK
STATE BOARD OF REAL PROPERTY SERVICES

RP - 5217NYC

PROPERTY INFORMATION

1. Property Location: 475 (STREET NUMBER) | BAY STREET (STREET NAME) | STATEN ISLAND (BOROUGH) | 10304 (ZIP CODE)

2. Buyer Name: BFC 475 RESIDENTIAL LLC (LAST NAME / COMPANY) | (FIRST NAME)

(LAST NAME / COMPANY) | (FIRST NAME)

3. Tax Billing Address: Indicate where future Tax Bills are to be sent if other than buyer address (at bottom of form)
(LAST NAME / COMPANY) | (FIRST NAME)

(STREET NUMBER AND STREET NAME) | (CITY OR TOWN) | (STATE) | (ZIP CODE)

4. Indicate the number of Assessment Roll parcels transferred on the deed: 1 # of Parcels OR ☐ Part of a Parcel

4A. Planning Board Approval - N/A for NYC

4B. Agricultural District Notice - N/A for NYC

5. Deed Property Size: ____ (FRONT FEET) X ____ (DEPTH) OR ____ (ACRES)

Check the boxes below as they apply:

6. Ownership Type is Condominium ☐

7. New Construction on Vacant Land ☐

8. Seller Name: RAMPAUL (LAST NAME / COMPANY) | KATHLEEN (FIRST NAME)

(LAST NAME / COMPANY) | (FIRST NAME)

9. Check the box below which most accurately describes the use of the property at the time of sale:

A ☐ One Family Residential
B ☐ 2 or 3 Family Residential
C ☐ Residential Vacant Land
D ☐ Non-Residential Vacant Land
E ☑ Commercial
F ☐ Apartment
G ☐ Entertainment / Amusement
H ☐ Community Service
I ☐ Industrial
J ☐ Public Service

SALE INFORMATION

10. Sale Contract Date: 7 / 17 / 2013 (Month / Day / Year)

11. Date of Sale / Transfer: 11 / 10 / 2016 (Month / Day / Year)

12. Full Sale Price $ 3,450,000

(Full Sale Price is the total amount paid for the property including personal property. This payment may be in the form of cash, other property or goods, or the assumption of mortgages or other obligations) *Please round to the nearest whole dollar amount.*

13. Indicate the value of personal property included in the sale ____

14. Check one or more of these conditions as applicable to transfer:

A ☐ Sale Between Relatives or Former Relatives
B ☐ Sale Between Related Companies or Partners in Business
C ☐ One of the Buyers is also a Seller
D ☐ Buyer or Seller is Government Agency or Lending Institution
E ☐ Deed Type **not** Warranty or Bargain and Sale (Specify Below)
F ☐ Sale of Fractional or Less than Fee Interest (Specify Below)
G ☐ Significant Change in Property Between Taxable Status and Sale Dates
H ☐ Sale of Business is Included in Sale Price
I ☐ Other Unusual Factors Affecting Sale Price (Specify Below)
J ☑ None

ASSESSMENT INFORMATION - Data should reflect the latest Final Assessment Roll and Tax Bill

15. Building Class: G 7

16. Total Assessed Value (of all parcels in transfer): 470,250

17. Borough, Block and Lot / Roll Identifier(s) (If more than three, attach sheet with additional identifier(s))

STATEN ISLAND 488 9

2016110700302201O2

COPY

CERTIFICATION

I certify that all of the items of information entered on this form are true and correct (to the best of my knowledge and belief) and understand that the making of any willful false statement of material fact herein will subject me to the provisions of the penal law relative to the making and filing of false instruments.

BUYER			BUYER'S ATTORNEY	
BUYER SIGNATURE	DATE	LAST NAME	FIRST NAME	
150 MYRTLE AVENUE	BFC 475 Residential LLC Brandon Baron, member			
STREET NUMBER	STREET NAME (AFTER SALE)	AREA CODE	TELEPHONE NUMBER	
STATEN ISLAND	NY	11201	SELLER	
CITY OR TOWN	STATE	ZIP CODE	SELLER SIGNATURE	DATE
			Kathleen Rampaul	11/10/16

2016110700302201

CONSULT YOUR LAWYER BEFORE SIGNING THIS INSTRUMENT-THIS INSTRUMENT SHOULD BE USED BY LAWYERS ONLY

THIS INDENTURE, made **20th** Day of **May** Two Thousand Twenty

BETWEEN

ROSARIO CARACCI, LLC., A New York Limited Liability Company
119 Foxwood Drive South, Newburgh, NY 12550

Party of the first part, and

BFC 475 RESIDENTIAL, LLC
150 Myrtle Avenue, 2nd Fl, Brooklyn, NY 11201

party of the second part,

WITNESSETH, that the party of the first part, in consideration of ten dollars ($10.00) and other valuable consideration paid by the party of the second part, does hereby grant and release unto the party of the second part, the heirs or successors and assigns of the party of the second part ordinarily,

ALL that certain plot, piece or parcel of land, with the buildings and improvements thereon erected, situate, lying and being in the Borough of STATEN ISLAND, County of RICHMOND, State of New York, more particularly bounded and described as follows:

"SEE ATTACHED DESCRIPTION"

BEING PART OF THE SAME PREMISES CONVEYED TO THE GRANTOR HEREIN BY DEED DATED 11/3/17 RECORDED 11/15/17 IN LAND DOC#676062

SAID PREMISES BEING KNOWN AS **VACANT LAND , STATEN ISLAND, NEW YORK**
BLOCK: 488 LOTS: 157, 162 & 164

This transfer is made in the ordinary course of business with the unanimous consent of the members

TOGETHER with all right, title and interest, if any, of the party of the first part in and to any streets and roads abutting the above described premises to the center lines thereof; TOGETHER with the appurtenances and all the estate and rights of the party of first part and to said premises;

TO HAVE AND TO HOLD the premises herein granted unto the party of the second part, the heirs or successors and assigns of the party of the second part forever.

AND the party of the first party covenants that the party of the first part has not done or suffered anything whereby the said premises have been encumbered in any way whatever, except as aforesaid.

AND the party of the first part, in compliance with Section 13 of the Lien Law, covenants that the party of the first part will receive the consideration for this conveyance and will hold the right to receive such consideration as a trust fund to be applied first for the purpose of paying the cost of the improvement and will apply the same first to the payment of the cost of improvement before using any part of the total of the same for any other purpose. The word "party" shall be construed as if it read "parties" when ever the sense of this indenture so requires.

IN WITNESS WHEREOF, the party of the first part has duly executed this deed the day and year first above written.

IN PRESENCE OF :

ROSARIO CARACCI, LLC

By: Salvatore F. Calcagno
Authorized Signatory

State of New York County of Richmond ss:
On 15th day of May in the year 2020 before me, the undersigned, personally appeared
Salvatore F. Calcagno
personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name(s) is (are) subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity(ies), and that by his/her/their signature(s) on the instrument, the individual(s), or the person upon behalf of which the individual(s) acted, executed instrument.

Signature and office of individual taking acknowledgment)

Al Digeronimo
NOTARY PUBLIC, STATE OF NEW YORK
Registration No. 01DI6086326
Qualified In Richmond County
Commission Expires Jan 21, 2023

State of , County of ss:
On the day of in the year 20 before me, the undersigned, personally appeared

personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name(s) is (are) subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity(ies), and that by his/her/their signature(s) on the instrument, the individual(s), or the person upon behalf of which the individual(s) acted, executed instrument.

Signature and office of individual taking acknowledgment)

BARGAIN & SALE DEED WITH COVENANT AGAINST GRANTOR'S ACTS

Title No .

SECTION
BLOCK 488
LOT(S) 157, 162 & 167
STREET ADDRESS:

ROSARIO CARACCI, LLC

TO

BFC 475 RESIDENTIAL, LLC

RECORD & RETURN

Hirschen Singer & Epstein LLP
902 Broadway, 13th Floor
New York, New York 10010

Chicago Title Insurance Company

Title Number: CT20-00154-SI

SCHEDULE A DESCRIPTION

As to Parcel I: (For Information Only: Block 488 Lots 157, 162 and 164)

ALL that certain lot, piece or parcel of land, situate, lying and being in the Borough and County of Richmond, City and State of New York, known and designated more particularly bounded and described as follows:

BEGINNING at a point on the northerly side of Wave Street, distant 141.00 feet easterly from the corner formed by the intersection of the northerly side of Wave Street with the easterly side of Bay Street;

RUNNING THENCE
North 07 degrees 48 minutes 16 seconds West, 112.53 feet Survey (112.42 feet Tax Map) to a point;

RUNNING THENCE
South 76 degrees 48 minutes 48 seconds East, 181.89 feet Survey (181.92 feet Tax Map) to a point;

RUNNING THENCE southerly having a radius of 1447.69, a central angle of 0 degrees 43 minutes 10 seconds, an arc length of 18.18 feet to a point;

RUNNING THENCE
South 05 degrees 12 minutes 24 seconds East, 29.41 feet to a point on the northerly side of Wave Street; and

RUNNING THENCE along the northerly side of Wave Street,
South 82 degrees 14 minutes 57 seconds West, 167.54 feet Survey (167.5 feet Tax Map) to the point or place of BEGINNING.

N. Y. S. DEPARTMENT OF STATE
DIVISION OF CORPORATIONS AND STATE RECORDS ALBANY, NY 12231-0001

FILING RECEIPT

==========

ENTITY NAME: BFC 100TH STREET LLC

DOCUMENT TYPE: ARTICLES OF ORGANIZATION (DOM LLC) COUNTY: NEWY

SERVICE COMPANY: ** NO SERVICE COMPANY ** SERVICE CODE: 00 *

==========

FILED:07/24/2002 DURATION:12/31/2052 CASH#:020724000779 FILM #:020724000738

ADDRESS FOR PROCESS

THE LLC
C/O BFC CONSTRUCTION CORP 2226 FIRST AVE
NEW YORK, NY 10029

EXIST DATE

07/24/2002

REGISTERED AGENT

STATE OF NEW YORK
DEPARTMENT OF STATE
EXCELSIOR

==========

FILER	FEES	235.00	PAYMENTS	235.00
	FILING	200.00	CASH	0.00
CANNON HEYMAN & WEISS LLP	TAX	0.00	CHECK	235.00
GEOFFREY J CANNON, ESQ.	CERT	0.00	CHARGE	0.00
30 BEACEER ST 4TH FL	COPIES	10.00	DRAWDOWN	0.00
ALBANY, NY 12207-1511	HANDLING	25.00	BILLED	0.00
			REFUND	0.00

==========

DOS-1025 (11/89)

State of New York }
Department of State } *ss:*

I hereby certify that the annexed copy has been compared with the original document in the custody of the Secretary of State and that the same is a true copy of said original.

Witness my hand and seal of the Department of State on JUL 30 2002

Special Deputy Secretary of State

DOS-1266 (7/00)

ARTICLES OF ORGANIZATION

OF

BFC 100TH STREET LLC

020724000738

Under Section 203 of the Limited Liability
Company Law of the State of New York

The undersigned, being a natural person of at least eighteen (18) years of age and acting as the organizer of the limited liability company hereby being formed under Section 203 of the Limited Liability Company Law of the State of New York (the "LLCL"), certifies that:

FIRST: The name of the company is BFC 100th Street LLC (the "Company").

SECOND: The county within the State of New York in which the office of the Company is to be located is New York.

THIRD: The latest date on which the Company is to dissolve is December 31, 2052.

FOURTH: The Secretary of State is designated as the agent of the Company upon whom process against the Company may be served. The post office address within or without the State of New York to which the Secretary of State shall mail a copy of any process against the Company served upon such Secretary of State is: BFC 100th Street LLC, c/o BFC Construction Corp., 2226 First Avenue, New York, New York 10029.

FIFTH: The Company is to be managed by one or more managers.

IN WITNESS WHEREOF, I have subscribed this certificate and do hereby affirm the foregoing as true under penalties of perjury, this 24th day of July, 2002.

ALAN M. JEZIERSKI, Organizer

ARTICLES OF ORGANIZATION

OF

BFC 100TH STREET LLC

0207240000738

Under Section 203 of the Limited Liability Company Law of the State of New York

1CC

STATE OF NEW YORK
DEPARTMENT OF STATE

JUL 24 2002

FILED
TAX $
BY:

CANNON HEYMAN & WEISS, LLP
50 BEAVER STREET
4TH FLOOR
ALBANY, NEW YORK 12207-1511

Geoffrey J. Cannon, Esq.

2

779

OPERATING AGREEMENT

OF

BFC 100th STREET LLC

This Operating Agreement (this "Agreement") of BFC 100th Street LLC is entered into between the members whose names and addresses are set forth hereafter (the "Members").

The Members hereby form a limited liability company pursuant to and in accordance with the Limited Liability Company Law of the State of New York, as amended from time to time (the "LLCL"), and hereby agree as follows:

1. **Name.** The name of the limited liability company formed hereby is BFC 100th Street LLC (the "Company").

2. **Term** The term of the Company shall commence on the date of filing of its Articles of Organization with the Secretary of State and shall continue until December 31, 2052 unless dissolved before such date in accordance with the LLCL.

3. **Purpose** The Company is formed for the purpose of engaging in any lawful act or activity for which limited liability companies may be formed under the LLCL and engaging in any and all activities necessary or incidental to the foregoing,

provided, however, that all of the Company's activities shall be limited to acting as a Manager and Member of 100 Street Tri Venture LLC (hereinafter, the Owner) in connection with the acquisition, ownership, development and operation by the Owner of the real property commonly known as 1955 First Avenue, New York, New York (hereinafter the Property).

4. **Members.** The name and the business, residence, or mailing address of the Members and their respective Membership Interests are as follows:

Brandon Baron	2226 First Avenue New York, New York 10029	33-1/3%
Joseph Ferrara	2226 First Avenue New York, NY 10029	33-1/3%
Donald Capoccia	2226 First Avenue New York, New York 10029	33-1/3%

5. **Management, Duties and Responsibilities**.

5.1 **Manager**. The business, operations and affairs of the Company shall be managed by a Board of three Managers (the Managers). The Members hereby agree subject to the provisions of this agreement to elect Donald Capoccia, Brandon Baron and Joseph Ferrara as the initial Managers. The Managers shall be solely responsible and shall have the complete and exclusive right, power and authority with respect to the management of the Company's business. In order for any action of the Managers to be valid, proper and binding upon the Company, such action must be agreed and consented to by the unanimous consent of all Managers. The Managers shall possess all rights and powers permitted by law and all rights and powers which may be necessary, incidental or convenient for the development, operation, sale, financing, management or ownership of the Company and its assets. The number of Managers may be increased or decreased upon the unanimous consent of the Members at any time. Any vacancy in the Board of Managers shall be

filled by the unanimous consent of the members. Managers do not need to be Members. The Managers may appoint such officers of the Company as it may deem advisable. The officers of the Company, if so appointed, shall be responsible for the day-to-day business, operations and affairs of the Company, shall have such powers as are usually exercised by comparable designated officers of a New York corporation and shall have the authority to bind the Company through the exercise of such powers subject to, and to the extent consistent with, the terms hereof. The officers of the Company shall (i) be appointed and be subject to removal by the Managers, and (ii) operate as an autonomous management group, accountable only to the Managers.

Removal of Manager. The Initial Managers or any other individual or entity which is appointed as a Manager shall serve as te Manager unless and until any such Manager has (i) made a general assignment for the benefit of creditors; or (ii) has commenced a voluntary case for relief as a debtor under the Bankruptcy Code; or (iii) has been adjudicated a bankrupt; or (iv engaged in any action or inaction that would constitute "just cause" or (v) has committed a default or breach of any of the terms of this agreement.

5.2 **Rights and Powers of the Manager**. The Managers shall have all the rights and powers which may be possessed by a Manager in a limited liability company formed under the laws of the State of New York, which are otherwise conferred by law or which are necessary, advisable or convenient to the discharge of duties under this Agreement and to the management, direction and control of the business and affairs of the Company, exercisable without the consent of any other Member, including but not limited to the following rights and powers. Rights and powers of the Managers by way of illustration but not by way of limitation, shall include the sole, exclusive and unrestricted (exercisable without the consent of any other Member) right and power to perform the following acts on behalf of the Company.

(a) Authorize or approve all actions with respect to distribution of funds, borrowing funds, executing contracts, bonds, guarantees, notes, security agreements, mortgages and

all other instruments to effect the purposes of this Agreement; and execute any and all other instruments and perform any acts determined to be necessary or advisable to carry out the intentions and purposes of the Company.

(b) Subject to the limitations imposed by this Agreement, admit additional Members in substitution of Members disposing of their interest in the Company.

(c) Perform any and all acts necessary to pay any and all organizational expenses incurred in the creation of the Company and in raising additional capital, including, without limitation, reasonable brokers' and underwriters' commissions, legal and accounting fees, license and franchise fees (it being understood that all expenses incurred in the creation of the Company and the commencement of the Company business shall be borne by the Company); and compromise, arbitrate or otherwise adjust claims in favor of or against the Company and to commence or defend against litigation with respect to the Company or any assets of the Company as the Managers deem advisable, all or any of the above matters being at the expense of the Company; and to execute, acknowledge and deliver any and all instruments to effect any and all of the foregoing.

(d) Purchase goods or services from any corporation or other form of business enterprise, whether or not such corporation or business enterprise is owned or controlled by, or affiliated with, the Managers.

(e) Establish Company offices at such other places as may be appropriate, hire Company employees and consultants, engage counsel and otherwise arrange for the facilities and

personnel necessary to carry out the purposes and business of the Company, the cost and expense thereof and incidental thereto to be borne by the Company.

(f) Intentionally Omitted.

(g) Conduct the tax, financial and business affairs of the Company.

(h) (1) borrow money on behalf of the Company, or in its capacity as Managers of the Company to cause the Company to borrow money, upon such terms and conditions as may be deemed advisable and proper in the Managers' sole discretion, including a pledge or mortgage of Company property to secure the indebtedness; (2) as Managers of the Company to cause the Company to sell, exchange or otherwise dispose of its property or (3) change the accountants for the Company.

(i) To manage, repair, insure, service, promote, advertise, lease, sublease, and create or release interests in the Company's property, including without limitation the creation of condominium and/or cooperative forms of ownership.

(j) To pay out of Company funds such expenses as are necessary to carry out the intentions and purposes of the Company.

(k) Subject to such limitations as are hereinafter set forth, to contract with or deal with the Company for supplying management, brokerage, construction and other services to the Company. (All of which may be performed by entities which are affiliated with the Managers, as

herein provided.)

(l) To employ agents, attorneys, auditors, accountants and depositories and to grant powers of attorneys.

(m) To employ persons in the operation and management of the Company, including, but not limited to, managing agents, real estate brokers and/or sales agents, and marketing companies in connection with the sale or rental of the Company's property or any portion thereof, on such terms and for such compensation as the Managers deem commercially reasonable. With respect to services customarily provided by such managing agents, rental agents, real estate brokers, and/or sales agents and/or marketing companies, the Managers on behalf of the Company, are hereby authorized to enter into agreements with entities affiliated with (or under common ownership with some or all of) the Managers for the performance of such services to the Company, provided that the terms thereof are commercially reasonable.

(n) To enter into any contract of insurance which the Managers deem necessary and proper for the protection of the Company, the conservation of the Company's property or any other asset of the Company, or for any purpose convenient or beneficial to the Company, including, but not limited to, a contract naming the Managers as additional insured.

(o) To take all such actions as deemed necessary or desirable by the Managers in order to enable and empower the Owner to finance, develop and improve the Property, and

(p) To act on behalf of the Company to cause the Owner to take, or consent to the Owner to take, or consent to the Owner taking any of the foregoing actions with respect to the Owner, the Property or any other assets owned by the Owner.

5.3 All decisions made for and on behalf of the Company by the Managers shall be binding upon the Company. No Person dealing with the Managers shall be required to determine its authority to enter into any undertaking on behalf of the Company, nor to determine any fact or circumstances bearing on the existence of such authority; provided, however, that nothing herein contained shall extinguish, limit or condition the liability of the Managers to the Members to discharge their obligations in accordance with this Agreement and the Act. The Managers can execute, on behalf of the Company, contracts, agreements, instruments, leases, notes or bonds, mortgages on Company assets securing indebtedness and any and all other documents incidental thereto without obtaining the approval or consent of any Member.

5.4. Except as otherwise specifically provided in this Agreement to the contrary, no Members shall have the right to take part in the control of the Company business or to sign for or to bind the Company, such power being vested in the Managers. Except as otherwise explicitly provided in this Agreement or as required by the Act (which requirement shall not be permitted by the Act to be waived by this Agreement), the Members shall not be entitled to vote on any matter. It is the intention of the Members that, to the fullest extent permissible under the Act, all matters shall be determined and all action taken by the Managers, rather than the Members. The Company shall not be required to hold annual or other meetings of the Members. Subject to the foregoing, a meeting of the Members may be called at any time by the Managers. If called, meetings of Members shall be held at the Company's principal place of business or such other location selected by the Managers. At a Meeting of Members, the presence in person or by proxy of Members holding not less than a majority of the Membership Interests shall constitute a quorum. A Member may vote either in person or by written proxy signed by the Member or by its duly authorized attorney in fact. Members may participate in a meeting by means of conference telephone or similar communications equipment by means of which all persons participating in the meeting can speak to and hear each other. Such participation shall constitute presence in person at the meeting.

6 . **Capital Contributions.** The Members have contributed to the Company the following amounts, to date in the form of cash.

Name of Member	Capital Contribution
Brandon Baron	$100
Joseph Ferrara	$100
Donald Capoccia	$100

7 **Additional Contributions.** Members are required to make additional capital contributions to the Company only as unanimously agreed upon.

8 **Allocation of Profits and Losses.** The Company's profits and losses shall be allocated as follows: Brandon Baron 33-1/3%, Joseph Ferrara 33-1/3%, Donald Capoccia 33-1/3%.

9 **Distribution.** Distributions shall be made to the Members at the times and in the aggregate amounts determined by the Managers, as follows: Brandon Baron - 33-1/3%, Joseph Ferrara - 33-1/3%, Donald Capoccia - 33-1/3%..

10 **Assignments.** A Member may not assign in whole or in part his limited liability company interest, without the unanimous consent of the other members.

11 **Withdrawal of a Member.** A Member may withdraw from the Company in accordance with the LLCL.

12 **Admission of Additional Members.**. One (1) or more additional members of the Company may be admitted to the Company only with the consent of all of the Members.

13. **Liability of Members**. The Members shall not have any liability for the obligations or liabilities of the Company.

14. **Governing Law**. This Agreement shall be governed by, and construed under, the laws of the State of New York, all rights and remedies being governed by said laws.

IN WITNESS WHEREOF, the undersigned intending to be legally bound hereby, have duly executed this Operating Agreement as of the _____ day of October, 2002.

Brandon Baron

Joseph Ferrara

Donald Capoccia

BFC 475 RESIDENTIAL LLC

Amended and Restated Operating Agreement
Adopted as of July 12, 2016

TABLE OF CONTENTS

BFC 475 RESIDENTIAL LLC

AMENDED AND RESTATED OPERATING AGREEMENT

This Amended and Restated Operating Agreement (this "Agreement") is made as of the 12th day of July 2016 by and among BFC 100th Street LLC, a New York limited liability company having an address at 150 Myrtle Avenue, Suite 2, Brooklyn, New York 11201 (the "Member") and Donald Capoccia, an individual having an address at c/o BFC Partners, 150 Myrtle Avenue, Suite 2, Brooklyn, New York 11201 (the "Withdrawing Member").

W I T N E S S E T H:

WHEREAS, the Company was formed on October 9, 2014, by the filing of the Articles of Organization with the New York State Department of State; and

WHEREAS, the Withdrawing Members entered into that certain Operating Agreement of the Company dated October 9, 2014; and

WHEREAS the parties hereto desire to admit the Member as the sole member of the Company, restate the rights, obligations and duties of such Member to the Company and the Withdrawing Members desire to withdraw from the Company.

Article I
Formation and Name: Office; Purpose; Term

1.1. *Organization.* The Member is organizing a limited liability company pursuant to the New York Limited Liability Company Law, as amended from time to time (the "Law"), and pursuant to the provisions of this Agreement and, for that purpose, has caused the Articles of Organization to be prepared, executed, and filed with the New York Department of State on October 9, 2014.

1.2. *Name of the Company.* The name of the limited liability company shall be **BFC 475 Residential LLC** (the "Company"). The Company may do business under that name and under any other name or names upon which the Member decides. If the Company does business under a name other than that set forth in its Articles of Organization, then the Company shall file a certificate as required by General Business Law §130.

1.3. *Purpose.* The Company is organized primarily to participate directly or indirectly in the acquisition, ownership, construction, development, financing, operating, maintenance and disposition of certain real property and improvements located in New York City, do any and all things necessary, convenient, or incidental to those purposes, engage in such additional or other activities as the Member shall deem necessary, advisable, and any other lawful purpose permitted under the Law.

1.4. *Term.* The Company shall have a perpetual existence, unless its existence is sooner terminated pursuant to Article VII of this Agreement.

1.5. *Registered Agent.* The Company shall not have a registered agent.

1.6. *Members.* The name and present mailing address of the Member is as follows:

Name	Address
BFC 100th Street LLC	150 Myrtle Avenue, Suite 2, Brooklyn, New York 11201

Article II
Member; Capital; Capital Account

2.1. *Initial Capital Contribution.* Upon the execution of this Agreement, the Member is contributing to the company cash in the amount of $100.00.

2.2. *No Additional Capital Contributions Required.* The Member shall not be required to contribute any additional capital to the Company. The Member shall not have any personal liability for any debt, obligation or liability of the Company.

2.3. *No Interest on Capital Contributions.* The Member shall not be paid interest on its Capital Contribution.

2.4. *Return of Capital Contributions.* Except as otherwise provided in this Agreement, the Member shall not have the right to receive any return of its Capital Contribution.

2.5. *Form of Return of Capital.* If the Member is entitled to receive a return of its Capital Contribution, the Company may distribute cash, notes, property, or a combination thereof to the Member in return of the Capital Contribution.

2.6. *Loans.* The Member may, at any time, make or cause a loan to be made to the company in any amount and on those terms as determined by the Member.

Article III
Profit, Loss, and Distributions

3.1. *Distributions of Cash Flow.* Cash Flow for the Company may be distributed to the Member at such times and in such amounts as determined by the Member. Such distributions shall be allocated to the Member in the same proportion as its then capital account balance.

Article IV
Management: Rights, Powers, and Duties

4.3. *Management.*

4.3.1. The Company shall be managed by the Member. The Member shall have the full and exclusive right and power to act for and bind the Company.

4.3.2. The Member may cause the Company to employ and retain such other persons as may be necessary or appropriate for the conduct of the Company's business, on such terms as the Member shall determine, including persons who may be designated as officers. The officers of the Company shall have the titles, powers and duties delegated to them by the Member. Any number of titles may be held by the same officer.

4.3.3. The Member shall have the power and authority to delegate his or her right and power to manage and control the business and affairs of the Company to one or more other persons (including one or more committees, managers and agents, employees and/or affiliates of a manager), including delegation by management agreement or other arrangement.

4.4. *Liability and Indemnification.*

4.4.1 Except as otherwise provided by law, no Member shall be liable, responsible or accountable in any way for damages or otherwise to the Company or to any of the Members for any act or failure to act pursuant to this Agreement or otherwise unless there is a judicial determination that (i) such person acted in bad faith, (ii) the conduct of such person constituted intentional misconduct or a knowing violation of law, (iii) such person gained a financial benefit to which he or she was not legally entitled or (iv) such person failed to perform his or her duties, specifically with respect to distributions under Section 508(a) of the Law, in good faith and with that degree of care that an ordinarily prudent person in a like position would use under similar circumstances.

4.4.2. The Company shall indemnify, defend and hold harmless the Member and any delegate, employee, or officer of the Member (severally, (the "Indemnitee" and collectively, the "Indemnitees"), from and against any claims, losses, liabilities, damages, fines, penalties, costs and expenses (including, without limitation, reasonable fees and disbursements of counsel and other professionals) arising out of or in connection with any act or failure to act by an Indemnitee pursuant to this Agreement, or the business and affairs of the Company, to the fullest extent permitted by law; provided, however, that an Indemnitee shall not be entitled to indemnification hereunder if there is a judicial determination that (a) such Indemnitee's actions or omissions to act were made in bad faith or were the result of active and deliberate dishonesty and were material to the cause of action so adjudicated, or (b) such Indemnitee personally gained a financial benefit to which the Indemnitee was not legally entitled.

Article V
Transfers of Interest

5.1. *Transfers.* The Member may transfer in whole or in part its interest in the Company.

Article VI
Admission of Additional Members

6.1. *Admission of Additional Members.* The Member may admit one or more additional members to the Company.

Article VII
Dissolution, Liquidation, and Termination of the Company

7.1. *Events of Dissolution.* The Company shall be dissolved upon the happening of any of the following events:

7.1.1. upon the consent of the Member;

7.1.2. upon the dissolution of the Member; or

7.1.3. upon the entry of a decree of judicial dissolution under Section 702 of the Law.

Article VIII
General Provisions

8.1. *Applicable Law.* All questions concerning the construction, validity, and interpretation of this Agreement and the performance of obligations imposed by this Agreement shall be governed by the internal law, not the law of conflicts, of the State of New York.

8.2. *Article and Section Titles.* The headings herein are inserted as a matter of convenience only and do not define, limit, or describe the scope of this Agreement or the intent of the provisions hereof.

8.3. *Separability of Provisions.* Each provision of this Agreement shall be considered separable; and if, for any reason, any provision or provisions herein are determined to be invalid and contrary to any existing or future law, such invalidity shall not impair the operation of or affect those portions of this Agreement which are valid.

IN WITNESS WHEREOF, the Member has executed, or caused this Agreement to be executed as of the date set forth hereinabove.

MEMBER:

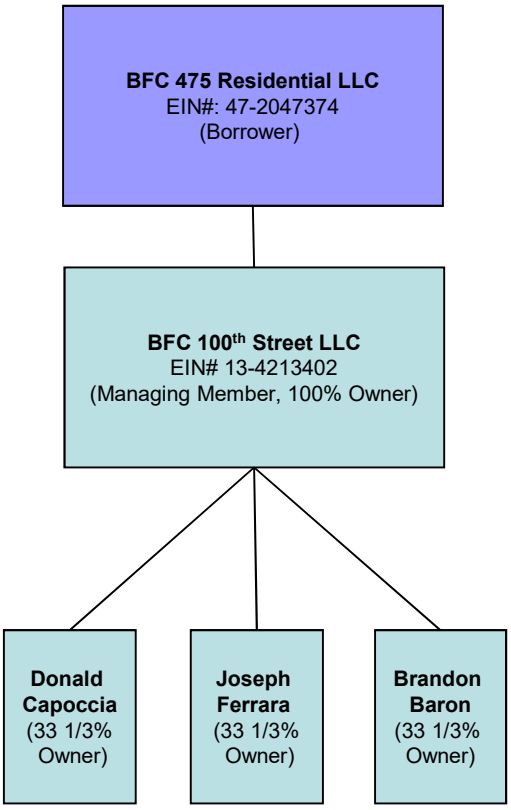
BFC 100th STREET LLC

By: _____
Name: Brandon Baron
Title: Member

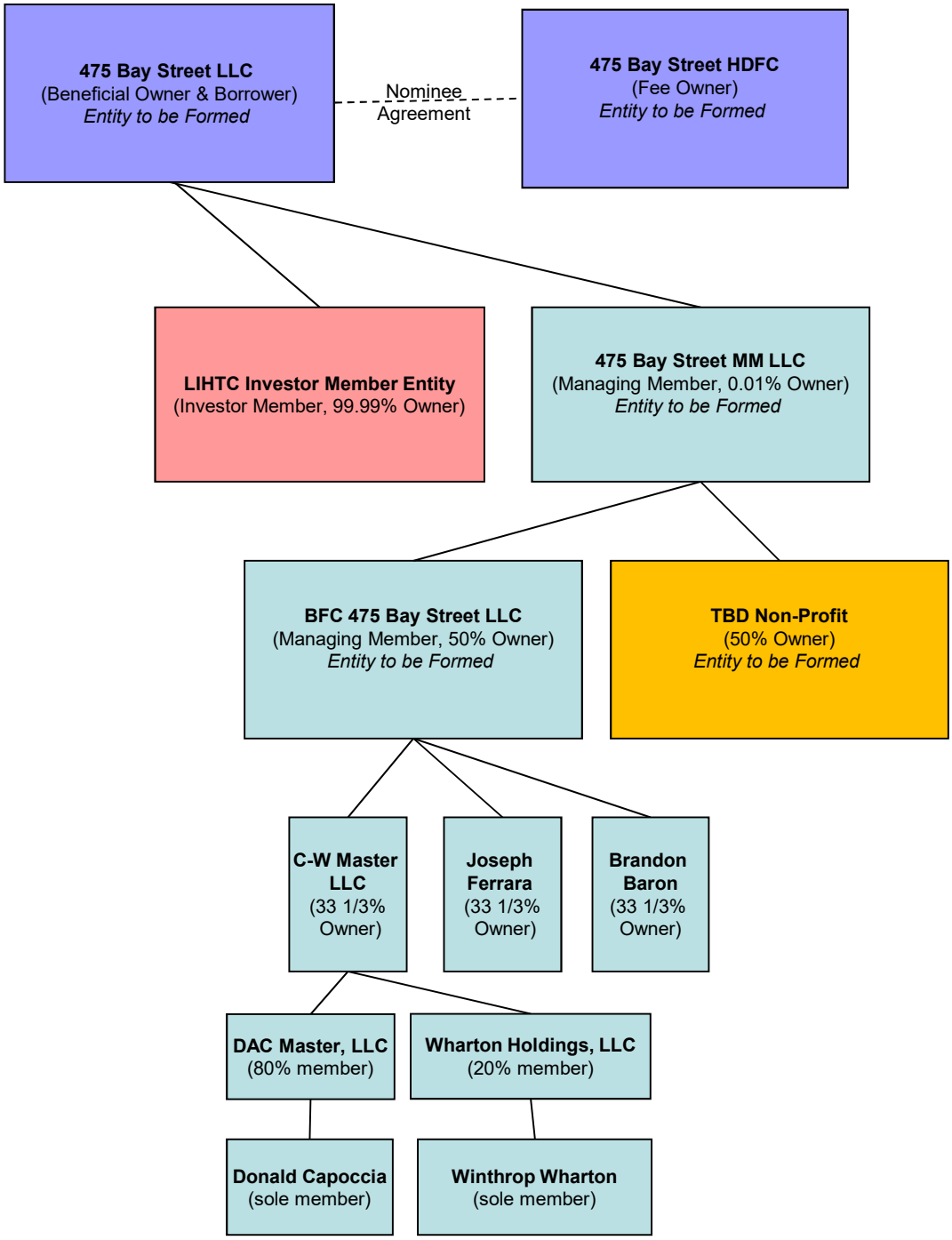
ACKNOWLEDGED, CONSENTED AND AGREED TO BY WITHDRAWING MEMBER:

_____
DONALD CAPOCCIA

475 Bay Street Development
Staten Island, New York
Block 488, Lots 9, 157, 162 & 164
(at Acquisition Loan Closing)



475 Bay Street Development
Staten Island, New York
Block 488, Lots 9, 157, 162 & 164
(at Construction Loan Closing)



ATTACHMENT B

SECTION II: PROJECT DESCRIPTION

ATTACHMENT B
SECTION II: PROJECT DESCRIPTION

Purpose and Scope of the Project

The purpose of the project is to remediate and redevelop the site for use as an affordable housing and community facility. The site consists of three vacant asphalt and gravel-paved lots (Block 488, Lot 9, 157 and 162) and a vacant one-story building (Block 488, Lot 164). The proposed redevelopment includes construction of a new 3-story community facility on Lots 157, 162, and 164, and a 12-story mixed-use residential and commercial building on Lot 9. All residential units will be designated as affordable housing. An application for the merger of Lots 157, 162 and 164 into Lot 157 dated April 28, 2020 was submitted to the New York State Department of Finance - Property Division and is included as an attachment.

According to the New York City Planning Commission, the site lies within the Special Bay Street Corridor District (BSC) that was created to foster better connectivity between Staten Island's civic core in St. George and the town center of Stapleton by promoting a more continuous, pedestrian friendly commercial street scape and create the opportunity for additional housing through the Inclusionary Housing Designated Areas Program. The proposed use is consistent with the current zoning. The applicable zoning map is included in Attachment H of this BCP application.

The proposed project will include:

- Demolition of the existing one-story building and asphalt parking lot;
- Excavation and off-site disposal of contaminated soil; and
- Implementation of other remedial elements, if required, simultaneously with development.

A subsurface investigation was performed in April and May 2020, the results of which are summarized in Attachment C of this BCP application. The findings of the investigation will be documented in a forthcoming Remedial Investigation Report (RIR) and future remediation plans to address the identified impacts will be detailed in the Remedial Action Work Plan (RAWP), which will be implemented concurrently with the contemplated development. The RIR and RAWP will be prepared in accordance with New York State Department of Environmental Conservation (NYSDEC) guidelines. An estimated timeline of anticipated BCP milestones is provided in the following schedule:

Estimated Project Schedule

Estimated Project Schedule

Item	Action	2020												2021												2022					
		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN
1	Preparation and Submission of BCP Application							■	■																						
2	30-Day Public Comment Period for BCP Application									■																					
3	Execute BCA										■																				
4	Preparation of and Submission of RIR and RAWP								■	■	■	■																			
5	NYSDEC & NYSDOH Review of RIR and RAWP												■	■	■	■															
6	45-Day Public Comment Period for RAWP and Issuance of Decision Document																■	■													
7	Implementation of RAWP with Engineering Oversight																		■	■	■	■	■	■							
8	Preparation of an Environmental Easement, FER, and SMP (if required)																								■	■	■				
9	NYSDEC & NYSDOH Review of FER (and SMP, if required)																										■	■	■	■	
10	NYSDEC Issues COC																														■

Notes:

a) This is an estimated schedule; all items are subject to change.
b) Completion of Item 7 refers to the completion of remediation and not the end of overall construction.
c) BCP = Brownfield Cleanup Program
d) NYSDEC = New York State Department of Environmental Conservation
e) BCA = Brownfield Cleanup Agreement
f) NYSDOH = New York State Department of Health
g) RIR = Remedial Investigation Report
h) RAWP = Remedial Action Work Plan
i) FER = Final Engineering Report
j) SMP = Site Management Plan
k) COC = Certificate of Completion

ATTACHMENT C

SECTION III: PROPERTY'S ENVIRONMENTAL HISTORY

ATTACHMENT C
SECTION III: PROPERTY'S ENVIRONMENTAL HISTORY

Item 1 - Environmental Reports

The following environmental reports were prepared for the site prior to the Requestor's application:

- *January 12, 2000 Phase I Environmental Site Assessment (ESA) for 475 Bay Street, Staten Island, New York, prepared by AVT Enterprises (AVT)*
- *April 2013 Phase I ESA for 475 Bay Street Staten Island, New York, prepared by URS Corporation (URS)*
- *September 2013 Subsurface (Phase II) Investigation for 475 Bay Street, Staten Island, New York, prepared by AKRF Engineering, P.C. (AKRF)*
- *April 2016 Remedial Action Plan for 475 Bay Street, Staten Island, New York, prepared by AKRF*
- *March 20, 2020 Phase I ESA for 475 Bay Street and 31 Wave Street, Staten Island, New York, prepared by Langan*
- *May 15, 2020 Phase II Environmental Site Investigation Report (ESI) for 31-33 Wave Street, Staten Island, New York, prepared by Langan*

Environmental reports are summarized below and included with this attachment.

January 12, 2000 Phase I ESA for 475 Bay Street, Staten Island, New York, prepared by AVT

AVT prepared a Phase I ESA in January 2000 for Mr. Mervin Rampaul in accordance with the previous ASTM E1257-99 standard for Block 488, Lot 9. At the time of the Phase I, the site was a vacant asphalt-paved parking lot. The following Recognized Environmental Conditions (RECs) were identified in the Phase I ESA:

- REC 1 – Historical On-Site Operations - Historical use of the site as a coal yard and filling station with potential petroleum bulk storage in 1934
- REC 2 – Historical Adjoining and Surrounding Property Operations - Historical use of the adjoining and surrounding properties for industrial and commercial uses that predate regulatory controls

April 2013 Phase I ESA for 475 Bay Street, Staten Island, New York, prepared by URS

URS conducted a Phase I ESA and geophysical survey in April 2013 for BFC Partners. The Phase I was conducted for Lot 9 in accordance with the previous ASTM E1257-05 standard. At the time

of the Phase I, the site was vacant asphalt-paved parking lot. The following RECs were identified in the Phase I ESA:

- REC 1 – Historical On-Site Operations -Historic use of the site as a lumber yard, coal storage yard, sand and gravel storage yard, and a vehicle storage yard
- REC 2 – Historical Adjoining and Surrounding Property Operations - Historic use of the adjoining and up-gradient surrounding properties as a gasoline station, dry cleaner, and other historically industrial properties

The geophysical survey did not identify subsurface anomalies indicative of underground storage tanks (USTs), aboveground storage tanks (ASTS) or drums; however, a suspected buried concrete pad, buried metal and unidentified objects were identified.

