DECISION DOCUMENT

408 West 207th Street
Brownfield Cleanup Program
New York, New York County
Site No. C231147
May 2022

Prepared by
Division of Environmental Remediation
New York State Department of Environmental Conservation

DECLARATION STATEMENT - DECISION DOCUMENT

408 West 207th Street
Brownfield Cleanup Program
New York, New York County
Site No. C231147
May 2022

Statement of Purpose and Basis

This document presents the remedy for the 408 West 207th Street site, a brownfield cleanup site. The remedial program was chosen in accordance with the New York State Environmental Conservation Law and Title 6 of the Official Compilation of Codes, Rules and Regulations of the State of New York (6 NYCRR) Part 375.

This decision is based on the Administrative Record of the New York State Department of Environmental Conservation (the Department) for the 408 West 207th Street site and the public's input to the proposed remedy presented by the Department.

Description of Selected Remedy

The elements of the selected remedy are as follows:

1. Remedial Design

A remedial design program will be implemented to provide the details necessary for the construction, operation, optimization, maintenance, and monitoring of the remedial program. Green remediation principles and techniques will be implemented to the extent feasible in the design, implementation, and site management of the remedy as per DER-31. The major green remediation components are as follows:

- Considering the environmental impacts of treatment technologies and remedy stewardship over the long term;
- Reducing direct and indirect greenhouse gases and other emissions;
- Increasing energy efficiency and minimizing use of non-renewable energy;
- Conserving and efficiently managing resources and materials;
- Reducing waste, increasing recycling and increasing reuse of materials which would otherwise be considered a waste;
- Maximizing habitat value and creating habitat when possible;
- Fostering green and healthy communities and working landscapes which balance ecological, economic and social goals;
- Integrating the remedy with the end use where possible and encouraging green and sustainable re-development; and
- Additionally, to incorporate green remediation principles and techniques to the extent

feasible in the future development at this site, any future on-site buildings will include, at a minimum, a 20-mil vapor barrier/waterproofing membrane on the foundation to improve energy efficiency as an element of construction.

2. Excavation

Excavation and off-site disposal of contaminant source areas, including:

- grossly contaminated soil, as defined in 6 NYCRR Part 375-1.2(u);
- soils which exceed the protection of groundwater soil cleanup objectives (PGWSCOs), as defined by 6 NYCRR Part 375-6.8 for those contaminants found in site groundwater above standards;
- soils that create a nuisance condition, as defined in Commissioner Policy CP-51 Section G; and
- any underground storage tanks (USTs), fuel dispensers, underground piping or other structures associated with a source of contamination.

Excavation and off-site disposal of all on-site soils which exceed unrestricted SCOs, as defined by 6 NYCRR Part 375-6.8. Approximately 6,200 cubic yards of contaminated soil will be removed from the site.

3. Backfill

Clean fill meeting the requirements of 6 NYCRR Part 375-6.7(d) will be brought in to complete the backfilling of the excavation and establish the designed grades at the site.

4. Vapor Intrusion Evaluation

As part of the track 1 remedy, a soil vapor intrusion evaluation will be completed. The evaluation will include a provision for implementing actions recommended to address exposures related to soil vapor intrusion.

5. Local Institutional Controls

If a Track 1 cleanup is achieved and thus no Environmental Easement (EE) or Site Management Plan (SMP) is needed to achieve soil, groundwater, or soil vapor remedial action objectives, then the following local use restriction will be relied upon to prevent ingestion of groundwater: Article 141 of the NYCDOH code, which prohibits potable use of groundwater without prior approval.

Contingent Track 1

In the event that Track 1 unrestricted use is not achieved, including the achievement of unrestricted SCOs, groundwater and soil vapor remedial objectives, the following contingent remedial elements will be required, and the remedy will achieve a Track 2 restricted residential cleanup.

Contingent Remedial Elements:

6. Institutional Controls

Imposition of an institutional control in the form of an environmental easement for the controlled property which will:

- require the remedial party or site owner to complete and submit to the Department a periodic certification of institutional and engineering controls in accordance with Part 375-1.8 (h)(3);
- allow the use and development of the controlled property for restricted residential use as defined by Part 375-1.8(g), although land use is subject to local zoning laws;
- restrict the use of groundwater as a source of potable or process water, without necessary water quality treatment as determined by the NYSDOH or NYCDOH; and
- require compliance with the Department approved Site Management Plan.