September 2013 Subsurface (Phase II) Investigation for 475 Bay Street, Staten Island, New York, prepared by AKRF

AKRF conducted a Phase II subsurface investigation on Lot 9 in August 2013 to determine if soil, groundwater, and soil vapor were impacted as a result of the historical uses of the site and adjoining and surrounding properties. The investigation consisted of the advancement of eight soil borings, installation of four temporary groundwater monitoring wells and four soil vapor points, and collection of soil, groundwater and soil vapor samples. Field observations and laboratory analytical results are summarized below:

- Site Geology and Hydrogeology - Historic fill material consisting of sand with silt, gravel, asphalt and brick was encountered beneath the surface cover to depths ranging from 5 to 10 feet below grade surface (bgs). Fill was underlain by native sand to termination depth of borings ranging from 20 to 25 feet bgs. Groundwater was encountered between 6 and 15 feet bgs.
- Soil - Volatile organic compounds (VOC), polychlorinated biphenyl (PCB), pesticides and metals were detected in at least one or more soil samples above New York State Department of Environmental Conservation (NYSDEC) Chapter 6 of the New York Codes, Rules and Regulations (NYCRR) Part 375 Unrestricted Use (UU) Soil Cleanup Objectives (SCO), but below the Restricted Use – Restricted Residential (RURR) SCOs. Four metals, including barium, cadmium, lead and nickel, were detected above RURR SCOs.

- Groundwater - Semivolatile organic compounds (SVOC) and dissolved metals were identified in groundwater samples above their NYSDEC Technical and Operational Guidance Series (1.1.1): Class GA Ambient Water Quality Standards (AWQS).
- Soil Vapor - Petroleum-related and chlorinated VOCs were detected in soil vapor samples. VOCs were not detected at concentrations above the New York State Department of Health (NYSDOH) Air Guidance Values (AGVs).

April 2016 Remedial Action Plan, prepared by AKRF

AKRF prepared a Remedial Action Plan (RAP) for Lot 9 to address the excavation and off-site disposal of excavated material, dewatering, and decommissioning and closure of USTs, if encountered, during redevelopment of the Subject Property. The RAP also discussed the removal of the suspected buried concrete pad, buried metal and unspecified objects identified during the August 2013 geophysical survey.

This RAP was prepared to satisfy the New York City Office of Environmental Remediation (NYCOER) E-designation requirements. E-Designations are assigned when environmental concerns are identified by the Department of City Planning during completion of the Environmental Assessment for Rezoning. E-Designations requirements must be satisfied before a building permit can be issued by the NYC Department of Buildings. The RAP was prepared when the development was anticipated to only span Lot 9 and was never implemented.

March 20, 2020 Phase I ESA for 475 Bay Street and 31 Wave Street, Staten Island, New York, prepared by Langan

The Phase I ESA was completed in accordance with ASTM Standard E1527-13 and the United States Environmental Protection (USEPA) All Appropriate Inquiries (AAI) Rule. The following RECs were identified:

- REC 1 - Historical On-Site Operations - Historical operations at the site include a lumber yard (1898 to 1917), a gasoline service station (1929 to 1934), a coal yard (1934 to 1950), a gasoline filling station with petroleum bulk storage and an oil shed (1937 to 1950), auto painting (1937 to 1950), a truck shop (1937 to 1950), auto repair (1934; 1977 to 2019), a gravel and sand company with a gasoline tank (1950 to 1972), used auto sales (1968; 1977 to 1990), unidentified manufacturing (1981 to 1988) and an ironworks (1984). Additionally, Block 488, Lot 164 is identified in the Solid Waste/Landfill (SW/LF) database as a car dismantling facility. Leaks or spills of petroleum products, solvents, chemicals and/or other hazardous materials associated with former business operations may have adversely affected soil, groundwater and/or soil vapor at the site.

- REC 2 – Potential Former Hydraulic Lifts Filled with Liquid - Three rectangular pits filled with water were observed in the former auto repair building located on Lot 164. The pits appeared to be lined with concrete. One pit measured about 15 x 8 x 3 feet and the remaining two measured about 3 x 3 x 3 feet. The pits appear to be remnants of former hydraulic lifts. What appeared to be globules of free product were observed floating on the surface of the water. Although the pits appeared to be lined with concrete the condition of the pits could not be inspected.

- REC 3 – Historical Use of the Adjoining and Surrounding Properties - Historical use of the adjoining and surrounding properties include an auto supply and factory (1917), dry cleaning company with historical generation of hazardous waste and petroleum bulk storage (1934 to present), a filling station with three gasoline tanks (1928 to 1996), a bus garage (1937), a factory (1937 to 1962), parking lot with an oil house (1937 to 1950), a gasoline filling station (1937 to 2011), used auto sales (1950 to 1995) and auto repair (1962 to 1992). Historical operations on adjoining and surrounding properties may have resulted in releases of petroleum products, solvents, chemicals, and/or other hazardous substances that may have affected groundwater or soil vapor beneath the site.

April/May 2020 Remedial Investigation (Report being Prepared)

Langan completed a remedial investigation between April 28 and May 22, 2020 to investigate potential areas of concern (AOCs) and determine, to the extent practical, the nature and extent of soil, groundwater, and soil vapor impacts. The investigation included a geophysical survey, the advancement of 27 soil boings to depths ranging between 10 and 20 feet bgs, the installation of 9 permanent groundwater monitoring wells, 2 sub-slab and 9 soil vapor points, and the collection of soil, groundwater, soil vapor, and indoor air samples. Field observations and laboratory analytical results are summarized below:

- Geophysical Survey - Geophysical anomalies consistent with utilities (i.e., gas and electric lines) were identified throughout the site. No anomalies resembling USTs were identified.

- Site Geology and Hydrogeology - Historic fill material was encountered from beneath the surface cover to depths of 5 to 13 feet bgs. The fill layer was most shallow in the central and northwestern part of the site (Lot 9) and deepest in the southeastern part of the site (Lot 157). Historic fill material predominantly consisted of brown and black, fine- to coarse-grained sand with varying amounts of gravel, silt, brick, coal, slag, glass, ceramics, wood, incinerated material and/or concrete. The fill layer was underlain by native soil that predominantly consists of light gray to reddish brown silty fine sand with varying amounts of fine gravel and clay lenses, which extended to the termination depth of each boring. Bedrock was not encountered in any of the soil borings.

  With the exception of one outlier well, depth to groundwater was measured between 3.51 and 4.92 feet bgs across the site footprint, with corresponding groundwater

elevations ranging from about to elevation (el) 5.12 to el 6.00 NAVD88. Groundwater generally flows southeast towards The Narrows.

- Soil: Petroleum-like odors, photoionization detector (PID) readings above background (maximum 4.6 parts per million [ppm]) and staining were observed in soil borings SB04 and SB110 from 14 to 15 feet bgs and 9 to 10 feet bgs, respectively.

  One VOC, acetone, was detected at concentrations exceeding the UU SCOs in six soil samples collected from soil borings SB01, SB02, SB13, SB15 and SB111 at depths ranging between 5 and 20 feet bgs on Lots 9 and 157.

  Fifteen SVOCs, including thirteen polycyclic aromatic hydrocarbons (PAHs), a subset of SVOCs, exceeded the UU and/or RURR SCOs in five soil samples from soil borings SB01, SB05, SB101, SB107, and SB109 collected at depths ranging from 0 to 5.5 feet bgs. In particular, concentrations of 3 & 4 methylphenol, 2-methylphenol, dibenzofuran, naphthalene, and phenol exceeded UU SCOs, and concentrations of benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, dibenzo(a,h)anthracene, fluoranthene, indeno(1,2,3-cd)pyrene, phenanthrene, and pyrene exceeded UU and RURR SCOs. PAH impacted material is confined within the historic fill layer. The compounds 3 & 4 methylphenol and 2-methylphenol were only detected in the sample collected in SB101 from 3 to 4 feet bgs.

  Four pesticides, 4,4'-DDD, 4,4'-DDE, 4,4'-DDT, and Alpha BHC (Alpha Hexachlorocyclohexane) were detected at concentrations exceeding the UU SCOs in nine samples from soil borings SB02, SB03, SB04, SB05, SB11, SB12, and SB15 collected at depths ranging from 0 to 8 feet bgs. Pesticides were not detected above RURR SCOs.

  Total PCBs were detected at concentrations exceeding the UU SCO in one sample from soil boring SB12 collected at a depth from 0 to 2 feet bgs. PCBs were not detected above RURR SCOs.

  Eleven metals were detected at concentrations above UU and/or RURR SCOs in 62 samples from all soil borings except for SB105. Arsenic, barium, trivalent chromium, lead, mercury, and nickel exceeded both UU and RURR SCOs.

  Soil samples were analyzed for per- and polyfluoroalkyl substances (PFAS). Currently, there are no NYSDEC SCOs for PFAS compounds. Perfluorooctanoic acid (PFOA) was detected in 36 soil samples at concentrations ranging from 0.0000863 milligrams per kilogram (mg/kg) (86.3 parts per trillion [ppt]) to 0.00134 mg/kg (1,340 ppt) between 0 and 20 feet bgs. Perfluorooctane sulfonate (PFOS) was detected in 19 soil samples at concentrations ranging from 0.0000472 mg/kg (47.2 ppt) to 0.0052 mg/kg (5,200 ppt) between 0 and 15 feet bgs.

- Groundwater Quality: Two SVOCs (benzo(a)anthracene and chrysene) and four total metals (iron, lead, manganese, and sodium) and dissolved metals (iron, manganese, and sodium) were detected at concentrations above the NYSDEC Title 6 of the Official Part 703.5 and the NYSDEC Technical Operational Guidance Series (TOGS) 1.1.1 Ambient Water Quality Standards and Guidance Values for Class GA Water (NYSDEC SGV). VOCs, PCBs, pesticides, and herbicides were not detected above the NYSDEC SGVs.

  Groundwater samples were analyzed for emerging contaminants including PFOA, PFOS, and 1,4-dioxane. There are currently no NYSDEC TOGS SGVs for these compounds; however, PFOA and PFOS and 1,4-dioxane were compared to the USEPA recommended lifetime health advisory of 0.070 micrograms per liter (µg/L) (70 ppt) and 0.35 µg/L, respectively. PFOA and PFOS were detected above the USEPA lifetime health advisory at concentrations ranging from 0.143 µg/L (143 ppt) to 0.178 µg/L (178 ppt) and from 0.0843 µg/L (84.3 ppt) to 0.13 µg/L (130 ppt), respectively, in MW05 and MW06. 1,4-dioxane was not detected in any of the groundwater samples.

- Soil Vapor: Thirty-five VOCs were detected in at least one of the soil vapor, sub-slab, and/or indoor air samples, including carbon tetrachloride, cis-1,2-dichloroethene, methylene chloride, tetrachloroethene (PCE) and trichloroethene (TCE). VOCs were not detected at concentrations above the minimum mitigation thresholds outlined in the NYSDOH Decision Matrices.

May 15, 2020 Phase II ESI Report for 31-33 Wave Street, Staten Island, New York, prepared by Langan

A Phase II ESI report was prepared using the data from the April/May 2020 subsurface investigation for Lots 157, 162, and 164. The report was prepared to satisfy lender requirements prior to purchase of the property. The full analytical data set, which includes soil, groundwater and soil vapor samples collected from Lot 9, will be reported in the forthcoming Remedial Investigation Report (RIR) for the site.

Item 2 - Sampling Data

Contaminant concentrations detected above applicable regulatory standards for soil tested in August 2013 and April/May 2020 are summarized below. Laboratory analytical reports are included as an attachment.

Soil

Soil sample results were compared to the UU and RURR SCOs. Analytes detected above the UU SCOs are summarized below with those above the RURR SCOs shown in **bold**.

VOCs

- SB01_6-8 (6'-8'): Acetone (0.066 mg/kg)

- SB02_6-8 (6'-8'): Acetone (0.058 mg/kg)
- SB02_18-20 (18'-20'): Acetone (0.064 mg/kg)
- SB13_5-7 (5'-7'): Acetone (0.069 mg/kg)
- SODUP02_050420 (Parent Sample is SB13_5-7): Acetone (0.12 mg/kg)
- SB15_5-7 (5'-7'): Acetone (0.13 mg/kg)
- SB111_8-9 (8'-9'): Acetone (0.082 mg/kg)
- SB-4 (7-9) (7'-9'): Acetone (0.12 mg/kg)
- SB-7 (6-8) (6'-8'): Acetone (0.055 mg/kg)
- SB-8 (6-8) (6'-8'): Acetone (0.16 mg/kg)

SVOCs

- SB01_0-2 (0'-2'): **benzo(a)anthracene (2.16 mg/kg), benzo(a)pyrene (2.84 mg/kg), benzo(b)fluoranthene (4.45 mg/kg),** benzo(k)fluroanthene (2.2 mg/kg), chrysene (2.19 mg/kg), **dibenz(a,h)anthracene (1.15 mg/kg),** and **indeno(1,2,3-cd)pyrene (2.59 mg/kg)**
- SB05_0-2 (0'-2'): **indeno(1,2,3-cd)pyrene (0.559 mg/kg)**
- SB101_3-4 (3'-4'): 2-methylphenol (0.546 mg/kg), 3 & 4 methylphenol (1.47 mg/kg), **benzo(a)anthracene (34.7 mg/kg), benzo(a)pyrene (46.1 mg/kg), benzo(b)fluoranthene (38 mg/kg), benzo(k)fluroanthene (35.2 mg/kg), chrysene (43.2 mg/kg), dibenz(a,h)anthracene (7.34 mg/kg),** dibenzofuran (13.5 mg/kg), **fluoranthene (135 mg/kg), indeno(1,2,3-cd)pyrene (26.1 mg/kg),** naphthalene (15.3 mg/kg), **phenanthrene (152 mg/kg),** phenol (1.25 mg/kg), and **pyrene (107 mg/kg)**
- SB107_4.5-5.5 (4.5'-5.5'): **benzo(a)anthracene (10.3 mg/kg), benzo(a)pyrene (9.43 mg/kg), benzo(b)fluoranthene (7.07 mg/kg), benzo(k)fluoranthene (7.37 mg/kg), chrysene (9.28 mg/kg), dibenz(a,h)anthracene (2.01 mg/kg), and indeno(1,2,3-cd)pyrene (4.07 mg/kg)**

  SB109_4-5 (4'-5'): **benzo(a)anthracene (1.49 mg/kg), benzo(a)pyrene (2.04 mg/kg), benzo(b)fluoranthene (1.74 mg/kg),** benzo(k)fluoranthene (1.56 mg/kg), chrysene (2.25 mg/kg), **dibenz(a,h)anthracene (0.53 mg/kg), and indeno(1,2,3-cd)pyrene (1.24 mg/kg)**

Metals

- SB01_0-2 (0'-2'): Copper (68.3 mg/kg), Lead (95.2 mg/kg), and Mercury (0.207 mg/kg)
- SB01_6-8 (6'-8'): Trivalent Chromium (85.5 mg/kg), Copper (69.1 mg/kg), Lead (166 mg/kg), **Mercury (1.05 mg/kg), Nickel (503 mg/kg),** and Zinc (139 mg/kg)
- SB01_18-20 (18'-20'): Trivalent Chromium (47.4 mg/kg) and Nickel (284 mg/kg)

- SB02_0-2 (0'-2'): **Arsenic (17.9 mg/kg)**, Copper (72.1 mg/kg), Lead (98.5 mg/kg), Mercury (0.199 mg/kg), Nickel (147 mg/kg), Selenium (7.12 mg/kg), and Zinc (159 mg/kg)
- SB02_6-8 (6'-8'): Trivalent Chromium (60.5 mg/kg), Copper (50.4 mg/kg), Lead (77.8 mg/kg), Mercury (0.589 mg/kg), and **Nickel (545 mg/kg)**
- SB02_18-20 (18'-20'): Trivalent Chromium (36.9 mg/kg) and Nickel (244 mg/kg)
- SB03_0-2 (0'-2'): Hexavalent Chromium (1.07 mg/kg), Trivalent Chromium (34.5 mg/kg), and Nickel (100 mg/kg)
- SB03_6-8 (6'-8'): **Mercury (1.49 mg/kg)** and Nickel (51.5 mg/kg)
- SB03_18-20 (18'-20'): Trivalent Chromium (30.6 mg/kg) and Nickel (132 mg/kg)
- SB04_0-2 (0'-2'): Lead (234 mg/kg), Mercury (0.268 mg/kg), Selenium (12.6 mg/kg), and Zinc (136 mg/kg)
- SODUP01_042920 (Parent Sample is SB04_0-2): Lead (238 mg/kg), Mercury (0.264 mg/kg), and Selenium (10.2 mg/kg)
- SB04_14-16 (14'-16'): Nickel (94.6 mg/kg)
- SB04_18-20 (18'-20'): Trivalent Chromium (36.6 mg/kg) and Nickel (86.2 mg/kg)
- SB05_0-2 (0'-2'): Copper (60 mg/kg), Lead (387 mg/kg), **Mercury (1.33 mg/kg),** Nickel 74.5 mg/kg), and Zinc (274 mg/kg)
- SB05_6-8 (6'-8'): Mercury (0.653 mg/kg) and Nickel (84.3 mg/kg)
- SB05_18-20 (18'-20'): Nickel (109 mg/kg)
- SB06_0-2 (0'-2'): Lead (89.9 mg/kg)
- SB06_5-7 (5'-7'): Lead (274 mg/kg) and Nickel (133 mg/kg)
- SB06_12-14 (12'-14'): Nickel (128 mg/kg)
- SB07_0-2 (0'-2'): Lead (100 mg/kg), Selenium (5.01 mg/kg), and Zinc (283 mg/kg)
- SB07_8-10 (8'-10'): Nickel (155 mg/kg)
- SB07_18-20 (18'-20'): Nickel (86.2 mg/kg)
- SB08_0-2 (0'-2'): Trivalent Chromium (31 mg/kg), Lead (296 mg/kg), Mercury (0.771 mg/kg), Nickel (154 mg/kg), and Zinc (123 mg/kg)
- SB08_4-6 (4'-6'): Trivalent Chromium (33.6 mg/kg), **Lead (441 mg/kg), Mercury (1.28 mg/kg), Nickel (325 mg/kg),** Selenium (4.08 mg/kg), and Zinc (226 mg/kg)

- SB08_13-15 (13'-15'): **Barium (442 mg/kg), Lead (2,080 mg/kg),** Mercury (0.54 mg/kg), Nickel (114 mg/kg), and Zinc (291 mg/kg)
- SB09_0-2 (0'-2'): Nickel (71.3 mg/kg)
- SB09_4-6 (4'-6'): Mercury (0.226 mg/kg) and Nickel (69.9 mg/kg)
- SB09_13-15 (13'-15'): Trivalent Chromium (39.5 mg/kg), Lead (66 mg/kg), and Nickel (209 mg/kg)
- SB10_0-2 (0'-2'): Nickel (52.5 mg/kg)
- SB10_6-8 (6'-8'): Trivalent Chromium (32.2 mg/kg), Lead (74 mg/kg), Mercury (0.401 mg/kg), and Nickel (182 mg/kg)
- SB10_18-20 (18'-20'): Lead (58.6 mg/kg) and Nickel (47.6 mg.kg)
- SB11_0-2 (0'-2'): Nickel (57.3 mg/kg)
- SB11_10-12 (10'-12'): Trivalent Chromium (47.5 mg/kg) and **Nickel (319 mg/kg)**
- SB11_14-16 (14'-16'): Trivalent Chromium (156 mg/kg) and **Nickel (902 mg/kg)**
- SB12_0-2 (0'-2'): Lead (115 mg/kg), Mercury (0.238 mg/kg), and Nickel (71.7 mg/kg)
- SB12_8-10 (8'-10'): Trivalent Chromium (36.4 mg/kg) and Nickel (285 mg/kg)
- SB12_18-20 (18'-20'): **Trivalent Chromium (195 mg/kg) and Nickel (1,200 mg/kg)**
- SB13_0-2 (0'-2'): Trivalent Chromium (36.5 mg/kg), Lead (235 mg/kg), Nickel (158 mg/kg), and Zinc (124 mg/kg)
- SB13_5-7 (5'-7'): Nickel (71.5 mg/kg)
- SODUP02_050420 (Parent sample is SB13_5-7): Nickel (66 mg/kg)
- SB13_18-20 (18'-20'): Trivalent Chromium (40.9 mg/kg), Mercury (0.246 mg/kg), and Nickel (272 mg/kg)
- SB14_0-2 (0'-2'): **Barium (453 mg/kg)**, Lead (302 mg/kg), and Nickel (31.2 mg/kg)
- SB14_6-8 (6'-8'): Trivalent Chromium (54.9 mg/kg), Lead (99.2 mg/kg), Mercury (0.465 mg/kg), and **Nickel (391 mg/kg)**
- SODUP03_050620 (Parent Sample is SB14_6-8): Trivalent Chromium (54.5 mg/kg), Lead (101 mg/kg), Mercury (0.516 mg/kg), and **Nickel (367 mg/kg)**
- SB14_18-20 (18'-20'): Trivalent Chromium (34.2 mg/kg) and Nickel (176 mg/kg)
- SB15_0-2 (0'-2'): Trivalent Chromium (32.9 mg/kg), Lead (64.4 mg/kg), and Nickel (74.1 mg/kg)

- SB15_5-7 (5'-7'): Trivalent Chromium (43.5 mg/kg), Lead (82.3 mg/kg), Mercury (0.274 mg/kg), and Nickel (309 mg/kg)
- SB15_18-20 (18'-20'): Nickel (113 mg/kg)
- SB16_0-2 (0'-2'): Hexavalent Chromium (3.35 mg/kg), Trivalent Chromium (32.2 mg/kg), and Nickel (74.4 mg/kg)
- SB16_14-16 (14'-16'): Trivalent Chromium (62.3 mg/kg) and **Nickel (510 mg/kg)**
- SB16_18-20 (18'-20'): Trivalent Chromium (129 mg/kg) and **Nickel (1,660 mg/kg)**
- SB101_3-4 (3'-4'): Copper (89.1 mg/kg), Lead (329 mg/kg), Mercury (0.234 mg/kg), Nickel (122 mg/kg), and Zinc (232 mg/kg)
- SB102_4-5 (4'-5'): Trivalent Chromium (36.1 mg/kg), Lead (95.7 mg/kg), and Nickel (146 mg/kg)
- SB103_2.5-3.5 (2.5'-3.5'): Cadmium (3.23 mg/kg), Trivalent Chromium (47.5 mg/kg), Lead (123 mg/kg), Mercury (0.243 mg/kg), Nickel (222 mg/kg), and Zinc (262 mg/kg)
- SB104_4.5-5.5 (4.5'-5.5'): Mercury (0.302 mg/kg) and Nickel (100 mg/kg)
- SB106_4.5-5.5 (4.5'-5.5'): **Arsenic (18.8 mg/kg),** Cadmium (3.79 mg/kg), Copper (66.2 mg/kg), **Lead (446 mg/kg), Mercury (0.822 mg/kg),** Nickel (37 mg/kg), and Zinc (890 mg/kg)
- SB107_4.5-5.5 (4.5'-5.5'): Lead (258 mg/kg), **Mercury (1.43 mg/kg),** Nickel (64 mg/kg), and Zinc (120 mg/kg)
- SB108_7-9.5 (7'-9.5'): Trivalent Chromium (39.3 mg/kg), Copper (83.7 mg/kg), **Lead (1,930 mg/kg), Mercury (1.98 mg/kg),** Nickel (145 mg/kg), and Zinc (422 mg/kg)
- SODUP04_052220 (Parent Sample is SB108_7-9.5): **Barium (411 mg/kg)**, Trivalent Chromium (38.7 mg/kg), Copper (118 mg/kg), **Lead (2,530 mg/kg), Mercury (1.81 mg/kg),** Nickel (209 mg/kg), and Zinc (659 mg/kg)
- SB109_4-5 (4'-5'): **Barium (414 mg/kg),** Copper (65.1 mg/kg), **Lead (942 mg/kg),** Mercury (0.613 mg/kg), Nickel (60.7 mg/kg), and Zinc (440 mg/kg)
- SB110_9-10 (9'-10'): **Lead (416 mg/kg), Mercury (1.25 mg/kg),** Nickel (47.9 mg/kg), and Zinc (244 mg/kg)
- SB111_8-9 (8'-9'): Lead (69 mg/kg), **Mercury (5.76 mg/kg),** Nickel (94.1 mg/kg), and Zinc (170 mg/kg)
- SB-1 (7-9) (7'-9'): Nickel (260 mg/kg)
- SB-1 (15-17) (15'-17'): Total Chromium (46 mg/kg) and **Nickel (1,200 mg/kg)**

- SB-2 (0-2) (0'-2'): Nickel (56 mg/kg)
- SB-2 (18-20) (18'-20'): Total Chromium (98 mg/kg) and **Nickel (1,500 mg/kg)**
- SB-3 (0-2) (0'-2'): Lead (86 mg/kg), Mercury (0.28 mg/kg), Nickel (50 mg/kg), and Zinc (130 mg/kg)
- SB-3 (18-20) (18'-20'): Nickel (190 mg/kg)
- SB-4 (7-9) (7'-9'): Total Chromium (55 mg/kg), Lead (160 mg/kg), Mercury (0.19 mg/kg), and **Nickel (430 mg/kg)**
- SB-4 (18-20) (18'-20'): Nickel (48 mg/kg)
- SB-5 (0-2) (0'-2'): Arsenic (15 mg/kg), **Barium (950 mg/kg), Cadmium (11 mg/kg),** Total Chromium (44 mg/kg), Copper (160 mg/kg), **Lead (5,800 mg/kg),** Mercury (0.45 mg/kg), Nickel (140 mg/kg), and Zinc (2,600 mg/kg)
- SB-5 (18-20) (18'-20'): Total Chromium (72 mg/kg) and **Nickel (660 mg/kg)**
- SB-6 (7-9) (7'-9'): Nickel (120 mg/kg)
- SB-6 (18-20) (18'-20'): Nickel (69 mg/kg)
- SB-7 (6-8) (6'-8'): **Nickel (360 mg/kg)**
- SB-7 (18-20) (18'-20'): Nickel (110 mg/kg)
- SB-8 (6-8) (6'-8'): Copper (55 mg/kg), Lead (380 mg/kg), Mercury (0.19 mg/kg), Nickel (310 mg/kg), and Zinc (180 mg/kg)
- SB-8 (18-20) (18'-20'): Copper (55 mg/kg) and Nickel (97 mg/kg)

PCBs

- SB12_0-2 (0'-2'): Total PCBs (0.203 mg/kg)
- SB-5 (0-2) (0'-2'): Total PCBs (0.174 mg/kg)

Pesticides

- SB02_0-2 (0'-2'): 4,4'-DDD (0.017 mg/kg), 4,4'-DDE (0.0206 mg/kg), and 4,4'-DDT (0.0293 mg/kg)
- SB02_6-8 (6'-8'): Alpha BHC (Alpha Hexachlorocyclohexane) (0.0256 mg/kg)
- SB03_0-2 (0'-2'): 4,4'-DDE (0.00877 mg/kg)
- SB04_0-2 (0'-2'): 4,4'-DDT (0.0073 mg/kg)
- SODUP01_042920 (Parent Sample is SB04_0-2): 4,4'-DDT (0.0099 mg/kg)
- SB05_0-2 (0'-2'): 4,4'-DDT (0.00426 mg/kg)

- SB11_0-2 (0'-2'): 4,4'-DDE (0.00745 mg/kg)
- SB12_0-2 (0'-2'): 4,4'-DDE (0.00686 mg/kg)
- SB15_0-2 (0'-2'): 4,4'-DDE (0.0059 mg/kg)
- SB-3 (0-2) (0'-2'): 4,4'-DDT (0.0845 mg/kg)
- SB-4 (7-9) (7'-9'): 4,4'-DDE (0.0113 mg/kg) and 4,4'-DDT (0.0646 mg/kg)
- SB-5 (0-2) (0'-2'): 4,4'-DDT (0.0537 mg/kg)
- SB-5 (18-20) (18'-20'): 4,4'-DDE (0.00882 mg/kg) and 4,4'-DDT (0.0459 mg/kg)

Groundwater

Groundwater sample results were compared to the NYSDEC SGVs. PFOA and PFOS sample results were compared to the USEPA lifetime health advisory. Analytes detected above the NYSDEC SGVs or the USEPA lifetime health advisory are summarized below.

SVOCS

- MW01_050720: benzo(a)anthracene (0.0649 µg/L) and chrysene (0.0757 mg/kg)
- TW-1: benzo(a)anthracene (0.93 µg/L), benzo(a)pyrene (0.87 µg/L), benzo(b)fluoranthene (1 µg/L), benzo(k)fluoranthene (0.46 µg/L), chrysene (1.1 µg/L) and indeno(1,2,3-cd)pyrene (0.54 µg/L)

Total Metals

- MW01_050720: Iron (36,100 µg/L), Manganese (1,510 µg/L), and Sodium (64,000 µg/L)
- MW02_050720: Iron (16,700 µg/L), Lead (53.9 µg/L), Manganese (738 µg/L), and Sodium (23,000 µg/L)
- MW05_043020: Iron (6,770 µg/L), Manganese (2,900 µg/L), and Sodium (96,000 µg/L)
- MW06_043020: Iron (11,400 µg/L), Manganese (1,730 µg/L), and Sodium (48,400 µg/L)
- MW08_043020: Iron (4,940 µg/L), Lead (184 µg/L), and Sodium (55,800 µg/L)
- GWDUP01_043020 (Parent Sample is MW08_043020): Sodium (55,800 µg/L)
- MW10_050720: Iron (6,890 µg/L), Manganese (334 µg/L), and Sodium (24,100 µg/L)
- MW11_051120: Iron (684 µg/L), Manganese (497 µg/L), and Sodium (35,100 µg/L)
- MW13_051120: Iron (5,540 µg/L), Manganese (1,520 µg/L), and Sodium (39,900 µg/L)
- TW-1: Beryllium (3.11 µg/L), Total Chromium (158 µg/L), Iron (67,700 µg/L), Lead (894.5 µg/L), Magnesium (94,600 µg/L), Manganese (5,924 µg/L), Nickel (1,186 µg/L), and Sodium (119,000 µg/L)

- TW-2: Total Chromium (160.6 µg/L), Iron (78,100 µg/L), Lead (184.9 µg/L), Magnesium (51,100 µg/L), Manganese (4,746 µg/L), Nickel (1,157 µg/L), and Sodium (25,700 µg/L)
- TW-3: Barium (1,462 µg/L), Beryllium (7.05 µg/L), Total Chromium (129.4 µg/L), Copper (223.5 µg/L), Iron (139,000 µg/L), Lead (116.1 µg/L), Magnesium (117,000 µg/L), Manganese (12,480 µg/L), Nickel (1,174 µg/L), and Sodium (40,300 µg/L)
- TW-4: Barium (1,994 µg/L), Beryllium (8.04 µg/L), Chromium, Total (202 µg/L), Copper (469.5 µg/L), Iron (235,000 µg/L), Lead (322.8 µg/L), Magnesium (166,000 µg/L), Manganese (18,890 µg/L), Nickel (3,342 µg/L), Selenium (10.1 µg/L), Sodium (73,400 µg/L), and Thallium (0.85 µg/L)

Dissolved Metals

- MW01_050720: Iron (35,400 µg/L), Manganese (1,400 µg/L), and Sodium (69,200 µg/L)
- MW02_050720: Iron (10,100 µg/L), Manganese (692 µg/L), and Sodium (23,300 µg/L)
- MW05_043020: Iron (5,510 µg/L), Manganese (2,700 µg/L), and Sodium (90,900 µg/L)
- MW06_043020: Iron (11,000 µg/L), Manganese (1,700 µg/L), and Sodium (47,800 µg/L)
- MW08_043020: Sodium (54,200 µg/L)
- GWDUP01_043020: Sodium (54,600 µg/L)
- MW10_050720: Iron (498 µg/L) and Sodium (24,200 µg/L)
- MW11_051120: Iron (602 µg/L), Manganese (544 µg/L), and Sodium (36,500 µg/L)
- MW13_051120: Iron (5,030 µg/L), Manganese (1,420 µg/L), and Sodium (47,300 µg/L)
- TW-1: Iron (5,830 µg/L), Magnesium (70,600 µg/L), Manganese (3,214 µg/L), and Sodium (126,000 µg/L)
- TW-2: Iron (2,660 µg/L), Manganese (2,639 µg/L), and Sodium (25,700 µg/L)
- TW-3: Iron (13,000 µg/L), Magnesium (93,500 µg/L), Manganese (4,400 µg/L), and Sodium (41,200 µg/L)
- TW-4: Iron (19,700 µg/L), Magnesium (90,800 µg/L), Manganese (3,077 µg/L), and Sodium (76,600 µg/L)

PFAS

- MW05_043020: PFOS (0.0843 µg/L, 84.3 ppt) and PFOA (0.143 µg/L, 143 ppt)
- MW06_043020: PFOS (0.13 µg/L, 130 ppt) and PFOA (0.178 µg/L, 178 ppt)

Soil Vapor

Soil vapor, sub-slab soil vapor, and indoor air samples were compared to the NYSDOH Guidance for Evaluating Soil Vapor Intrusion. Full evaluation using the Decision Matrices requires both soil vapor and indoor air data. Two indoor air samples were collected with sub-slab vapor samples within the vacant site building during the April/May 2020 subsurface investigation; however, all remaining soil vapor samples were collected from the building exterior. The Decision Matrices can still provide guidance based on soil vapor concentrations as they relate to ranges of possible indoor air concentrations. Carbon tetrachloride (28.9 micrograms per cubic meter [µg/m^3]) was detected during the 2013 Phase II investigation at a concentration that could potentially warrant mitigation.

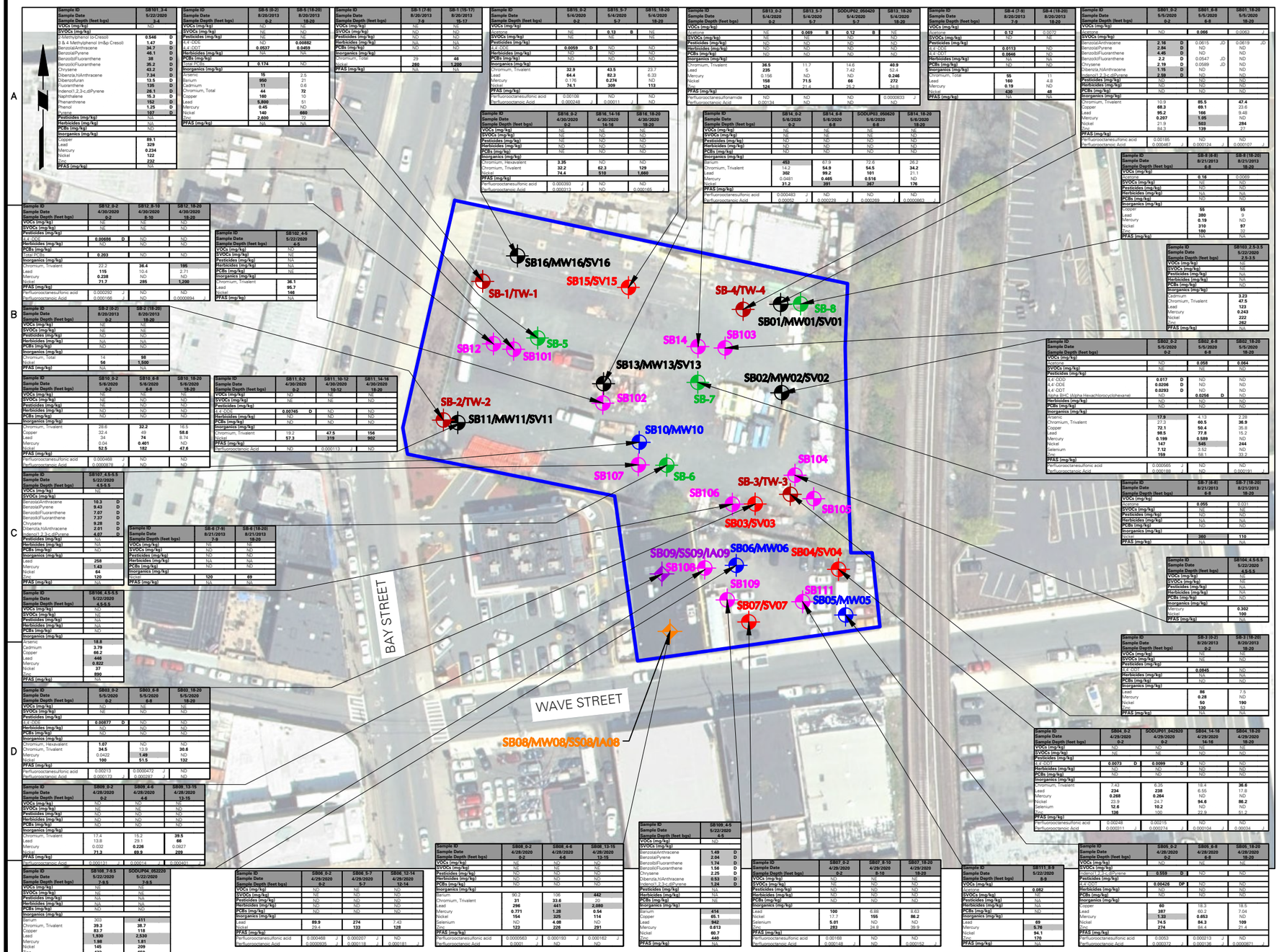
Item 3 - Site Drawings

Figure C-1: Soil Sample Location and Analytical Results Map including soil sample locations advanced during the August 2013 Phase II investigation completed by AKRF and the April/May 2020 subsurface investigation completed by Langan. Analytical results exceeding the NYSDEC Title 6 NYCRR Part 375 UU SCOs are bolded. Analytical results exceeding the NYSDEC Title 6 NYCRR Part 375 RURR SCOs are bolded and shaded.

Figure C-2: Groundwater Sample Location and Analytical Results Map including groundwater sample locations advanced during the August 2013 Phase II investigation completed by AKRF and the April/May 2020 limited subsurface investigation completed by Langan. Analytical results exceeding the NYSDEC SGVs or USEPA lifetime health advisory are bolded and shaded.

Figure C-3: Soil Vapor, Sub-Slab, and Indoor Air Sample Location and Analytical Results Map including sample locations advanced during the August 2013 Phase II investigation completed by AKRF and the April/May 2020 limited subsurface investigation completed by Langan. Analytical results exceeding the minimum soil vapor concentrations recommending mitigation as set forth in the NYSDOH October Guidance for Evaluating Soil Vapor Intrusion in the State of New York Decision Matrices for Sub-Slab Vapor and Indoor Air (and subsequent updates) are bolded and shaded.

FIGURES



LEGEND:

- APPROXIMATE SITE BOUNDARY
- SB01 — APPROXIMATE SOIL BORING LOCATION
- SB01/MW01 — APPROXIMATE SOIL BORING AND MONITORING WELL LOCATION
- SB01/SV01 — APPROXIMATE SOIL BORING AND SOIL VAPOR SAMPLE LOCATION
- SB01/MW01/SV01 — APPROXIMATE SOIL BORING, MONITORING WELL, AND SOIL VAPOR SAMPLE LOCATION
- SB01/SS01/IA01 — APPROXIMATE SOIL BORING, SUB-SLAB, AND INDOOR AIR SAMPLE LOCATION
- SB01/MW01/SS01/IA01 — APPROXIMATE SOIL BORING, MONITORING WELL, SUB-SLAB, AND INDOOR AIR SAMPLE LOCATION
- SB-1 — AKRF AUGUST 2013 PHASE II INVESTIGATION SOIL BORING LOCATION
- SB-1/TW-1 — AKRF AUGUST 2013 PHASE II INVESTIGATION SOIL BORING AND MONITORING WELL LOCATION

GENERAL NOTES:

1. BASEMAP TAKEN FROM LANGAN ENGINEERING, ENVIRONMENTAL, SURVEYING, LANDSCAPE ARCHITECTURE & GEOLOGY, D.P.C. NEARMAP WEB PORTAL, ACCESSED ON JUNE 16, 2020.
2. LANGAN SOIL BORING, MONITORING WELL, AND SOIL VAPOR SAMPLE LOCATIONS ARE APPROXIMATE AND BASED ON FIELD MEASUREMENTS OFF OF EXISTING STRUCTURES.
3. LOTS 157, 162, AND 164 WILL BE MERGED IN THE NEW YORK CITY AUTOMATED CITY REGISTER INFORMATION SYSTEM (ACRIS) PENDING AN APRIL 28, 2020 MERGER APPLICATION SUBMITTED TO THE NEW YORK STATE DEPARTMENT OF FINANCE - PROPERTY DIVISION.
4. AKRF ENGINEERING, P.C. (AKRF) LOCATIONS ARE BASED ON "FIGURE 2 - SITE PLAN" PREPARED BY AKRF, DATED SEPTEMBER 2013.
5. 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 (UU) AND RESTRICTED USE RESTRICTED-RESIDENTIAL (RURR) SOIL CLEANUP OBJECTIVES (SCO).
6. NO NYSDEC SCOs EXIST FOR PER- AND POLYFLUOROALKYL SUBSTANCES (PFAS).
7. CRITERION COMPARISONS FOR 3- & 4-METHYLPHENOL (M&P CRESOL) ARE PROVIDED FOR REFERENCE. PROMULGATED SCOs ARE FOR 3-METHYLPHENOL (M-CRESOL) AND 4-METHYLPHENOL (P-CRESOL).
8. SAMPLE SODUP01_042920 IS A DUPLICATE SAMPLE OF SB04_0-2; SAMPLE SODUP02_050420 IS A DUPLICATE SAMPLE OF SB13_5-7; SAMPLE SODUP03_050620 IS A DUPLICATE SAMPLE OF SB14_6-8; AND SAMPLE SODUP04_052220 IS A DUPLICATE SAMPLE OF SB108_7-9.5.
9. ONLY ANALYTES EXCEEDING THE REGULATORY CRITERIA (PART 375 SCOs) ARE SHOWN.
10. DETECTED ANALYTICAL RESULTS ABOVE THE UU SCOs ARE BOLDED.
11. DETECTED ANALYTICAL RESULTS ABOVE THE RURR SCOs ARE BOLDED AND SHADED.
12. bgs - BELOW GRADE SURFACE
13. VOC - VOLATILE ORGANIC COMPOUND
14. SVOC - SEMI-VOLATILE ORGANIC COMPOUND
15. PCB - POLYCHLORINATED BIPHENYL
16. mg/kg - MILLIGRAMS PER KILOGRAM
17. CAS - CHEMICAL ABSTRACTS SERVICE
18. B - THE ANALYTE WAS FOUND IN THE ASSOCIATED ANALYSIS BATCH BLANK
19. D - THE CONCENTRATION REPORTED IS A RESULT OF A DILUTED SAMPLE
20. P - THE RELATIVE PERCENT DIFFERENCE (RPD) BETWEEN THE RESULTS FOR THE TWO COLUMNS EXCEEDS THE METHOD-SPECIFIED CRITERIA
21. J - THE ANALYTE WAS DETECTED ABOVE THE METHOD DETECTION LIMIT BUT BELOW THE REPORTING LIMIT; THEREFORE, THE RESULT IS AN ESTIMATED CONCENTRATION
22. NA - NOT ANALYZED
23. NE - CONCENTRATION DOES NOT EXCEED CRITERIA
24. ND - THE ANALYTE IS NOT DETECTED

Analyte	CAS Number	NYSDEC Part 375 Unrestricted Use SCOs	NYSDEC Part 375 Restricted Use Restricted-Residential SCOs
VOCs (mg/kg)			
Acetone	67-64-1	0.05	100
SVOCs (mg/kg)			
2-Methylphenol (o-Cresol)	95-48-7	0.33	100
3 & 4 Methylphenol (m&p Cresol)	65794-96-9	0.33	100
Benzo(a)Anthracene	56-55-3	1	1
Benzo(a)Pyrene	50-32-8	1	1
Benzo(b)Fluoranthene	205-99-2	1	1
Benzo(k)Fluoranthene	207-08-9	0.8	3.9
Chrysene	218-01-9	1	3.9
Dibenz(a,h)Anthracene	53-70-3	0.33	0.33
Dibenzofuran	132-64-9	7	59
Fluoranthene	206-44-0	100	100
Indeno(1,2,3-cd)Pyrene	193-39-5	0.5	0.5
Naphthalene	91-20-3	12	100
Phenanthrene	85-01-8	100	100
Phenol	108-95-2	0.33	100
Pyrene	129-00-0	100	100
Pesticides (mg/kg)			
4,4'-DDD	72-54-8	0.0033	13
4,4'-DDE	72-55-9	0.0033	8.9
4,4'-DDT	50-29-3	0.0033	7.9
Alpha BHC (Alpha Hexachlorocyclohexane)	319-84-6	0.02	0.48
PCBs (mg/kg)			
Total PCBs	1336-36-3	0.1	1
Inorganics (mg/kg)			
Arsenic	7440-38-2	13	16
Barium	7440-39-3	350	400
Cadmium	7440-43-9	2.5	4.3
Chromium, Hexavalent	18540-29-9	1	110
Chromium, Trivalent	16065-83-1	30	180
Copper	7440-50-8	50	270
Lead	7439-92-1	63	400
Mercury	7439-97-6	0.18	0.81
Nickel	7440-02-0	30	310
Selenium	7782-49-2	3.9	180
Zinc	7440-66-6	109	10,000

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.

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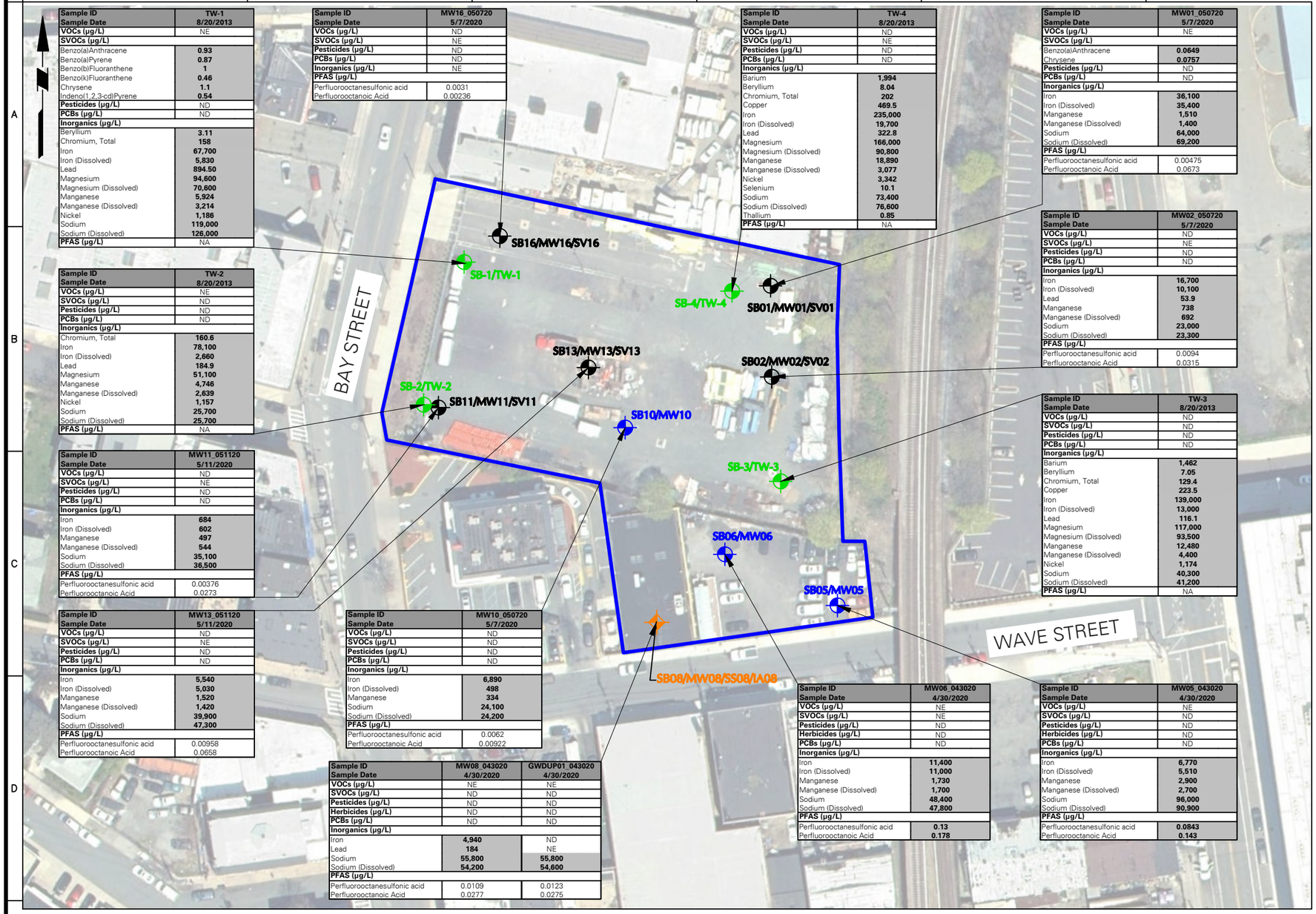
BLOCK No. 488, LOTS No. 9, 157, 162, 164
STATEN ISLAND
RICHMOND COUNTY NEW YORK

Figure Title
SOIL SAMPLE LOCATION AND ANALYTICAL RESULTS MAP

Project No.	170610601
Date	07/29/2020
Drawn By	LE
Checked By	KS

Figure **C-1**
Sheet 1 of 3

Filename: \\langan.com\data\NYC\data6\170610601\Project Data\CAD\01\SheetFiles\Environmental\BCP Application\Figure C-1 - Soil Sample Analytical Results Map.dwg Date: 7/29/2020 Time: 12:34 User: lesmail Style Table: Langan.stb Layout: ANSIB-BL (1)



Sample ID Sample Date	TW-1 8/20/2013
VOCs (µg/L)	NE
SVOCs (µg/L)	
Benzo(a)Anthracene	**0.93**
Benzo(a)Pyrene	**0.87**
Benzo(b)Fluoranthene	**1**
Benzo(k)Fluoranthene	**0.46**
Chrysene	**1.1**
Indeno(1,2,3-cd)Pyrene	**0.54**
Pesticides (µg/L)	ND
PCBs (µg/L)	ND
Inorganics (µg/L)	
Beryllium	**3.11**
Chromium, Total	**158**
Iron	**67,700**
Iron (Dissolved)	**5,830**
Lead	**894.50**
Magnesium	**94,600**
Magnesium (Dissolved)	**70,600**
Manganese	**5,924**
Manganese (Dissolved)	**3,214**
Nickel	**1,186**
Sodium	**119,000**
Sodium (Dissolved)	**126,000**
PFAS (µg/L)	NA

Sample ID Sample Date	TW-2 8/20/2013
VOCs (µg/L)	NE
SVOCs (µg/L)	ND
Pesticides (µg/L)	ND
PCBs (µg/L)	ND
Inorganics (µg/L)	
Chromium, Total	**160.6**
Iron	**78,100**
Iron (Dissolved)	**2,660**
Lead	**184.9**
Magnesium	**51,100**
Manganese	**4,746**
Manganese (Dissolved)	**2,639**
Nickel	**1,157**
Sodium	**25,700**
Sodium (Dissolved)	**25,700**
PFAS (µg/L)	NA

Sample ID Sample Date	MW11_051120 5/11/2020
VOCs (µg/L)	ND
SVOCs (µg/L)	NE
Pesticides (µg/L)	ND
PCBs (µg/L)	ND
Inorganics (µg/L)	
Iron	**684**
Iron (Dissolved)	**602**
Manganese	**497**
Manganese (Dissolved)	**544**
Sodium	**35,100**
Sodium (Dissolved)	**36,500**
PFAS (µg/L)	
Perfluorooctanesulfonic acid	0.00376
Perfluorooctanoic Acid	0.0273

Sample ID Sample Date	MW13_051120 5/11/2020
VOCs (µg/L)	ND
SVOCs (µg/L)	NE
Pesticides (µg/L)	ND
PCBs (µg/L)	ND
Inorganics (µg/L)	
Iron	**5,540**
Iron (Dissolved)	**5,030**
Manganese	**1,520**
Manganese (Dissolved)	**1,420**
Sodium	**39,900**
Sodium (Dissolved)	**47,300**
PFAS (µg/L)	
Perfluorooctanesulfonic acid	0.00958
Perfluorooctanoic Acid	0.0658

Sample ID Sample Date	MW16_050720 5/7/2020
VOCs (µg/L)	ND
SVOCs (µg/L)	NE
Pesticides (µg/L)	ND
PCBs (µg/L)	ND
Inorganics (µg/L)	NE
PFAS (µg/L)	
Perfluorooctanesulfonic acid	0.0031
Perfluorooctanoic Acid	0.00236

Sample ID Sample Date	MW10_050720 5/7/2020
VOCs (µg/L)	ND
SVOCs (µg/L)	ND
Pesticides (µg/L)	ND
PCBs (µg/L)	ND
Inorganics (µg/L)	
Iron	**6,890**
Iron (Dissolved)	**498**
Manganese	**334**
Sodium	**24,100**
Sodium (Dissolved)	**24,200**
PFAS (µg/L)	
Perfluorooctanesulfonic acid	0.0062
Perfluorooctanoic Acid	0.00922

Sample ID Sample Date	MW08_043020 4/30/2020	GWDUP01_043020 4/30/2020
VOCs (µg/L)	NE	NE
SVOCs (µg/L)	ND	ND
Pesticides (µg/L)	ND	ND
Herbicides (µg/L)	ND	ND
PCBs (µg/L)	ND	ND
Inorganics (µg/L)		
Iron	**4,940**	ND
Lead	**184**	NE
Sodium	**55,800**	**55,800**
Sodium (Dissolved)	**54,200**	**54,600**
PFAS (µg/L)		
Perfluorooctanesulfonic acid	0.0109	0.0123
Perfluorooctanoic Acid	0.0277	0.0275

Sample ID Sample Date	TW-4 8/20/2013
VOCs (µg/L)	ND
SVOCs (µg/L)	NE
Pesticides (µg/L)	ND
PCBs (µg/L)	ND
Inorganics (µg/L)	
Barium	**1,994**
Beryllium	**8.04**
Chromium, Total	**202**
Copper	**469.5**
Iron	**235,000**
Iron (Dissolved)	**19,700**
Lead	**322.8**
Magnesium	**166,000**
Magnesium (Dissolved)	**90,800**
Manganese	**18,890**
Manganese (Dissolved)	**3,077**
Nickel	**3,342**
Selenium	**10.1**
Sodium	**73,400**
Sodium (Dissolved)	**76,600**
Thallium	**0.85**
PFAS (µg/L)	NA

Sample ID Sample Date	MW06_043020 4/30/2020
VOCs (µg/L)	NE
SVOCs (µg/L)	NE
Pesticides (µg/L)	ND
Herbicides (µg/L)	ND
PCBs (µg/L)	ND
Inorganics (µg/L)	
Iron	**11,400**
Iron (Dissolved)	**11,000**
Manganese	**1,730**
Manganese (Dissolved)	**1,700**
Sodium	**48,400**
Sodium (Dissolved)	**47,800**
PFAS (µg/L)	
Perfluorooctanesulfonic acid	**0.13**
Perfluorooctanoic Acid	**0.178**

Sample ID Sample Date	MW01_050720 5/7/2020
VOCs (µg/L)	NE
SVOCs (µg/L)	
Benzo(a)Anthracene	**0.0649**
Chrysene	**0.0757**
Pesticides (µg/L)	ND
PCBs (µg/L)	ND
Inorganics (µg/L)	
Iron	**36,100**
Iron (Dissolved)	**35,400**
Manganese	**1,510**
Manganese (Dissolved)	**1,400**
Sodium	**64,000**
Sodium (Dissolved)	**69,200**
PFAS (µg/L)	
Perfluorooctanesulfonic acid	0.00475
Perfluorooctanoic Acid	0.0673

Sample ID Sample Date	MW02_050720 5/7/2020
VOCs (µg/L)	ND
SVOCs (µg/L)	NE
Pesticides (µg/L)	ND
PCBs (µg/L)	ND
Inorganics (µg/L)	
Iron	**16,700**
Iron (Dissolved)	**10,100**
Lead	**53.9**
Manganese	**738**
Manganese (Dissolved)	**692**
Sodium	**23,000**
Sodium (Dissolved)	**23,300**
PFAS (µg/L)	
Perfluorooctanesulfonic acid	0.0094
Perfluorooctanoic Acid	0.0315

Sample ID Sample Date	TW-3 8/20/2013
VOCs (µg/L)	ND
SVOCs (µg/L)	ND
Pesticides (µg/L)	ND
PCBs (µg/L)	ND
Inorganics (µg/L)	
Barium	**1,462**
Beryllium	**7.05**
Chromium, Total	**129.4**
Copper	**223.5**
Iron	**139,000**
Iron (Dissolved)	**13,000**
Lead	**116.1**
Magnesium	**117,000**
Magnesium (Dissolved)	**93,500**
Manganese	**12,480**
Manganese (Dissolved)	**4,400**
Nickel	**1,174**
Sodium	**40,300**
Sodium (Dissolved)	**41,200**
PFAS (µg/L)	NA

Sample ID Sample Date	MW05_043020 4/30/2020
VOCs (µg/L)	NE
SVOCs (µg/L)	ND
Pesticides (µg/L)	ND
Herbicides (µg/L)	ND
PCBs (µg/L)	ND
Inorganics (µg/L)	
Iron	**6,770**
Iron (Dissolved)	**5,510**
Manganese	**2,900**
Manganese (Dissolved)	**2,700**
Sodium	**96,000**
Sodium (Dissolved)	**90,900**
PFAS (µg/L)	
Perfluorooctanesulfonic acid	**0.0843**
Perfluorooctanoic Acid	**0.143**

LEGEND:

- APPROXIMATE SITE BOUNDARY
- SB01/MW01 — APPROXIMATE SOIL BORING AND MONITORING WELL LOCATION
- SB01/MW01/SV01 — APPROXIMATE SOIL BORING, MONITORING WELL, AND SOIL VAPOR SAMPLE LOCATION
- SB01/MW01/SS01/IA01 — APPROXIMATE SOIL BORING, MONITORING WELL, SUB-SLAB, AND INDOOR AIR SAMPLE LOCATION
- SB-1/TW-1 — AKRF AUGUST 2013 PHASE II INVESTIGATION SOIL BORING AND MONITORING WELL LOCATION

GENERAL NOTES:

1. BASEMAP TAKEN FROM LANGAN ENGINEERING, ENVIRONMENTAL, SURVEYING, LANDSCAPE ARCHITECTURE & GEOLOGY, D.P.C. NEARMAP WEB PORTAL, ACCESSED ON JUNE 16, 2020.
2. LANGAN SOIL BORING, MONITORING WELL, AND SOIL VAPOR SAMPLE LOCATIONS ARE APPROXIMATE AND BASED ON FIELD MEASUREMENTS OFF OF EXISTING STRUCTURES.
3. LOTS 157, 162, AND 164 WILL BE MERGED IN THE NEW YORK CITY AUTOMATED CITY REGISTER INFORMATION SYSTEM (ACRIS) PENDING AN APRIL 28, 2020 MERGER APPLICATION SUBMITTED TO THE NEW YORK STATE DEPARTMENT OF FINANCE - PROPERTY DIVISION.
4. AKRF ENGINEERING, P.C. (AKRF) LOCATIONS ARE BASED ON "FIGURE 2 - SITE PLAN" PREPARED BY AKRF, DATED SEPTEMBER 2013.
5. GROUNDWATER SAMPLE ANALYTICAL RESULTS ARE COMPARED TO THE NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION (NYSDEC) DIVISION OF WATER TECHNICAL AND OPERATIONAL GUIDANCE SERIES (TOGS) 1.1.1 AMBIENT GROUNDWATER QUALITY STANDARDS AND GUIDANCE VALUES (GQS).
6. REGULATORY CRITERIA DOES NOT EXIST FOR PER- AND POLYFLUOROALKYL SUBSTANCES (PFAS) AND 1,4-DIOXANE IN NEW YORK STATE. PERFLUOROOCTANOIC ACID (PFOA), PERFLUOROOCTANESULFONIC ACID (PFOS), AND 1,4-DIOXANE ARE COMPARED TO THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY (USEPA) HEALTH ADVISORY LIMIT OF 70 PARTS PER TRILLION AND 0.35 PARTS PER BILLION, RESPECTIVELY.
7. ONLY ANALYTES EXCEEDING THE REGULATORY CRITERIA ARE SHOWN IN THE FIGURE.
8. DETECTED ANALYTICAL RESULTS ABOVE THE NYSDEC SGVs OR USEPA HEALTH ADVISORY LIMIT ARE BOLDED AND SHADED.
9. ~ - REGULATORY LIMIT FOR THIS ANALYTE DOES NOT EXIST
10. VOC - VOLATILE ORGANIC COMPOUND
11. SVOC - SEMI-VOLATILE ORGANIC COMPOUND
12. PCB - POLYCHLORINATED BIPHENYL
13. ug/L - MICROGRAMS PER LITER
14. CAS - CHEMICAL ABSTRACTS SERVICE
15. NA - NOT ANALYZED
16. NE - CONCENTRATION DOES NOT EXCEED CRITERIA
17. ND - THE ANALYTE IS NOT DETECTED

Analyte	CAS Number	NYSDEC SGVs	USEPA Health Advisory for Emerging Contaminants
SVOCs (µg/L)			
Benzo(a)Anthracene	56-55-3	0.002	~
Benzo(a)Pyrene	50-32-8	0	~
Benzo(b)Fluoranthene	205-99-2	0.002	~
Benzo(k)Fluoranthene	207-08-9	0.002	~
Chrysene	218-01-9	0.002	~
Indeno(1,2,3-cd)Pyrene	193-39-5	0.002	~
Inorganics (µg/L)			
Barium	7440-39-3	1,000	~
Beryllium	7440-41-7	3	~
Chromium, Total	7440-47-3	50	~
Copper	7440-50-8	200	~
Iron	7439-89-6	300	~
Lead	7439-92-1	25	~
Magnesium	7439-95-4	35,000	~
Manganese	7439-96-5	300	~
Nickel	7440-02-0	100	~
Selenium	7782-49-2	10	~
Sodium	7440-23-5	20,000	~
Thallium	7440-28-0	0.5	~
PFAS (µg/L)			
Perfluorooctanesulfonic acid	1763-23-1	~	0.07
Perfluorooctanoic Acid	335-67-1	~	0.07

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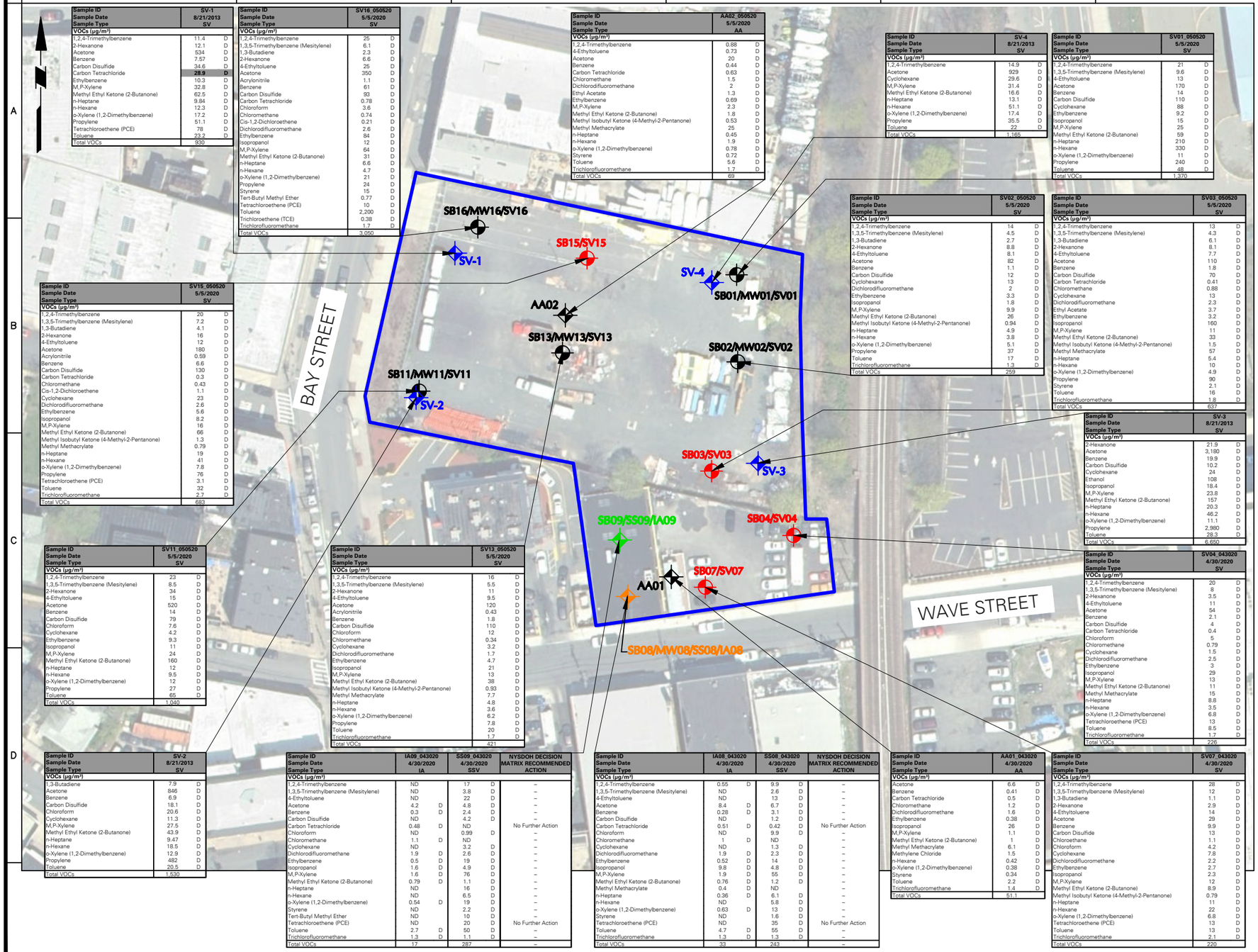
STATEN ISLAND
RICHMOND COUNTY NEW YORK

Figure Title
GROUNDWATER SAMPLE LOCATION AND ANALYTICAL RESULTS MAP

Project No. 170610601
Date 06/22/2020
Drawn By LE
Checked By KS

Figure **C-2**
Sheet 2 of 3

Filename: \\langan.com\data\NYC\data6\170610601\Project Data\CAD\01\SheetFiles\Environmental\BCP Application\Figure C-2 - Groundwater Analytical Results Map.dwg Date: 6/25/2020 Time: 15:30 User: lesmail Style Table: Langan.stb Layout: ANSIB-BL (1)



Sample ID	SV-1
Sample Date	8/21/2013
Sample Type	SV
VOCs (µg/m³)	
1,2,4-Trimethylbenzene	11.4 D
2-Hexanone	12.1 D
Acetone	534 D
Benzene	7.57 D
Carbon Disulfide	34.6 D
Carbon Tetrachloride	28.9 D
Ethylbenzene	10.3 D
M,P-Xylene	32.8 D
Methyl Ethyl Ketone (2-Butanone)	62.5 D
n-Heptane	9.84 D
n-Hexane	12.3 D
o-Xylene (1,2-Dimethylbenzene)	17.2 D
Propylene	51.1 D
Tetrachloroethene (PCE)	78 D
Toluene	23.2 D
Total VOCs	930

Sample ID	SV16_050520
Sample Date	5/5/2020
Sample Type	SV
VOCs (µg/m³)	
1,2,4-Trimethylbenzene	25 D
1,3,5-Trimethylbenzene (Mesitylene)	6.1 D
1,3-Butadiene	2.3 D
2-Hexanone	6.6 D
4-Ethyltoluene	25 D
Acetone	350 D
Acrylonitrile	1.1 D
Benzene	61 D
Carbon Disulfide	93 D
Carbon Tetrachloride	0.78 D
Chloroform	3.6 D
Chloromethane	0.74 D
Cis-1,2-Dichloroethene	0.21 D
Dichlorodifluoromethane	2.6 D
Ethylbenzene	84 D
Isopropanol	12 D
M,P-Xylene	64 D
Methyl Ethyl Ketone (2-Butanone)	31 D
n-Heptane	6.6 D
n-Hexane	4.7 D
o-Xylene (1,2-Dimethylbenzene)	21 D
Propylene	24 D
Styrene	15 D
Tert-Butyl Methyl Ether	0.77 D
Tetrachloroethene (PCE)	10 D
Toluene	2,200 D
Trichloroethene (TCE)	0.38 D
Trichlorofluoromethane	1.7 D
Total VOCs	3,050

Sample ID	AA02_050520
Sample Date	5/5/2020
Sample Type	AA
VOCs (µg/m³)	
1,2,4-Trimethylbenzene	0.88 D
4-Ethyltoluene	0.73 D
Acetone	20 D
Benzene	0.44 D
Carbon Tetrachloride	0.63 D
Chloromethane	1.5 D
Dichlorodifluoromethane	2 D
Ethyl Acetate	1.3 D
Ethylbenzene	0.69 D
M,P-Xylene	2.3 D
Methyl Ethyl Ketone (2-Butanone)	1.8 D
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	0.53 D
Methyl Methacrylate	25 D
n-Heptane	0.45 D
n-Hexane	1.9 D
o-Xylene (1,2-Dimethylbenzene)	0.78 D
Styrene	0.72 D
Toluene	5.6 D
Trichlorofluoromethane	1.7 D
Total VOCs	69

Sample ID	SV-4
Sample Date	8/21/2013
Sample Type	SV
VOCs (µg/m³)	
1,2,4-Trimethylbenzene	14.9 D
Acetone	929 D
Cyclohexane	29.6 D
M,P-Xylene	31.4 D
Methyl Ethyl Ketone (2-Butanone)	16.6 D
n-Heptane	13.1 D
n-Hexane	51.1 D
o-Xylene (1,2-Dimethylbenzene)	17.4 D
Propylene	35.5 D
Toluene	22 D
Total VOCs	1,165

Sample ID	SV01_050520
Sample Date	5/5/2020
Sample Type	SV
VOCs (µg/m³)	
1,2,4-Trimethylbenzene	21 D
1,3,5-Trimethylbenzene (Mesitylene)	9.6 D
4-Ethyltoluene	13 D
Acetone	170 D
Benzene	14 D
Carbon Disulfide	110 D
Cyclohexane	88 D
Ethylbenzene	9.2 D
Isopropanol	15 D
M,P-Xylene	25 D
Methyl Ethyl Ketone (2-Butanone)	59 D
n-Heptane	210 D
n-Hexane	330 D
o-Xylene (1,2-Dimethylbenzene)	11 D
Propylene	240 D
Toluene	48 D
Total VOCs	1,370

Sample ID	SV02_050520
Sample Date	5/5/2020
Sample Type	SV
VOCs (µg/m³)	
1,2,4-Trimethylbenzene	14 D
1,3,5-Trimethylbenzene (Mesitylene)	4.5 D
1,3-Butadiene	2.7 D
2-Hexanone	8.8 D
4-Ethyltoluene	8.1 D
Acetone	82 D
Benzene	1.1 D
Carbon Disulfide	12 D
Cyclohexane	13 D
Dichlorodifluoromethane	2 D
Ethylbenzene	3.3 D
Isopropanol	1.8 D
M,P-Xylene	9.9 D
Methyl Ethyl Ketone (2-Butanone)	26 D
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	0.94 D
n-Heptane	4.9 D
n-Hexane	3.8 D
o-Xylene (1,2-Dimethylbenzene)	5.1 D
Propylene	37 D
Toluene	17 D
Trichlorofluoromethane	1.3 D
Total VOCs	259

Sample ID	SV03_050520
Sample Date	5/5/2020
Sample Type	SV
VOCs (µg/m³)	
1,2,4-Trimethylbenzene	13 D
1,3,5-Trimethylbenzene (Mesitylene)	4.3 D
1,3-Butadiene	6.1 D
2-Hexanone	8.1 D
4-Ethyltoluene	7.7 D
Acetone	110 D
Benzene	1.8 D
Carbon Disulfide	70 D
Carbon Tetrachloride	0.41 D
Chloromethane	0.88 D
Cyclohexane	13 D
Dichlorodifluoromethane	2.3 D
Ethyl Acetate	3.7 D
Ethylbenzene	3.2 D
Isopropanol	160 D
M,P-Xylene	11 D
Methyl Ethyl Ketone (2-Butanone)	33 D
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	1.5 D
Methyl Methacrylate	57 D
n-Heptane	5.4 D
n-Hexane	10 D
o-Xylene (1,2-Dimethylbenzene)	4.9 D
Propylene	90 D
Styrene	2.1 D
Toluene	16 D
Trichlorofluoromethane	1.8 D
Total VOCs	637

Sample ID	SV15_050520
Sample Date	5/5/2020
Sample Type	SV
VOCs (µg/m³)	
1,2,4-Trimethylbenzene	20 D
1,3,5-Trimethylbenzene (Mesitylene)	7.2 D
1,3-Butadiene	4.1 D
2-Hexanone	16 D
4-Ethyltoluene	12 D
Acetone	180 D
Acrylonitrile	0.59 D
Benzene	6.6 D
Carbon Disulfide	130 D
Carbon Tetrachloride	0.3 D
Chloromethane	0.43 D
Cis-1,2-Dichloroethene	1.1 D
Cyclohexane	23 D
Dichlorodifluoromethane	2.6 D
Ethylbenzene	5.6 D
Isopropanol	8.2 D
M,P-Xylene	16 D
Methyl Ethyl Ketone (2-Butanone)	66 D
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	1.3 D
Methyl Methacrylate	0.79 D
n-Heptane	19 D
n-Hexane	41 D
o-Xylene (1,2-Dimethylbenzene)	7.8 D
Propylene	76 D
Tetrachloroethene (PCE)	3.1 D
Toluene	32 D
Trichlorofluoromethane	2.7 D
Total VOCs	683

Sample ID	SV-3
Sample Date	8/21/2013
Sample Type	SV
VOCs (µg/m³)	
2-Hexanone	21.9 D
Acetone	3,190 D
Benzene	19.9 D
Carbon Disulfide	10.2 D
Cyclohexane	24 D
Ethanol	108 D
Isopropanol	18.4 D
M,P-Xylene	23.8 D
Methyl Ethyl Ketone (2-Butanone)	157 D
n-Heptane	20.3 D
n-Hexane	46.2 D
o-Xylene (1,2-Dimethylbenzene)	11.1 D
Propylene	2,980 D
Toluene	28.3 D
Total VOCs	6,650

Sample ID	SV11_050520
Sample Date	5/5/2020
Sample Type	SV
VOCs (µg/m³)	
1,2,4-Trimethylbenzene	23 D
1,3,5-Trimethylbenzene (Mesitylene)	8.5 D
2-Hexanone	34 D
4-Ethyltoluene	15 D
Acetone	520 D
Benzene	14 D
Carbon Disulfide	79 D
Chloroform	7.6 D
Cyclohexane	4.2 D
Ethylbenzene	9.3 D
Isopropanol	11 D
M,P-Xylene	24 D
Methyl Ethyl Ketone (2-Butanone)	160 D
n-Heptane	12 D
n-Hexane	9.5 D
o-Xylene (1,2-Dimethylbenzene)	12 D
Propylene	27 D
Toluene	65 D
Total VOCs	1,040

Sample ID	SV13_050520
Sample Date	5/5/2020
Sample Type	SV
VOCs (µg/m³)	
1,2,4-Trimethylbenzene	16 D
1,3,5-Trimethylbenzene (Mesitylene)	5.5 D
2-Hexanone	11 D
4-Ethyltoluene	9.5 D
Acetone	120 D
Acrylonitrile	0.43 D
Benzene	1.8 D
Carbon Disulfide	110 D
Chloroform	12 D
Chloromethane	0.34 D
Cyclohexane	3.2 D
Dichlorodifluoromethane	1.7 D
Ethylbenzene	4.7 D
Isopropanol	21 D
M,P-Xylene	13 D
Methyl Ethyl Ketone (2-Butanone)	38 D
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	0.93 D
Methyl Methacrylate	7.7 D
n-Heptane	4.8 D
n-Hexane	3.6 D
o-Xylene (1,2-Dimethylbenzene)	6.2 D
Propylene	7.8 D
Toluene	20 D
Trichlorofluoromethane	1.7 D
Total VOCs	421

Sample ID	SV04_043020
Sample Date	4/30/2020
Sample Type	SV
VOCs (µg/m³)	
1,2,4-Trimethylbenzene	20 D
1,3,5-Trimethylbenzene (Mesitylene)	8 D
2-Hexanone	3.5 D
4-Ethyltoluene	11 D
Acetone	54 D
Benzene	2.1 D
Carbon Disulfide	4 D
Carbon Tetrachloride	0.4 D
Chloroform	5 D
Chloromethane	0.79 D
Cyclohexane	1.5 D
Dichlorodifluoromethane	2.5 D
Ethylbenzene	3 D
Isopropanol	29 D
M,P-Xylene	13 D
Methyl Ethyl Ketone (2-Butanone)	11 D
Methyl Methacrylate	15 D
n-Heptane	8.8 D
n-Hexane	3.5 D
o-Xylene (1,2-Dimethylbenzene)	6.8 D
Tetrachloroethene (PCE)	13 D
Toluene	8.5 D
Trichlorofluoromethane	1.7 D
Total VOCs	226

Sample ID	SV-2
Sample Date	8/21/2013
Sample Type	SV
VOCs (µg/m³)	
1,3-Butadiene	7.9 D
Acetone	846 D
Benzene	6.9 D
Carbon Disulfide	18.1 D
Chloroform	20.6 D
Cyclohexane	11.3 D
M,P-Xylene	27.5 D
Methyl Ethyl Ketone (2-Butanone)	43.9 D
n-Heptane	9.47 D
n-Hexane	18.5 D
o-Xylene (1,2-Dimethylbenzene)	12.9 D
Propylene	482 D
Toluene	20.5 D
Total VOCs	1,530

Sample ID	IA09_043020		SS09_043020		NYSDOH DECISION MATRIX RECOMMENDED ACTION
Sample Date	4/30/2020		4/30/2020		
Sample Type	IA		SSV		
VOCs (µg/m³)					
1,2,4-Trimethylbenzene	ND		17	D	~
1,3,5-Trimethylbenzene (Mesitylene)	ND		3.8	D	~
4-Ethyltoluene	ND		22	D	~
Acetone	4.2	D	4.8	D	~
Benzene	0.3	D	2.4	D	~
Carbon Disulfide	ND		4.2	D	~
Carbon Tetrachloride	0.48	D	ND		No Further Action
Chloroform	ND		0.99	D	~
Chloromethane	1.1	D	ND		~
Cyclohexane	ND		3.2	D	~
Dichlorodifluoromethane	1.9	D	2.6	D	~
Ethylbenzene	0.5	D	19	D	~
Isopropanol	1.6	D	4.9	D	~
M,P-Xylene	1.6	D	76	D	~
Methyl Ethyl Ketone (2-Butanone)	0.79	D	1.1	D	~
n-Heptane	ND		16	D	~
n-Hexane	ND		6.5	D	~
o-Xylene (1,2-Dimethylbenzene)	0.54	D	19	D	~
Styrene	ND		2.2	D	~
Tert-Butyl Methyl Ether	ND		10	D	~
Tetrachloroethene (PCE)	ND		20	D	No Further Action
Toluene	2.7	D	50	D	~
Trichlorofluoromethane	1.3	D	1.1	D	~
Total VOCs	17		287		~

Sample ID	IA08_043020		SS08_043020		NYSDOH DECISION MATRIX RECOMMENDED ACTION
Sample Date	4/30/2020		4/30/2020		
Sample Type	IA		SSV		
VOCs (µg/m³)					
1,2,4-Trimethylbenzene	0.55	D	9.9	D	~
1,3,5-Trimethylbenzene (Mesitylene)	ND		2.6	D	~
4-Ethyltoluene	ND		13	D	~
Acetone	8.4	D	6.7	D	~
Benzene	0.28	D	3.1	D	~
Carbon Disulfide	ND		1.2	D	~
Carbon Tetrachloride	0.51	D	0.42	D	No Further Action
Chloroform	ND		9.9	D	~
Chloromethane	1	D	ND		~
Cyclohexane	ND		1.3	D	~
Dichlorodifluoromethane	1.9	D	2.3	D	~
Ethylbenzene	0.52	D	14	D	~
Isopropanol	9.8	D	4.8	D	~
M,P-Xylene	1.9	D	55	D	~
Methyl Ethyl Ketone (2-Butanone)	0.76	D	1.2	D	~
Methyl Methacrylate	0.4	D	ND		~
n-Heptane	0.36	D	6.1	D	~
n-Hexane	ND		5.8	D	~
o-Xylene (1,2-Dimethylbenzene)	0.63	D	13	D	~
Styrene	ND		1.6	D	~
Tetrachloroethene (PCE)	ND		35	D	No Further Action
Toluene	4.7	D	55	D	~
Trichlorofluoromethane	1.3	D	1.3	D	~
Total VOCs	33		243		~

Sample ID	AA01_043020
Sample Date	4/30/2020
Sample Type	AA
VOCs (µg/m³)	
Acetone	6.6 D
Benzene	0.41 D
Carbon Tetrachloride	0.5 D
Chloromethane	1.2 D
Dichlorodifluoromethane	1.6 D
Ethylbenzene	0.38 D
Isopropanol	26 D
M,P-Xylene	1.1 D
Methyl Ethyl Ketone (2-Butanone)	1 D
Methyl Methacrylate	6.1 D
Methylene Chloride	1.5 D
n-Hexane	0.42 D
o-Xylene (1,2-Dimethylbenzene)	0.38 D
Styrene	0.34 D
Toluene	2.2 D
Trichlorofluoromethane	1.4 D
Total VOCs	51.1

Sample ID	SV07_043020
Sample Date	4/30/2020
Sample Type	SV
VOCs (µg/m³)	
1,2,4-Trimethylbenzene	28 D
1,3,5-Trimethylbenzene (Mesitylene)	12 D
1,3-Butadiene	1.1 D
2-Hexanone	2.9 D
4-Ethyltoluene	14 D
Acetone	29 D
Benzene	9.9 D
Carbon Disulfide	13 D
Chloroethane	1.1 D
Chloroform	4.2 D
Cyclohexane	7.8 D
Dichlorodifluoromethane	2.2 D
Ethylbenzene	2.7 D
Isopropanol	2.3 D
M,P-Xylene	12 D
Methyl Ethyl Ketone (2-Butanone)	8.9 D
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	0.79 D
n-Heptane	11 D
n-Hexane	22 D
o-Xylene (1,2-Dimethylbenzene)	6.8 D
Tetrachloroethene (PCE)	13 D
Toluene	13 D
Trichlorofluoromethane	2.1 D
Total VOCs	220

LEGEND:

- APPROXIMATE SITE BOUNDARY
- SB01/MW01/SV01 — APPROXIMATE SOIL BORING, MONITORING WELL, AND SOIL VAPOR SAMPLE LOCATION
- SB01/SV01 — APPROXIMATE SOIL BORING AND SOIL VAPOR SAMPLE LOCATION
- SB01/SS01/IA01 — APPROXIMATE SOIL BORING, SUB-SLAB, AND INDOOR AIR SAMPLE LOCATION
- AA01 — APPROXIMATE AMBIENT AIR SAMPLE LOCATION
- SB01/MW01/SS01/IA01 — APPROXIMATE SOIL BORING, MONITORING WELL, SUB-SLAB, AND INDOOR AIR SAMPLE LOCATION
- SV-1 — AKRF AUGUST 2013 PHASE II INVESTIGATION SOIL VAPOR SAMPLE LOCATION

GENERAL NOTES:

1. BASEMAP TAKEN FROM LANGAN ENGINEERING, ENVIRONMENTAL, SURVEYING, LANDSCAPE ARCHITECTURE & GEOLOGY, D.P.C. NEARMAP WEB PORTAL, ACCESSED ON JUNE 16, 2020.
2. LANGAN SOIL BORING, MONITORING WELL, AND SOIL VAPOR SAMPLE LOCATIONS ARE APPROXIMATE AND BASED ON FIELD MEASUREMENTS OFF OF EXISTING STRUCTURES.
3. LOTS 157, 162, AND 164 WILL BE MERGED IN THE NEW YORK CITY AUTOMATED CITY REGISTER INFORMATION SYSTEM (ACRIS) PENDING AN APRIL 28, 2020 MERGER APPLICATION SUBMITTED TO THE NEW YORK STATE DEPARTMENT OF FINANCE - PROPERTY DIVISION.
4. AKRF ENGINEERING, P.C. (AKRF) LOCATIONS ARE BASED ON "FIGURE 2 - SITE PLAN" PREPARED BY AKRF, DATED SEPTEMBER 2013.
5. SOIL, SUB-SLAB, AND INDOOR AIR SAMPLE ANALYTICAL RESULTS ARE COMPARED TO THE MINIMUM SOIL VAPOR CONCENTRATIONS RECOMMENDING MITIGATION 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 DECISION MATRICES FOR SUB-SLAB AND INDOOR AIR AND SUBSEQUENT UPDATES (2017).
6. AMBIENT AIR SAMPLE ANALYTICAL RESULTS ARE SHOWN FOR REFERENCE ONLY.
7. DETECTED ANALYTICAL RESULTS ABOVE THE MINIMUM SOIL VAPOR CONCENTRATIONS RECOMMENDING MITIGATION ARE BOLDED AND SHADED.
8. ~ - REGULATORY LIMIT FOR THIS ANALYTE DOES NOT EXIST
9. VOC - VOLATILE ORGANIC COMPOUND
10. SV - SOIL VAPOR
11. IA - INDOOR AIR
12. SS - SUB-SLAB VAPOR
13. AA - AMBIENT AIR
14. CAS - CHEMICAL ABSTRACTS SERVICE
15. µg/m³ - MICROGRAMS PER CUBIC METER
16. D - THE CONCENTRATION REPORTED IS A RESULT OF A DILUTED SAMPLE
17. ND - THE ANALYTE IS NOT DETECTED

Analyte	CAS Number	NYSDOH Decision Matrices Minimum Concentrations
VOCs (µg/m³)		
1,2,4-Trimethylbenzene	95-63-6	~
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	~
1,3-Butadiene	106-99-0	~
2-Hexanone	591-78-6	~
4-Ethyltoluene	622-96-8	~
Acetone	67-64-1	~
Acrylonitrile	107-13-1	~
Benzene	71-43-2	~
Carbon Disulfide	75-15-0	~
Carbon Tetrachloride	56-23-5	6
Chloroethane	75-00-3	~
Chloroform	67-66-3	~
Chloromethane	74-87-3	~
Cis-1,2-Dichloroethene	156-59-2	6
Cyclohexane	110-82-7	~
Dichlorodifluoromethane	75-71-8	~
Ethanol	64-17-5	~
Ethyl Acetate	141-78-6	~
Ethylbenzene	100-41-4	~
Isopropanol	67-63-0	~
M,P-Xylene	179601-23-1	~
Methyl Ethyl Ketone (2-Butanone)	78-93-3	~
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	~
Methyl Methacrylate	80-62-6	~
Methylene Chloride	75-09-2	100
n-Heptane	142-82-5	~
n-Hexane	110-54-3	~
o-Xylene (1,2-Dimethylbenzene)	95-47-6	~
Propylene	115-07-1	~
Styrene	100-42-5	~
Tert-Butyl Methyl Ether	1634-04-4	~
Tetrachloroethene (PCE)	127-18-4	100
Toluene	108-88-3	~
Trichloroethene (TCE)	79-01-6	6
Trichlorofluoromethane	75-69-4	~

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.