7. Site Management Plan

A Site Management Plan is required, which includes the following:

a. an Institutional Control Plan that identifies all use restrictions for the site and details the steps and media-specific requirements necessary to ensure the following institutional controls remain in place and effective:

- Institutional Controls: The Environmental Easement discussed in Paragraph 6 above.

  This plan includes, but may not be limited to:
  - an Excavation Plan which details the provisions for management of future excavations in areas of remaining contamination;
  - descriptions of the provisions of the environmental easement including any land use or groundwater use restrictions;
  - a provision for evaluation of the potential for soil vapor intrusion for any occupied buildings on the site, including provision for implementing actions recommended to address exposures related to soil vapor intrusion;
  - maintaining site access controls and Department notification; and
  - the steps necessary for the periodic reviews and certification of the institutional controls.

b. a Monitoring Plan to assess the performance and effectiveness of the remedy. The plan includes, but may not be limited to:
   - monitoring of groundwater to assess the performance and effectiveness of the remedy;
   - a schedule of monitoring and frequency of submittals to the Department; and
   - monitoring of vapor intrusion for any buildings on the site, as may be required by the Institutional Control Plan discussed above.

Declaration

The remedy conforms with promulgated standards and criteria that are directly applicable, or that are relevant and appropriate and takes into consideration Department guidance, as appropriate. The remedy is protective of public health and the environment.

May 24, 2022

Date

Gerard Burke, Director
Remedial Bureau B

DECISION DOCUMENT

408 West 207th Street
New York, New York County
Site No. C231147
May 2022

SECTION 1: SUMMARY AND PURPOSE

The New York State Department of Environmental Conservation (the Department), in consultation with the New York State Department of Health (NYSDOH), has selected a remedy for the above referenced site. The disposal of contaminants at the site has resulted in threats to public health and the environment that would be addressed by the remedy. The disposal or release of contaminants at this site, as more fully described in this document, has contaminated various environmental media. Contaminants include hazardous waste and/or petroleum.

The New York State Brownfield Cleanup Program (BCP) is a voluntary program. The goal of the BCP is to enhance private-sector cleanups of brownfields and to reduce development pressure on "greenfields." A brownfield site is real property, where a contaminant is present at levels exceeding the soil cleanup objectives or other health-based or environmental standards, criteria or guidance, based on the reasonably anticipated use of the property.

The Department has issued this document in accordance with the requirements of New York State Environmental Conservation Law and 6 NYCRR Part 375. This document is a summary of the information that can be found in the site-related reports and documents.

SECTION 2: CITIZEN PARTICIPATION

The Department seeks input from the community on all remedies. A public comment period was held, during which the public was encouraged to submit comment on the proposed remedy. All comments on the remedy received during the comment period were considered by the Department in selecting a remedy for the site. Site-related reports and documents were made available for review by the public at the following document repository:

DECInfo Locator - Web Application
https://gisservices.dec.ny.gov/gis/dil/index.html?rs=C231147

Inwood Library
4857 Broadway
New York, NY 10034
Phone: (212) 942-2445

Manhattan Community Board 12

530 West 166th Street
New York, NY 10032
Phone: (212) 568-8500

Receive Site Citizen Participation Information By Email

Please note that the Department's Division of Environmental Remediation (DER) is "going paperless" relative to citizen participation information. The ultimate goal is to distribute citizen participation information about contaminated sites electronically by way of county email listservs. Information will be distributed for all sites that are being investigated and cleaned up in a particular county under the State Superfund Program, Environmental Restoration Program, Brownfield Cleanup Program and Resource Conservation and Recovery Act Program. We encourage the public to sign up for one or more county listservs at http://www.dec.ny.gov/chemical/61092.html

SECTION 3: SITE DESCRIPTION AND HISTORY

Location: The site is located at 408 West 207th Street in the Inwood neighborhood of Manhattan and encompasses Tax Block 2203, Lot 21. The site is bounded to the south by West 206th Street; to the north by West 207th Street; to the west by a parking lot, vacant grocery store (BCP Site No. C231144) and commercial buildings; and to the east by 9th Avenue.

Site Features: The 0.46-acre site currently consists of an asphalt parking lot that was associated with the now-vacant grocery store located off-site to the west.

Current Zoning and Land Use: The site is currently unoccupied and zoned as R9A for residential use with a C2-4 commercial overlay. The surrounding properties are residential and commercial with a beverage center to the east and residential buildings to the west.