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SCALE IN FEET

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Project
475 BAY STREET & 31 WAVE STREET
BLOCK No. 488, LOTS No. 9, 157, 162, 164
STATEN ISLAND
RICHMOND COUNTY NEW YORK

Figure Title
SOIL VAPOR, SUB-SLAB, AND INDOOR AIR SAMPLE LOCATION AND ANALYTICAL RESULTS MAP

Project No.	170610601
Date	06/16/2020
Drawn By	LE
Checked By	KS

Figure C-3
Sheet 3 of 3

TABLES

Table 1
Soil Sample Analytical Results Summary

475 Bay Street and 31 Wave Street
Staten Island, New York
Langan Project No.: 170610601

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	SB01 SB01_0-2 20E0108-01 5/5/2020 0-2	SB01 SB01_6-8 20E0108-02 5/5/2020 6-8	SB01 SB01_18-20 20E0108-03 5/5/2020 18-20	SB02 SB02_0-2 20E0108-04 5/5/2020 0-2	SB02 SB02_6-8 20E0108-05 5/5/2020 6-8	SB02 SB02_18-20 20E0108-06 5/5/2020 18-20	SB03 SB03_0-2 20E0108-07 5/5/2020 0-2	SB03 SB03_6-8 20E0108-08 5/5/2020 6-8	SB03 SB03_18-20 20E0108-09 5/5/2020 18-20	SB04 SB04_0-2 20D0818-01 4/29/2020 0-2	SB04 SODUP01_042920 20D0818-12 4/29/2020 0-2	SB04 SB04_14-16 20D0818-03 4/29/2020 14-16	SB04 SB04_18-20 20D0818-04 4/29/2020 18-20	SB05 SB05_0-2 20D0776-04 4/28/2020 0-2	SB05 SB05_6-8 20D0776-05 4/28/2020 6-8	SB05 SB05_18-20 20D0776-06 4/28/2020 18-20
Volatile Organic Compounds (mg/kg)																		
Acetone	0.05	100	0.0078 U	**0.066**	0.0063 J	0.0066 U	**0.058**	**0.064**	0.0052 U	0.0062 J	0.012	0.0051 U	0.0046 U	0.0057 J	0.033	0.0051 U	0.0067 J	0.009
Benzene	0.06	4.8	0.0039 U	0.0026 U	0.0021 U	0.0033 U	0.0023 U	0.0034 U	0.0026 U	0.0023 U	0.0019 U	0.0026 U	0.0023 U	0.0018 U	0.0043 U	0.0025 U	0.0024 U	0.0022 U
Carbon Disulfide	~	~	0.0039 U	0.0026 U	0.0021 U	0.0033 U	0.0023 U	0.0034 U	0.0026 U	0.0023 U	0.0019 U	0.0026 U	0.0023 U	0.0018 U	0.0043 U	0.0025 U	0.0024 U	0.0022 U
Methyl Ethyl Ketone (2-Butanone)	0.12	100	0.0039 U	0.018	0.0021 U	0.0033 U	0.014	0.017	0.0026 U	0.0023 U	0.0019 U	0.0026 U	0.0023 U	0.0018 U	0.0043 U	0.0025 U	0.0024 U	0.0022 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	~	~	0.0039 U	0.0026 U	0.0021 U	0.0033 U	0.0023 U	0.0034 U	0.0026 U	0.0023 U	0.0019 U	0.0026 U	0.0023 U	0.0018 U	0.0043 U	0.0025 U	0.0024 U	0.0022 U
Semivolatile Organic Compounds (mg/kg)																		
2,4-Dimethylphenol	~	~	0.0522 U	0.0536 U	0.0473 U	0.0478 U	0.0515 U	0.0621 U	0.0466 U	0.0464 U	0.0472 U	0.0451 U	0.0458 U	0.0465 U	0.0712 U	0.0443 U	0.0471 U	0.0472 U
2-Methylnaphthalene	~	~	0.576 D	0.0536 U	0.0473 U	0.0478 U	0.0515 U	0.0621 U	0.0466 U	0.0464 U	0.0472 U	0.0451 U	0.0458 U	0.0465 U	0.0712 U	0.0443 U	0.0471 U	0.0472 U
2-Methylphenol (o-Cresol)	0.33	100	0.0522 U	0.0536 U	0.0473 U	0.0478 U	0.0515 U	0.0621 U	0.0466 U	0.0464 U	0.0472 U	0.0451 U	0.0458 U	0.0465 U	0.0712 U	0.0443 U	0.0471 U	0.0472 U
3 & 4 Methylphenol (m&p Cresol)	0.33	100	0.0522 U	0.0536 U	0.0473 U	0.0478 U	0.0515 U	0.0621 U	0.0466 U	0.0464 U	0.0472 U	0.0451 U	0.0458 U	0.0465 U	0.0712 U	0.0443 U	0.0471 U	0.0472 U
Acenaphthene	20	100	0.983 D	0.0536 U	0.0473 U	0.0478 U	0.0515 U	0.0621 U	0.0466 U	0.0464 U	0.0472 U	0.0451 U	0.0458 U	0.0465 U	0.0712 U	0.0443 U	0.0471 U	0.0472 U
Acenaphthylene	100	100	2.17 D	0.0536 U	0.0473 U	0.0478 U	0.0515 U	0.0621 U	0.0466 U	0.0464 U	0.0472 U	0.0451 U	0.0458 U	0.0465 U	0.0712 U	0.0834 JD	0.0471 U	0.0472 U
Anthracene	100	100	1.41 D	0.0536 U	0.0769 JD	0.0478 U	0.0515 U	0.0621 U	0.052 JD	0.0464 U	0.0472 U	0.0451 U	0.0458 U	0.0465 U	0.0712 U	0.077 JD	0.0471 U	0.0472 U
Benzo(a)Anthracene	1	1	**2.16** D	0.0615 JD	0.0619 JD	0.111 D	0.0706 JD	0.0621 U	0.199 D	0.0464 U	0.0472 U	0.152 D	0.113 D	0.0465 U	0.0712 U	0.55 D	0.0471 U	0.0472 U
Benzo(a)Pyrene	1	1	**2.84** D	0.0536 U	0.0473 U	0.123 D	0.0665 JD	0.0621 U	0.197 D	0.0464 U	0.0472 U	0.172 D	0.12 D	0.0465 U	0.0712 U	0.637 D	0.0471 U	0.0472 U
Benzo(b)Fluoranthene	1	1	**4.45** D	0.0536 U	0.0473 U	0.117 D	0.0515 U	0.0621 U	0.178 D	0.0464 U	0.0472 U	0.166 D	0.134 D	0.0465 U	0.0712 U	0.635 D	0.0471 U	0.0472 U
Benzo(g,h,i)Perylene	100	100	2.96 D	0.0536 U	0.0473 U	0.107 D	0.0515 U	0.0621 U	0.122 D	0.0464 U	0.0472 U	0.147 D	0.105 D	0.0465 U	0.0712 U	0.512 D	0.0471 U	0.0472 U
Benzo(k)Fluoranthene	0.8	3.9	**2.2** D	0.0547 JD	0.0473 U	0.105 D	0.0599 JD	0.0621 U	0.16 D	0.0464 U	0.0472 U	0.134 D	0.118 D	0.0465 U	0.0712 U	0.553 D	0.0471 U	0.0472 U
Benzyl Butyl Phthalate	~	~	0.0522 U	0.0536 U	0.0473 U	0.0478 U	0.0515 U	0.0621 U	0.0466 U	0.0464 U	0.0472 U	0.161 D	0.0789 JD	0.0465 U	0.0712 U	0.142 D	0.0471 U	0.0472 U
Biphenyl (Diphenyl)	~	~	0.0522 U	0.0536 U	0.0473 U	0.0478 U	0.0515 U	0.0621 U	0.0466 U	0.0464 U	0.0472 U	0.0451 U	0.0458 U	0.0465 U	0.0712 U	0.0443 U	0.0471 U	0.0472 U
Bis(2-Ethylhexyl) Phthalate	~	~	0.0522 U	0.0536 U	0.0473 U	0.0478 U	0.0515 U	0.0621 U	0.167 D	0.0464 U	0.0472 U	0.0841 JD	0.0458 U	0.0465 U	0.0712 U	0.0445 JD	0.0471 U	0.0472 U
Carbazole	~	~	0.63 D	0.0536 U	0.0473 U	0.0478 U	0.0515 U	0.0621 U	0.0466 U	0.0464 U	0.0472 U	0.0451 U	0.0458 U	0.0465 U	0.0712 U	0.0443 U	0.0471 U	0.0472 U
Chrysene	1	3.9	**2.19** D	0.0589 JD	0.0473 U	0.117 D	0.0673 JD	0.0621 U	0.232 D	0.0464 U	0.0472 U	0.16 D	0.132 D	0.0465 U	0.0712 U	0.765 D	0.0471 U	0.0472 U
Dibenz(a,h)Anthracene	0.33	0.33	**1.15** D	0.0536 U	0.0473 U	0.0478 U	0.0515 U	0.0621 U	0.052 JD	0.0464 U	0.0472 U	0.0451 U	0.0458 U	0.0465 U	0.0712 U	0.121 D	0.0471 U	0.0472 U
Dibenzofuran	7	59	0.0522 U	0.0536 U	0.052 JD	0.0478 U	0.0515 U	0.0621 U	0.0466 U	0.0464 U	0.0472 U	0.0451 U	0.0458 U	0.0465 U	0.0712 U	0.0443 U	0.0471 U	0.0472 U
Fluoranthene	100	100	2.91 D	0.0923 JD	0.131 D	0.16 D	0.122 D	0.0621 U	0.45 D	0.0464 U	0.0472 U	0.298 D	0.257 D	0.0465 U	0.0712 U	0.974 D	0.0471 U	0.0472 U
Fluorene	30	100	1.17 D	0.0536 U	0.0837 JD	0.0478 U	0.0515 U	0.0621 U	0.0466 U	0.0464 U	0.0472 U	0.0451 U	0.0458 U	0.0465 U	0.0712 U	0.0443 U	0.0471 U	0.0472 U
Indeno(1,2,3-c,d)Pyrene	0.5	0.5	**2.59** D	0.0536 U	0.0473 U	0.0478 U	0.0515 U	0.0621 U	0.0961 D	0.0464 U	0.0472 U	0.139 D	0.101 D	0.0465 U	0.0712 U	**0.559** D	0.0471 U	0.0472 U
Naphthalene	12	100	1.9 D	0.0536 U	0.0473 U	0.0478 U	0.0515 U	0.0621 U	0.0466 U	0.0464 U	0.0472 U	0.0451 U	0.0458 U	0.0465 U	0.0712 U	0.0443 U	0.0471 U	0.0472 U
Phenanthrene	100	100	1.81 D	0.0536 U	0.247 D	0.0478 U	0.0515 U	0.0621 U	0.149 D	0.0464 U	0.0472 U	0.119 D	0.138 D	0.0465 U	0.0712 U	0.278 D	0.0471 U	0.0472 U
Phenol	0.33	100	0.0522 U	0.0536 U	0.0473 U	0.0478 U	0.0515 U	0.0621 U	0.0466 U	0.0464 U	0.0472 U	0.0451 U	0.0458 U	0.0465 U	0.0712 U	0.0443 U	0.0471 U	0.0472 U
Pyrene	100	100	2.58 D	0.0837 JD	0.0792 JD	0.172 D	0.107 D	0.0621 U	0.419 D	0.0464 U	0.0472 U	0.248 D	0.205 D	0.0465 U	0.0712 U	1.03 D	0.0471 U	0.0472 U
Pesticides (mg/kg)																		
4,4'-DDD	0.0033	13	0.00205 U	0.00213 U	0.00187 U	**0.017** D	0.00204 U	0.00244 U	0.00182 U	0.00183 U	0.00183 U	0.00179 U	0.00178 U	0.00182 U	0.00281 U	0.00175 U	0.00189 U	0.00186 U
4,4'-DDE	0.0033	8.9	0.00205 U	0.00213 U	0.00187 U	**0.0206** D	0.00204 U	0.00244 U	**0.00877** D	0.00183 U	0.00183 U	0.00179 U	0.00178 U	0.00182 U	0.00281 U	0.00175 U	0.00189 U	0.00186 U
4,4'-DDT	0.0033	7.9	0.00205 U	0.00213 U	0.00187 U	**0.0293** D	0.00204 U	0.00244 U	0.00182 U	0.00183 U	0.00183 U	**0.0073** D	**0.0099** D	0.00182 U	0.00281 U	**0.00426** DP	0.00189 U	0.00186 U
Alpha BHC (Alpha Hexachlorocyclohexane)	0.02	0.48	0.00205 U	0.00213 U	0.00187 U	0.00187 U	**0.0256** D	0.00244 U	0.00182 U	0.00183 U	0.00183 U	0.00179 U	0.00178 U	0.00182 U	0.00281 U	0.00175 U	0.00189 U	0.00186 U
Alpha Chlordane	0.094	4.2	0.00205 U	0.00213 U	0.00187 U	0.00187 U	0.00204 U	0.00244 U	0.0203 DP	0.00183 U	0.00183 U	0.00179 U	0.00178 U	0.00182 U	0.00281 U	0.00175 U	0.00189 U	0.00186 U
Chlordane (alpha and gamma)	~	~	0.0411 U	0.0426 U	0.0375 U	0.0374 U	0.0408 U	0.0487 U	0.0364 U	0.0366 U	0.0366 U	0.0358 U	0.0356 U	0.0363 U	0.0562 U	0.035 U	0.0377 U	0.0371 U
Gamma-Chlordane	~	~	0.00205 U	0.00213 U	0.00187 U	0.00187 U	0.00204 U	0.00244 U	0.0152 D	0.00183 U	0.00183 U	0.00179 U	0.00178 U	0.00182 U	0.00281 U	0.00175 U	0.00189 U	0.00186 U
Heptachlor	0.042	2.1	0.00205 U	0.00213 U	0.00187 U	0.00187 U	0.0155 D	0.00244 U	0.00182 U	0.00183 U	0.00183 U	0.00179 U	0.00178 U	0.00182 U	0.00281 U	0.00175 U	0.00189 U	0.00186 U
Herbicides (mg/kg)	~	~	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Polychlorinated Biphenyls (mg/kg)																		
PCB-1254 (Aroclor 1254)	~	~	0.0207 U	0.0215 U	0.0189 U	0.0189 U	0.0206 U	0.0246 U	0.0184 U	0.0185 U	0.0185 U	0.0181 U	0.018 U	0.0183 U	0.0284 U	0.0177 U	0.019 U	0.0187 U
PCB-1260 (Aroclor 1260)	~	~	0.0207 U	0.0215 U	0.0189 U	0.0189 U	0.0206 U	0.0246 U	0.0184 U	0.0185 U	0.0185 U	0.0181 U	0.018 U	0.0183 U	0.0284 U	0.0177 U	0.019 U	0.0187 U
Total PCBs	0.1	1	0.0207 U	0.0215 U	0.0189 U	0.0189 U	0.0206 U	0.0246 U	0.0184 U	0.0185 U	0.0185 U	0.0181 U	0.018 U	0.0183 U	0.0284 U	0.0177 U	0.019 U	0.0187 U
Inorganics (mg/kg)																		
Aluminum	~	~	3,670	12,400	7,240	3,190	6,630	7,020	9,750	4,200	6,680	2,370	2,580	4,900	13,900	4,430	3,670	5,060
Antimony	~	~	3.14 U	3.24 U	2.85 U	2.87 U	3.12 U	3.73 U	2.8 U	2.78 U	2.83 U	2.72 U	2.78 U	2.8 U	2.68 U	2.68 U	2.88 U	2.83 U
Arsenic	13	16	5.22	6.86	1.71 U	**17.9**	4.13	2.28	4.4	1.67 U	1.7 U	2.97	3.28	1.68 U	6.15	6.02	1.73 U	1.7 U
Barium	350	400	47.5	119	34.6	75.9	53.9	46.8	61	27.7	32.8	124	33.6	30.4	37.8	207	33.8	32
Cadmium	2.5	4.3	0.377 U	0.388 U	0.342 U	0.474	0.374 U	0.447 U	0.335 U	0.334 U	0.34 U	0.713	0.774	0.336 U	0.514 U	0.705	0.345 U	0.34 U
Calcium	~	~	2,550	5,580	1,070	30,300	2,940	1,350	59,300	1,450	905	40,100	40,100	945	2,290	15,100	1,230	1,190
Chromium, Hexavalent	1	110	0.629 U	0.647 U	0.569 U	0.574 U	0.624 U	0.746 U	**1.07**	0.557 U	0.566 U	0.545 U	0.555 U	0.56 U	0.857 U	0.535 U	0.575 U	0.566 U
Chromium, Total	~	~	10.9	85.5	47.4	27.3	60.5	36.9	35.6	13.9	30.6	7.43	6.35	18.4	36.6	21.7	17.5	22
Chromium, Trivalent	30	180	10.9	**85.5**	**47.4**	27.3	**60.5**	**36.9**	**34.5**	13.9	**30.6**	7.43	6.35	18.4	**36.6**	21.7	17.5	22
Cobalt	~	~	4.95	36.9	16.1	9.08	31.7	17.2	10.4	5.93	11.3	2.71	2.93	8.3	13.9	7.71	8.57	8.63
Copper	50	270	**68.3**	**69.1**	23.6	**72.1**	**50.4**	35.8	33.6	17.9	25.6	21.1	28.2	20	12.8	**60**	18.3	18.5
Iron	~	~	9,860	26,800	18,200	12,200	21,100	17,600	17,400	10,000	15,200	5,860	7,350	11,000	23,200	15,600	11,400	12,300
Lead	63	400	**95.2**	**166**	9.48	**98.5**	**77.8**	15.2	41.1	4.89	6.05	**234**	**238**	6.55	17.8	**387**	60.2	7.04
Magnesium	~	~	1,100	22,700	10,500	21,600	28,200	11,900	23,700	2,260	3,270	21,800	21,700	2,850	6,460	8,280	2,750	3,700
Manganese	1,600	2,000	22.3	529	340	110	350	605	327	104	258	100	97.9	121	255	153	120	210
Mercury	0.18	0.81	**0.207**	**1.05**	0.0342 U	**0.199**	**0.589**	0.0447 U	0.0422	**1.49**	0.034 U	**0.268**	**0.264**	0.0336 U	0.0514 U	**1.33**	**0.653**	0.034 U
Nickel	30	310	21.9	**503**	**284**	**147**	**545**	**244**	**100**	**51.5**	**132**	23.9	24.7	**94.6**	**86.2**	**74.5**	**84.3**	**109**
Potassium	~	~	376	2,230	933	443	776	1,480	1,920	840	1,060	308	279	929	1,790	686	709	887
Selenium	3.9	180	3.14 U	3.24 U	2.85 U	**7.12**	3.52	3.73 U	2.8 U	2.78 U	2.83 U	**12.6**	**10.2**	2.8 U	*4.28* U	2.68 U	2.88 U	2.83 U
Silver	2	180	0.629 U	0.647 U	0.569 U	0.574 U	0.624 U	0.746 U	0.559 U	0.557 U	0.566 U	0.545 U	0.555 U	0.56 U	0.857 U	0.535 U	0.575 U	0.566 U
Sodium	~	~	245	259	98.4	128	192	135	358	95.8	196	93.4	146	88.7	171	279	109	86.7
Vanadium	~	~	14.7	32.1	22.5	16.8	18.7	24.9	35.2	19.2	24.4	13.7	15.6	17.1	36	23.6	19.1	18.4
Zinc	109	10,000	84.3	**139**	27	**159**	58.1	33.2	61.1	18.6	23.8	**136**	100	22.9	51.2	**274**	84.4	21.4
General Chemistry (%)																		
Solids, Percent	~	~	79.5	77.3	87.8	87.1	80.1	67	89.4	89.8	88.3	91.8	90.1	89.3	58.3	93.4	86.9	88.4

Notes provided on Page 5.
Concentrations above Unrestricted Use SCOs are bolded.
Concentrations above Restricted Use Restricted-Residential SCOs are shaded.

Table 1
Soil Sample Analytical Results Summary

475 Bay Street and 31 Wave Street
Staten Island, New York
Langan Project No.: 170610601

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	SB06 SB06_0-2 20D0818-05 4/29/2020 0-2	SB06 SB06_5-7 20D0818-06 4/29/2020 5-7	SB06 SB06_12-14 20D0818-07 4/29/2020 12-14	SB07 SB07_0-2 20D0818-09 4/29/2020 0-2	SB07 SB07_8-10 20D0818-10 4/29/2020 8-10	SB07 SB07_18-20 20D0818-11 4/29/2020 18-20	SB08 SB08_0-2 20D0776-07 4/28/2020 0-2	SB08 SB08_4-6 20D0776-08 4/28/2020 4-6	SB08 SB08_13-15 20D0776-09 4/28/2020 13-15	SB09 SB09_0-2 20D0776-01 4/28/2020 0-2	SB09 SB09_4-6 20D0776-02 4/28/2020 4-6	SB09 SB09_13-15 20D0776-03 4/28/2020 13-15	SB10 SB10_0-2 20E0134-01 5/6/2020 0-2	SB10 SB10_6-8 20E0134-02 5/6/2020 6-8	SB10 SB10_18-20 20E0134-03 5/6/2020 18-20	SB11 SB11_0-2 20D0849-07 4/30/2020 0-2
Volatile Organic Compounds (mg/kg)																		
Acetone	0.05	100	0.0044 U	0.02 U	0.0039 U	0.0044 U	0.0047 J	0.0067 J	0.01 J	0.005 U	0.0054 U	0.0046 U	0.0037 U	0.03 U	0.015 B	0.019 B	0.0051 JB	0.0048 U
Benzene	0.06	4.8	0.0022 U	0.0037 U	0.0019 U	0.0022 U	0.0021 U	0.0024 U	0.0027 U	0.0025 U	0.0027 U	0.0023 U	0.0018 U	0.0024 U	0.0036 U	0.0026 U	0.002 U	0.0024 U
Carbon Disulfide	~	~	0.0022 U	0.0037 U	0.0019 U	0.0022 U	0.0021 U	0.0024 U	0.0027 U	0.0025 U	0.0027 U	0.0023 U	0.0018 U	0.0024 U	0.0036 U	0.0026 U	0.002 U	0.0024 U
Methyl Ethyl Ketone (2-Butanone)	0.12	100	0.0022 U	0.0037 U	0.0019 U	0.0022 U	0.0021 U	0.0024 U	0.0027 U	0.0025 U	0.0027 U	0.0023 U	0.0018 U	0.0086	0.0036 U	0.0026 U	0.002 U	0.0024 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	~	~	0.0022 U	0.0037 U	0.0019 U	0.0022 U	0.0021 U	0.0024 U	0.0027 U	0.0025 U	0.0027 U	0.0023 U	0.0018 U	0.0024 U	0.0036 U	0.0026 U	0.002 U	0.0024 U
Semivolatile Organic Compounds (mg/kg)																		
2,4-Dimethylphenol	~	~	0.0468 U	0.0518 U	0.0482 U	0.0459 U	0.0477 U	0.0535 U	0.0439 U	0.0461 U	0.0601 U	0.044 U	0.0441 U	0.0469 U	0.0465 U	0.0483 U	0.0474 U	0.221 U
2-Methylnaphthalene	~	~	0.0468 U	0.0518 U	0.0482 U	0.0459 U	0.0477 U	0.0535 U	0.0439 U	0.0461 U	0.0601 U	0.044 U	0.0441 U	0.0469 U	0.0465 U	0.0483 U	0.0474 U	0.221 U
2-Methylphenol (o-Cresol)	0.33	100	0.0468 U	0.0518 U	0.0482 U	0.0459 U	0.0477 U	0.0535 U	0.0439 U	0.0461 U	0.0601 U	0.044 U	0.0441 U	0.0469 U	0.0465 U	0.0483 U	0.0474 U	0.221 U
3 & 4 Methylphenol (m&p Cresol)	0.33	100	0.0468 U	0.0518 U	0.0482 U	0.0459 U	0.0477 U	0.0535 U	0.0439 U	0.0461 U	0.0601 U	0.044 U	0.0441 U	0.0469 U	0.0465 U	0.0483 U	0.0474 U	0.221 U
Acenaphthene	20	100	0.0468 U	0.0518 U	0.0482 U	0.0459 U	0.0477 U	0.0535 U	0.0439 U	0.0461 U	0.0601 U	0.044 U	0.0441 U	0.0469 U	0.0465 U	0.0483 U	0.0474 U	0.221 U
Acenaphthylene	100	100	0.0468 U	0.0518 U	0.0482 U	0.0459 U	0.0477 U	0.0535 U	0.0439 U	0.0461 U	0.0601 U	0.044 U	0.0441 U	0.0469 U	0.0465 U	0.0483 U	0.0474 U	0.221 U
Anthracene	100	100	0.0468 U	0.0518 U	0.0482 U	0.0459 U	0.0477 U	0.0535 U	0.0701 JD	0.0461 U	0.0601 U	0.044 U	0.0441 U	0.0469 U	0.0601 JD	0.0483 U	0.0474 U	0.221 U
Benzo(a)Anthracene	1	1	0.112 D	0.0518 U	0.0482 U	0.0459 U	0.0477 U	0.0535 U	0.249 D	0.0537 JD	0.321 D	0.0773 JD	0.0441 U	0.0469 U	0.204 D	0.0483 U	0.0474 U	0.314 JD
Benzo(a)Pyrene	1	1	0.104 D	0.0518 U	0.0482 U	0.0549 JD	0.0477 U	0.0535 U	0.264 D	0.0581 JD	0.322 D	0.0906 D	0.0441 U	0.0469 U	0.187 D	0.0483 U	0.0474 U	0.307 JD
Benzo(b)Fluoranthene	1	1	0.0791 JD	0.0518 U	0.0482 U	0.0459 U	0.0477 U	0.0535 U	0.201 D	0.0478 JD	0.326 D	0.0794 JD	0.0441 U	0.0469 U	0.191 D	0.0483 U	0.0474 U	0.289 JD
Benzo(g,h,i)Perylene	100	100	0.0589 JD	0.0518 U	0.0482 U	0.0475 JD	0.0477 U	0.0535 U	0.162 D	0.0461 U	0.226 D	0.0604 JD	0.0441 U	0.0469 U	0.125 D	0.0483 U	0.0474 U	0.221 U
Benzo(k)Fluoranthene	0.8	3.9	0.0843 JD	0.0518 U	0.0482 U	0.0483 JD	0.0477 U	0.0535 U	0.186 D	0.0461 U	0.257 D	0.0625 JD	0.0441 U	0.0469 U	0.165 D	0.0483 U	0.0474 U	0.236 JD
Benzyl Butyl Phthalate	~	~	0.0468 U	0.0518 U	0.0482 U	0.169 D	0.0477 U	0.0535 U	0.0439 U	0.0461 U	0.0601 U	0.044 U	0.0441 U	0.0469 U	0.0465 U	0.0483 U	0.0474 U	0.221 U
Biphenyl (Diphenyl)	~	~	0.0468 U	0.0518 U	0.0482 U	0.0459 U	0.0477 U	0.0535 U	0.0439 U	0.0461 U	0.0601 U	0.044 U	0.0441 U	0.0469 U	0.0465 U	0.0483 U	0.0474 U	0.221 U
Bis(2-Ethylhexyl) Phthalate	~	~	0.0468 U	0.0518 U	0.0482 U	0.0658 JD	0.0477 U	0.0535 U	0.24 D	0.0461 U	0.0601 U	0.044 U	0.0441 U	0.0469 U	0.102 D	0.0483 U	0.0474 U	0.221 U
Carbazole	~	~	0.0468 U	0.0518 U	0.0482 U	0.0459 U	0.0477 U	0.0535 U	0.0439 U	0.0461 U	0.0601 U	0.044 U	0.0441 U	0.0469 U	0.0465 U	0.0483 U	0.0474 U	0.221 U
Chrysene	1	3.9	0.0994 D	0.0518 U	0.0482 U	0.0483 JD	0.0477 U	0.0535 U	0.222 D	0.05 JD	0.305 D	0.0843 JD	0.0441 U	0.0469 U	0.229 D	0.0483 U	0.0474 U	0.36 JD
Dibenz(a,h)Anthracene	0.33	0.33	0.0468 U	0.0518 U	0.0482 U	0.0459 U	0.0477 U	0.0535 U	0.0439 U	0.0461 U	0.0662 JD	0.044 U	0.0441 U	0.0469 U	0.0465 U	0.0483 U	0.0474 U	0.221 U
Dibenzofuran	7	59	0.0468 U	0.0518 U	0.0482 U	0.0459 U	0.0477 U	0.0535 U	0.0439 U	0.0461 U	0.0601 U	0.044 U	0.0441 U	0.0469 U	0.0465 U	0.0483 U	0.0474 U	0.221 U
Fluoranthene	100	100	0.166 D	0.0518 U	0.0482 U	0.0614 JD	0.0477 U	0.0535 U	0.522 D	0.0758 JD	0.585 D	0.162 D	0.0457 JD	0.0469 U	0.484 D	0.0483 U	0.0474 U	0.67 D
Fluorene	30	100	0.0468 U	0.0518 U	0.0482 U	0.0459 U	0.0477 U	0.0535 U	0.0439 U	0.0461 U	0.0601 U	0.044 U	0.0441 U	0.0469 U	0.0465 U	0.0483 U	0.0474 U	0.221 U
Indeno(1,2,3-c,d)Pyrene	0.5	0.5	0.0679 JD	0.0518 U	0.0482 U	0.0459 U	0.0477 U	0.0535 U	0.189 D	0.0461 U	0.202 D	0.0667 JD	0.0441 U	0.0469 U	0.113 D	0.0483 U	0.0474 U	0.221 U
Naphthalene	12	100	0.0468 U	0.0518 U	0.0482 U	0.0459 U	0.0477 U	0.0535 U	0.0439 U	0.0461 U	0.0601 U	0.044 U	0.0441 U	0.0469 U	0.0465 U	0.0483 U	0.0474 U	0.221 U
Phenanthrene	100	100	0.0468 U	0.0518 U	0.0482 U	0.0459 U	0.0477 U	0.0535 U	0.283 D	0.0461 U	0.244 D	0.0878 JD	0.0441 U	0.0469 U	0.181 D	0.0483 U	0.0474 U	0.392 JD
Phenol	0.33	100	0.0468 U	0.0518 U	0.0482 U	0.0459 U	0.0477 U	0.0535 U	0.0439 U	0.0461 U	0.0601 U	0.044 U	0.0441 U	0.0469 U	0.0465 U	0.0483 U	0.0474 U	0.221 U
Pyrene	100	100	0.151 D	0.0518 U	0.0482 U	0.0556 JD	0.0477 U	0.0535 U	0.457 D	0.0728 JD	0.494 D	0.139 D	0.0441 U	0.0469 U	0.374 D	0.0483 U	0.0474 U	0.596 D
Pesticides (mg/kg)																		
4,4'-DDD	0.0033	13	0.00183 U	0.00204 U	0.00186 U	0.0018 U	0.00185 U	0.00211 U	0.00172 U	0.00183 U	0.00236 U	0.00173 U	0.00175 U	0.00187 U	0.00182 U	0.00189 U	0.00191 U	0.00178 U
4,4'-DDE	0.0033	8.9	0.00183 U	0.00204 U	0.00186 U	0.0018 U	0.00185 U	0.00211 U	0.00172 U	0.00183 U	0.00236 U	0.00173 U	0.00175 U	0.00187 U	0.00182 U	0.00189 U	0.00191 U	**0.00745** D
4,4'-DDT	0.0033	7.9	0.00183 U	0.00204 U	0.00186 U	0.0018 U	0.00185 U	0.00211 U	0.00172 U	0.00183 U	0.00236 U	0.00173 U	0.00175 U	0.00187 U	0.00182 U	0.00189 U	0.00191 U	0.00178 U
Alpha BHC (Alpha Hexachlorocyclohexane)	0.02	0.48	0.00183 U	0.00204 U	0.00186 U	0.0018 U	0.00185 U	0.00211 U	0.00172 U	0.00183 U	0.00236 U	0.00173 U	0.00175 U	0.00187 U	0.00182 U	0.00189 U	0.00191 U	0.00178 U
Alpha Chlordane	0.094	4.2	0.00183 U	0.00204 U	0.00186 U	0.0018 U	0.00185 U	0.00211 U	0.00172 U	0.00183 U	0.00236 U	0.00173 U	0.00175 U	0.00187 U	0.0175 DP	0.00189 U	0.00191 U	0.0148 DP
Chlordane (alpha and gamma)	~	~	0.0366 U	0.0408 U	0.0372 U	0.036 U	0.0369 U	0.0421 U	0.0343 U	0.0365 U	0.0471 U	0.0347 U	0.0351 U	0.0374 U	0.0998 D	0.0377 U	0.0382 U	0.0356 U
Gamma-Chlordane	~	~	0.00183 U	0.00204 U	0.00186 U	0.0018 U	0.00185 U	0.00211 U	0.00172 U	0.00183 U	0.00236 U	0.00173 U	0.00175 U	0.00187 U	0.0123 D	0.00189 U	0.00191 U	0.0107 D
Heptachlor	0.042	2.1	0.00183 U	0.00204 U	0.00186 U	0.0018 U	0.00185 U	0.00211 U	0.00172 U	0.00183 U	0.00236 U	0.00173 U	0.00175 U	0.00187 U	0.00182 U	0.00189 U	0.00191 U	0.00178 U
Herbicides (mg/kg)	~	~	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Polychlorinated Biphenyls (mg/kg)																		
PCB-1254 (Aroclor 1254)	~	~	0.0185 U	0.0206 U	0.0188 U	0.0182 U	0.0186 U	0.0213 U	0.0173 U	0.0184 U	0.0238 U	0.0175 U	0.0177 U	0.0189 U	0.0184 U	0.019 U	0.0193 U	0.018 U
PCB-1260 (Aroclor 1260)	~	~	0.0185 U	0.0206 U	0.0188 U	0.0182 U	0.0186 U	0.0213 U	0.0173 U	0.0184 U	0.0238 U	0.0175 U	0.0177 U	0.0189 U	0.0184 U	0.019 U	0.0193 U	0.018 U
Total PCBs	0.1	1	0.0185 U	0.0206 U	0.0188 U	0.0182 U	0.0186 U	0.0213 U	0.0173 U	0.0184 U	0.0238 U	0.0175 U	0.0177 U	0.0189 U	0.0184 U	0.019 U	0.0193 U	0.018 U
Inorganics (mg/kg)																		
Aluminum	~	~	5,720	7,940	6,560	3,740	5,660	10,000	7,770	4,070	3,910	6,170	4,400	6,110	8,150	6,940	5,760	6,550
Antimony	~	~	2.81 U	3.11 U	2.9 U	2.75 U	2.88 U	3.23 U	2.64 U	2.79 U	3.61 U	2.64 U	2.67 U	2.87 U	2.8 U	2.94 U	2.92 U	2.73 U
Arsenic	13	16	1.68 U	7.02	1.74 U	2.83	2.11	2.13	2.99	4.44	4.9	1.59 U	1.6 U	1.72 U	3.84	1.79	1.75 U	2.86
Barium	350	400	46	69.1	39	32.7	34.2	24.6	90.2	106	**442**	35.7	33.6	37.7	76.3	61.9	40.9	58.1
Cadmium	2.5	4.3	0.337 U	0.373 U	0.348 U	0.348	0.346 U	0.388 U	0.316 U	0.334 U	0.433 U	0.317 U	0.321 U	0.345 U	0.336 U	0.353 U	0.351 U	0.327 U
Calcium	~	~	25,900	4,820	1,030	26,100	924	584	19,600	33,600	29,400	1,830	2,060	2,040	54,800	3,390	1,630	36,000
Chromium, Hexavalent	1	110	0.561 U	0.622 U	0.581 U	0.55 U	0.576 U	0.647 U	0.527 U	0.557 U	0.722 U	0.529 U	0.535 U	0.574 U	0.56 U	0.589 U	0.584 U	0.545 U
Chromium, Total	~	~	11.7	27.1	24.2	7.68	24.2	24.2	31	33.6	20	17.4	15.2	39.5	28.6	32.2	16.5	19.2
Chromium, Trivalent	30	180	11.7	27.1	24.2	7.68	24.2	24.2	**31**	**33.6**	20	17.4	15.2	**39.5**	28.6	**32.2**	16.5	19.2
Cobalt	~	~	5.13	17.7	12.9	4.96	10.5	12.8	12.8	16.6	8.18	8.92	7.21	14.7	7.87	13.5	8.24	8.21
Copper	50	270	13.4	31.9	22.4	20.6	26.3	16.5	48.1	28.8	26.5	20	21.9	19.4	32.4	49	**58.6**	24.1
Iron	~	~	8,810	24,100	13,400	9,200	14,300	15,100	14,900	14,200	10,700	12,600	11,600	15,000	13,300	15,000	14,700	14,600
Lead	63	400	**89.9**	**274**	7.43	**100**	6.88	8.63	**296**	**441**	**2,080**	13.8	29.1	**66**	34	**74**	8.74	44.7
Magnesium	~	~	9,190	6,660	3,240	13,900	6,640	5,150	11,300	22,100	8,090	3,760	3,930	6,890	10,700	7,370	3,100	11,100
Manganese	1,600	2,000	101	202	231	126	269	125	245	247	217	265	200	286	275	158	273	235
Mercury	0.18	0.81	0.0337 U	0.0479 U	0.0348 U	0.143	0.0346 U	0.0388 U	**0.771**	**1.28**	**0.54**	0.032	**0.226**	0.0827	0.04	**0.401**	0.0351 U	0.15
Nickel	30	310	29.4	**133**	**128**	17.7	**155**	**86.2**	**154**	**325**	**114**	**71.3**	**69.9**	**209**	**52.5**	**182**	**47.6**	**57.3**
Potassium	~	~	848	747	882	393	829	916	1,020	856	765	907	672	745	871 B	1,140 B	1,140 B	940
Selenium	3.9	180	2.81 U	3.11 U	2.9 U	**5.01**	2.88 U	3.23 U	2.64 U	**4.08**	3.61 U	2.64 U	2.67 U	2.87 U	2.8 U	2.94 U	2.92 U	2.73 U
Silver	2	180	1.72	0.622 U	0.581 U	0.55 U	0.576 U	0.647 U	0.527 U	0.557 U	0.722 U	0.529 U	0.535 U	0.574 U	0.56 U	0.589 U	0.584 U	0.545 U
Sodium	~	~	95.9	127	127	222	72	92.8	768	205	205	175	169	139	219	298	148	280
Vanadium	~	~	15.1	29.2	20.5	20.3	18.6	22.1	26	14.5	18.1	17.6	17.9	22.1	32.9	24.7	27.5	42.3
Zinc	109	10,000	50.2	62.8	23.8	**283**	24.8	39.9	**123**	**226**	**291**	28.4	30.1	24.2	76.7	49.1	27.9	68.8
General Chemistry (%)																		
Solids, Percent	~	~	89.1	80.4	86.1	90.8	86.8	77.3	94.8	89.7	69.3	94.6	93.5	87	89.3	84.9	85.6	89.6

Notes provided on Page 5.
Concentrations above Unrestricted Use SCOs are bolded.
Concentrations above Restricted Use Restricted-Residential SCOs are shaded.