Past Use of the Site: The southern portion of the site was developed in 1926 with an automobile garage which operated until 1968. From 1947 to 1968, a gasoline filling station was located in the northern area of the site. By 1969, all structures were demolished and the site was paved for parking to serve the now-vacant grocery store to the west.

Site Geology & Hydrogeology: Site soils consist of urban fill materials to depths ranging from 4 to 10 feet below ground surface (bgs) underlain by native fine to coarse sand with some gravel and silt. A peat layer was observed at 14 to 15 feet bgs in the northern portion of the site. Bedrock is present at 50 to 80 feet bgs, sloping downward to the Harlem River which is approximately 500 feet to the east. Groundwater is present at 9 to 10 feet bgs, flows easterly toward the Harlem River, and is likely influenced by subsurface utilities.

A site location map and site plan are attached as Figure 1 and 2.

SECTION 4: LAND USE AND PHYSICAL SETTING

The Department may consider the current, intended, and reasonably anticipated future land use

of the site and its surroundings when evaluating a remedy for soil remediation. For this site, alternatives (or an alternative) that restrict(s) the use of the site to restricted residential as described in Part 375-1.8(g) were/was evaluated in addition to an alternative which would allow for unrestricted use of the site.

A comparison of the results of the Remedial Investigation (RI) to the appropriate standards, criteria and guidance values (SCGs) for the identified land use and the unrestricted use SCGs for the site contaminants is available in the RI Report.

SECTION 5: ENFORCEMENT STATUS

The Applicant under the Brownfield Cleanup Agreement is a Volunteer. The Applicant does not have an obligation to address off-site contamination. However, the Department has determined that this site does not pose a significant threat to public health or the environment; accordingly, no enforcement actions are necessary.

SECTION 6: SITE CONTAMINATION

6.1: Summary of the Remedial Investigation

A remedial investigation (RI) serves as the mechanism for collecting data to:

- characterize site conditions;
- determine the nature of the contamination; and
- assess risk to human health and the environment.

The RI is intended to identify the nature (or type) of contamination which may be present at a site and the extent of that contamination in the environment on the site, or leaving the site. The RI reports on data gathered to determine if the soil, groundwater, soil vapor, indoor air, surface water or sediments may have been contaminated. Monitoring wells are installed to assess groundwater and soil borings or test pits are installed to sample soil and/or waste(s) identified. If other natural resources are present, such as surface water bodies or wetlands, the water and sediment may be sampled as well. Based on the presence of contaminants in soil and groundwater, soil vapor will also be sampled for the presence of contamination. Data collected in the RI influence the development of remedial alternatives. The RI report is available for review in the site document repository and the results are summarized in section 6.3.

The analytical data collected on this site includes data for:

- groundwater
- soil
- soil vapor

6.1.1: Standards, Criteria, and Guidance (SCGs)

The remedy must conform to promulgated standards and criteria that are directly applicable or

that are relevant and appropriate. The selection of a remedy must also take into consideration guidance, as appropriate. Standards, Criteria and Guidance are hereafter called SCGs.

To determine whether the contaminants identified in various media are present at levels of concern, the data from the RI were compared to media-specific SCGs. The Department has developed SCGs for groundwater, surface water, sediments, and soil. The NYSDOH has developed SCGs for drinking water and soil vapor intrusion. For a full listing of all SCGs see: http://www.dec.ny.gov/regulations/61794.html

6.1.2: RI Results

The data have identified contaminants of concern. A "contaminant of concern" is a contaminant that is sufficiently present in frequency and concentration in the environment to require evaluation for remedial action. Not all contaminants identified on the property are contaminants of concern. The nature and extent of contamination and environmental media requiring action are summarized below. Additionally, the RI Report contains a full discussion of the data. The contaminant(s) of concern identified at this site is/are:

1,2,4-trimethylbenzene	4,4'-DDE
benzene	4,4'-DDT
ethylbenzene	chloroform
butylbenzene	isopropylbenzene
n-propylbenzene	sec-butylbenzene
xylene (mixed)	toluene
arsenic	naphthalene
cadmium	tetrachloroethene (PCE)
lead	1,1,1-trichloroethane
mercury	methylene chloride
nickel	carbon tetrachloride
zinc	

The contaminant(s) of concern exceed the applicable SCGs for:
- soil
- groundwater

6.2: Interim Remedial Measures

An interim remedial measure (IRM) is conducted at a site when a source of contamination or exposure pathway can be effectively addressed before issuance of the Decision Document.

There were no IRMs performed at this site during the RI.

6.3: Summary of Environmental Assessment

This section summarizes the assessment of existing and potential future environmental impacts presented by the site. Environmental impacts may include existing and potential future exposure

pathways to fish and wildlife receptors, wetlands, groundwater resources, and surface water. The RI report presents a detailed discussion of any existing and potential impacts from the site to fish and wildlife receptors.

Soil and groundwater were analyzed for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), metals, polychlorinated biphenyls (PCBs), per- and polyfluoroalkyl substances (PFAS), and pesticides. Soil vapor was analyzed for VOCs. The primary contaminants of concern are VOCs, metals, and SVOCs, specifically poly-cyclic aromatic hydrocarbons (PAHs).

Soil – Petroleum-related VOCs were detected in the northern area of the site near former gasoline station operations at depths up to 12 feet below ground surface (bgs) at concentrations exceeding unrestricted use soil cleanup objectives (UUSCOs) and applicable protection of groundwater soil cleanup objectives (PGWSCOs) including: 1,2,4-trimethylbenzene up to 82 parts per million (ppm) (UUSCO is 3.5 ppm), benzene up to 0.45 ppm (UUSCO and PGWSCO is 0.06 ppm), ethylbenzene up to 6.4 ppm (UUSCO and PGWSCO is 1 ppm), n-butylbenzene up to 29 ppm (UUSCO and PGWSCO is 12 ppm), n-propylbenzene up to 54 ppm (UUSCO and PGWSCO is 3.9 ppm), and total xylenes up to 2.7 ppm (UUSCO is 0.26 ppm and PGWSCO is 1.6 ppm).

Metals were detected throughout the site at depths up to 8 feet bgs at concentrations exceeding UUSCOs including arsenic up to 46.2 ppm (UUSCO is 13 ppm), cadmium up to 53 ppm (UUSCO is 2.5 ppm), lead up to 631 ppm (UUSCO is 63 ppm), mercury up to 6.4 ppm (UUSCO is 0.18), nickel up to 66 ppm (UUSCO is 30 ppm), and zinc up to 2,560 ppm (UUSCO is 109 ppm).

For SVOCs, PAHs were detected in one soil boring at concentrations slightly exceeding UUSCOs.

Two pesticides were detected at several locations in shallow subsurface soils at the southern portion of the site above UUSCOs including: 4,4'-DDE up to 0.03 ppm (UUSCO is 0.0033 ppm) and 4,4'-DDT up to 0.068 ppm (UUSCO is 0.0033 ppm).

PCBs were not detected above UUSCOs and no PFAS were detected above unrestricted use guidance values.

The VOCs found in soil are likely attributable to operation of the former gasoline station while the metals and PAHs are related to historic fill. The data do not indicate any off-site impacts in soil related to the site.

Groundwater – VOCs detected above Class GA Ambient Water Quality Standards (AWQS) in groundwater include: benzene up to 54 parts per billion (ppb) (standard is 1 ppb), chloroform up to 82 ppb (standard is 7 ppb), ethylbenzene up to 28 ppb (standard is 5 ppb), isopropylbenzene up to 280 ppb (standard is 5 ppb), n-butylbenzene up to 45 ppb (standard is 5 ppb), n-propylbenzene up to 740 ppb (standard is 5 ppb), sec-butylbenzene up to 28 ppb (standard 5

ppb), toluene up to 5.5 ppb (standard is 5 ppb), and total xylenes up to 8.9 ppb (standard is 5 ppb).

One SVOC, naphthalene, was detected at 90 ppb (standard is 10 ppb) in one location.

For dissolved metals, iron, magnesium, manganese, and sodium were detected above their respective AWQS but are considered naturally occurring and not site related.

For PFAS, perfluorooctanesulfonic acid (PFOS) and perfluorooctanoic acid (PFOA) were detected at concentrations up to 23.5 parts per trillion (ppt) and 31.2 ppt respectively, exceeding the Maximum Contaminant Level (MCL) (drinking water standard) of 10 ppt each in groundwater. There are no public water supply wells within a half a mile and there is a municipal prohibition for use of groundwater at the site.

No PCBs or pesticides were detected above standards. 1,4-dioxane was not detected in groundwater.

The data do not indicate any off-site impacts in groundwater related to this site.