Table 1
Soil Sample Analytical Results Summary

475 Bay Street and 31 Wave Street
Staten Island, New York
Langan Project No.: 170610601

Location	NYSDEC Part 375 Unrestricted Use	NYSDEC Part 375 Restricted Use Restricted-Residential SCOs	SB11		SB11		SB12		SB12		SB12		SB13		SB13		SB13		SB13		SB14		SB14		SB14		SB14		SB15	
Sample ID			SB11_10-12		SB11_14-16		SB12_0-2		SB12_8-10		SB12_18-20		SB13_0-2		SB13_5-7		SODUP02_050420		SB13_18-20		SB14_0-2		SB14_6-8		SODUP03_050620		SB14_18-20		SB15_0-2	
Laboratory ID			20D0849-08		20D0849-09		20D0849-04		20D0849-05		20D0849-06		20E0055-04		20E0055-05		20E0055-07		20E0055-06		20E0134-04		20E0134-05		20E0134-07		20E0134-06		20E0055-01	
Sample Date			4/30/2020		4/30/2020		4/30/2020		4/30/2020		4/30/2020		5/4/2020		5/4/2020		5/4/2020		5/4/2020		5/6/2020		5/6/2020		5/6/2020		5/6/2020		5/4/2020	
Sample Depth (feet bgs)			10-12		18-20		0-2		8-10		18-20		0-2		5-7		5-7		18-20		0-2		6-8		6-8		18-20		0-2	
Volatile Organic Compounds (mg/kg)																														
Acetone	0.05	100	0.011		0.012		0.017		0.0081	J	0.0041	U	0.015	B	**0.069**	B	**0.12**	B	0.021	B	0.011	JB	0.023	B	0.018	B	0.022	B	0.0084	JB
Benzene	0.06	4.8	0.0022	U	0.0028	U	0.0029	U	0.0024	U	0.002	U	0.0023	U	0.0022	U	0.0024	U	0.0032	U	0.0029	U	0.0025	U	0.0026	U	0.003	U	0.0026	U
Carbon Disulfide	~	~	0.0022	U	0.0028	U	0.0029	U	0.0024	U	0.002	U	0.0023	U	0.0022	U	0.0024	U	0.0032	U	0.0029	U	0.0025	U	0.0026	U	0.0057	J	0.0026	U
Methyl Ethyl Ketone (2-Butanone)	0.12	100	0.0022	U	0.0028	U	0.0029	U	0.0024	U	0.002	U	0.0023	U	0.019		0.037		0.0058	J	0.0029	U	0.0057		0.0053		0.003	U	0.0026	U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	~	~	0.0022	U	0.0065		0.0029	U	0.0024	U	0.002	U	0.0023	U	0.0022	U	0.0024	U	0.0032	U	0.0029	U	0.0025	U	0.0026	U	0.003	U	0.0026	U
Semivolatile Organic Compounds (mg/kg)																														
2,4-Dimethylphenol	~	~	0.0549	U	0.0557	U	0.226	U	0.0514	U	0.0508	U	0.0472	U	0.047	U	0.0472	U	0.0597	U	0.0518	U	0.051	U	0.0513	U	0.0547	U	0.0464	U
2-Methylnaphthalene	~	~	0.0549	U	0.0557	U	0.226	U	0.0514	U	0.0508	U	0.0472	U	0.047	U	0.0472	U	0.0597	U	0.0518	U	0.051	U	0.0513	U	0.0547	U	0.0464	U
2-Methylphenol (o-Cresol)	0.33	100	0.0549	U	0.0557	U	0.226	U	0.0514	U	0.0508	U	0.0472	U	0.047	U	0.0472	U	0.0597	U	0.0518	U	0.051	U	0.0513	U	0.0547	U	0.0464	U
3 & 4 Methylphenol (m&p Cresol)	0.33	100	0.0549	U	0.0557	U	0.226	U	0.0514	U	0.0508	U	0.0472	U	0.047	U	0.0472	U	0.0597	U	0.0518	U	0.051	U	0.0513	U	0.0547	U	0.0464	U
Acenaphthene	20	100	0.0549	U	0.0557	U	0.226	U	0.0514	U	0.0508	U	0.0472	U	0.047	U	0.0472	U	0.0597	U	0.0518	U	0.051	U	0.0513	U	0.0547	U	0.0464	U
Acenaphthylene	100	100	0.0549	U	0.0557	U	0.226	U	0.0514	U	0.0508	U	0.0472	U	0.047	U	0.0472	U	0.0597	U	0.165	D	0.051	U	0.0513	U	0.0547	U	0.0464	U
Anthracene	100	100	0.0549	U	0.0557	U	0.274	JD	0.119	D	0.0508	U	0.0472	U	0.047	U	0.0472	U	0.0597	U	0.326	D	0.051	U	0.0513	U	0.0547	U	0.0464	U
Benzo(a)Anthracene	1	1	0.0549	U	0.0557	U	0.815	D	0.154	D	0.0508	U	0.0497	JD	0.0795	JD	0.0472	U	0.0597	U	0.729	D	0.12	D	0.12	D	0.0547	U	0.117	D
Benzo(a)Pyrene	1	1	0.0549	U	0.0557	U	0.743	D	0.12	D	0.0508	U	0.0662	JD	0.0735	JD	0.0472	U	0.0597	U	0.735	D	0.12	D	0.112	D	0.0547	U	0.123	D
Benzo(b)Fluoranthene	1	1	0.0549	U	0.0557	U	0.642	D	0.102	D	0.0508	U	0.0655	JD	0.0637	JD	0.0472	U	0.0597	U	0.574	D	0.0903	JD	0.0867	JD	0.0547	U	0.126	D
Benzo(g,h,i)Perylene	100	100	0.0549	U	0.0557	U	0.483	D	0.059	JD	0.0508	U	0.0519	JD	0.047	U	0.0472	U	0.0597	U	0.379	D	0.0562	JD	0.0638	JD	0.0547	U	0.0464	U
Benzo(k)Fluoranthene	0.8	3.9	0.0549	U	0.0557	U	0.559	D	0.0868	JD	0.0508	U	0.0542	JD	0.0682	JD	0.0472	U	0.0597	U	0.583	D	0.0928	JD	0.0965	JD	0.0547	U	0.0963	D
Benzyl Butyl Phthalate	~	~	0.0549	U	0.0557	U	0.226	U	0.0514	U	0.0508	U	0.0472	U	0.047	U	0.0472	U	0.0597	U	0.0518	U	0.051	U	0.0513	U	0.0547	U	0.0464	U
Biphenyl (Diphenyl)	~	~	0.0549	U	0.0557	U	0.226	U	0.0514	U	0.0508	U	0.0472	U	0.047	U	0.0472	U	0.0597	U	0.0518	U	0.051	U	0.0513	U	0.0547	U	0.0464	U
Bis(2-Ethylhexyl) Phthalate	~	~	0.0549	U	0.0557	U	0.226	U	0.0514	U	0.0508	U	0.0472	U	0.047	U	0.0472	U	0.0597	U	0.0518	U	0.051	U	0.0513	U	0.0547	U	0.0464	U
Carbazole	~	~	0.0549	U	0.0557	U	0.226	U	0.0514	U	0.0508	U	0.0472	U	0.047	U	0.0472	U	0.0597	U	0.0603	JD	0.051	U	0.0513	U	0.0547	U	0.0464	U
Chrysene	1	3.9	0.0549	U	0.0557	U	0.739	D	0.125	D	0.0508	U	0.0527	JD	0.084	JD	0.0472	U	0.0597	U	0.749	D	0.114	D	0.104	D	0.0547	U	0.16	D
Dibenz(a,h)Anthracene	0.33	0.33	0.0549	U	0.0557	U	0.226	U	0.0514	U	0.0508	U	0.0472	U	0.047	U	0.0472	U	0.0597	U	0.116	D	0.051	U	0.0513	U	0.0547	U	0.0464	U
Dibenzofuran	7	59	0.0549	U	0.0557	U	0.226	U	0.0514	U	0.0508	U	0.0472	U	0.047	U	0.0472	U	0.0597	U	0.0518	U	0.051	U	0.0513	U	0.0547	U	0.0464	U
Fluoranthene	100	100	0.0622	JD	0.0557	U	1.67	D	0.36	D	0.0508	U	0.0519	JD	0.139	D	0.0472	U	0.0597	U	1.72	D	0.234	D	0.197	D	0.0547	U	0.235	D
Fluorene	30	100	0.0549	U	0.0557	U	0.226	U	0.0729	JD	0.0508	U	0.0472	U	0.047	U	0.0472	U	0.0597	U	0.0916	JD	0.051	U	0.0513	U	0.0547	U	0.0464	U
Indeno(1,2,3-c,d)Pyrene	0.5	0.5	0.0549	U	0.0557	U	0.415	JD	0.0541	JD	0.0508	U	0.0472	U	0.047	U	0.0472	U	0.0597	U	0.381	D	0.0643	JD	0.0638	JD	0.0547	U	0.0703	JD
Naphthalene	12	100	0.0549	U	0.0557	U	0.226	U	0.0514	U	0.0508	U	0.0472	U	0.047	U	0.0472	U	0.0597	U	0.0518	U	0.051	U	0.0513	U	0.0547	U	0.0464	U
Phenanthrene	100	100	0.071	JD	0.0557	U	1.03	D	0.435	D	0.0508	U	0.0472	U	0.047	U	0.0472	U	0.0597	U	1.13	D	0.0969	JD	0.072	JD	0.0547	U	0.0977	D
Phenol	0.33	100	0.0549	U	0.0557	U	0.226	U	0.0514	U	0.0508	U	0.0472	U	0.047	U	0.0472	U	0.0597	U	0.0518	U	0.051	U	0.0513	U	0.0547	U	0.0464	U
Pyrene	100	100	0.0675	JD	0.0557	U	1.51	D	0.297	D	0.0508	U	0.0527	JD	0.112	D	0.0472	U	0.0597	U	1.36	D	0.177	D	0.148	D	0.0547	U	0.241	D
Pesticides (mg/kg)																														
4,4'-DDD	0.0033	13	0.00218	U	0.00224	U	0.00182	U	0.00201	U	0.00201	U	0.00186	U	0.00183	U	0.00186	U	*0.00354*	U	0.00203	U	0.00202	U	0.00202	U	0.00214	U	0.00181	U
4,4'-DDE	0.0033	8.9	0.00218	U	0.00224	U	**0.00686**	D	0.00201	U	0.00201	U	0.00186	U	0.00183	U	0.00186	U	*0.00354*	U	0.00203	U	0.00202	U	0.00202	U	0.00214	U	**0.0059**	D
4,4'-DDT	0.0033	7.9	0.00218	U	0.00224	U	0.00182	U	0.00201	U	0.00201	U	0.00186	U	0.00183	U	0.00186	U	*0.00354*	U	0.00203	U	0.00202	U	0.00202	U	0.00214	U	0.00181	U
Alpha BHC (Alpha Hexachlorocyclohexane)	0.02	0.48	0.00218	U	0.00224	U	0.00182	U	0.00201	U	0.00201	U	0.00186	U	0.00183	U	0.00186	U	0.00354	U	0.00203	U	0.00202	U	0.00202	U	0.00214	U	0.00181	U
Alpha Chlordane	0.094	4.2	0.00218	U	0.00224	U	0.0182	DP	0.00201	U	0.00201	U	0.00186	U	0.00183	U	0.00186	U	0.00354	U	0.00203	U	0.00202	U	0.00202	U	0.00214	U	0.00999	DP
Chlordane (alpha and gamma)	~	~	0.0435	U	0.0447	U	0.0364	U	0.0401	U	0.0402	U	0.0373	U	0.0365	U	0.0372	U	0.0709	U	0.0406	U	0.0404	U	0.0405	U	0.0429	U	0.0463	D
Gamma-Chlordane	~	~	0.00218	U	0.00224	U	0.014	D	0.00201	U	0.00201	U	0.00186	U	0.00183	U	0.00186	U	0.00354	U	0.00203	U	0.00202	U	0.00202	U	0.00214	U	0.00643	D
Heptachlor	0.042	2.1	0.00218	U	0.00224	U	0.00182	U	0.00201	U	0.00201	U	0.00186	U	0.00183	U	0.00186	U	0.00354	U	0.00203	U	0.00202	U	0.00202	U	0.00214	U	0.00181	U
Herbicides (mg/kg)	~	~	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND	
Polychlorinated Biphenyls (mg/kg)																														
PCB-1254 (Aroclor 1254)	~	~	0.022	U	0.0226	U	0.0184	U	0.0203	U	0.0203	U	0.0188	U	0.0184	U	0.0188	U	0.0358	U	0.0205	U	0.0204	U	0.0204	U	0.0216	U	0.0183	U
PCB-1260 (Aroclor 1260)	~	~	0.022	U	0.0226	U	0.203		0.0203	U	0.0203	U	0.0188	U	0.0184	U	0.0188	U	0.0358	U	0.0205	U	0.0204	U	0.0204	U	0.0216	U	0.0183	U
Total PCBs	0.1	1	0.022	U	0.0226	U	**0.203**		0.0203	U	0.0203	U	0.0188	U	0.0184	U	0.0188	U	0.0358	U	0.0205	U	0.0204	U	0.0204	U	0.0216	U	0.0183	U
Inorganics (mg/kg)																														
Aluminum	~	~	5,980		12,800		6,350		4,750		4,030		12,300		4,440		5,710		7,460		4,990		7,920		7,710		9,310		7,750	
Antimony	~	~	3.32	U	3.41	U	2.78	U	3.08	U	3.07	U	2.83	U	2.82	U	2.83	U	3.6	U	3.13	U	3.09	U	3.08	U	3.28	U	2.81	U
Arsenic	13	16	2.03		2.05	U	3.92		1.85	U	1.84	U	2.03		1.69	U	1.7	U	3.16		4.69		2.34		1.85	U	2.64		4.36	
Barium	350	400	24.4		67.1		59.9		28.3		31.9		74.9		28.4		34.1		29.8		**453**		67.9		72.6		26.2		70.8	
Cadmium	2.5	4.3	0.398	U	0.409	U	0.333	U	0.37	U	0.368	U	0.34	U	0.339	U	0.34	U	0.432	U	0.375	U	0.371	U	0.369	U	0.394	U	0.338	U
Calcium	~	~	2,510		4,730		22,300		1,890		1,410		2,770		1,090		2,010		4,260		1,520		3,670		3,910		2,680		51,000	
Chromium, Hexavalent	1	110	0.664	U	0.682	U	0.555	U	0.616	U	0.613	U	0.861		0.564	U	0.566	U	0.719	U	0.625	U	0.619	U	0.616	U	0.656	U	0.563	U
Chromium, Total	~	~	47.5		156		22.2		36.4		195		37.4		11.7		14.6		40.9		14.2		54.9		54.5		34.2		32.9	
Chromium, Trivalent	30	180	**47.5**		**156**		22.2		**36.4**		**195**		**36.5**		11.7		14.6		**40.9**		14.2		**54.9**		**54.5**		**34.2**		**32.9**	
Cobalt	~	~	19.5		57.2		9.57		17.4		52.4		18.6		6.24		6.92		16		6.92		24.4		24.7		13.4		8.72	
Copper	50	270	23.8		29.6		31.9		16.8		41.6		37.4		20.4		20.6		16.4		30.5		46.9		44.6		12.8		34.5	
Iron	~	~	18,800		41,300		13,800		16,400		39,700		18,800		10,400		13,000		20,000		9,690		20,900		19,800		20,700		13,200	
Lead	63	400	55		11.6		**115**		10.4		2.71		**235**		5		7.42		52.4		**302**		**99.2**		**101**		21.1		**64.4**	
Magnesium	~	~	16,300		31,500		7,230		20,100		85,300		6,190		2,370		2,770		17,100		907		18,700		18,000		12,200		10,100	
Manganese	1,600	2,000	203		431		209		232		675		266		235		156		278		38.7		409		416		320		223	
Mercury	0.18	0.81	0.0398	U	0.0409	U	**0.238**		0.037	U	0.0368	U	0.156		0.0339	U	0.034	U	**0.246**		0.0481		**0.465**		**0.516**		0.0394	U	0.176	
Nickel	30	310	**319**		**902**		**71.7**		**285**		**1,200**		**158**		**71.5**		**66**		**272**		**31.2**		**391**		**367**		**176**		**74.1**	
Potassium	~	~	1,170		3,630		1,070		861		906		1,030		851		1,280		1,550		474	B	918	B	952	B	1,860	B	747	
Selenium	3.9	180	3.32	U	3.41	U	2.78	U	3.08	U	3.07	U	2.83	U	2.82	U	2.83	U	3.6	U	3.13	U	3.09	U	3.08	U	3.28	U	2.81	U
Silver	2	180	0.664	U	0.682	U	0.555	U	0.616	U	1.74		0.566	U	0.564	U	0.566	U	0.719	U	0.625	U	0.619	U	0.616	U	0.656	U	0.563	U
Sodium	~	~	260		280		358		104		127		276		98.3		218		191		142		158		177		573		304	
Vanadium	~	~	25.9		41.2		29.8		17.7		16.2		26.9		18.3		19		24.1		14.8		21.9		21.9		25.1		27	
Zinc	109	10,000	25.4		54.8		107		27.1		31.8		**124**		21.4		25.2		34.8		55.7		68.8		67.2		40.5		101	
General Chemistry (%)																														
Solids, Percent	~	~	71.1		84.2		90.8		81.5		84.5		88.3		88.6		88.4		69.5		80		80.8		81.2		76.2		88.8	

Notes provided on Page 5.
Concentrations above Unrestricted Use SCOs are bolded.
Concentrations above Restricted Use Restricted-Residential SCOs are shaded.

Table 1
Soil Sample Analytical Results Summary

475 Bay Street and 31 Wave Street
Staten Island, New York
Langan Project No.: 170610601

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	SB15 SB15_5-7 20E0055-02 5/4/2020 5-7	SB15 SB15_18-20 20E0055-03 5/4/2020 18-20	SB16 SB16_0-2 20D0849-01 4/30/2020 0-2	SB16 SB16_14-16 20D0849-02 4/30/2020 14-16	SB16 SB16_18-20 20D0849-03 4/30/2020 18-20	SB101 SB101_3-4 20E0734-01 5/22/2020 3-4	SB102 SB102_4-5 20E0734-02 5/22/2020 4-5	SB103 SB103_2.5-3.5 20E0734-03 5/22/2020 2.5-3.5	SB104 SB104_4.5-5.5 20E0734-04 5/22/2020 4.5-5.5	SB105 SB105_4-5 20E0734-05 5/22/2020 4-5	SB106 SB106_4.5-5.5 20E0734-06 5/22/2020 4.5-5.5	SB107 SB107_4.5-5.5 20E0734-07 5/22/2020 4.5-5.5	SB108 SB108_7-9.5 20E0734-08 5/22/2020 7-9.5	SB108 SODUP04_052220 20E0734-13 5/22/2020 7-9.5	SB109 SB109_4-5 20E0734-09 5/22/2020 4-5	SB110 SB110_9-10 20E0734-11 5/22/2020 9-10	SB111 SB111_8-9 20E0734-12 5/22/2020 8-9
Volatile Organic Compounds (mg/kg)																				
Acetone	0.05	100	**0.13** B	0.033 B	0.013 B	0.0042 JB	0.0076 J	0.0061 U	0.0058 U	0.01 J	0.018 B	0.0076 U	0.0058 U	0.0063 J	0.05 B	0.049		0.0071 U	0.017 B	**0.082**
Benzene	0.06	4.8	0.0025 U	0.0028 U	0.0026 U	0.0019 U	0.0026 U	0.0031 U	0.0029 U	0.003 U	0.0025 U	0.0038 U	0.0029 U	0.0066	0.0043 U	0.0033 U	0.0035 U	0.0026 U	0.0032 U	
Carbon Disulfide	~	~	0.0025 U	0.0044 J	0.0026 U	0.0019 U	0.0026 U	0.0031 U	0.0029 U	0.003 U	0.0025 U	0.0038 U	0.0029 U	0.0028 U	0.0043 U	0.0033 U	0.0035 U	0.0026 U	0.0032 U	
Methyl Ethyl Ketone (2-Butanone)	0.12	100	0.038	0.0083	0.0026 U	0.0019 U	0.0026 U	0.0031 U	0.0029 U	0.003 U	0.0025 U	0.0038 U	0.0029 U	0.0028 U	0.011	0.0033 U	0.0035 U	0.0026 U	0.012	
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	~	~	0.0025 U	0.0028 U	0.0026 U	0.0019 U	0.0026 U	0.0031 U	0.0029 U	0.003 U	0.0025 U	0.0038 U	0.0029 U	0.0028 U	0.0043 U	0.0033 U	0.0035 U	0.0026 U	0.0032 U	
Semivolatile Organic Compounds (mg/kg)																				
2,4-Dimethylphenol	~	~	0.053 U	0.0546 U	0.0468 U	0.0491 U	0.0521 U	0.725 D	0.0479 U	0.0484 U	0.0467 U	0.0459 U	0.048 U	0.0463 U	0.0587 U	0.0553 U	0.053 U	0.0536 U	0.0535 U	
2-Methylnaphthalene	~	~	0.053 U	0.0546 U	0.0468 U	0.0491 U	0.0521 U	4.68 D	0.0479 U	0.0484 U	0.0467 U	0.0459 U	0.048 U	0.293 D	0.0587 U	0.0553 U	0.114 D	0.0536 U	0.0535 U	
2-Methylphenol (o-Cresol)	0.33	100	0.053 U	0.0546 U	0.0468 U	0.0491 U	0.0521 U	**0.546** D	0.0479 U	0.0484 U	0.0467 U	0.0459 U	0.048 U	0.0463 U	0.0587 U	0.0553 U	0.053 U	0.0536 U	0.0535 U	
3 & 4 Methylphenol (m&p Cresol)	0.33	100	0.053 U	0.0546 U	0.0468 U	0.0491 U	0.0521 U	**1.47** D	0.0479 U	0.0484 U	0.0467 U	0.0459 U	0.048 U	0.0502 JD	0.0587 U	0.0553 U	0.053 U	0.0536 U	0.0535 U	
Acenaphthene	20	100	0.053 U	0.0546 U	0.0611 JD	0.0491 U	0.0521 U	2.76 D	0.0479 U	0.0484 U	0.0467 U	0.0459 U	0.048 U	1.32 D	0.0587 U	0.0553 U	0.0718 JD	0.0536 U	0.0535 U	
Acenaphthylene	100	100	0.053 U	0.0546 U	0.0468 U	0.0491 U	0.0521 U	16.1 D	0.0695 JD	0.0641 JD	0.0863 JD	0.0459 U	0.0674 JD	1.54 D	0.0731 JD	0.0811 JD	0.934 D	0.0599 JD	0.0649 JD	
Anthracene	100	100	0.053 U	0.0546 U	0.169 D	0.0491 U	0.0521 U	14.1 D	0.0479 U	0.111 D	0.067 JD	0.0459 U	0.0552 JD	5.09 D	0.0587 U	0.0573 JD	0.521 D	0.0539 JD	0.0777 JD	
Benzo(a)Anthracene	1	1	0.0583 JD	0.0546 U	0.412 D	0.0491 U	0.0521 U	**34.7** D	0.166 D	0.453 D	0.197 D	0.0951 D	0.133 D	**10.3** D	0.192 D	0.213 D	**1.49** D	0.253 D	0.482 D	
Benzo(a)Pyrene	1	1	0.053 U	0.0546 U	0.356 D	0.0491 U	0.0521 U	**48.1** D	0.172 D	0.434 D	0.211 D	0.0864 JD	0.124 D	**9.43** D	0.199 D	0.244 D	**2.04** D	0.265 D	0.435 D	
Benzo(b)Fluoranthene	1	1	0.053 U	0.0546 U	0.373 D	0.0491 U	0.0521 U	**38** D	0.16 D	0.385 D	0.183 D	0.0747 JD	0.157 D	**7.07** D	0.174 D	0.21 D	**1.74** D	0.203 D	0.332 D	
Benzo(g,h,i)Perylene	100	100	0.053 U	0.0546 U	0.233 D	0.0491 U	0.0521 U	26 D	0.107 D	0.233 D	0.121 D	0.0527 JD	0.11 D	3.6 D	0.144 D	0.16 D	1.5 D	0.142 D	0.161 D	
Benzo(k)Fluoranthene	0.8	3.9	0.053 U	0.0546 U	0.298 D	0.0491 U	0.0521 U	**35.2** D	0.137 D	0.351 D	0.156 D	0.0673 JD	0.113 D	**7.37** D	0.176 D	0.202 D	**1.56** D	0.216 D	0.354 D	
Benzyl Butyl Phthalate	~	~	0.053 U	0.0546 U	0.0468 U	0.0491 U	0.0521 U	0.0505 U	0.0479 U	0.0484 U	0.0467 U	0.0459 U	0.048 U	0.0463 U	0.0587 U	0.0553 U	0.053 U	0.0536 U	0.0535 U	
Biphenyl (Diphenyl)	~	~	0.053 U	0.0546 U	0.0468 U	0.0491 U	0.0521 U	2.15 D	0.0479 U	0.0484 U	0.0467 U	0.0459 U	0.048 U	0.0974 D	0.0587 U	0.0553 U	0.053 U	0.0536 U	0.0535 U	
Bis(2-Ethylhexyl) Phthalate	~	~	0.053 U	0.0546 U	0.0529 JD	0.0491 U	0.0521 U	0.0505 U	0.0479 U	0.0484 U	0.0467 U	0.0459 U	0.048 U	0.0463 U	0.0587 U	0.0553 U	0.053 U	0.0536 U	0.0535 U	
Carbazole	~	~	0.053 U	0.0546 U	0.107 D	0.0491 U	0.0521 U	14.5 D	0.0479 U	0.0757 JD	0.0467 U	0.0459 U	0.048 U	0.926 D	0.0587 U	0.0553 U	0.496 D	0.0536 U	0.0535 U	
Chrysene	1	3.9	0.053 U	0.0546 U	0.401 D	0.0491 U	0.0521 U	**43.2** D	0.187 D	0.472 D	0.22 D	0.0988 D	0.175 D	**9.28** D	0.203 D	0.231 D	**2.25** D	0.216 D	0.415 D	
Dibenz(a,h)Anthracene	0.33	0.33	0.053 U	0.0546 U	0.0902 JD	0.0491 U	0.0521 U	**7.34** D	0.0479 U	0.0764 JD	0.0467 U	0.0459 U	0.0521 JD	**2.01** D	0.0587 U	0.0553 U	**0.53** D	0.0676 JD	0.101 JD	
Dibenzofuran	7	59	0.053 U	0.0546 U	0.0468 U	0.0491 U	0.0521 U	**13.5** D	0.0479 U	0.0484 U	0.0467 U	0.0459 U	0.048 U	0.875 D	0.0587 U	0.0553 U	0.149 D	0.0536 U	0.0535 U	
Fluoranthene	100	100	0.0659 JD	0.0546 U	1.02 D	0.0491 U	0.0521 U	**135** D	0.337 D	1.05 D	0.341 D	0.161 D	0.184 D	21.9 D	0.331 D	0.379 D	3.82 D	0.318 D	0.687 D	
Fluorene	30	100	0.053 U	0.0546 U	0.0468 U	0.0491 U	0.0521 U	14.2 D	0.0479 U	0.0484 U	0.0467 U	0.0459 U	0.048 U	2.16 D	0.0587 U	0.0553 U	0.24 D	0.0536 U	0.0535 U	
Indeno(1,2,3-c,d)Pyrene	0.5	0.5	0.053 U	0.0546 U	0.0468 U	0.0491 U	0.0521 U	**28.1** D	0.103 D	0.241 D	0.126 D	0.0459 U	0.0973 D	**4.07** D	0.123 D	0.145 D	**1.24** D	0.141 D	0.194 D	
Naphthalene	12	100	0.053 U	0.0546 U	0.0468 U	0.0491 U	0.0521 U	**15.3** D	0.0479 U	0.0484 U	0.0467 U	0.0459 U	0.048 U	0.374 D	0.0587 U	0.0553 U	0.135 D	0.0536 U	0.0535 U	
Phenanthrene	100	100	0.053 U	0.0546 U	0.737 D	0.0491 U	0.0521 U	**152** D	0.14 D	0.552 D	0.234 D	0.127 D	0.104 D	16.9 D	0.207 D	0.22 D	2.92 D	0.104 JD	0.137 D	
Phenol	0.33	100	0.053 U	0.0546 U	0.0468 U	0.0491 U	0.0521 U	**1.25** D	0.0479 U	0.0484 U	0.0467 U	0.0459 U	0.048 U	0.0463 U	0.0587 U	0.0553 U	0.053 U	0.0536 U	0.0535 U	
Pyrene	100	100	0.0591 JD	0.0546 U	0.89 D	0.0491 U	0.0521 U	**107** D	0.295 D	0.826 D	0.345 D	0.162 D	0.178 D	17.4 D	0.313 D	0.36 D	3.46 D	0.297 D	0.648 D	
Pesticides (mg/kg)																				
4,4'-DDD	0.0033	13	0.00206 U	0.00222 U	0.00186 U	0.00194 U	0.00206 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
4,4'-DDE	0.0033	8.9	0.00206 U	0.00222 U	0.00186 U	0.00194 U	0.00206 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
4,4'-DDT	0.0033	7.9	0.00206 U	0.00222 U	0.00186 U	0.00194 U	0.00206 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Alpha BHC (Alpha Hexachlorocyclohexane)	0.02	0.48	0.00206 U	0.00222 U	0.00186 U	0.00194 U	0.00206 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Alpha Chlordane	0.094	4.2	0.00206 U	0.00222 U	0.0124 DP	0.00194 U	0.00206 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Chlordane (alpha and gamma)	~	~	0.0413 U	0.0644 U	0.0628 D	0.0389 U	0.0413 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Gamma-Chlordane	~	~	0.00206 U	0.00222 U	0.00869 D	0.00194 U	0.00206 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Heptachlor	0.042	2.1	0.00206 U	0.00222 U	0.00186 U	0.00194 U	0.00206 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Herbicides (mg/kg)	~	~	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Polychlorinated Biphenyls (mg/kg)																				
PCB-1254 (Aroclor 1254)	~	~	0.0208 U	0.0325 U	0.0188 U	0.0196 U	0.0209 U	0.0201 U	0.0993	0.0195 U	0.0188 U	0.0184 U	0.0191 U	0.0183 U	0.0233 U	0.0218 U	0.0211 U	0.0211 U	0.0213 U	
PCB-1260 (Aroclor 1260)	~	~	0.0208 U	0.0325 U	0.0522	0.0196 U	0.0209 U	0.0201 U	0.0191 U	0.0195 U	0.0188 U	0.0184 U	0.0191 U	0.0183 U	0.0233 U	0.0218 U	0.0211 U	0.0211 U	0.0213 U	
Total PCBs	0.1	1	0.0208 U	0.0325 U	0.0522	0.0196 U	0.0209 U	0.0201 U	0.0993	0.0195 U	0.0188 U	0.0184 U	0.0191 U	0.0183 U	0.0233 U	0.0218 U	0.0614	0.0211 U	0.0213 U	
Inorganics (mg/kg)																				
Aluminum	~	~	7,800	5,890	6,300	6,470	5,600	4,720	8,700	10,200	5,780	3,190	2,600	9,150	6,620	7,950	7,410	6,420	4,440	
Antimony	~	~	3.18 U	3.29 U	2.83 U	2.98 U	3.15 U	3.05 U	2.92 U	24.5	2.83 U	2.79 U	2.88 U	2.79 U	3.52 U	5.35	3.18 U	3.24 U	3.21 U	
Arsenic	13	16	3.46	4.74	3.07	1.79 U	1.89 U	2.09	5.54	8.01	2.42	3.14	**18.8**	10.7	12.3	11.4	4.94	6.61	1.93 U	
Barium	350	400	64.2	25.7	44.9	37.2	33.5	147	70	151	37.9	83.7	178	104	303	**411**	**414**	204	47.3	
Cadmium	2.5	4.3	0.381 U	0.394 U	0.34 U	0.357 U	0.378 U	0.366 U	0.35 U	**3.23**	0.339 U	0.335 U	**3.79**	0.334 U	0.423 U	0.858	1.52	0.389 U	0.385 U	
Calcium	~	~	2,500	3,980	49,400	1,760	1,920	1,510 B	39,000 B	9,500 B	3,220 B	5,070 B	3,460 B	4,410 B	27,500 B	24,700 B	11,800 B	21,100 B	2,790 B	
Chromium, Hexavalent	1	110	0.636 U	0.657 U	**3.35**	0.595 U	0.63 U	0.611 U	0.584 U	0.591 U	0.566 U	0.558 U	0.576 U	0.557 U	0.705 U	0.666 U	0.636 U	0.648 U	0.642 U	
Chromium, Total	~	~	43.5	23.7	35.6	62.3	129	23.1	36.1	47.5	19.9	7.76	13.2	22.4	39.3	38.7	28.3	13.8	18.6	
Chromium, Trivalent	30	180	**43.5**	23.7	**32.2**	**62.3**	**129**	23.1	**36.1**	**47.5**	19.9	7.76	13.2	22.4	**39.3**	**38.7**	28.3	13.8	18.6	
Cobalt	~	~	23.1	10.3	8.81	28.2	60.4	11.6	12.9	19.5	9.65	6.45	6.12	10.7	15	18.4	7.24	7.81	9.38	
Copper	50	270	34.6	11.9	24.5	17.6	17.2	**89.1**	46.7	44.6	26.7	33.9	**66.2**	32.9	**83.7**	**118**	**65.1**	38.6	23.4	
Iron	~	~	19,300	17,100	13,100	21,500	35,100	19,200	14,200	24,000	8,760	6,400	34,200	13,300	16,000	21,600	11,000	15,500	11,400	
Lead	63	400	**82.3**	6.33	24.6	13.4	3	**329**	**95.7**	**123**	48.5	40.2	**446**	**258**	**1,930**	**2,530**	**942**	**416**	**69**	
Magnesium	~	~	13,500	9,160	13,500	27,400	74,800	5,970	12,800	8,730	2,870	1,150	959	3,900	5,570	9,460	3,070	3,240	4,310	
Manganese	1,600	2,000	523	208	197	405	732	348	234	313	119	70	78	192	250	312	148	228	121	
Mercury	0.18	0.81	**0.274**	0.0394 U	0.0489	0.0357 U	0.0378 U	**0.234**	0.166	**0.243**	**0.302**	0.0648	**0.822**	**1.43**	**1.98**	**1.81**	**0.613**	**1.25**	**5.76**	
Nickel	30	310	**309**	**113**	**74.4**	**510**	**1,660**	**122**	**146**	**222**	**100**	23.1	**37**	**64**	**145**	**209**	**60.7**	**47.9**	**94.1**	
Potassium	~	~	1,090	1,520	904	1,910	1,530	567	976	970	547	342	832	1,220	1,030	1,240	1,210	845	842	
Selenium	3.9	180	3.18 U	3.29 U	2.83 U	2.98 U	3.15 U	3.05 U	2.92 U	2.95 U	2.83 U	2.79 U	2.88 U	2.79 U	3.52 U	3.33 U	3.18 U	3.24 U	3.21 U	
Silver	2	180	0.636 U	0.657 U	0.567 U	0.595 U	0.63 U	0.611 U	0.584 U	0.591 U	0.566 U	0.558 U	0.576 U	0.557 U	1.01	0.799	0.636 U	0.648 U	0.642 U	
Sodium	~	~	182	195	379	174	111	227	423	563	216	187	323	561	303	372	439	256	197	
Vanadium	~	~	22.7	58	24.5	23.3	19.8	17.3	30.2	29.5	15.5	16.6	17	24.4	23.3	29.4	41.1	17.9	14.7	
Zinc	109	10,000	53.6	28.9	56.6	29.6	31.1	**232**	76	**262**	27.5	61.2	**890**	**120**	**422**	**659**	**440**	**244**	**170**	
General Chemistry (%)																				
Solids, Percent	~	~	78.6	76.1	87.1	84.3	77.9	81.9	85.6	84.6	88.4	89.6	86.7	89.7	70.9	75.1	78.6	77.2	77.8	

Notes provided on Page 5.

Concentrations above Unrestricted Use SCOs are bolded.

Concentrations above Restricted Use Restricted-Residential SCOs are shaded.

Table 1
Soil Sample Analytical Results Summary

475 Bay Street and 31 Wave Street
Staten Island, New York
Langan Project No.: 170610601

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. Criterion comparisons for 3- & 4-methylphenol (m&p cresol) are provided for reference. Promulgated SCOs are for 3-methylphenol (m-cresol) and 4-methylphenol (p-cresol).

3. Only detected analytes are shown in the table.
4. Detected analytical results above Unrestricted Use SCOs are bolded.
5. Detected analytical results above Restricted Use Restricted-Residential SCOs are shaded.
6. Analytical results with reporting limits (RL) above the lowest applicable criteria are italicized.
7. Sample SODUP01_042920 is a duplicate sample of SB04_0-2; sample SODUP02_050420 is a duplicate sample of SB13_5-7; sample SODUP03_050620 is a duplicate sample of SB14_6-8; and sample SODUP04_052220 is a duplicate sample of SB108_7-9.5.
8. ~ = Regulatory limit for this analyte does not exist
9. bgs = below grade surface
10. mg/kg = milligrams per kilogram
11. % = percent
12. NA = Not analyzed
13. ND = Not detected

Qualifiers:
D = The concentration reported is a result of a diluted sample.
J = The analyte was detected above the Method Detection Limit (MDL), but below the 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.
P = The relative percent difference (RPD) between the results for the two columns exceeds the method-specified criteria.