Soil Vapor - Chlorinated VOCs were detected in soil vapor including: tetrachloroethene (PCE) up to 26 micrograms per cubic meter (µg/m³), 1,1,1-trichloroethane up to 6 µg/m³, methylene chloride up to 2.6 µg/m³, and carbon tetrachloride up to 0.35 µg/m³. Notable petroleum-related VOC detections include benzene up to 5,400 µg/m³, isooctane up to 1,100,000 µg/m³, cyclohexane up to 11,000 µg/m³, isopropylbenzene up to 5,300 µg/m³, and toluene up to 1,300 µg/m³. The data do not indicate any off-site impacts in soil vapor related to the site.

6.4: Summary of Human Exposure Pathways

This human exposure assessment identifies ways in which people may be exposed to site-related contaminants. Chemicals can enter the body through three major pathways (breathing, touching or swallowing). This is referred to as *exposure.*

The site is covered with a parking lot, therefore it is not expected that people will come into contact with site related contamination unless they disturb the surface. People are not drinking the contaminated groundwater because the area is served by a municipal water supply that is not affected by this contamination. Volatile organic compounds in soil vapor (air spaces within the soil) may move into buildings and affect the indoor air quality. This process, which is similar to the movement of radon gas from the subsurface into the indoor air of buildings, is referred to as soil vapor intrusion. Since the site is vacant, soil vapor intrusion is not a current concern, however the potential exists for indoor air impacts in any future on-site development and occupancy. Environmental sampling indicates that soil vapor intrusion is not a current or future concern for off-site buildings.

6.5: Summary of the Remediation Objectives

The objectives for the remedial program have been established through the remedy selection process stated in 6 NYCRR Part 375. The goal for the remedial program is to restore the site to pre-disposal conditions to the extent feasible. At a minimum, the remedy shall eliminate or mitigate all significant threats to public health and the environment presented by the contamination identified at the site through the proper application of scientific and engineering principles.

The remedial action objectives for this site are:

Groundwater

RAOs for Public Health Protection

- Prevent ingestion of groundwater with contaminant levels exceeding drinking water standards.

RAOs for Environmental Protection

- Remove the source of ground or surface water contamination.

Soil

RAOs for Public Health Protection

- Prevent ingestion/direct contact with contaminated soil.
- Prevent inhalation of or exposure from contaminants volatilizing from contaminants in soil.

RAOs for Environmental Protection

- Prevent migration of contaminants that would result in groundwater or surface water contamination.

Soil Vapor

RAOs for Public Health Protection

- Mitigate impacts to public health resulting from existing, or the potential for, soil vapor intrusion into buildings at a site.

SECTION 7: ELEMENTS OF THE SELECTED REMEDY

The alternatives developed for the site and the evaluation of the remedial criteria are presented in the Alternative Analysis. The remedy is selected pursuant to the remedy selection criteria set forth in DER-10, Technical Guidance for Site Investigation and Remediation and 6 NYCRR Part 375.

The selected remedy is a Contingent Track 1 remedy.

The selected remedy is referred to as the Excavation and Soil Vapor Intrusion Evaluation remedy.

The elements of the selected remedy, as shown in Figure 3, are as follows:

1. Remedial Design

A remedial design program will be implemented to provide the details necessary for the

construction, operation, optimization, maintenance, and monitoring of the remedial program. Green remediation principles and techniques will be implemented to the extent feasible in the design, implementation, and site management of the remedy as per DER-31. The major green remediation components are as follows:

- Considering the environmental impacts of treatment technologies and remedy stewardship over the long term;
- Reducing direct and indirect greenhouse gases and other emissions;
- Increasing energy efficiency and minimizing use of non-renewable energy;
- Conserving and efficiently managing resources and materials;
- Reducing waste, increasing recycling and increasing reuse of materials which would otherwise be considered a waste;
- Maximizing habitat value and creating habitat when possible;
- Fostering green and healthy communities and working landscapes which balance ecological, economic and social goals;
- Integrating the remedy with the end use where possible and encouraging green and sustainable re-development; and
- Additionally, to incorporate green remediation principles and techniques to the extent feasible in the future development at this site, any future on-site buildings will include, at a minimum, a 20-mil vapor barrier/waterproofing membrane on the foundation to improve energy efficiency as an element of construction.

2. Excavation

Excavation and off-site disposal of contaminant source areas, including:

- grossly contaminated soil, as defined in 6 NYCRR Part 375-1.2(u);
- soils which exceed the protection of groundwater soil cleanup objectives (PGWSCOs), as defined by 6 NYCRR Part 375-6.8 for those contaminants found in site groundwater above standards;
- soils that create a nuisance condition, as defined in Commissioner Policy CP-51 Section G; and
- any underground storage tanks (USTs), fuel dispensers, underground piping or other structures associated with a source of contamination.

Excavation and off-site disposal of all on-site soils which exceed unrestricted SCOs, as defined by 6 NYCRR Part 375-6.8. Approximately 6,200 cubic yards of contaminated soil will be removed from the site.

3. Backfill

Clean fill meeting the requirements of 6 NYCRR Part 375-6.7(d) will be brought in to complete the backfilling of the excavation and establish the designed grades at the site.

4. Vapor Intrusion Evaluation

As part of the track 1 remedy, a soil vapor intrusion evaluation will be completed. The evaluation will include a provision for implementing actions recommended to address exposures related to soil vapor intrusion.

5. Local Institutional Controls

If a Track 1 cleanup is achieved and thus no Environmental Easement (EE) or Site Management Plan (SMP) is needed to achieve soil, groundwater, or soil vapor remedial action objectives, then the following local use restriction will be relied upon to prevent ingestion of groundwater: Article 141 of the NYCDOH code, which prohibits potable use of groundwater without prior approval.

Contingent Track 1

In the event that Track 1 unrestricted use is not achieved, including the achievement of unrestricted SCOs, groundwater and soil vapor remedial objectives, the following contingent remedial elements will be required, and the remedy will achieve a Track 2 restricted residential cleanup.

Contingent Remedial Elements:

6. Institutional Controls

Imposition of an institutional control in the form of an environmental easement for the controlled property which will:

- require the remedial party or site owner to complete and submit to the Department a periodic certification of institutional and engineering controls in accordance with Part 375-1.8 (h)(3);
- allow the use and development of the controlled property for restricted residential use as defined by Part 375-1.8(g), although land use is subject to local zoning laws;
- restrict the use of groundwater as a source of potable or process water, without necessary water quality treatment as determined by the NYSDOH or NYCDOH; and
- require compliance with the Department approved Site Management Plan.

7. Site Management Plan

A Site Management Plan is required, which includes the following:

c. an Institutional Control Plan that identifies all use restrictions for the site and details the steps and media-specific requirements necessary to ensure the following institutional controls remain in place and effective:

- Institutional Controls: The Environmental Easement discussed in Paragraph 6 above.

  This plan includes, but may not be limited to:
  - an Excavation Plan which details the provisions for management of future excavations in areas of remaining contamination;
  - descriptions of the provisions of the environmental easement including any land use or groundwater use restrictions;
  - a provision for evaluation of the potential for soil vapor intrusion for any occupied buildings on the site, including provision for implementing actions recommended to address exposures related to soil vapor intrusion;
  - maintaining site access controls and Department notification; and

- the steps necessary for the periodic reviews and certification of the institutional controls.

d. a Monitoring Plan to assess the performance and effectiveness of the remedy. The plan includes, but may not be limited to:
    - monitoring of groundwater to assess the performance and effectiveness of the remedy;
    - a schedule of monitoring and frequency of submittals to the Department; and
    - monitoring of vapor intrusion for any buildings on the site, as may be required by the Institutional Control Plan discussed above.

QUADRANGLE LOCATION

N

1,000 0 1,000'

Title:

SITE LOCATION MAP

408 WEST 207TH STREET
MANHATTAN, NEW YORK

Prepared for:

HARLEM RIVER NINTH AVENUE DEVELOPMENT LLC

ROUX

Compiled by: D.M.	Date: 01/17/22	FIGURE
Prepared by: M.S.R.	Scale: AS SHOWN	1
Project Mgr: V.S.	Project: 2477.0008Y000	
File: 2477.0008Y138.1.mxd		