Notes provided on Page 5.
Concentrations above Unrestricted Use SCOs are bolded.
Concentrations above Restricted Use Restricted-Residential SCOs are shaded.

Table 2
Soil Sample Analytical Results - Emerging Contaminants

475 Bay Street and 31 Wave Street
Staten Island, New York
Langan Project No.: 170610601

Location	SB01		SB01		SB01		SB02		SB02		SB02		SB03		SB03		SB03		SB04		SB04		SB04		SB04	
Sample ID	SB01_0-2		SB01_6-8		SB01_18-20		SB02_0-2		SB02_6-8		SB02_18-20		SB03_0-2		SB03_6-8		SB03_18-20		SB04_0-2		SODUP01_042920		SB04_14-16		SB04_18-20	
Laboratory ID	20E0108-01		20E0108-02		20E0108-03		20E0108-04		20E0108-05		20E0108-06		20E0108-07		20E0108-08		20E0108-09		20D0818-01		20D0818-12		20D0818-03		20D0818-04	
Sample Date	5/5/2020		5/5/2020		5/5/2020		5/5/2020		5/5/2020		5/5/2020		5/5/2020		5/5/2020		5/5/2020		4/29/2020		4/29/2020		4/29/2020		4/29/2020	
Sample Depth (feet bgs)	0 - 2		6 - 8		18 - 20		0 - 2		6 - 8		18 - 20		0 - 2		6 - 8		18 - 20		0 - 2		0 - 2		14 - 16		18 - 20	
Semivolatile Organic Compounds (mg/kg)																										
1,4-Dioxane (P-Dioxane)	0.00971	U	0.00971	U	0.0098	U	0.0098	U	0.00971	U	0.0099	U	0.0099	U	0.0098	U	0.0098	U	0.00971	U	0.00943	U	0.00952	U	0.0098	U
Per and Polyfluoroalkyl Substances (mg/kg)																										
N-ethyl perfluorooctane- sulfonamidoacetic acid (NEtFOSAA)	0.000121	U	0.000131	U	0.000115	U	0.000119	U	0.000106	U	0.000148	U	0.000113	U	0.000111	U	0.000104	U	0.000114	J	0.000114	U	0.00011	U	0.000176	U
N-methyl perfluorooctane- sulfonamidoacetic acid (NMeFOSAA)	0.000121	U	0.000132	U	0.000115	U	0.000119	U	0.000106	U	0.000149	U	0.000113	U	0.000111	U	0.000104	U	0.000109	U	0.000115	U	0.00011	U	0.000176	U
Perfluorobutanesulfonic Acid (PFBS)	0.000407	U	0.000441	U	0.000387	U	0.000399	U	0.000356	U	0.000498	U	0.000379	U	0.000372	U	0.000349	U	0.000365	U	0.000384	U	0.000369	U	0.00059	U
Perfluorobutanoic acid (PFBA)	0.000212	U	0.000283	J	0.000202	U	0.000208	U	0.000186	U	0.00026	U	0.000735		0.000194	U	0.000182	U	0.00128		0.00112		0.000214	J	0.000591	J
Perfluorodecanesulfonic acid (PFDS)	0.0000595	U	0.0000645	U	0.0000566	U	0.0000584	U	0.000052	U	0.0000728	U	0.0000554	U	0.0000544	U	0.0000511	U	0.0000745	J	0.0000582	U	0.000054	U	0.0000864	U
Perfluorodecanoic acid (PFDA)	0.000109	J	0.0000645	U	0.0000566	U	0.000078	J	0.000052	U	0.0000728	U	0.0000554	U	0.0000544	U	0.0000511	U	0.000153	J	0.000182	J	0.000054	U	0.0000864	U
Perfluorododecanoic Acid (PFDoA)	0.0000871	U	0.0000945	U	0.0000829	U	0.0000856	U	0.0000762	U	0.000107	U	0.0000812	U	0.0000797	U	0.0000748	U	0.000125	J	0.0000824	U	0.0000791	U	0.000126	U
Perfluoroheptanesulfonic acid (PFHpS)	0.0000573	U	0.0000621	U	0.0000545	U	0.0000563	U	0.0000501	U	0.0000701	U	0.0000534	U	0.0000524	U	0.0000492	U	0.0000514	U	0.0000542	U	0.000052	U	0.0000831	U
Perfluoroheptanoic acid (PFHpA)	0.0000615	J	0.0000573	U	0.0000503	U	0.0000631	J	0.0000462	U	0.0000647	U	0.0000493	U	0.0000483	U	0.0000454	U	0.0002	J	0.000181	J	0.000119	J	0.000232	J
Perfluorohexanesulfonic Acid (PFHxS)	0.000036	U	0.0000391	U	0.0000343	U	0.0000354	U	0.0000315	U	0.0000441	U	0.0000336	U	0.0000329	U	0.0000309	U	0.0000323	U	0.0000341	U	0.0000327	U	0.0000523	U
Perfluorohexanoic Acid (PFHxA)	0.0000818	J	0.0000831	U	0.0000729	U	0.0000848	J	0.000067	U	0.0000937	U	0.0000872	J	0.00007	U	0.0000658	U	0.000148	J	0.000427	J	0.0000849	J	0.000197	J
Perfluorononanoic Acid (PFNA)	0.0000761	J	0.0000754	U	0.0000661	U	0.0000682	U	0.0000608	U	0.0000851	U	0.0000648	U	0.0000635	U	0.0000597	U	0.000145	J	0.000115	J	0.0000631	U	0.000101	U
Perfluorooctanesulfonamide (FOSA)	0.0000543	U	0.0000589	U	0.0000516	U	0.0000533	U	0.0000475	U	0.0000664	U	0.0000506	U	0.0000496	U	0.0000466	U	0.0000487	U	0.0000845	J	0.0000492	U	0.0000788	U
Perfluorooctanesulfonic acid (PFOS)	0.00185		0.0000552	U	0.0000484	U	0.000565	J	0.0000445	U	0.0000623	U	0.00213		0.0000472	J	0.0000437	U	0.00248		0.00215		0.0000462	U	0.0000739	U
Perfluorooctanoic Acid (PFOA)	0.000467	J	0.000124	J	0.000107	J	0.000188	J	0.0000785	U	0.000191	J	0.000173	J	0.000287	J	0.000077	U	0.000311	J	0.000274	J	0.000104	J	0.00034	J
Perfluoropentanoic Acid (PFPeA)	0.000107	U	0.000116	U	0.000102	U	0.000105	U	0.0000934	U	0.000131	U	0.0000995	U	0.0000976	U	0.0000917	U	0.000118	J	0.000198	J	0.0000969	U	0.000155	U
Perfluorotetradecanoic Acid (PFTA)	0.0000868	U	0.0000941	U	0.0000826	U	0.0000852	U	0.0000759	U	0.000106	U	0.0000809	U	0.0000793	U	0.0000745	U	0.0000856	J	0.000111	J	0.0000788	U	0.000126	U
Perfluorotridecanoic Acid (PFTrDA)	0.0000505	U	0.0000548	U	0.0000481	U	0.0000496	U	0.0000442	U	0.0000619	U	0.0000471	U	0.0000462	U	0.0000434	U	0.0000889	J	0.0000478	U	0.0000459	U	0.0000734	U
Perfluoroundecanoic Acid (PFUnA)	0.000135	U	0.000147	U	0.000129	U	0.000133	U	0.000118	U	0.000165	U	0.000126	U	0.000124	U	0.000116	U	0.000183	J	0.000149	J	0.000123	U	0.000196	U
Sodium 1H,1H,2H,2H-Perfluorodecane Sulfonate (8:2) (8:2FTS)	0.0000297	U	0.0000323	U	0.0000283	U	0.0000292	U	0.000026	U	0.0000364	U	0.0000277	U	0.0000272	U	0.0000255	U	0.0000308	J	0.0000281	U	0.000027	U	0.0000432	U
Sodium 1H,1H,2H,2H-Perfluorooctane Sulfonate (6:2) (6:2FTS)	0.0000767	U	0.0000832	U	0.000073	U	0.0000753	U	0.0000671	U	0.0000939	U	0.0000715	U	0.0000701	U	0.0000659	U	0.0000688	U	0.0000725	U	0.0000696	U	0.000111	U
Total PFOA and PFOS	0.00232		0.000124		0.000107		0.000753		ND		0.000191		0.0023		0.000334		ND		0.00279		0.00242		0.000104		0.00034	

Notes provided on Page 5.

Table 2
Soil Sample Analytical Results - Emerging Contaminants

475 Bay Street and 31 Wave Street
Staten Island, New York
Langan Project No.: 170610601

Location	SB05	SB05	SB05	SB06	SB06	SB06	SB07	SB07	SB07	SB08	SB08	SB08	SB09
Sample ID	SB05_0-2	SB05_6-8	SB05_18-20	SB06_0-2	SB06_5-7	SB06_12-14	SB07_0-2	SB07_8-10	SB07_18-20	SB08_0-2	SB08_4-6	SB08_13-15	SB09_0-2
Laboratory ID	20D0776-04	20D0776-05	20D0776-06	20D0818-05	20D0818-06	20D0818-07	20D0818-09	20D0818-10	20D0818-11	20D0776-07	20D0776-08	20D0776-09	20D0776-01
Sample Date	4/28/2020	4/28/2020	4/28/2020	4/29/2020	4/29/2020	4/29/2020	4/29/2020	4/29/2020	4/29/2020	4/28/2020	4/28/2020	4/28/2020	4/28/2020
Sample Depth (feet bgs)	0 - 2	6 - 8	18 - 20	0 - 2	5 - 7	12 - 14	0 - 2	8 - 10	18 - 20	0 - 2	4 - 6	13 - 15	0 - 2
Semivolatile Organic Compounds (mg/kg)													
1,4-Dioxane (P-Dioxane)	0.0098 U	0.00962 U	0.00971 U	0.0099 U	0.00971 U	0.00935 U	0.00971 U	0.0099 U	0.00935 U	0.0099 U	0.0099 U	0.00952 U	0.00971 U
Per and Polyfluoroalkyl Substances (mg/kg)													
N-ethyl perfluorooctane- sulfonamidoacetic acid (NEtFOSAA)	0.000109 U	0.000113 U	0.000107 U	0.000112 U	0.000123 U	0.00011 U	0.000112 U	0.000115 U	0.000131 U	0.000107 U	0.000105 U	0.000147 U	0.000107 U
N-methyl perfluorooctane- sulfonamidoacetic acid (NMeFOSAA)	0.000109 U	0.000114 U	0.000107 U	0.000112 U	0.000123 U	0.00011 U	0.000112 U	0.000115 U	0.000131 U	0.000107 U	0.000105 U	0.000147 U	0.000107 U
Perfluorobutanesulfonic Acid (PFBS)	0.000366 U	0.000381 U	0.000358 U	0.000377 U	0.000412 U	0.00037 U	0.000377 U	0.000386 U	0.000441 U	0.00036 U	0.000353 U	0.000493 U	0.000358 U
Perfluorobutanoic acid (PFBA)	0.000191 U	0.000199 U	0.000187 U	0.000197 J	0.000215 U	0.000193 U	0.000264 J	0.000202 U	0.00023 U	0.000188 U	0.000184 U	0.000257 U	0.000187 U
Perfluorodecanesulfonic acid (PFDS)	0.0000556 J	0.0000557 U	0.0000524 U	0.000101 J	0.0000603 U	0.0000541 U	0.0000652 J	0.0000565 U	0.0000645 U	0.0000527 U	0.0000517 U	0.0000721 U	0.0000524 U
Perfluorodecanoic acid (PFDA)	0.000179 J	0.0000557 U	0.0000524 U	0.000434 J	0.0000603 U	0.0000541 U	0.000172 J	0.0000565 U	0.0000645 U	0.0000527 U	0.0000517 U	0.0000721 U	0.0000524 U
Perfluorododecanoic Acid (PFDoA)	0.0000873 J	0.0000816 U	0.0000767 U	0.000111 J	0.0000883 U	0.0000793 U	0.0000903 J	0.0000827 U	0.0000945 U	0.0000772 U	0.0000757 U	0.000106 U	0.0000767 U
Perfluoroheptanesulfonic acid (PFHpS)	0.0000516 U	0.0000536 U	0.0000504 U	0.000053 U	0.000058 U	0.0000521 U	0.0000531 U	0.0000544 U	0.0000621 U	0.0000508 U	0.0000498 U	0.0000694 U	0.0000504 U
Perfluoroheptanoic acid (PFHpA)	0.0000863 J	0.0000495 U	0.0000465 U	0.0000962 J	0.000101 J	0.0000682 J	0.000157 J	0.000136 J	0.000138 J	0.0000468 U	0.0000459 U	0.0000641 U	0.0000465 U
Perfluorohexanesulfonic Acid (PFHxS)	0.0000411 J	0.0000337 U	0.0000317 U	0.0000334 U	0.0000365 U	0.0000328 U	0.0000334 U	0.0000342 U	0.000039 U	0.0000319 U	0.0000313 U	0.0000436 U	0.0000317 U
Perfluorohexanoic Acid (PFHxA)	0.000165 J	0.0000717 U	0.0000674 U	0.000108 J	0.0000845 J	0.0000864 J	0.000268 J	0.0000994 J	0.000123 J	0.0000679 U	0.0000665 U	0.0000928 U	0.0000674 U
Perfluorononanoic Acid (PFNA)	0.0000952 J	0.0000651 U	0.0000611 U	0.0000643 U	0.0000704 U	0.0000632 U	0.0000644 U	0.000066 U	0.0000753 U	0.0000616 U	0.0000604 U	0.0000842 U	0.0000611 U
Perfluorooctanesulfonamide (FOSA)	0.0000541 J	0.0000508 U	0.0000477 U	0.000125 J	0.000055 U	0.0000494 U	0.0000503 U	0.0000515 U	0.0000588 U	0.0000481 U	0.0000471 U	0.0000657 U	0.0000478 U
Perfluorooctanesulfonic acid (PFOS)	0.0053	0.000213 J	0.0000448 U	0.000468 J	0.000207 J	0.0000463 U	0.00168	0.0000483 U	0.0000552 U	0.0000563 J	0.000193 J	0.000162 J	0.0000448 U
Perfluorooctanoic Acid (PFOA)	0.000372 J	0.000136 J	0.0000871 J	0.0000935 J	0.000118 J	0.000181 J	0.000148 J	0.0000851 U	0.000152 J	0.0001 J	0.0000779 U	0.000109 U	0.000131 J
Perfluoropentanoic Acid (PFPeA)	0.000369 J	0.0001 U	0.000094 U	0.0000989 U	0.000108 U	0.0000972 U	0.000155 J	0.000101 U	0.000116 U	0.0000928 U	0.0000928 U	0.000129 U	0.000211 J
Perfluorotetradecanoic Acid (PFTA)	0.0000782 U	0.0000813 U	0.0000764 U	0.0000804 U	0.0000879 U	0.000079 U	0.0000804 U	0.0000824 U	0.0000941 U	0.0000769 U	0.0000754 U	0.000105 U	0.0000764 U
Perfluorotridecanoic Acid (PFTrDA)	0.0000689 J	0.0000473 U	0.0000445 U	0.0000468 U	0.0000512 U	0.000046 U	0.0000468 U	0.000048 U	0.0000548 U	0.0000448 U	0.0000439 U	0.0000612 U	0.0000445 U
Perfluoroundecanoic Acid (PFUnA)	0.000126 J	0.000127 U	0.000119 U	0.000381 J	0.000137 U	0.000123 U	0.000125 U	0.000128 U	0.000146 U	0.00012 U	0.000117 U	0.000164 U	0.000119 U
Sodium 1H,1H,2H,2H-Perfluorodecane Sulfonate (8:2) (8:2FTS)	0.0000268 U	0.0000279 U	0.0000262 U	0.0000629 J	0.0000301 U	0.0000271 U	0.0000276 U	0.0000282 U	0.0000322 U	0.0000264 U	0.0000258 U	0.000036 U	0.0000262 U
Sodium 1H,1H,2H,2H-Perfluorooctane Sulfonate (6:2) (6:2FTS)	0.0000691 U	0.0000718 U	0.0000675 U	0.000071 U	0.0000777 U	0.0000698 U	0.0000711 U	0.0000728 U	0.0000831 U	0.000068 U	0.0000666 U	0.0000929 U	0.0000675 U
Total PFOA and PFOS	0.00567	0.000349	0.0000871	0.000562	0.000325	0.000181	0.00183	ND	0.000152	0.000156	0.000193	0.000162	0.000131

Notes provided on Page 5.

Table 2
Soil Sample Analytical Results - Emerging Contaminants

475 Bay Street and 31 Wave Street
Staten Island, New York
Langan Project No.: 170610601

Location	SB09	SB09	SB10	SB10	SB10	SB11	SB11	SB11	SB12	SB12	SB12	SB13	SB13
Sample ID	SB09_4-6	SB09_13-15	SB10_0-2	SB10_6-8	SB10_18-20	SB11_0-2	SB11_10-12	SB11_14-16	SB12_0-2	SB12_8-10	SB12_18-20	SB13_0-2	SB13_5-7
Laboratory ID	20D0776-02	20D0776-03	20E0134-01	20E0134-02	20E0134-03	20D0849-07	20D0849-08	20D0849-09	20D0849-04	20D0849-05	20D0849-06	20E0055-04	20E0055-05
Sample Date	4/28/2020	4/28/2020	5/6/2020	5/6/2020	5/6/2020	4/30/2020	4/30/2020	4/30/2020	4/30/2020	4/30/2020	4/30/2020	5/4/2020	5/4/2020
Sample Depth (feet bgs)	4 - 6	13 - 15	0 - 2	6 - 8	18 - 20	0 - 2	10 - 12	18 - 20	0 - 2	8 - 10	18 - 20	0 - 2	5 - 7
Semivolatile Organic Compounds (mg/kg)													
1,4-Dioxane (P-Dioxane)	0.00962 U	0.00935 U	0.00962 U	0.0099 U	0.00935 U	0.00952 U	0.00962 U	0.0098 U	0.00962 U	0.00943 U	0.00971 U	0.0098 U	0.00971 U
Per and Polyfluoroalkyl Substances (mg/kg)													
N-ethyl perfluorooctane- sulfonamidoacetic acid (NEtFOSAA)	0.000102 U	0.000114 U	0.00011 U	0.000105 U	0.000104 U	0.000107 U	0.000139 U	0.000114 U	0.000106 U	0.000115 U	0.00011 U	0.000115 U	0.000116 U
N-methyl perfluorooctane- sulfonamidoacetic acid (NMeFOSAA)	0.000102 U	0.000114 U	0.00011 U	0.000105 U	0.000105 U	0.000107 U	0.000139 U	0.000114 U	0.000106 U	0.000115 U	0.000111 U	0.000115 U	0.000116 U
Perfluorobutanesulfonic Acid (PFBS)	0.000344 U	0.000383 U	0.000369 U	0.000353 U	0.000351 U	0.00036 U	0.000467 U	0.000383 U	0.000355 U	0.000385 U	0.00037 U	0.000385 U	0.00039 U
Perfluorobutanoic acid (PFBA)	0.000179 U	0.0002 U	0.000193 U	0.000185 U	0.000183 U	0.000188 U	0.000244 U	0.0002 U	0.000185 U	0.000201 U	0.000193 U	0.000201 U	0.000227 J
Perfluorodecanesulfonic acid (PFDS)	0.0000503 U	0.000056 U	0.000054 U	0.0000517 U	0.0000513 U	0.0000527 U	0.0000684 U	0.000056 U	0.0000519 U	0.0000563 U	0.0000542 U	0.0000564 U	0.0000571 U
Perfluorodecanoic acid (PFDA)	0.0000503 U	0.000056 U	0.000054 U	0.0000517 U	0.0000513 U	0.0000527 U	0.0000684 U	0.000056 U	0.0000519 U	0.0000563 U	0.0000542 U	0.0000564 U	0.0000571 U
Perfluorododecanoic Acid (PFDoA)	0.0000736 U	0.000082 U	0.0000792 U	0.0000757 U	0.0000752 U	0.0000772 U	0.0001 U	0.000082 U	0.000076 U	0.0000825 U	0.0000794 U	0.0000826 U	0.0000836 U
Perfluoroheptanesulfonic acid (PFHpS)	0.0000484 U	0.0000539 U	0.000052 U	0.0000498 U	0.0000494 U	0.0000507 U	0.0000658 U	0.0000539 U	0.00005 U	0.0000542 U	0.0000522 U	0.0000543 U	0.000055 U
Perfluoroheptanoic acid (PFHpA)	0.0000447 U	0.0000497 U	0.000048 U	0.0000459 U	0.0000456 U	0.0000468 U	0.0000608 U	0.0000497 U	0.0000461 U	0.00005 U	0.0000482 U	0.00014 J	0.0000507 U
Perfluorohexanesulfonic Acid (PFHxS)	0.0000304 U	0.0000339 U	0.0000327 U	0.0000313 U	0.0000311 U	0.0000319 U	0.0000414 U	0.0000339 U	0.0000314 U	0.0000341 U	0.0000328 U	0.0000341 U	0.0000346 U
Perfluorohexanoic Acid (PFHxA)	0.0000647 U	0.000072 U	0.0000696 U	0.0000665 U	0.000066 U	0.0000678 U	0.000088 U	0.000072 U	0.0000668 U	0.0000725 U	0.0000698 U	0.000241 J	0.0000735 U
Perfluorononanoic Acid (PFNA)	0.0000587 U	0.0000654 U	0.0000631 U	0.0000604 U	0.0000599 U	0.0000615 U	0.0000798 U	0.0000654 U	0.0000606 U	0.0000658 U	0.0000633 U	0.0000659 U	0.0000667 U
Perfluorooctanesulfonamide (FOSA)	0.0000458 U	0.000051 U	0.0000493 U	0.0000472 U	0.0000468 U	0.0000481 U	0.0000624 U	0.0000511 U	0.0000473 U	0.0000514 U	0.0000494 U	0.0000514 U	0.0000521 U
Perfluorooctanesulfonic acid (PFOS)	0.000043 U	0.0000479 U	0.0000468 J	0.0000442 U	0.0000439 U	0.0000451 U	0.0000585 U	0.0000479 U	0.000292 J	0.0000482 U	0.0000464 U	0.0000482 U	0.0000488 U
Perfluorooctanoic Acid (PFOA)	0.00014 J	0.000401 J	0.0000878 J	0.000078 U	0.0000774 U	0.0000795 U	0.000113 J	0.0000844 U	0.000166 J	0.0000849 U	0.0000894 J	0.00134	0.0000861 U
Perfluoropentanoic Acid (PFPeA)	0.0000902 U	0.0001 U	0.000097 U	0.00012 J	0.0000921 U	0.0000946 U	0.000123 U	0.0001 U	0.000111 J	0.000101 U	0.0000973 U	0.000218 J	0.000102 U
Perfluorotetradecanoic Acid (PFTA)	0.0000733 U	0.0000817 U	0.0000789 U	0.0000754 U	0.0000749 U	0.0000769 U	0.0000997 U	0.0000817 U	0.0000757 U	0.0000822 U	0.0000791 U	0.0000823 U	0.0000833 U
Perfluorotridecanoic Acid (PFTrDA)	0.0000427 U	0.0000475 U	0.0000459 U	0.0000439 U	0.0000436 U	0.0000448 U	0.0000581 U	0.0000476 U	0.0000441 U	0.0000478 U	0.000046 U	0.0000479 U	0.0000485 U
Perfluoroundecanoic Acid (PFUnA)	0.000114 U	0.000127 U	0.000123 U	0.000117 U	0.000117 U	0.00012 U	0.000155 U	0.000127 U	0.000118 U	0.000128 U	0.000123 U	0.000128 U	0.00013 U
Sodium 1H,1H,2H,2H-Perfluorodecane Sulfonate (8:2) (8:2FTS)	0.0000251 U	0.000028 U	0.0000346 J	0.0000259 U	0.0000257 U	0.0000263 U	0.0000342 U	0.000028 U	0.000026 U	0.0000282 U	0.0000271 U	0.0000282 U	0.0000285 U
Sodium 1H,1H,2H,2H-Perfluorooctane Sulfonate (6:2) (6:2FTS)	0.0000648 U	0.0000721 U	0.0000697 U	0.0000667 U	0.0000661 U	0.0000679 U	0.0000881 U	0.0000722 U	0.0000669 U	0.0000726 U	0.0000699 U	0.0000727 U	0.0000736 U
Total PFOA and PFOS	0.00014	0.000401	0.000556	ND	ND	ND	0.000113	ND	0.000458	ND	0.0000894	0.00134	ND

Notes provided on Page 5.

Table 2
Soil Sample Analytical Results - Emerging Contaminants

475 Bay Street and 31 Wave Street
Staten Island, New York
Langan Project No.: 170610601

Location	SB13		SB13		SB14		SB14		SB14		SB14		SB15		SB15		SB15		SB16		SB16		SB16	
Sample ID	SODUP02_050420		SB13_18-20		SB14_0-2		SB14_6-8		SODUP03_050620		SB14_18-20		SB15_0-2		SB15_5-7		SB15_18-20		SB16_0-2		SB16_14-16		SB16_18-20	
Laboratory ID	20E0055-07		20E0055-06		20E0134-04		20E0134-05		20E0134-07		20E0134-06		20E0055-01		20E0055-02		20E0055-03		20D0849-01		20D0849-02		20D0849-03	
Sample Date	5/4/2020		5/4/2020		5/6/2020		5/6/2020		5/6/2020		5/6/2020		5/4/2020		5/4/2020		5/4/2020		4/30/2020		4/30/2020		4/30/2020	
Sample Depth (feet bgs)	5 - 7		18 - 20		0 - 2		6 - 8		6 - 8		18 - 20		0 - 2		5 - 7		18 - 20		0 - 2		14 - 16		18 - 20	
Semivolatile Organic Compounds (mg/kg)																								
1,4-Dioxane (P-Dioxane)	0.0099	U	0.00935	U	0.00935	U	0.00935	U	0.00935	U	0.00962	U	0.00962	U	0.0099	U	0.0098	U	0.00971	U	0.0099	U	0.00952	U
Per and Polyfluoroalkyl Substances (mg/kg)																								
N-ethyl perfluorooctane- sulfonamidoacetic acid (NEtFOSAA)	0.000112	U	0.000147	U	0.000116	U	0.000116	U	0.000124	U	0.000116	U	0.000198	J	0.000129	U	0.000128	U	0.000104	U	0.000111	U	0.000133	U
N-methyl perfluorooctane- sulfonamidoacetic acid (NMeFOSAA)	0.000112	U	0.000147	U	0.000116	U	0.000116	U	0.000124	U	0.000116	U	0.000112	U	0.000129	U	0.000128	U	0.000105	U	0.000111	U	0.000133	U
Perfluorobutanesulfonic Acid (PFBS)	0.000375	U	0.000494	U	0.00039	U	0.00039	U	0.000417	U	0.000389	U	0.000375	U	0.000432	U	0.000431	U	0.00035	U	0.000372	U	0.000446	U
Perfluorobutanoic acid (PFBA)	0.000196	U	0.00143		0.000204	U	0.000204	U	0.000709		0.000203	U	0.000196	U	0.000226	U	0.000241	J	0.000185	J	0.000194	U	0.000233	U
Perfluorodecanesulfonic acid (PFDS)	0.0000549	U	0.0000723	U	0.000057	U	0.0000571	U	0.000061	U	0.0000569	U	0.0000548	U	0.0000633	U	0.000063	U	0.0000513	U	0.0000544	U	0.0000653	U
Perfluorodecanoic acid (PFDA)	0.0000549	U	0.0000723	U	0.000057	U	0.0000571	U	0.000061	U	0.0000569	U	0.0000853	J	0.0000633	U	0.000063	U	0.0000606	J	0.0000544	U	0.0000653	U
Perfluorododecanoic Acid (PFDoA)	0.0000804	U	0.000106	U	0.0000836	U	0.0000836	U	0.0000894	U	0.0000834	U	0.0000803	U	0.0000927	U	0.0000923	U	0.0000751	U	0.0000797	U	0.0000957	U
Perfluoroheptanesulfonic acid (PFHpS)	0.0000528	U	0.0000696	U	0.0000549	U	0.000055	U	0.0000588	U	0.0000548	U	0.0000528	U	0.0000609	U	0.0000607	U	0.0000494	U	0.0000524	U	0.0000629	U
Perfluoroheptanoic acid (PFHpA)	0.0000834	J	0.0000706	J	0.0000942	J	0.0000943	J	0.000107	J	0.0000806	J	0.0000487	U	0.0000562	U	0.000056	U	0.0000456	U	0.0000484	U	0.000058	U
Perfluorohexanesulfonic Acid (PFHxS)	0.0000332	U	0.0000438	U	0.0000345	U	0.0000346	U	0.0000369	U	0.0000495	J	0.0000332	U	0.0000383	U	0.0000382	U	0.000031	U	0.0000329	U	0.0000395	U
Perfluorohexanoic Acid (PFHxA)	0.0000802	J	0.000108	J	0.0000749	J	0.0000735	U	0.0000965	J	0.0000733	U	0.0000706	U	0.0000814	U	0.0000811	U	0.000066	U	0.00007	U	0.0000841	U
Perfluorononanoic Acid (PFNA)	0.0000641	U	0.0000844	U	0.0000876	J	0.0000667	U	0.0000713	U	0.0000665	U	0.0000641	U	0.0000739	U	0.0000736	U	0.0000599	U	0.0000635	U	0.0000763	U
Perfluorooctanesulfonamide (FOSA)	0.0000501	U	0.0000833	J	0.000052	U	0.0000521	U	0.0000557	U	0.0000519	U	0.00005	U	0.0000577	U	0.0000575	U	0.0000522	J	0.0000496	U	0.0000596	U
Perfluorooctanesulfonic acid (PFOS)	0.0000469	U	0.0000619	U	0.0000483	J	0.0000488	U	0.0000522	U	0.0000487	U	0.00108		0.0000541	U	0.0000539	U	0.0000393	J	0.0000465	U	0.0000559	U
Perfluorooctanoic Acid (PFOA)	0.0000827	U	0.000109	U	0.00052	J	0.000228	J	0.000269	J	0.0000863	J	0.000248	J	0.00011	J	0.000095	U	0.000313	J	0.000082	U	0.000165	J
Perfluoropentanoic Acid (PFPeA)	0.0000985	U	0.00013	U	0.000116	J	0.000102	U	0.00011	U	0.000102	U	0.0000984	U	0.000114	U	0.000113	U	0.000092	U	0.0000977	U	0.000117	U
Perfluorotetradecanoic Acid (PFTA)	0.0000801	U	0.000105	U	0.0000832	U	0.0000833	U	0.000089	U	0.0000831	U	0.00008	U	0.0000923	U	0.0000919	U	0.0000748	U	0.0000794	U	0.0000953	U
Perfluorotridecanoic Acid (PFTrDA)	0.0000466	U	0.0000614	U	0.0000485	U	0.0000485	U	0.0000518	U	0.0000484	U	0.0000466	U	0.0000537	U	0.0000535	U	0.0000435	U	0.0000462	U	0.0000555	U
Perfluoroundecanoic Acid (PFUnA)	0.000125	U	0.000164	U	0.00013	U	0.00013	U	0.000139	U	0.000129	U	0.000125	U	0.000144	U	0.000143	U	0.000116	U	0.000124	U	0.000148	U
Sodium 1H,1H,2H,2H-Perfluorodecane Sulfonate (8:2) (8:2FTS)	0.0000274	U	0.0000498	J	0.0000285	U	0.0000285	U	0.0000305	U	0.0000285	U	0.0000274	U	0.0000316	U	0.0000315	U	0.0000256	U	0.0000272	U	0.0000327	U
Sodium 1H,1H,2H,2H-Perfluorooctane Sulfonate (6:2) (6:2FTS)	0.0000707	U	0.0000932	U	0.0000735	U	0.0000736	U	0.0000787	U	0.0000734	U	0.0000707	U	0.0000815	U	0.0000812	U	0.0000661	U	0.0000701	U	0.0000842	U
Total PFOA and PFOS	ND		ND		0.001		0.000228		0.000269		0.0000863		0.00133		0.00011		ND		0.000706		ND		0.000165	

Notes provided on Page 5.

Table 2
Soil Sample Analytical Results - Emerging Contaminants

475 Bay Street and 31 Wave Street
Staten Island, New York
Langan Project No.: 170610601

Notes:
1. Sample SODUP01_042920 is a duplicate sample of SB04_0-2; sample SODUP02_050420 is a duplicate sample of SB13_5-7; and sample SODUP03_050620 is a duplicate sample of SB14_6-8.
2. mg/kg = milligrams per kiogram

Qualifiers:
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.

Notes provided on Page 5.

Table 3
Groundwater Sample Analytical Results Summary

475 Bay Street and 31 Wave Street
Staten Island, New York
Langan Project No.: 170610601

Location	NYSDEC	MW01		MW02		MW05		MW06		MW08		MW08		MW10		MW11		MW13		MW16	
Sample ID	SGVs	MW01_050720		MW02_050720		MW05_043020		MW06_043020		MW08_043020		GWDUP01_043020		MW10_050720		MW11_051120		MW13_051120		MW16_050720	
Laboratory ID		20E0198-02		20E0198-03		20D0850-13		20D0850-11		20D0850-12		20D0850-14		20E0198-04		20E0279-02		20E0279-01		20E0198-01	
Sample Date		5/7/2020		5/7/2020		4/30/2020		4/30/2020		4/30/2020		4/30/2020		5/7/2020		5/11/2020		5/11/2020		5/7/2020	
Volatile Organic Compounds (µg/L)																					
1,2,3-Trichlorobenzene	5	1.41		0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Acetone	50	1.13	J	1	U	1.01	J	3.86		1	U	1	U	1	U	1	U	1	U	1	U
Chloroform	7	0.2	U	0.2	U	0.2	U	0.2	U	0.57		0.58		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	1.63		0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Tert-Butyl Methyl Ether	10	0.2	U	0.2	U	1.23		1.24		0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Tetrachloroethene (PCE)	5	0.2	U	0.2	U	0.2	U	0.2	U	0.51		0.46	J	0.2	U	0.2	U	0.2	U	0.2	U
Semivolatile Organic Compounds (µg/L)																					
2-Methylnaphthalene	~	4.03	J	2.78	U	2.7	U	2.78	U	2.7	U	2.7	U	2.56	U	2.56	U	2.78	U	2.78	U
Acenaphthene	20	3.56		0.0556	U	0.0541	U	0.0556	U	0.0541	U	0.0541	U	0.0513	U	0.0513	U	0.0556	U	0.0556	U
Acenaphthylene	~	0.314		0.0556	U	0.0541	U	0.0556	U	0.0541	U	0.0541	U	0.0513	U	0.0513	U	0.0556	U	0.0556	U
Anthracene	50	0.843		0.0556	U	0.0541	U	0.0556	U	0.0541	U	0.0541	U	0.0513	U	0.0513	U	0.0556	U	0.0556	U
Benzo(a)Anthracene	0.002	**0.0649**		*0.0556*	U	*0.0541*	U	*0.0556*	U	*0.0541*	U	*0.0541*	U	*0.0513*	U	*0.0513*	U	*0.0556*	U	*0.0556*	U
Bis(2-Ethylhexyl) Phthalate	5	0.541	U	0.556	U	0.541	U	1.27		0.541	U	0.541	U	0.513	U	1.41		0.878		0.556	U
Chrysene	0.002	**0.0757**		*0.0556*	U	*0.0541*	U	*0.0556*	U	*0.0541*	U	*0.0541*	U	*0.0513*	U	*0.0513*	U	*0.0556*	U	*0.0556*	U
Dibenzofuran	~	3.18	J	2.78	U	2.7	U	2.78	U	2.7	U	2.7	U	2.56	U	2.56	U	2.78	U	2.78	U
Fluoranthene	50	1.2		0.0889		0.0541	U	0.0556	U	0.0541	U	0.0541	U	0.0513	U	0.0513	U	0.0556	U	0.0556	U
Fluorene	50	4.46		0.0556	U	0.0541	U	0.0556	U	0.0541	U	0.0541	U	0.0513	U	0.0513	U	0.0556	U	0.0556	U
Naphthalene	10	7.65	D	0.0556	U	0.0541	U	0.0556	U	0.0541	U	0.0541	U	0.0513	U	0.0513	U	0.0556	U	0.0556	U
Phenanthrene	50	4.36		0.0556	U	0.0541	U	0.0556	U	0.0541	U	0.0541	U	0.0513	U	0.0513	U	0.0556	U	0.0556	U
Pyrene	50	0.519		0.0556		0.0541	U	0.0556	U	0.0541	U	0.0541	U	0.0513	U	0.0821		0.0556	U	0.0667	
Pesticides (µg/L)	~	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND	
Herbicides (µg/L)	~	NA		NA		ND		ND		ND		ND		NA		NA		NA		NA	
Polychlorinated Biphenyls (µg/L)	~	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND	
Inorganics (µg/L)																					
Aluminum	~	1,360		3,440		270		55.6	U	3,250		99.6		3,990		88.2		110		177	
Aluminum (Dissolved)	~	55.6	U	55.6	U	55.6	U	55.6	U	55.6	U	55.6	U	56.5		55.6	U	55.6	U	55.6	U
Antimony	3	1.11	U	1.89		1.11	U	1.11	U	1.63		1.66		1.11	U	1.11	U	1.11	U	1.11	U
Antimony (Dissolved)	3	1.11	U	1.11	U	1.11	U	1.11	U	1.57		1.51		1.15		1.11	U	1.11	U	1.11	U
Arsenic	25	6		9.99		12.5		1.68		22.2		21.1		5.02		1.11	U	1.11	U	1.11	U
Arsenic (Dissolved)	25	6.25		3.45		11.7		1.71		20.7		20.2		4.09		1.11	U	1.69		1.11	U
Barium	1,000	176		217		343		198		136		87.9		84		37.3		105		27.8	U
Barium (Dissolved)	1,000	179		175		307		194		83.6		82.6		45.1		41.4		102		27.8	U
Calcium	~	92,300		87,600		146,000		102,000		76,600		68,600		15,500		33,700		61,200		15,900	
Calcium (Dissolved)	~	96,800		86,800		138,000		99,100		65,100		64,400		15,300		37,100		63,800		15,900	
Chromium, Total	50	5.56	U	13.4		5.56	U	5.56	U	13.6		5.56	U	10.9		5.56	U	5.56	U	5.56	U
Chromium, Trivalent	~	10	U	13.4		10	U	10	U	13.6		10	U	10.9		10	U	10	U	10	U
Cobalt	~	4.44	U	6.22		4.73		4.44	U	4.44	U	4.44	U	5.09		4.44	U	4.44	U	4.44	U
Copper	200	22.2	U	41.3		22.2	U	22.2	U	22.2	U	22.2	U	27		22.2	U	22.2	U	22.2	U
Cyanide	200	10	U	10	U	10	U	10	U	10	U	10	U	24		10	U	10	U	10	U
Iron	300	**36,100**		**16,700**		**6,770**		**11,400**		**4,940**		278	U	**6,890**		**684**		**5,540**		278	U
Iron (Dissolved)	300	**35,400**		**10,100**		**5,510**		**11,000**		278	U	278	U	**498**		**602**		**5,030**		278	U
Lead	25	5.56	U	**53.9**		5.56	U	5.56	U	**184**		19.1		12.9		5.56	U	5.56	U	5.56	U
Lead (Dissolved)	25	5.56	U	5.56	U	5.56	U	5.56	U	6.88		5.56	U	5.56	U	5.56	U	5.56	U	5.56	U
Magnesium	35,000	16,600		13,500		34,500		19,200		15,500		12,900		4,200		7,510		26,200		2,040	
Magnesium (Dissolved)	35,000	17,800		11,900		31,700		18,500		12,500		12,300		2,830		8,290		25,400		1,990	
Manganese	300	**1,510**		**738**		**2,900**		**1,730**		151		5.63		**334**		**497**		**1,520**		18	
Manganese (Dissolved)	300	**1,400**		**692**		**2,700**		**1,700**		36.3		40.9		293		**544**		**1,420**		34.8	
Mercury	0.7	0.26		0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.32		0.2	U
Mercury (Dissolved)	0.7	0.2	U	0.2	U	0.2	U	0.2	U	0.2844		0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Nickel	100	11.7		38.7		11.1	U	11.1	U	69.7		11.1	U	33.2		11.1	U	11.1	U	11.1	U
Nickel (Dissolved)	100	11.1	U	11.1	U	11.1	U	11.1	U	12.1		12.3		11.1	U	11.1	U	11.1	U	11.1	U
Potassium	~	10,400		9,260		14,700		9,530		12,300		11,500		5,940		4,170		7,380		3,150	
Potassium (Dissolved)	~	10,900		8,750		14,400	B	9,480	B	11,800	B	11,800	B	4,810		4,460	B	7,300	B	3,240	
Selenium	10	1.11	U	1.3		1.11	U	1.11	U	2.72		1.77		1.11	U	1.11	U	1.11	U	1.11	U
Selenium (Dissolved)	10	1.11	U	1.11	U	1.12		1.11	U	2.6		2.48		1.11	U	1.11	U	1.11	U	1.11	U
Sodium	20,000	**64,000**		**23,000**		**96,000**		**48,400**		**55,800**		**55,800**		**24,100**		**35,100**		**39,900**		18,400	
Sodium (Dissolved)	20,000	**69,200**		**23,300**		**90,900**		**47,800**		**54,200**		**54,600**		**24,200**		**36,500**		**47,300**		19,300	
Vanadium	~	11.1	U	11.1	U	11.1	U	11.1	U	11.1	U	11.1	U	11.9		11.1	U	11.1	U	11.1	U
Zinc	2,000	27.8	U	68.2		29.3		27.8	U	144		93.8		27.8	U	27.8	U	27.8	U	27.8	U
Zinc (Dissolved)	2,000	27.8	U	27.8	U	27.8	U	27.8	U	50		52.1		27.8	U	27.8	U	27.8	U	27.8	U

Table 3
Groundwater Sample Analytical Results Summary

475 Bay Street and 31 Wave Street
Staten Island, New York
Langan Project No.: 170610601

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 (herein collectively referenced as "NYSDEC SGVs").
2. Only detected analytes are shown in the table.
3. Detected analytical results above NYSDEC SGVs are bolded and shaded.
4. Analytical results with reporting limits (RL) above NYSDEC SGVs are italicized.
5. Sample GWDUP01_043020 is a duplicate sample of MW08_043020.
6. ~ = Regulatory limit for this analyte does not exist
7. ug/l = micrograms per liter
8. NA = Not analyzed
9. ND = Not detected

Qualifiers:
D = The concentration reported is a result of a diluted sample.
J = The analyte was detected above the Method Detection Limit (MDL), but below the 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 4
Groundwater Sample Analytical Results - Emerging Contaminants

475 Bay Street and 31 Wave Street
Staten Island, New York
Langan Project No.: 170610601

Location Sample ID Laboratory ID Sample Date	USEPA Health Advisory for Emerging Contaminants	MW01 MW01_050720 20E0198-02 5/7/2020		MW02 MW02_050720 20E0198-03 5/7/2020		MW05 MW05_043020 20D0849-13 4/30/2020		MW06 MW06_043020 20D0849-11 4/30/2020		MW08 MW08_043020 20D0849-12 4/30/2020		MW08 GWDUP01_043020 20D0849-14 4/30/2020		MW10 MW10_050720 20E0198-04 5/7/2020		MW11 MW11_051120 20E0279-02 5/11/2020		MW13 MW13_051120 20E0279-01 5/11/2020		MW16 MW16_050720 20E0198-01 5/7/2020	
Semivolatile Organic Compounds (µg/L)																					
1,4-Dioxane (P-Dioxane)	~	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Per and Polyfluoroalkyl Substances (µg/L)																					
N-ethyl perfluorooctane- sulfonamidoacetic acid (NEtFOSAA)	~	0.000557	U	0.000557	U	0.000557	U	0.000726	J	0.000557	U	0.000557	U	0.000557	U	0.000557	U	0.000557	U	0.000557	U
N-methyl perfluorooctane- sulfonamidoacetic acid (NMeFOSAA)	~	0.000529	U	0.000529	U	0.000529	U	0.000529	U	0.000712	J	0.000529	U	0.000529	U	0.000529	U	0.000529	U	0.000529	U
Perfluorobutanesulfonic Acid (PFBS)	~	0.00187	J	0.00192	J	0.0149		0.00945		0.000933	J	0.000894	J	0.00109	J	0.00135	J	0.00221		0.00184	J
Perfluorobutanoic acid (PFBA)	~	0.0105	B	0.00993	B	0.0174	B	0.0182	B	0.00547	B	0.00494	B	0.0136	B	0.0113	B	0.00858	B	0.0105	B
Perfluorodecanesulfonic acid (PFDS)	~	0.000574	U	0.000574	U	0.000574	U	0.000574	U	0.000574	U	0.000574	U	0.000574	U	0.000574	U	0.000574	U	0.000574	U
Perfluorodecanoic acid (PFDA)	~	0.000524	U	0.00104	J	0.00128	J	0.00252		0.000524	U	0.000524	U	0.000674	J	0.000524	U	0.000524	U	0.000524	U
Perfluorododecanoic Acid (PFDoA)	~	0.000777	U	0.000777	U	0.000777	U	0.000777	U	0.000777	U	0.000777	U	0.000777	U	0.000777	U	0.000777	U	0.000777	U
Perfluoroheptanesulfonic acid (PFHpS)	~	0.000415	U	0.000415	U	0.00242		0.000894	J	0.000415	U	0.000415	U	0.000415	U	0.000415	U	0.000415	U	0.000415	U
Perfluoroheptanoic acid (PFHpA)	~	0.00516		0.00279		0.0172		0.0205		0.00259		0.00232		0.00231		0.00456		0.00649		0.00223	
Perfluorohexanesulfonic Acid (PFHxS)	~	0.000736	J	0.00056	J	0.00387		0.00269		0.000618	J	0.000681	J	0.000496	J	0.00095	J	0.00116	J	0.000281	U
Perfluorohexanoic Acid (PFHxA)	~	0.00685		0.00373		0.0177		0.0223		0.00322		0.00318		0.00461		0.00822		0.00621		0.00591	
Perfluorononanoic Acid (PFNA)	~	0.00118	J	0.00253		0.00835		0.00987		0.000984	J	0.000741	J	0.000788	J	0.000993	J	0.00197	J	0.000574	U
Perfluorooctanesulfonamide (FOSA)	~	0.000296	U	0.000296	U	0.000296	U	0.0007	J	0.000816	J	0.000296	U	0.000296	U	0.000296	U	0.000296	U	0.000296	U
Perfluorooctanesulfonic acid (PFOS)	0.07	0.00475		0.0094		**0.0843**		**0.13**		0.0109		0.0123		0.0062		0.00376		0.00958		0.0031	
Perfluorooctanoic Acid (PFOA)	0.07	0.0673		0.0315		**0.143**		**0.178**		0.0277		0.0275		0.00922		0.0273		0.0658		0.00236	
Perfluoropentanoic Acid (PFPeA)	~	0.00665		0.00329		0.0169		0.0232		0.00308		0.00279		0.0048		0.00899		0.00551		0.00449	
Perfluorotetradecanoic Acid (PFTA)	~	0.0038		0.000531	U	0.000531	U	0.000537	J	0.000671	J	0.000531	U	0.000531	U	0.000531	U	0.000531	U	0.000531	U
Perfluorotridecanoic Acid (PFTrDA)	~	0.00137	U	0.00137	U	0.00137	U	0.00137	U	0.00137	U	0.00137	U	0.00137	U	0.00137	U	0.00137	U	0.00137	U
Perfluoroundecanoic Acid (PFUnA)	~	0.000657	U	0.000657	U	0.000657	U	0.000657	U	0.000657	U	0.000657	U	0.000657	U	0.000657	U	0.000657	U	0.000657	U
Sodium 1H,1H,2H,2H-Perfluorodecane Sulfonate (8:2) (8:2FTS)	~	0.000399	U	0.000399	U	0.000399	U	0.000399	U	0.000399	U	0.000399	U	0.000399	U	0.000399	U	0.000399	U	0.000399	U
Sodium 1H,1H,2H,2H-Perfluorooctane Sulfonate (6:2) (6:2FTS)	~	0.000492	U	0.000492	U	0.000492	U	0.000492	U	0.000492	U	0.000492	U	0.000492	U	0.000492	U	0.000492	U	0.000492	U
Total PFOA and PFOS	~	0.0721		0.0409		0.227		0.308		0.0386		0.0398		0.0154		0.0311		0.0754		0.00546	

Notes:
1. Regulatory criteria do not exist for per- and polyfluoroalkyl substances (PFAS) and 1,4-Dioxane in New York State. Perflourooctanoic acid (PFOA) and perfluorooctanesulfonic acid (PFOS) are compared to the United States Environmental Protection Agency (USEPA) health advisory limit of 70 parts per trillion.
2. Only detected analytes are shown in the table.
3. Detected analytical results above the USEPA Health Advisory Limit are bolded and shaded.
4. Analytical results with reporting limits (RL) above USEPA Health Advisory Limit are italicized.
5. Sample GWDUP01_043020 is a duplicate sample of
6. ~ = Regulatory limit for this analyte does not exist
7. µg/l = micrograms per liter

Qualifiers:
J = The analyte was detected above the Method Detection Limit (MDL), but below the 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 4
Groundwater Sample Analytical Results - Emerging Contaminants

475 Bay Street and 31 Wave Street
Staten Island, New York
Langan Project No.: 170610601

Notes:
1. Regulatory criteria do not exist for per- and polyfluoroalkyl substances (PFAS) and 1,4-Dioxane in New York State. Perflourooctanoic acid (PFOA) and perfluorooctanesulfonic acid (PFOS) are compared to the United States Environmental Protection Agency (USEPA) health advisory limit of 70 parts per trillion.
2. Only detected analytes are shown in the table.
3. Detected analytical results above the USEPA Health Advisory Limit are bolded and shaded.
4. Analytical results with reporting limits (RL) above USEPA Health Advisory Limit are italicized.
5. Sample GWDUP01_043020 is a duplicate sample of MW08_043020.
6. ~ = Regulatory limit for this analyte does not exist
7. µg/l = micrograms per liter

Qualifiers:
J = The analyte was detected above the Method Detection Limit (MDL), but below the 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 5
Co-Location Indoor Air and Sub-Slab Soil Vapor Sample Analytical Results Summary

475 Bay Street and 31 Wave Street
Staten Island. New York
Langan Project No.: 170610601

Location	AA01		IA08		SS08		IA09		SS09	
Sample ID	AA01_043020		IA08_043020		SS08_043020		IA09_043020		SS09_043020	
Laboratory ID	20E0004-03		20E0004-06		20E0004-04		20E0004-07		20E0004-05	
Sample Date	4/30/2020		4/30/2020		4/30/2020		4/30/2020		4/30/2020	
Sample Type	AA		IA		SSV		IA		SSV	
Volatile Organic Compounds (µg/m³)										
1,2,4-Trimethylbenzene	0.39	U	0.55	D	9.9	D	0.47	U	17	D
1,3,5-Trimethylbenzene (Mesitylene)	0.39	U	0.4	U	2.6	D	0.47	U	3.8	D
4-Ethyltoluene	0.39	U	0.4	U	13	D	0.47	U	22	D
Acetone	6.6	D	8.4	D	6.7	D	4.2	D	4.8	D
Benzene	0.41	D	0.28	D	3.1	D	0.3	D	2.4	D
Carbon Disulfide	0.25	U	0.25	U	1.2	D	0.3	U	4.2	D
Carbon Tetrachloride	0.5	D	0.51	D	0.42	D	0.48	D	0.26	U
Chloroform	0.39	U	0.39	U	9.9	D	0.47	U	0.99	D
Chloromethane	1.2	D	1	D	0.35	U	1.1	D	0.35	U
Cyclohexane	0.28	U	0.28	U	1.3	D	0.33	U	3.2	D
Dichlorodifluoromethane	1.6	D	1.9	D	2.3	D	1.9	D	2.6	D
Ethylbenzene	0.38	D	0.52	D	14	D	0.5	D	19	D
Isopropanol	26	D	9.8	D	4.8	D	1.6	D	4.9	D
M,P-Xylene	1.1	D	1.9	D	55	D	1.6	D	76	D
Methyl Ethyl Ketone (2-Butanone)	1	D	0.76	D	1.2	D	0.79	D	1.1	D
Methyl Methacrylate	6.1	D	0.4	D	0.69	U	0.39	U	0.69	U
Methylene Chloride	1.5	D	0.56	U	1.2	U	0.66	U	1.2	U
n-Heptane	0.33	U	0.36	D	6.1	D	0.39	U	16	D
n-Hexane	0.42	D	0.28	U	5.8	D	0.34	U	6.5	D
o-Xylene (1,2-Dimethylbenzene)	0.38	D	0.63	D	13	D	0.54	D	19	D
Styrene	0.34	D	0.34	U	1.6	D	0.41	U	2.2	D
Tert-Butyl Methyl Ether	0.29	U	0.29	U	0.61	U	0.34	U	10	D
Tetrachloroethene (PCE)	0.54	U	0.55	U	35	D	0.65	U	20	D
Toluene	2.2	D	4.7	D	55	D	2.7	D	50	D
Trichlorofluoromethane	1.4	D	1.3	D	1.3	D	1.3	D	1.1	D
Total VOCs	51.1		33		243		17		287	

Notes:
1. Co-located sub-slab vapor and indoor air sample analytical results are evaluated using the New York State Department of Health (NYSDOH) October 2006 Guidance for Evaluating Soil Vapor Intrusion in the State of New York Decision Matrices for Sub-Slab Vapor and Indoor Air and subsequent updates (2017).
2. Ambient air sample analytical results are shown for reference only.
3. Only detected analytes are shown in the table.
4. No analytical results are detected above the NYSDOH Decision Matrices.
5. ug/m3 = Micrograms per cubic meter
6. AA = Ambient air
7. IA = Indoor air
8. SSV = Sub-slab 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 Reporting Limit (RL); the value shown in the table is the RL.

Table 6
Soil Vapor Sample Analytical Results Summary

475 Bay Street and 31 Wave Street
Staten Island. New York
Langan Project No.: 170610601

Location		AA02		SV01		SV02		SV03		SV04		SV07		SV11		SV13		SV15		SV16	
Sample ID	NYSDOH Decision	AA02_050520		SV01_050520		SV02_050520		SV03_050520		SV04_043020		SV07_043020		SV11_050520		SV13_050520		SV15_050520		SV16_050520	
Laboratory ID	Matrices Minimum	20E0109-08		20E0109-01		20E0109-02		20E0109-03		20E0004-01		20E0004-02		20E0109-04		20E0109-05		20E0109-06		20E0109-07	
Sample Date	Concentrations	5/5/2020		5/5/2020		5/5/2020		5/5/2020		4/30/2020		4/30/2020		5/5/2020		5/5/2020		5/5/2020		5/5/2020	
Sample Type		AA		SV		SV		SV		SV		SV		SV		SV		SV		SV	
Volatile Organic Compounds (µg/m³)																					
1,2,4-Trimethylbenzene	~	0.88	D	21	D	14	D	13	D	20	D	28	D	23	D	16	D	20	D	25	D
1,3,5-Trimethylbenzene (Mesitylene)	~	0.49	U	9.6	D	4.5	D	4.3	D	8	D	12	D	8.5	D	5.5	D	7.2	D	6.1	D
1,3-Butadiene	~	0.66	U	11	U	2.7	D	6.1	D	1.1	U	1.1	D	5.4	U	1	U	4.1	D	2.3	D
2-Hexanone	~	0.81	U	13	U	8.8	D	8.1	D	3.5	D	2.9	D	34	D	11	D	16	D	6.6	D
4-Ethyltoluene	~	0.73	D	13	D	8.1	D	7.7	D	11	D	14	D	15	D	9.5	D	12	D	25	D
Acetone	~	20	D	170	D	82	D	110	D	54	D	29	D	520	D	120	D	180	D	350	D
Acrylonitrile	~	0.22	U	3.5	U	0.36	U	0.36	U	0.35	U	0.35	U	1.8	U	0.43	D	0.59	D	1.1	D
Benzene	~	0.44	D	14	D	1.1	D	1.8	D	2.1	D	9.9	D	14	D	1.8	D	6.6	D	61	D
Carbon Disulfide	~	0.31	U	110	D	12	D	70	D	4	D	13	D	79	D	110	D	130	D	93	D
Carbon Tetrachloride	6	0.63	D	2.6	U	0.26	U	0.41	D	0.4	D	0.25	U	1.3	U	0.24	U	0.3	D	0.78	D
Chloroethane	~	0.26	U	4.3	U	0.43	U	0.43	U	0.42	U	1.1	D	2.2	U	0.4	U	0.43	U	0.47	U
Chloroform	~	0.49	U	7.9	U	0.8	U	0.8	U	5	D	4.2	D	7.6	D	12	D	0.79	U	3.6	D
Chloromethane	~	1.5	D	3.4	U	0.34	U	0.88	D	0.79	D	0.33	U	1.7	U	0.34	D	0.43	D	0.74	D
Cis-1,2-Dichloroethene	6	0.099	U	1.6	U	0.16	U	0.16	U	0.16	U	0.16	U	0.81	U	0.15	U	1.1	D	0.21	D
Cyclohexane	~	0.34	U	88	D	13	D	13	D	1.5	D	7.8	D	4.2	D	3.2	D	23	D	0.61	U
Dichlorodifluoromethane	~	2	D	8.1	U	2	D	2.3	D	2.5	D	2.2	D	4.1	U	1.7	D	2.6	D	2.6	D
Ethyl Acetate	~	1.3	D	12	U	1.2	U	3.7	D	1.1	U	1.2	U	5.9	U	1.1	U	1.2	U	1.3	U
Ethylbenzene	~	0.69	D	9.2	D	3.3	D	3.2	D	3	D	2.7	D	9.3	D	4.7	D	5.6	D	84	D
Isopropanol	~	NA		15	D	1.8	D	160	D	29	D	2.3	D	11	D	21	D	8.2	D	12	D
M,P-Xylene	~	2.3	D	25	D	9.9	D	11	D	13	D	12	D	24	D	13	D	16	D	64	D
Methyl Ethyl Ketone (2-Butanone)	~	1.8	D	59	D	26	D	33	D	11	D	8.9	D	160	D	38	D	66	D	31	D
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	~	0.53	D	6.7	U	0.94	D	1.5	D	0.65	U	0.79	D	3.4	U	0.93	D	1.3	D	0.73	U
Methyl Methacrylate	~	25	D	6.7	U	0.67	U	57	D	15	D	0.66	U	3.4	U	7.7	D	0.79	D	0.73	U
n-Heptane	~	0.45	D	210	D	4.9	D	5.4	D	8.8	D	11	D	12	D	4.8	D	19	D	6.6	D
n-Hexane	~	1.9	D	330	D	3.8	D	10	D	3.5	D	22	D	9.5	D	3.6	D	41	D	4.7	D
o-Xylene (1,2-Dimethylbenzene)	~	0.78	D	11	D	5.1	D	4.9	D	6.8	D	6.8	D	12	D	6.2	D	7.8	D	21	D
Propylene	~	0.17	U	240	D	37	D	90	D	0.27	U	0.28	U	27	D	7.8	D	76	D	24	D
Styrene	~	0.72	D	6.9	U	0.7	U	2.1	D	0.68	U	0.68	U	3.5	U	0.64	U	0.69	U	15	D
Tert-Butyl Methyl Ether	~	0.36	U	5.9	U	0.59	U	0.59	U	0.57	U	0.58	U	3	U	0.55	U	0.58	U	0.77	D
Tetrachloroethene (PCE)	100	0.67	U	11	U	1.1	U	1.1	U	13	D	13	D	5.6	U	1	U	3.1	D	10	D
Toluene	~	5.6	D	48	D	17	D	16	D	8.5	D	13	D	65	D	20	D	32	D	2,200	D
Trichloroethene (TCE)	6	0.13	U	2.2	U	0.22	U	0.22	U	0.21	U	0.22	U	1.1	U	0.2	U	0.22	U	0.38	D
Trichlorofluoromethane	~	1.7	D	9.1	U	1.3	D	1.8	D	1.7	D	2.1	D	4.6	U	1.7	D	2.7	D	1.7	D
Total VOCs	~	69		1,370		259		637		226		220		1,040		421		683		3,050	

Notes:
1. Soil vapor sample analytical results are compared to the minimum soil vapor concentrations at which mitigation is recommended 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 Decision Matrices for Sub-Slab Vapor and Indoor Air and subsequent updates (2017).
2. Ambient air sample analytical results are shown for reference only.
3. Only detected analytes are shown in the table.
4. No analytical results are detected above the minimum soil vapor concentrations recommending mitigation.
5. ~ = Regulatory limit for this analyte does not exist
6. ug/m3= micrograms per cubic meter
7. AA = Ambient Air
8. 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 Reporting Limit (RL); the value shown in the table is the RL.

PREVIOUS ENVIRONMENTAL REPORTS
(INCLUDED AS SEPARATE ATTACHMENTS)

ATTACHMENT D

SECTION IV: PROPERTY INFORMATION

ATTACHMENT D
SECTION IV: PROPERTY INFORMATION

Item 1 – Metes and Bounds Description

The 66,800-square-foot (1.53 acres) proposed BCP site is located at 475 Bay Street and 31 Wave Street in Staten Island, New York, which corresponds with the Borough of Staten Island Tax Map Block 488, Lots 9, 157, 162, and 164. An application for the merger of Lots 157, 162 and 164 into Lot 157 dated April 28, 2020 was submitted to the New York State Department of Finance - Property Division and is included as an attachment.

GIS Information (degrees/minutes/seconds):

- Latitude: 40°37'49"
- Longitude: -74°4'34"

Item 2 – Property Maps

Figure D-1: Site Location Map is the required United States Geological Survey (USGS) 7.5-minute quadrangle map showing the location of the proposed BCP property.

Figure D-2: Site Plan provides a property base map that shows map scale, north arrow orientation, date, and location of the property with respect to adjacent streets and roadways.

Figure D-3: Adjacent Property and Surrounding Land Use Map provides a property base map that shows proposed brownfield property boundary lines, with adjacent property owners clearly identified, and surrounding land uses.

Figure D-4: Tax Block and Lot Map provides the tax parcel information.

Item 3 – Environmental Zone

According to the New York State (NYS) Department of Labor's mapped boundaries for NYS Environmental Zones (En-Zones), 100 percent of the site is located within Richmond County Census Tract 21, a designated En-Zone. The site is located within a census tract that has a poverty rate of 26.3% and an unemployment rate of 6.2%; this data satisfies En-Zone criteria pursuant to Tax Law 21(b)(6). Figure D-5 shows the property boundary within the En-Zone.

Item 10 - Property Description Narrative

Location

The site is located at 475 Bay Street and 31 Wave Street within an urbanized area of Staten Island, New York and is identified as Block 488, Lots 9, 157, 162, and 164 on the Borough of Staten Island Tax Map. The site is located on the city block bound by Baltic Street to the north,

Murray Hulbert Avenue to the east, Wave Street to the south and Bay Street to the west. The New York City Transit (NYCT) Island Rail easement, tracks and overpass run parallel to the eastern boundary of the site.

Site Features

The about 66,800-square-foot (1.53 acres) site is situated in the southern half of the tax block and is comprised of three vacant asphalt and gravel-paved lots (Lot 9, 157 and 162) and a single lot occupied by a vacant one-story slab-on-grade building formerly operated as an auto repair and detailing shop (Lot 164). According to monitoring well survey measurements obtained by Langan on May 11, 2020, the site grade ranges from elevation 9.32± (NAVD88)[1] in the southeast corner of the site to el 10.66± in the center of the site. The topography of the site and surrounding area is generally level with a gradual slope towards the east.

Current Zoning and Land Use

According to the New York City Planning Commission Zoning Map 21c, the site is located within a residential district (R6) with a commercial overlay (C2-3). The site is also located within the Special Bay Street Corridor District (BSC). According to the New York City Planning Commission, the "R6 zoning districts are widely mapped in built-up, medium-density areas in Brooklyn, Queens and the Bronx. The character of R6 districts can range from neighborhoods with a diverse mix of building types and heights." With regard to the commercial overlay, according to the New York City Planning Commission, "C1-1 through C1-5 and C2-1 through C2-5 districts are commercial overlays mapped within residence districts. Mapped along streets that serve local retail needs, they are found extensively throughout the city's lower- and medium-density areas and occasionally in higher-density districts." Finally, the BSC was created to "foster better connectivity between Staten Island's civic core in St. George and the town center of Stapleton by promoting a more continuous, pedestrian friendly commercial street scape and create the opportunity for additional housing on the North Shore." The surrounding properties are zoned for residential (R6) uses with commercial overlays (C2-3). A copy of the zoning map is included in Attachment H.

Land use within a half-mile radius is urban and includes commercial, institutional, utility/transportation, residential, light industrial buildings and public parks. The nearest ecological receptor is The Narrows, located about 700 feet east of the site.

Lot 9 is currently used by the Requestor for staging construction equipment; Lots 157, 162 and 164 are vacant.

[1] Elevations presented herein are in feet and referenced to the North American Vertical Datum of 1988 (NAVD88), which is about 1.1 feet above mean sea level at Sandy Hook, New Jersey.

Past Use of the Site

Historical Sanborn Fire Insurance Maps indicate that the site was located in a developed urban area as early as 1885. In 1885, Lot 9 was developed with a 1- and 2-story dwelling and a shed. Lots 157, 162 and 164 were unmapped in 1885; however, the 1898 map shows five individual buildings occupied by residential dwellings, a carpenter shop, and storage. Various commercial and industrial entities occupied the site including James Thompson and Sons Lumber Yard (1889 to 1917), Chas F. McAteer, Inc. coal yard (1937 to 1950), a filling station with three gasoline tanks, a grease and oil storage shed (1937 to 1950), J.T. Montesani Company Inc. sand and gravel yard with one gasoline tank and two garages (1950 to 1962), and auto sales (1977 to 1990) on Lot 9; an auto painting shop (1937 to 1950), auto repair (1977) and unlabeled manufacturing (1981 to 1988) on Lot 164; and a truck shop (1937 to 1950) on Lot 157. By 1991, Lots 9, 157, and 162 are vacant and Lot 164 is developed with a one-story commercial building. Site conditions appear generally the same from 1991 to 2007. City Directories also provide additional site usage detail including a gasoline service station (1928) on Lot 9 and auto repair facility (1934; 1979; 1990; 2000 to 2014) and iron works facility (1984) on Lot 164. The auto repair facility on Lot 164, A Jofi's Auto Body Inc., was also identified in the Solid Waste/Landfill (SW/LF) database as a car dismantling facility.

Site Geology and Hydrogeology

Based on the findings of the Phase II investigation completed in August 2013 and remedial investigation completed in April/ May 2020, the site is underlain with historic fill to depths ranging between 5 and 13 feet below ground surface (bgs). The historic fill is predominantly brown and black, fine- to coarse-grained sand with varying amounts of gravel, silt, brick, coal, slag, glass, ceramics, wood, incinerated material and/or concrete. The fill layer is underlain by native soil that predominantly consists of light gray to reddish brown silty fine sand with varying amounts of fine gravel and clay lenses, which extended to the termination depth of each boring.

Petroleum-like odors, PID readings above background (maximum 4.6 parts per million [ppm]), and/or staining were observed in soil borings SB-1, SB-6, SB-7, and SB-8 from 6 to 10 feet bgs during the August 2013 Phase II investigation, and in soil borings SB04 and SB110 from 14 to 15 feet bgs and 9 to 10 feet bgs, respectively, during the April/May 2020 subsurface investigation.

Weathered schist was encountered at the bottom of one soil boring in the northwestern part of Lot 9 during the August 2013 Phase II investigation. Bedrock was not encountered during the April/May 2020 investigation. Based on the "Plate 2 Bedrock Geology of Staten Island and Configuration of Bedrock Surface", prepared by United Stated Department of the Interior Geological Survey in cooperation with the New York State Department of Environmental Conservation (NYSDEC), dated 1986, bedrock is anticipated beneath the ground moraine layer at depths of about 30 to 50 feet bgs.

Groundwater is inferred to flow to the east-southeast towards the Narrows, following the topography and the historical stream illustrated in the 1865 Topographical Atlas of City of New York Including Annexed Territory (Viele Map) created by Egert L. Viele. Groundwater was encountered between 6 and 15 feet bgs during the August 2013 Phase II investigation, and generally between 3.51 and 4.92 feet bgs (corresponding to elevations ranging from about el -5.12 to el 6.00 NAVD88) during the April/May 2020 remedial investigation. Based on the findings of the remedial investigation, groundwater generally flows to the southeast.

Environmental Assessment

Based on the findings of the August 2013 Phase II and April/May 2020 subsurface investigations, the primary contaminants of concern include: semi-volatile organic compounds (SVOCs), pesticides, and metals in soil; SVOCs and metals in groundwater; and the chlorinated volatile organic compound (CVOC) carbon tetrachloride in soil vapor. Further detail regarding documented soil, groundwater, and soil vapor contamination is provided below:

Several SVOCs, including 3&4 methylphenol (maximum concentration of 0.546 milligrams per kilogram [mg/kg]), 2-methyphenol (maximum concentration of 1.47 mg/kg), benzo(a)anthracene (maximum concentration of 34.7 mg/kg), benzo(a)pyrene (maximum concentration of 46.1 mg/kg), benzo(b)fluoranthene (maximum concentration of 38 mg/kg), benzo(k)fluoranthene (maximum concentration of 35.2 mg/kg), chrysene (maximum concentration of 43.2 mg/kg), dibenz(a,h)anthracene (maximum concentration of 7.34 mg/kg), dibenzofuran (maximum concentration of 13.5 mg/kg), fluoranthene (maximum concentration of 135 mg/kg), indeno(1,2,3-cd)pyrene (maximum concentration of 26.1 mg/kg), naphthalene (maximum concentration of 15.3 mg/kg), phenanthrene (maximum concentration of 152 mg/kg), phenol (maximum concentration of 1.25 mg/kg), and pyrene (maximum concentration of 107 mg/kg) were detected in soil samples exceeding Unrestricted Use (UU) and/or Restricted Use-Restricted Residential (RURR) Soil Cleanup Objectives (SCOs).

Metals including arsenic (maximum concentration of 18.8 mg/kg), barium (maximum concentration of 950 mg/kg), cadmium (maximum concentration of 11 mg/kg), trivalent chromium (maximum concentration of 195 mg/kg), hexavalent chromium (maximum concentration of 3.35 mg/kg), total chromium (maximum concentration of 195 mg/kg), copper (maximum concentration of 160 mg/kg), lead (maximum concentration of 5,800 mg/kg), mercury (maximum concentration of 5.76 mg/kg), nickel (maximum concentration of 1,660 mg/kg), selenium (maximum concentration of 12.6 mg/kg), and zinc (maximum concentration of 2,600 mg/kg) were detected at concentrations above UU and/or RURR SCOs.

Four pesticides including 4,4'-DDD (maximum concentration of 0.017 mg/kg), 4,4'-DDE (maximum concentration of 0.0206 mg/kg), 4,4'-DDT (maximum concentration of 0.0845 mg/kg), and alpha BHC (alpha hexachlorocyclohexane) (maximum concentration of 0.0256 mg/kg) exceeded the UU SCOs in soil samples collected from across the site.

Total PCBs were detected at concentrations exceeding the UU SCO in two samples (maximum concentration of 0.203 mg/kg). PCBs were not detected above RURR SCOs.

Soil samples were analyzed for per- and polyfluoroalkyl substances (PFAS). Currently, there are no NYSDEC SCOs for PFAS compounds. Perfluorooctanoic acid (PFOA) was detected in 36 soil samples at concentrations ranging from 0.0000863 milligrams per kilogram (mg/kg) (86.3 parts per trillion [ppt]) to 0.00134 mg/kg (1,340 ppt) between 0 and 20 feet bgs. Perfluorooctane sulfonate (PFOS) was detected in 19 soil samples at concentrations ranging from 0.0000472 mg/kg (47.2 ppt) to 0.0052 mg/kg (5,200 ppt) between 0 and 15 feet bgs.

SVOCs and total and dissolved metals were detected at concentrations above the Technical Operational Guidance Series (TOGS) 1.1.1 Ambient Water Quality Standards and Guidance Values for Class GA Water (NYSDEC SGV) in groundwater samples collected from across the site. In particular, the following SVOCs were detected at concentrations above the NYSDEC SGVs: benzo(a)anthracene (maximum concentration of 0.93 µg/L), benzo(a)pyrene (maximum concentration of 0.87 µg/L), benzo(b)fluoranthene (maximum concentration of 1 µg/L), benzo(k)fluoranthene (maximum concentration of 0.46 µg/L), chrysene (maximum concentration of 1.1 µg/L), and indeno(1,2,3-cd)pyrene (maximum concentration of 0.54 µg/L). Total metals including barium (maximum concentration of 1,994 µg/L), beryllium (maximum concentration of 8.04 mg/kg), chromium, total (maximum concentration of 202 mg/kg), copper (maximum concentration of 469.5 mg/kg), iron (maximum concentration of 235,000 µg/L), lead (maximum concentration of 894.5 mg/kg), magnesium (maximum concentration of 166,000 mg/kg), manganese (maximum concentration of 18,890 µg/L), nickel (maximum concentration of 3,342 mg/kg), selenium (maximum concentration of 10.1 mg/kg), sodium (maximum concentration of 119,000 µg/L), and thallium (maximum concentration of 0.85 mg/kg) and dissolved metals including iron (maximum concentration of 35,400 µg/L), magnesium (maximum concentration of 93,500 mg/kg), manganese (maximum concentration of 4,400 µg/L), and sodium (maximum concentration of 126,000 µg/L) and dissolved metals were detected at concentrations above the NYSDEC SGVs in groundwater samples collected across the site.

PFOA and PFOS were detected in two monitoring wells at concentrations exceeding the USEPA lifetime health advisory of 70 ppt. Concentrations of PFOA and PFOS ranged from 0.143 µg/L (143 ppt) to 0.178 µg/L (178 ppt) and from 0.0843 µg/L (84.3 ppt) to 0.13 µg/L (130 ppt), respectively.

Thirty-five VOCs were detected in at least one of the soil, sub-slab, and/or indoor air samples. Carbon tetrachloride (maximum concentration of 28.9 µg/m^3) was detected above the minimum soil vapor concentrations at which mitigation is recommended in the New York State Department of Health (NYSDOH) Decision Matrices in one soil vapor sample collected from in the northwestern corner of the site during the August 2013 Phase II investigation. A conservative

comparison of the maximum concentration of carbon tetrachloride to the Decision Matrices recommends actions ranging from "no further action" to "mitigate."

The source of SVOCs and metals identified in site soils may be attributed to historic use of site including auto repair, automobile dismantling and manufacturing operations and from historic fill material used to bring the site to grade during historic site development. The source of SVOCs in groundwater is the SVOC-impacted soil. The source of total metals in groundwater is entrained sediment in the samples and dissolved metals in groundwater are associated with regional groundwater quality.

New York City Department of Finance • Property Division • Tax Map Office

APPLICATION FOR APPORTIONMENTS OR MERGERS

Instructions: Please complete this application and *submit in person* to: ***Department of Finance, Property Division - Tax Map Office, 66 John Street, 2nd floor, New York, NY 10038.*** Please read the instructions for further details before completing this form. Print clearly.

SECTION A: PROPERTY INFORMATION

Borough: Staten Island Block: 488 Present Lot(s): 157, 162, 164

DO NOT WRITE IN THIS SPACE - FOR OFFICE USE ONLY

Lot Number: 157

☒ Merger ☐ Apportionment Number of Lots Requested 1

☐ Air ☐ Subterranean

Lot(s)Usage: (check one)
☐ *Residential* Building Gross Sq/Ft:
☒ *Commercial* Building Gross Sq/Ft:
☐ *Mix* (Residential & Commercial) Building Gross Sq/Ft:

1. Property Owner's Name (as per Deed): (LAST NAME / FIRST NAME)
   OR
   Company Name: Rosario Caracci LLC
2. Property Address: 14 Topside Lane (NUMBER AND STREET) Staten Island (CITY) NY (STATE) 10309 (ZIP CODE)
3. Filing Representative (if applicable): Alexis Peseau, Design 2147 Ltd. apeseau@design2147.com

SECTION B: CERTIFICATION

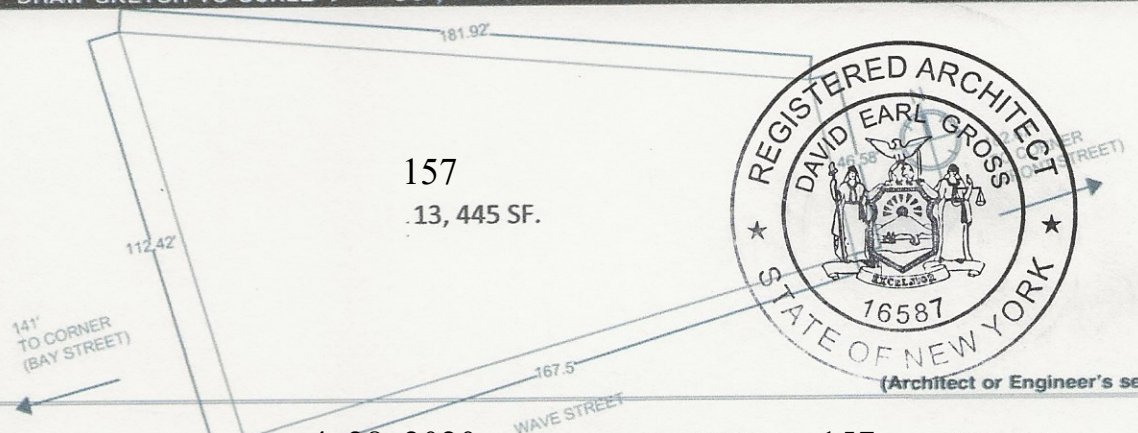
1. Architect/Engineer/Applicant's Name: Gross (LAST NAME) David (FIRST NAME)
2. Address: 225 West 39th Street (NUMBER AND STREET) New York (CITY) NY (STATE) 10018 (ZIP CODE)
3. Telephone Number: 2123523099 4. Email Address: david@gf55.com

The applicant hereby certifies that, in making this application for merger/apportionment, s/he is the owner, or acting under the direction of the owner.

Signature of Architect/ Engineer/Applicant: RDG Date: 04 / 21 / 20

TAX MAP CHANGE WILL NOT BE MADE UNTIL PRESENTATION OF REQUIRED DOCUMENTS (see reverse for the required documents)

DRAW SKETCH TO SCALE 1" = 50', IF POSSIBLE INDICATE NORTH ARROW



(Architect or Engineer's seal)

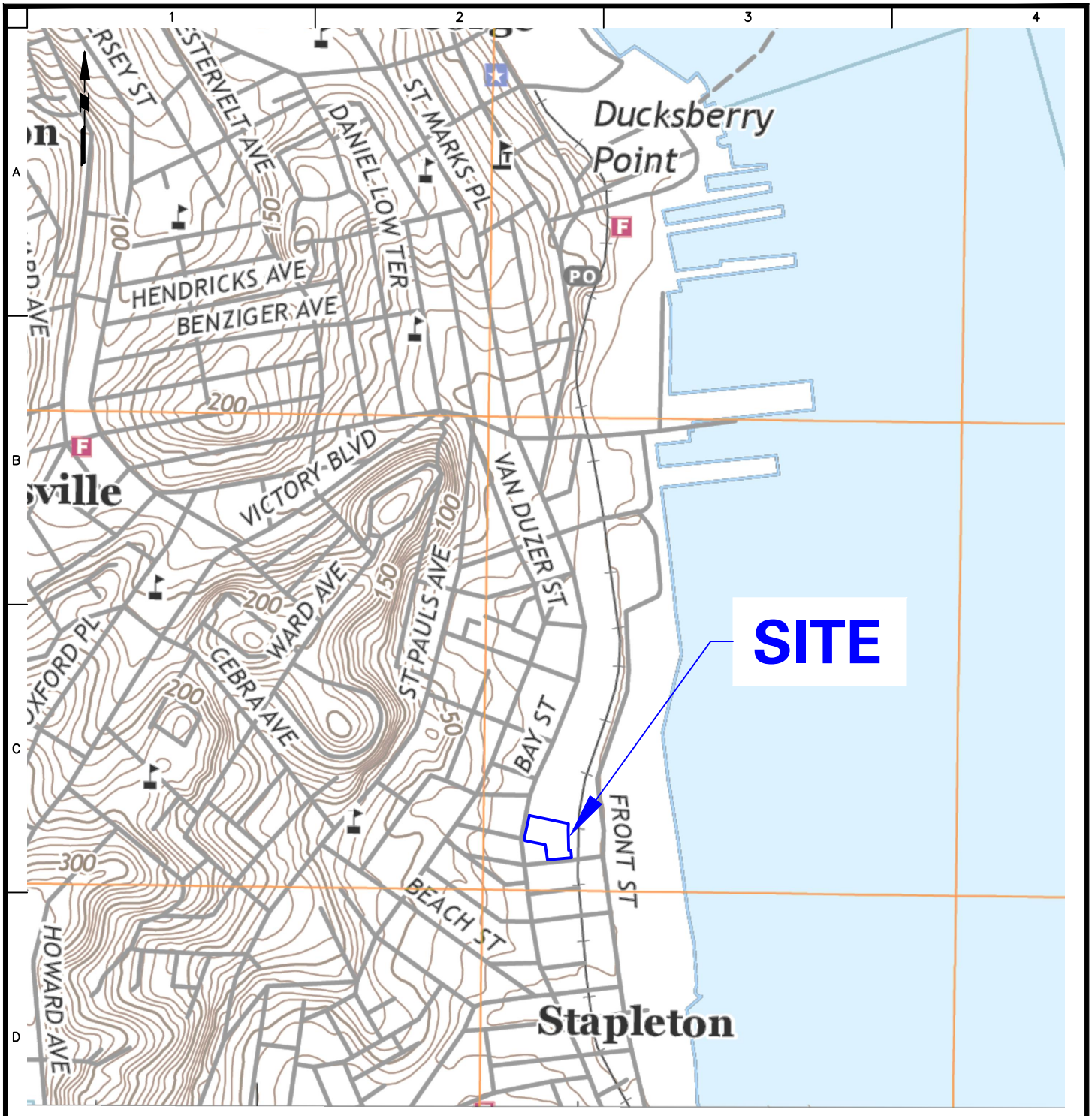
Tentative Lot(s) issued:
Customer Service Representative: P. Bradley Date: 4 / 28 / 2020 New Lot(s): --- Lot(s) Affected: 157 Lot(s) Dropped: 162, 164

Please note: Map changes will not be made until presentation of all required documents is reviewed and approved by the Specialist. Lots are tentative until final approval is received from the Tax Map Office.