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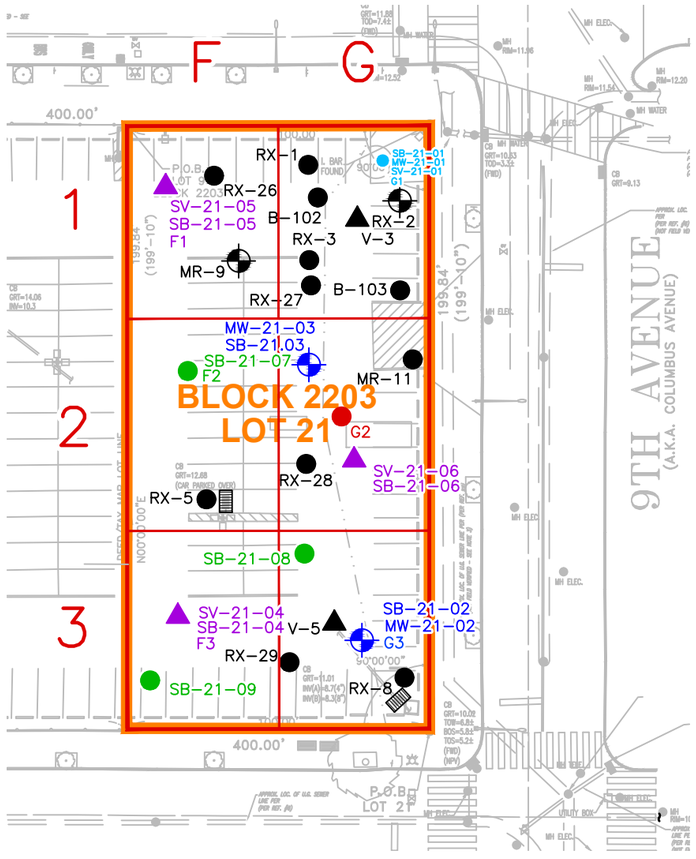

LEGEND

SB-21-02 MW-21-02 G3	SOIL BORING AND MONITORING WELL LOCATION AND DESIGNATION
SB-21-08	SOIL BORING LOCATION AND DESIGNATION
SB-21-04 SV-21-04 F3	SOIL BORING AND SOIL VAPOR SAMPLING LOCATION AND DESIGNATION
SB-21-01 MW-21-01 SV-21-01 G1	SOIL BORING, MONITORING WELL AND SOIL VAPOR SAMPLING LOCATION AND DESIGNATION
B-102	SOIL BORING AND TEMPORARY MONITORING WELL LOCATION AND DESIGNATION (INSTALLED BY STANTEC, 2011)
MR-09	SOIL BORING AND TEMPORARY MONITORING WELL LOCATION AND DESIGNATION PREVIOUSLY INSTALLED
V-5	SOIL VAPOR SAMPLING LOCATION AND DESIGNATION PREVIOUSLY INSTALLED BY ROUX
RX-5	SOIL BORING LOCATION AND DESIGNATION PREVIOUSLY INSTALLED BY ROUX
G2	WASTE CHARACTERIZATION SOIL BORING LOCATION AND DESIGNATION
	CATCH BASIN
	WASTE CHARACTERIZATION GRID
	SITE BOUNDARY

50' 0 50'

Title:

SITE PLAN AND SAMPLING LOCATIONS

408 WEST 207TH STREET
NEW YORK, NEW YORK

Prepared for:

HARLEM RIVER NINTH AVENUE DEVELOPMENT LLC

ROUX

Compiled by: V.S.	Date: 19FEB21	FIGURE
Prepared by: G.M.	Scale: AS SHOWN	2
Project Mgr: V.S.	Project: 2477.0008Y000	
File: 2477.0008Y138.01.DWG		

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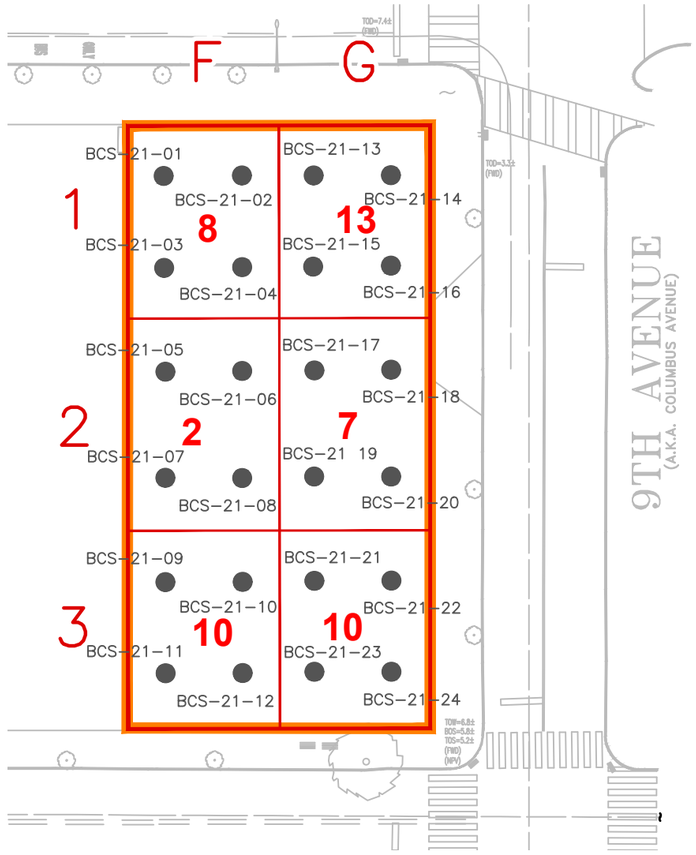