Map Updated:
Tax Map Specialist: _____ Date: ___/___/___

RP-602 Rev. 7.8.2019

FIGURES



LEGEND:

APPROXIMATE SITE BOUNDARY

NOTES:

1. BASE MAP IS REFERENCED FROM UNITED STATES GEOLOGICAL SURVEY (USGS) 7.5-MINUTE SERIES TOPOGRAPHICAL MAPS, JERSEY CITY QUADRANGLE, DATED 2016.
2. LOTS 157, 162, AND 164 WILL BE MERGED IN THE NEW YORK CITY AUTOMATED CITY REGISTER INFORMATION SYSTEM (ACRIS) PENDING AN APRIL 28, 2020 MERGER APPLICATION SUBMITTED TO THE NEW YORK STATE DEPARTMENT OF FINANCE - PROPERTY DIVISION.

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SCALE IN FEET

LANGAN

21 Penn Plaza, 360 West 31st Street, 8th Floor
New York, NY 10001
T: 212.479.5400 F: 212.479.5444 www.langan.com

Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C.
Langan Engineering and Environmental Services, Inc.
Langan International LLC

Collectively known as Langan

Project

475 BAY STREET & 31 WAVE STREET

BLOCK No. 488, LOTS No. 9, 157, 162, 164
STATEN ISLAND

RICHMOND COUNTY NEW YORK

Figure Title

SITE LOCATION MAP

Project No. 170610601	Figure No. D-1
Date 02/03/2020	
Scale 1" = 1000'	
Drawn By KG / Checked By KS	
Submission Date	Sheet 1 of 5

Filename: \\langan.com\data\NYC\data6\170610601\Project Data\CAD\01\SheetFiles\Environmental\BCP Application\Figure D-1 - Site Location Map.dwg Date: 6/25/2020 Time: 15:45 User: lesmail Style Table: Langan.stb Layout: Site Location Map

LEGEND:

APPROXIMATE SITE BOUNDARY

GENERAL NOTES:

1. BASEMAP TAKEN FROM LANGAN ENGINEERING, ENVIRONMENTAL, SURVEYING, LANDSCAPE ARCHITECTURE & GEOLOGY, D.P.C. NEARMAP WEB PORTAL, ACCESSED ON JANUARY 29, 2020.
2. LOTS 157, 162 AND 164 WILL BE MERGED IN THE NEW YORK CITY AUTOMATED CITY REGISTER INFORMATION SYSTEM (ACRIS) PENDING AN APRIL 28, 2020 MERGER APPLICATION SUBMITTED TO THE NEW YORK STATE DEPARTMENT OF FINANCE - PROPERTY DIVISION.

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.

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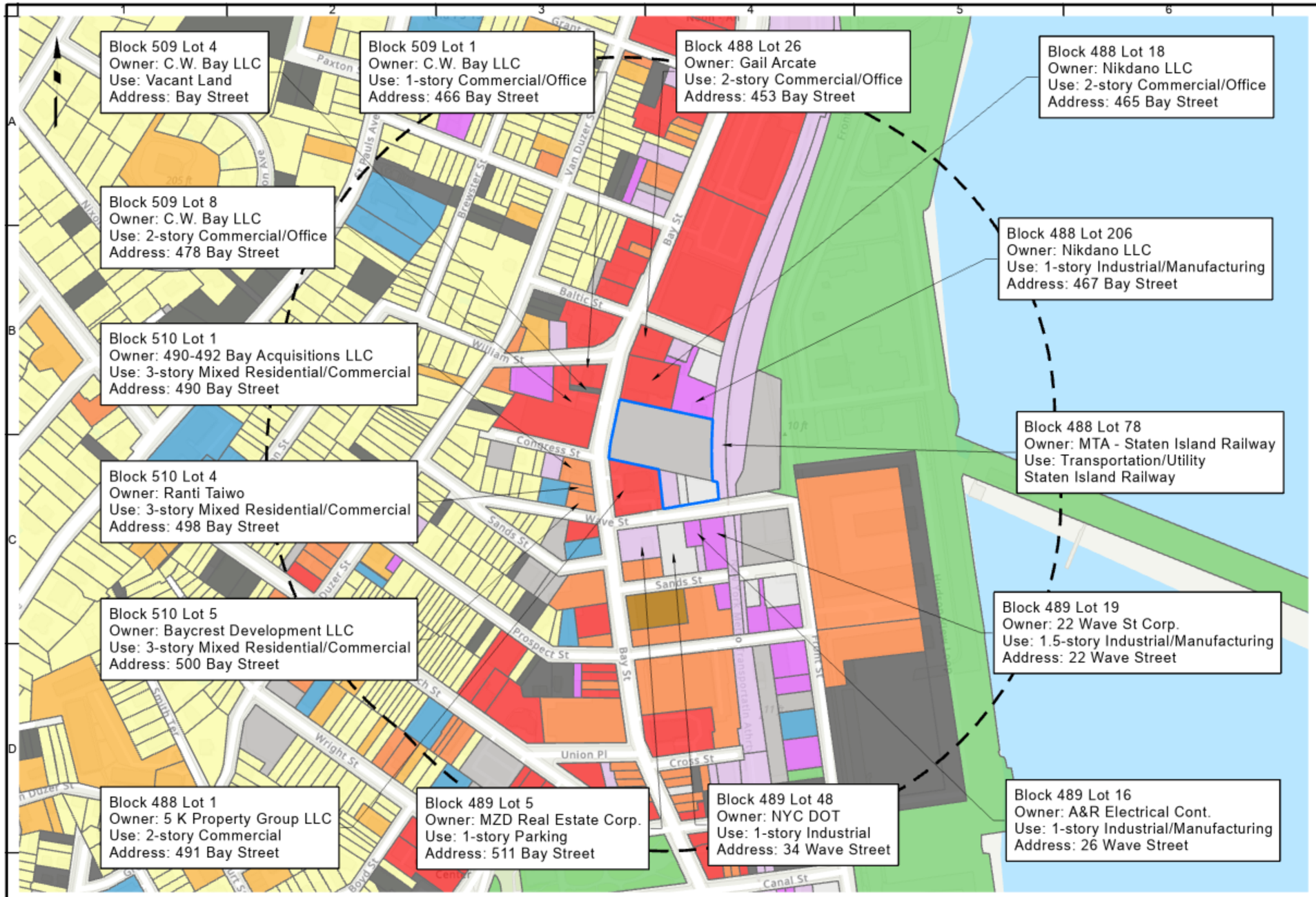
Project
475 BAY STREET & 31 WAVE STREET
BLOCK No. 488, LOTS No. 9, 157, 162, 164
STATEN ISLAND
RICHMOND COUNTY NEW YORK

Figure Title
SITE PLAN

Project No.	170610601
Date	06/25/2020
Drawn By	LE
Checked By	KS

Figure No.
D-2
Sheet 2 of 5

Filename: \\langan.com\data\NYC\data6\170610601\Project Data\CAD\01\SheetFiles\Environmental\BCP Application\Figure D-2 - Site Plan.dwg Date: 6/25/2020 Time: 16:36 User: lesmail Style Table: Langan.stb Layout: ANSIB-BL (1)



NOTES:
1. BASEMAP PROVIDED BY THE NEW YORK CITY DEPARTMENT OF CITY PLANNING, PLUTO 20V1 COPYRIGHT 2020.
2. LOTS 157, 162 AND 164 WILL BE MERGED IN THE NEW YORK CITY AUTOMATED CITY REGISTER INFORMATION SYSTEM (ACRIS) PENDING AN APRIL 28, 2020 MERGER APPLICATION SUBMITTED TO THE NEW YORK STATE DEPARTMENT OF FINANCE - PROPERTY DIVISION.

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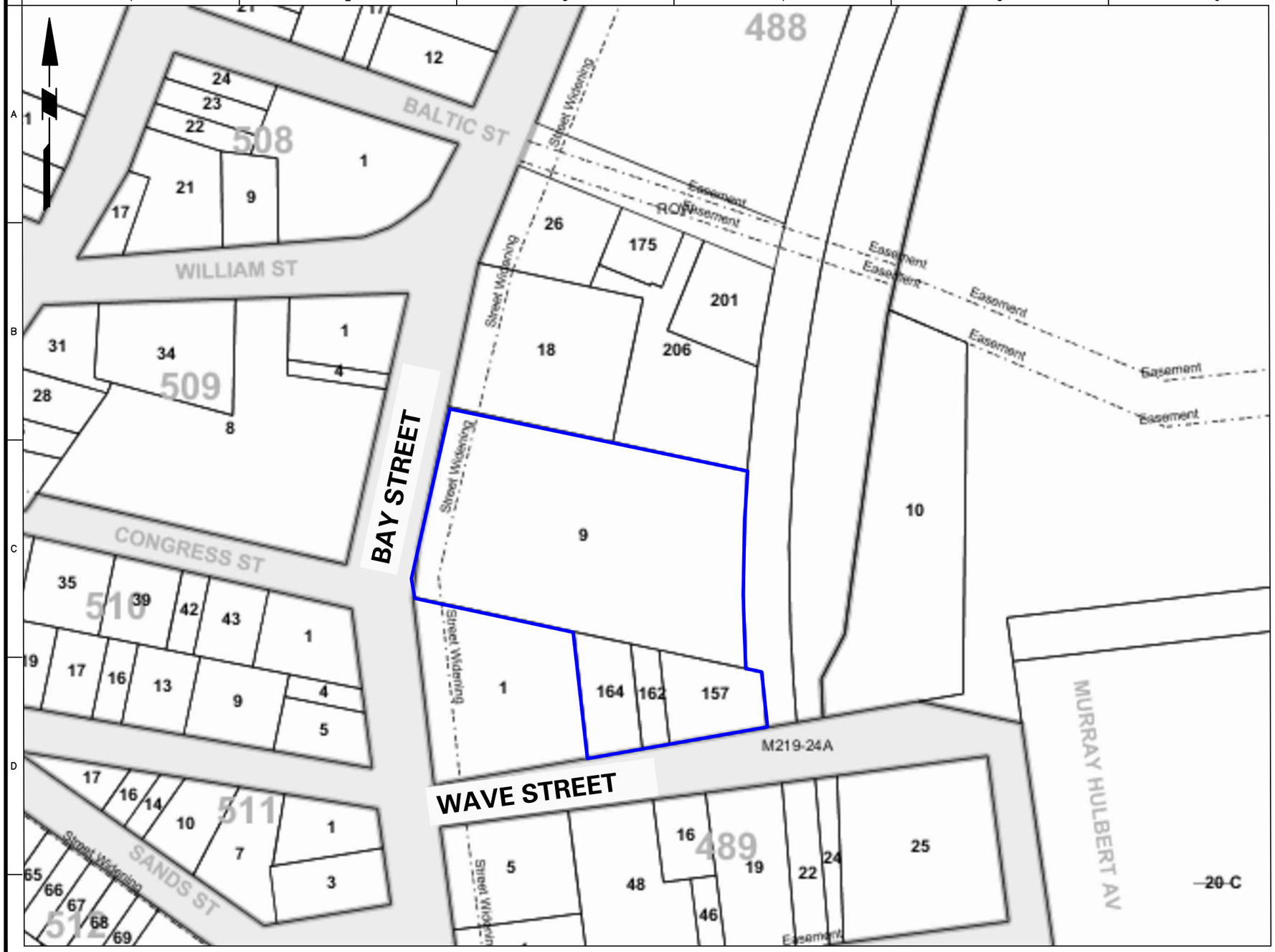
Project
475 BAY STREET & 31 WAVE STREET
BLOCK No. 488, LOTS No. 9. 157, 162, 164
STATEN ISLAND
RICHMOND COUNTY NEW YORK

Figure Title
ADJACENT PROPERTY AND SURROUNDING LAND USE MAP

Project No.	170610601
Date	6/25/2020
Scale	1"=305'
Drawn By	EMS
Figure No.	D-3
Sheet	3 of 5

Path: \\langan.com\data\NYC\data6\170610601\Project Data\ArcGIS\APRX\475 Bay St\BCP Application\MyProject1\MyProject1.aprx Date: 6/25/2020 User: lesmail Time: 4:24 PM



LEGEND:

- APPROXIMATE SITE BOUNDARY
- TAX LOT BOUNDARY
- 488 — TAX BLOCK NUMBER
- 157 — TAX LOT NUMBER

GENERAL NOTES:

1. BASEMAP TAKEN FROM THE NEW YORK CITY DEPARTMENT OF FINANCE DIGITAL TAX MAP PORTAL, ACCESSED ON JUNE 05, 2020.
2. THE SITE IS LOCATED ON STATEN ISLAND BLOCK 488, LOTS 9, 157, 162, 164.
3. LOTS 157, 162, AND 164 WILL BE MERGED IN THE NEW YORK CITY AUTOMATED CITY REGISTER INFORMATION SYSTEM (ACRIS) PENDING AN APRIL 28, 2020 MERGER APPLICATION SUBMITTED TO THE NEW YORK STATE DEPARTMENT OF FINANCE - PROPERTY DIVISION.

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Project
475 BAY STREET & 31 WAVE STREET
BLOCK No. 488, LOTS No. 9, 157, 162, 164
STATEN ISLAND
RICHMOND COUNTY NEW YORK

Figure Title
TAX BLOCK AND LOT MAP

Project No.	170610601
Date	06/25/2020
Drawn By	LE
Checked By	KS

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

Filename: \\langan.com\data\NYC\data6\170610601\Project Data\CAD\01\SheetFiles\Environmental\BCP Application\Figure D-4 - Tax Block and Lot Map.dwg Date: 6/25/2020 Time: 15:20 User: lesmail Style Table: Langan.stb Layout: ANSIB-BL (1)

LEGEND:

- APPROXIMATE SITE BOUNDARY
- MEETS ELIGIBILITY FOR CRITERIA B, DEFINED AS A POVERTY RATE OF AT LEAST 2 TIMES THE POVERTY RATE FOR THE COUNTY
- MEETS ELIGIBILITY FOR CRITERIA A AND B, DEFINED AS A POVERTY RATE OF AT LEAST 20% AND AN UNEMPLOYMENT RATE OF AT LEAST 125% OF THE STATEWIDE UNEMPLOYMENT RATE, AND A POVERTY RATE OF AT LEAST 2 TIMES THE POVERTY RATE FOR THE COUNTY

GENERAL NOTES:

1. BASEMAP TAKEN FROM GOOGLE EARTH, ACCESSED ON JUNE 5, 2020.
2. ENVIRONMENTAL ZONE BOUNDARIES OBTAINED FROM THE NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION (NYSDEC) WEBSITE, ACCESSED ON JUNE 5, 2020.
3. LOTS 157, 162 AND 164 WILL BE MERGED IN THE NEW YORK CITY AUTOMATED CITY REGISTER INFORMATION SYSTEM (ACRIS) PENDING AN APRIL 28, 2020 MERGER APPLICATION SUBMITTED TO THE NEW YORK STATE DEPARTMENT OF FINANCE - PROPERTY DIVISION.

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1000 0 500 1000

SCALE: 1 INCH = 1000 FEET

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Project
475 BAY STREET & 31 WAVE STREET
BLOCK No. 488, LOTS No. 9, 157, 162, 164
STATEN ISLAND
RICHMOND COUNTY NEW YORK

Figure Title
ENVIRONMENTAL ZONE MAP

Project No.	170610601
Date	06/25/2020
Drawn By	LE
Checked By	KS

Figure No. **D-5**

Sheet 5 of 5

Filename: \\langan.com\data\NYC\data6\170610601\Project Data\CAD\01\SheetFiles\Environmental\BCP Application\Figure D-5 - Enzone Map.dwg Date: 6/25/2020 Time: 16:43 User: lesmail Style Table: Langan.stb Layout: ANSIB-BL (1)

ATTACHMENT E

SECTION VI: CURRENT PROPERTY OWNER/ OPERATOR INFORMATION

ATTACHMENT E
SECTION VI: CURRENT PROPERTY OWNER/OPERATOR INFORMATION

Site Owner

The proposed BCP site located at 475 Bay Street and 31 Wave Street (Block 488, Lots 9, 157, 162, and 164) is currently owned by the Applicant, BFC 475 Residential LLC. BFC leased Lot 9 starting in 2014, prior to their purchase of the lot in December 2016. Lots 157, 162 and 164 were purchased by the requestor in May 2020. The Lot 164 was vacant at the time the Applicant took ownership of the property and has remained vacant. A lot merger application for Lots 157, 162 and 164, dated April 28, 2020, is included in Attachment D. A copy of the property deeds are provided in Attachment A. BFC 475 Residential LLC is not affiliated with the past property owners, operators, or the release of contaminants associated with prior uses.

Property Owner and Contact Information

BFC 475 Residential LLC
C/O BFC Partners,
150 Myrtle Avenue, Suite 2
Brooklyn, New York 11201
Attn: Donald Capoccia
718-422-9999
dcapoccia@bfcnyc.com

Current Operator

Site Use: Vacant
BFC 475 Residential LLC
C/O BFC Partners,
150 Myrtle Avenue, Suite 2
Brooklyn, New York 11201
Attn: Donald Capoccia
718-422-9999
dcapoccia@bfcnyc.com

Previous Site Owners

Date	Document Type	First Party	Second Party
Block 488, Lot 9			
12/08/2016	Deed	Kathleen Rampaul	BFC 475 Residential LLC
08/18/2000	Deed	Bruno Guarano, Peter and Thomas Di Pietro	Kathleen Rampaul
11/04/1977	Deed	Peter Di Pietro	Bruno and Faye Guarano
02/20/1975	Deed	Bruno and Faye Guarano	Peter Di Pietro
Block 488, Lots 157, 162, 164			
05/20/2020	Deed	Rosario Caracci LLC	BFC 475 Residential LLC
12/14/2017	Deed	Kathleen and Anthony Indelicato	Rosario Caracci LLC
07/23/2015	Deed	Josephine Indelicato and Estate of Virginia Indelicato	Anthony Indelicato
03/02/2004	Deed	Salvatore Gatto	Kathleen and Virginia Indelicato
06/30/1983	Deed	Joseph Bruzzese and Salvatore Gatto	Salvatore Gatto

Reference: Office of the Richmond County Clerk website: https://www.richmondcountyclerk.com/Search/BlockLotSearch.

Previous Site Operators

Historical Sanborn Fire Insurance Maps indicate that the site was located in a developed urban area as early as 1885. In 1885, Lot 9 was developed with a 1- and 2-story dwelling and a shed. Lots 157, 162 and 164 were unmapped in 1885; however, the 1898 map shows five individual buildings occupied by residential dwellings, a carpenter shop, and storage. Various commercial and industrial entities occupied the site including James Thompson and Sons Lumber Yard (1889 to 1917), Chas F. McAteer, Inc. coal yard (1937 to 1950), a filling station with three gasoline tanks, a grease and oil storage shed (1937 to 1950), J.T. Montesani Company Inc. sand and gravel yard with one gasoline tank and two garages (1950 to 1962), and auto sales (1977 to 1990) on Lot 9; an auto painting shop (1937 to 1950), auto repair (1977) and unlabeled manufacturing (1981 to 1988) on Lot 164; and a truck shop (1937 to 1950) on Lot 157. By 1991, Lots 9, 157, and 162 are vacant and Lot 164 is developed with a one-story commercial building. Site conditions appear generally the same from 1991 to 2007.

City Directory documents also provide additional site usage detail including a gasoline service station (1928) on Lot 9 and auto repair facility (1934; 1979; 1990; 2000 to 2014) and iron works facility (1984) on Lot 164. The auto repair facility on Lot 164, A Jofi's Auto Body Inc., was operated from 2000 to 2014 and was also identified in the Solid Waste/Landfill (SW/LF) database

as a car dismantling facility. Lots 157, 162, and 164 appear to have operated as Wave Street Autobody from 2014 until sometime in 2019.

The Applicant began leasing Lot 9 in 2014. At that time the lot was capped with a new asphalt cover and was briefly used as a commuter parking lot (approximately 6 months) and has since been used to stage construction materials and equipment.

Historical site operations are presented in the following table:

Operator Name/Site Use	Relationship to Property	Address and Phone Number	Relationship to Applicant
Parking and Construction Material Staging	Tenant (2014-2016) Owner (2016 to Present)	BFC 475 Residential LLC 475 Bay Street 718-422-9999	Applicant
Wave Street Autobody (Lots 157, 162, 164)	Operator of Lots 157, 162, and 164 (2014 to 2019)	31 Wave Street 718-667-9090 Ext. 106	None
A Jofi's Auto Body Inc.	Operator of Lots 157, 162, and 164 (2000 to 2014)	31 Wave Street (Phone Number Unknown)	None
Iron Works	Operator (1984)	31 Wave Street (Phone Number Unknown)	None
Manufacturing	Operator (1981 to 1988)	31 Wave Street (Phone Number Unknown)	None
Used Auto Sales	Operator (1968; 1977 to 1990)	475 Bay Street (Phone Number Unknown)	None
J.T. Montesani Company Inc. Sand and Gravel Yard	Operator (1950 to 1972)	475 Bay Street (Phone Number Unknown)	None
Truck Shop	Operator (1937 to 1950)	27 Wave Street (Phone Number Unknown)	None
Auto Painting	Operator (1937 to 1950)	31 Wave Street (Phone Number Unknown)	None
Gasoline Filling Station, Grease and Oil Shed	Operator (1937 to 1950)	475 Bay Street (Phone Number Unknown)	None
Chas F. McAteer, Inc. Coal Yard	Operator (1934 to 1950)	475 Bay Street (Phone Number Unknown)	None
Auto Repair	Operator (1934; 1979; 1990; 2000 to 2014, 2019)	31 Wave Street (Phone Number Unknown)	None
Gasoline Service Station	Operator (1929 to 1934)	475 Bay Street (Phone Number Unknown)	None
James Thompson and Sons Lumber Yard	Operator (1898 to 1917)	475 Bay Street (Phone Number Unknown)	None

References:

1. March 20, 2020 Phase I Environmental Site Assessment for 475 Bay Street and 31 Wave Street prepared by Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C.

2. January 2020 The EDR Radius Map Report with GeoCheck, Sanborn Maps, Aerial Photographs, and City Directories for 475 Bay Street, Inquiry Number: 5952363.2s, prepared by Environmental Data Resources.

ATTACHMENT F

SECTION VII: REQUESTOR ELIGIBILITY INFORMATION

ATTACHMENT F
SECTION VII: REQUESTOR ELIGIBILITY INFORMATION

Volunteer Status

Pursuant to ECL § 27-1405(1), BFC 475 Residential LLC is properly designated as a Volunteer because their liability arises solely from involvement with the site after discharge or disposal of contaminants at the site. There is no indication of any contribution to or exacerbation of site conditions during the time of Requestors involvement with the site.

The Requestor, BFC 475 Residential LLC, is a recent purchaser and current owner of the site, having purchased Block 488, Lot 9 in 2016, and Block 488, Lots 157, 162 and 164 in May 2020. The Requestor has taken appropriate care with respect to current site conditions, to prevent any threatened future release, and to prevent or limit human, environmental or natural resource exposures to any previously released contamination. This includes the undertaking of Phase I Environmental Site Assessments (ESA) and a Phase II Environmental Site Investigation (ESI) prior to purchase of Lot 9 and Lots 157, 162 and 164 in 2016 and 2020, respectively. The Requestor has kept the site undeveloped to eliminate any potential for exposure into any occupied structure that might be otherwise built on the site. As such, the Requestor qualifies as a Volunteer in the Brownfield Cleanup Program. The Applicant is prepared to undertake all necessary remediation required to address identified site contamination.

Requestor Relationship to Property

Requestor, BFC 475 Residential LLC, a New York limited liability company, purchased Lot 9 in December 2016; however, the Requestor began leasing Lot 9 in 2014. At that time the lot was capped with a new asphalt cover and was briefly used as a commuter parking lot (approximately 6 months) and has since been used to stage construction materials and equipment. Data collected by AKRF at that time did not identify evidence of contamination at the site. In addition, The Requestor undertook appropriate steps to reduce the risk of any potential completed exposure pathway by capping the site with either asphalt or clean gravel and then using the site solely for managed outdoor parking/staging use. Accordingly, there has been no risk of vapor intrusion and virtually zero potential human exposure to subsurface contaminants through inhalation or dermal contact.

Lots 157, 162, and 164 were purchased in May 2020 from Rosario Caracci, LLC. The site was vacant at the time of purchase and has remained vacant. The Requestor had no affiliation with the previous owner or operator.

ATTACHMENT G

SECTION IX: CONTACT LIST INFORMATION

ATTACHMENT G
SECTION IX: CONTACT LIST INFORMATION

Item 1 – Chief Executive Officer and Planning Board

Chief Executive Officer
Mayor Bill de Blasio
City Hall
260 Broadway Avenue
New York, NY 10007

New York City Planning Commission
Marisa Lago, Chairperson
Department of City Planning
120 Broadway, 31st Floor
New York, NY 10271

Borough of Staten Island, Borough President
James Oddo
10 Richmond Terrace
Borough Hall, Room 120
Staten Island, NY 10301
(718) 816-2000

Borough of Staten Island, Department of City Planning
Christopher Hadwin – Director
130 Stuyvesant Place, 6th Floor
Staten Island, NY 10301
(718) 556-7240

Item 2 - Residents, Owners, and Occupants, of the Property and Adjacent Properties

Residents, owners, and occupants of the site and properties adjacent to the site

Owner and occupant information is provided in Attachment E. The site is located at 475 Bay Street and 31 Wave Street and is identified on the Borough of Staten Island Tax Map as Block 488, Lots 9, 157, 162, and 164. The about 66,800-square-foot site is situated on the southern half of the tax block and is comprised of vacant asphalt and gravel-paved lots (Lots 9, 157 and 162) and a vacant one-story slab-on-grade building formerly operated as an auto repair and detailing shop (Lot 164). The site is owned and operated by BFC 475 Residential LLC. The site is bound

by a two-story commercial building and a one-story industrial building to the north, a New York City Transit (NYCT) Island Rail easement and tracks followed by Murray Hulbert Avenue to the east, Wave Street followed by one to two-story industrial buildings to the south and a McDonalds and Bay Street followed by a two-story commercial building to the west.

Adjacent properties include:

Nikdano LLC
465 and 467 Bay Street
Staten Island, NY 10304

5 K Property Group LLC
491 Bay Street
Staten Island, NY 10304

Metropolitan Transit Authority (MTA) –
Staten Island Railway
Wave Street
Staten Island, NY 10304

A&R Electrical Cont.
26 Wave Street
Staten Island, NY 10304

22 Wave Street Corporation
22 Wave Street
Staten Island, NY 10304

MZD Real Estate Corporation
511 Bay Street
Staten Island, NY 10304

New York City Department of
Transportation (NYC DOT)
34 Wave Street
Staten Island, NY 10304

Ranti Taiwo
498 Bay Street
Staten Island, NY 10304

Baycrest Development LLC
500 Bay Street
Staten Island, NY 10304

490-492 Bay Acquisitions LLC
490 Bay Street
Staten Island, NY 10304

C.W. Bay LLC
466, 470, and 478 Bay Street
Staten Island, NY 10304

Gail Arcate
453 Bay Street
Staten Island, NY 10304

Item 3 - Local News Media

Local news media from which the community typically obtains information

Staten Island Advance
950 W. Fingerboard Road,
Staten Island, NY 10305
(718) 981-1234

PIX11
220 East 42nd Street
New York, NY 10017
(212) 210-2614

New York Daily News
4 New York Plaza
New York, NY 10004
(212) 210-2100

NY 1 Spectrum News
75 Ninth Avenue
New York, NY 10011
(212) 379-3311

New York Post
1211 Avenue of the Americas
New York, NY 10036

Item 4 - Public Water Supply

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. The site receives potable water from the Croton Systems, located in Westchester, Putnam, and Dutchess Counties.

NYCDEP
Vincent Sapienza, Commissioner
59-17 Junction Boulevard
Flushing, NY 11373

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

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

Item 5 - Request for Contact

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

Item 6 - Schools and Day Care Facilities

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

Eden II Programs
(about 0.15 feet south-southwest of site)
Joanne Gerenser, Ph.D, CCC-SLP,
Executive Director
15 Beach Street
Staten Island, NY 10304
(718) 816-1422

United Multicultural Learning Center
(about 0.3 miles southwest of the site)
James Bestman
158 Canal Street
Staten Island, NY 10304
No Phone Number Available

Ms. Jay Kinder Care
(about 0.4 miles southwest of the site)
Alex C. Henry, On-Site Provider
16 Tappen Court, 1st Floor,
Staten Island, NY 10304
(347) 466-5918

MindfulNEST Center
(about 0.35 miles southwest of the site)
Maria Pizarro, Founder/ Instructor
45 Tompkins Street
Staten Island, NY 10304
(718) 981-5458

PS 65 The Academy of Innovative Learning
(about 0.22 miles northwest of the site)
Sophie Scamardella, Principal
155 St Pauls Avenue
Staten Island, NY 10301
(718) 981-5034

First Steps to Success Daycare
(about 0.45 miles southwest of the site)
Tamara Mapp, On-Site Provider
32 Hudson Street
Staten Island, NY 10304
(917) 831-9601

Little Miracles Preschool
(about 0.22 miles west of the site)
Lauren Grimaldi, MS Ed., SAS, SDA,
Director
309 St. Pauls Avenue
Staten Island, NY 10304
(718) 727-8202

Castle Day Care II
(about 0.41 miles southwest of the site)
Barbara Monaco, Director
211 Canal Street
Staten Island, NY 10304
(718) 448-5439

Ga Ga Group Family Day Care, LLC
(about 0.16 miles southwest of the site)
Gladys E. Jones, On-Site Provider
126 Prospect Street, Basement Floor
Staten Island, NY 10304
(718) 420-1647

Item 7 - Document Repository

Letters sent to and received from the following sources acknowledging that both agree to act as a document repository for documents generated under the BCP Program:

New York Public Library – Stapleton Branch
132 Canal Street
Staten Island, NY 10304
(718) 727-0427
Hours
Temporarily Closed – when reopened, the hours are:

Monday through Thursday:	11 AM – 7 PM
Friday:	10 AM – 5 PM
Saturday:	10 AM – 5 PM
Sunday:	Closed

Staten Island Community Board 1
1 Edgewater Plaza, Suite 217
Staten Island, NY 10305
(718) 981-6900
Joseph Carroll, District Manager
Email: jcarroll@cb.nyc.gov
Website: https://www1.nyc.gov/site/statenislandcb1/index.page

Letters sent to the repositories acknowledging that both agree to act as a document repository for the project are included in this attachment.

Item 8 – Community Board

The local community board is Staten Island Community Board 1.

Nicholas Siclari, Chairman
1 Edgewater Plaza, Suite 217
Staten Island, NY 10305
(718) 981-6900

LANGAN

Technical Excellence
Practical Experience
Client Responsiveness

June 18, 2020

New York Public Library – Stapleton Branch
132 Canal Street
Staten Island, NY 10304
(718) 727-0427

Re: Brownfield Cleanup Program Application
BFC 475 Residential LLC
475 Bay Street and 31 Wave Street
Staten Island, New York 10304

To Whom it May Concern:

We represent BFC 475 Residential LLC in their anticipated New York State Department of Environmental Conservation (NYSDEC) Brownfield Cleanup Program (BCP) application for the above-referenced site at 475 Bay Street and 31 Wave Street in Staten Island, New York. It is a NYSDEC requirement that we supply them with 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. Please sign below if you are able to certify that your library would be willing and able to act as the public repository for this BCP project.

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

Brian Gochenaur
Senior Project Manager

Yes, New York Public Library – Stapleton Branch is willing and able to act as a public repository on behalf of BFC 475 Residential LLC in their cleanup of 475 Bay Street and 31 Wave Street under the NYSDEC BCP.

(Name)

6/19/20
(Date)

Rosa Haire- Library Manager
(Title)

LANGAN

Technical Excellence
Practical Experience
Client Responsiveness

June 11, 2020

Staten Island Community Board 1
1 Edgewater Plaza, Suite 217
Staten Island, NY 10305
Phone: (718) 981-6900

Re: Brownfield Cleanup Program Application
BFC 475 Residential LLC
475 Bay Street and 31 Wave Street
Staten Island, New York 10304

To Whom it May Concern:

We represent 475 BFC Residential LLC in their anticipated New York State Department of Environmental Conservation (NYSDEC) Brownfield Cleanup Program (BCP) application for the above-referenced site at 475 Bay Street and 31 Wave Street in Staten Island, New York. It is a NYSDEC requirement that we supply them with a letter certifying that the local community board is willing and able to serve as a public repository for all documents pertaining to the cleanup of this property. Please sign below if you are able to certify that your community board would be willing and able to act as the public repository for this BCP project.

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

Brian Gochenaur
Senior Project Manager

Yes, Staten Island Community Board 1 is willing and able to act as a public repository on behalf of BFC 475 Residential LLC in their cleanup of 475 Bay Street and 31 Wave Street under the NYSDEC BCP.

Lisa Cooley
(Name)

June 12, 2020
(Date)

Community Coordinator
(Title)

ATTACHMENT H

SECTION X: LAND USE FACTORS

ATTACHMENT H
SECTION X: LAND USE FACTORS

Item 1 - Current Zoning

According to the New York City Planning Commission Zoning Map 21c, the site is located within a residential district (R6) with a commercial overlay (C2-3). The site is also located within the Special Bay Street Corridor District (BSC). According to the New York City Planning Commission, the "R6 zoning districts are widely mapped in built-up, medium-density areas in Brooklyn, Queens and the Bronx. The character of R6 districts can range from neighborhoods with a diverse mix of building types and heights." With regard to the commercial overlay, according to the New York City Planning Commission, "C1-1 through C1-5 and C2-1 through C2-5 districts are commercial overlays mapped within residence districts. Mapped along streets that serve local retail needs, they are found extensively throughout the city's lower- and medium-density areas and occasionally in higher-density districts." The proposed use is consistent with the current zoning. The applicable zoning map is attached.

Item 2 - Current Use

The site encompasses an area of about 66,800 square feet (1.53 acres) and is comprised of a vacant asphalt and gravel-paved lots (Lots 9, 157 and 162), and a vacant one-story slab-on-grade building formerly operated as an auto repair and detailing shop (Lot 164). The site is bound by a two-story commercial building and a one-story industrial building to the north, a New York City Transit (NYCT) Island Rail easement and tracks followed by Murray Hulbert Avenue to the east, Wave Street followed by one to two-story industrial buildings to the south and a McDonalds and Bay Street followed by a two-story commercial building to the west. Former site uses (i.e., which are suspected to have impacted the site) appear to have ceased operations sometime in the 1990s, with the exception of the autobody repair on Lot 164 which was vacated in 2019.

Item 3 - Intended Use Post Remediation

Current development plans include construction of a new 3-story community facility on Block 488, Lots 157, 162, and 164, and a 12-story mixed-use residential and commercial building on Block 488, Lot 9. All of the new residential units will be designated as affordable housing.

Item 4 – Historical and Recent Development Patterns

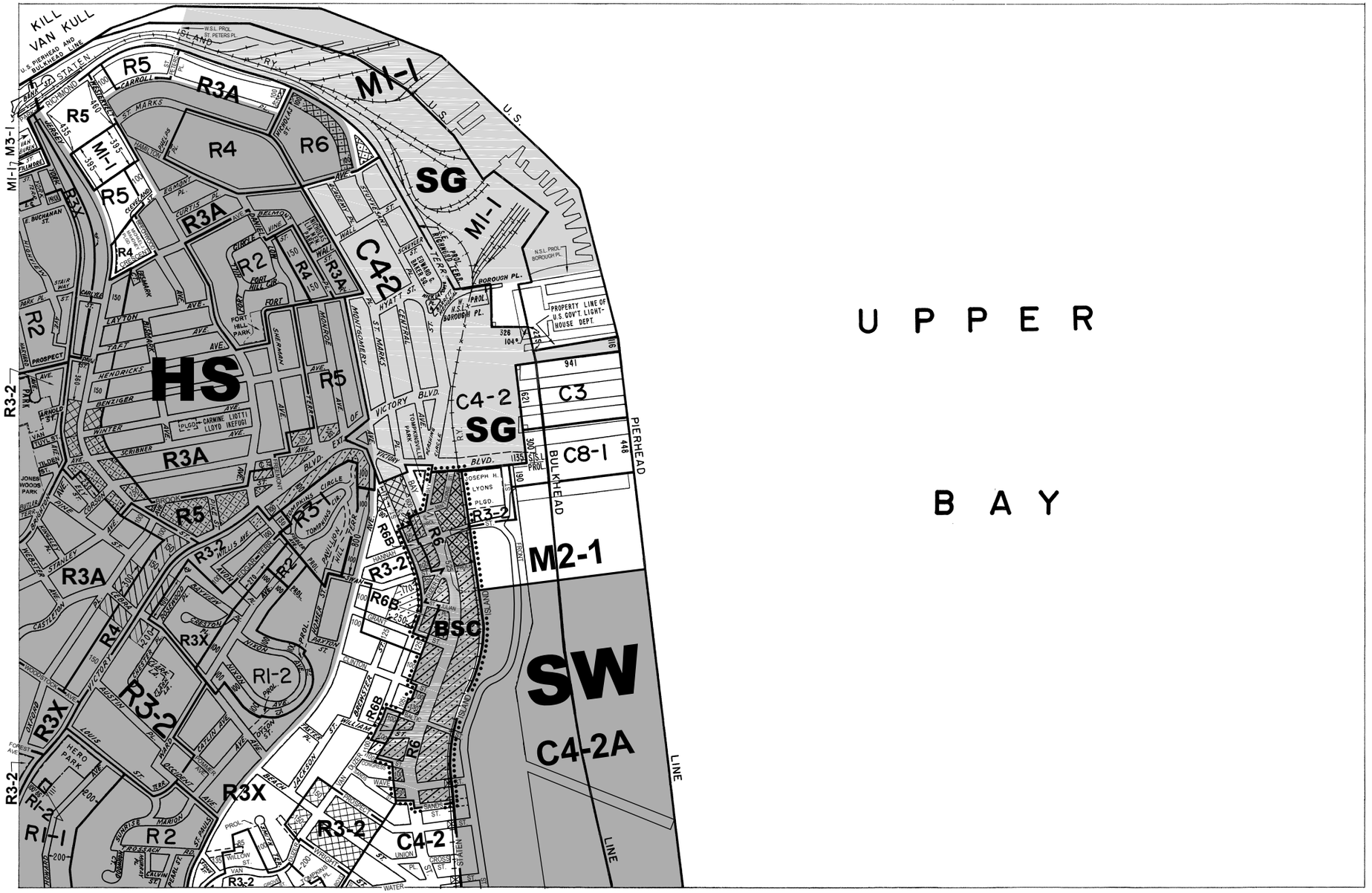
The site lies within the Special BSC District that was created to "foster better connectivity between Staten Island's civic core in St. George and the town center of Stapleton by promoting a more continuous, pedestrian friendly commercial street scape and create the opportunity for additional housing on the North Shore."

Item 5 - Consistency with Applicable Zoning Laws/Maps

This project responds to and is fully consistent with the goals of the City Council as embodied in the NYC Zoning Districts and provides additional affordable housing in a growing neighborhood. The site is located within an R6 residential district.

Item 6 - Comprehensive Plans

The site is part of the Special BSC District that was created to "foster better connectivity between Staten Island's civic core in St. George and the town center of Stapleton by promoting a more continuous, pedestrian friendly commercial street scape and create the opportunity for additional housing on the North Shore." The proposed use is consistent with these local and area plans.



600 0 600 1200 1800 FEET

C1-1 C1-2 C1-3 C1-4 C1-5 C2-1 C2-2 C2-3 C2-4 C2-5

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:

06-26-2019 C 190113 ZMR

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

N

		16b
21a	**21c**	22a
21b	21d	22b

ZONING MAP **21c**

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** or contact the Zoning Information Desk at (212) 720-3291.

ATTACHMENT I

SUPPLEMENTAL QUESTIONS FOR SITES SEEKING TANGIBLE PROPERTY CREDITS IN NEW YORK CITY

ATTACHMENT I
SUPPLEMENTAL QUESTIONS FOR SITES SEEKING TANGIBLE PROPERTY CREDITS IN NEW YORK CITY

Item 3 – Affordable Housing Project Determination

The site is located entirely within an EnZone and so is entitled to the Tangible Property credit component of the Redevelopment Tax Credits. In addition, the proposed redevelopment includes construction of a new 3-story community facility on Block 488, Lots 157, 162, and 164, and a 12-story mixed-use residential and commercial building on Block 488, Lot 9. All of the new residential units will be designated as affordable housing. If necessary, a copy of the regulatory agreement with BFC 475 Residential LLC will be provided to the NYSDEC at a later date prior to the issuance of a Certificate of Completion (COC).