LEGEND

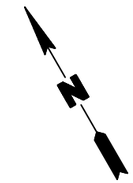
10	PROPOSED REMEDIAL EXCAVATION DEPTH TO MEET UUSCOS (FT BLS) (SEE NOTE 1)
BCS-09-01 ●	PROPOSED BOTTOM CONFIRMATION SAMPLE LOCATION AND DESIGNATION (SEE NOTE 2)
▬	WASTE CHARACTERIZATION GRID
▬	SITE BOUNDARY
NAVD88	NORTH AMERICAN VERTICAL DATUM 1988
RRSCO	RESTRICTED RESIDENTIAL SOIL CLEANUP OBJECTIVE
UUSCO	UNRESTRICTED USE SOIL CLEANUP OBJECTIVE
BCS	BOTTOM CONFIRMATION SAMPLE
FT BLS	FEET BELOW LAND SURFACE
RAWP	REMEDIAL ACTION WORK PLAN

NOTES

1. REMEDIAL EXCAVATION DEPTHS ARE SHOWN AND ARE BASED ON THE DEPTH INTERVAL OF THE DEEPEST REMEDIAL INVESTIGATION SAMPLE EXCEEDANCE OF UUSCOS WITHIN EACH GRID. IT SHOULD BE NOTED THAT THE ENTIRE SITE WILL BE EXCAVATED TO ELEVATION −1.5 FT NAVD88 FOR REDEVELOPMENT PURPOSES. THEREFORE, THERE WILL BE NO INTERNAL SIDEWALLS BETWEEN THE GRIDS SINCE NO SOIL WILL REMAIN.
2. PROPOSED BOTTOM CONFIRMATION SAMPLES ARE SHOWN. REFER TO SECTION 10.2.1 OF THE RAWP FOR A DESCRIPTION OF SAMPLING FREQUENCIES AND ANALYTES. LOCATIONS ARE APPROXIMATE AND WILL BE BIASED TOWARD IMPACTS OBSERVED, IF ANY.
3. IF UUSCOS ARE NOT MET ACROSS ALL OR PART OF THE SITE, THE REMEDY WILL REVERT TO TRACK 2 RESTRICTED RESIDENTIAL CLEANUP AND AN ENVIRONMENTAL EASEMENT AND SITE MANAGEMENT PLAN WILL BE PUT IN PLACE.
4. THE TOPOGRAPHY OF THE SITE IS SLOPED TO THE EAST. THEREFORE, THE EXCAVATION DEPTH REQUIRED TO REACH THE PROPOSED REMEDIAL OR REDEVELOPMENT ELEVATIONS IS SHALLOWER ON THE EAST SIDE OF THE SITE COMPARED TO THE WEST SIDE OF THE SITE.
5. BACKFILL, IF REQUIRED, WILL MEET UUSCOS. FILL MATERIALS WITH LESS THAN 10 PERCENT PASSING THE NUMBER 80 SIEVE (I.E., VIRGIN STONE, VIRGIN GRAVEL, ETC.) DO NOT REQUIRE SAMPLING.

REFERENCE:

CONTROL POINT SURVEY V−001.00 DATED 7/10/2018. ALL 2021 REMEDIAL INVESTIGATION SAMPLE LOCATIONS SURVEYED BY MEGA ENGINEERING AND LAND SURVEYING, P.C. IN NOVEMBER 2021.



50’ 0 50’

Title:

REMEDIAL ALTERNATIVE 1: TRACK 1 UNRESTRICTED USE CLEANUP

408 WEST 207TH STREET
NEW YORK, NEW YORK

Prepared for:

HARLEM RIVER NINTH AVENUE DEVELOPMENT LLC

ROUX

Compiled by: N.C.	Date: 08MAR22	FIGURE
Prepared by: N.C.	Scale: AS SHOWN	6
Project Mgr: V.S.	Project: 2477.0008Y000	
File: 2477.0008Y138.07R.DWG		

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