

DECISION DOCUMENT

749 Van Sinderen Avenue
Brownfield Cleanup Program
Brooklyn, Kings County
Site No. C224405
March 2026



**Department of
Environmental
Conservation**

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

DECLARATION STATEMENT - DECISION DOCUMENT

749 Van Sinderen Avenue
Brownfield Cleanup Program
Brooklyn, Kings County
Site No. C224405
March 2026

Statement of Purpose and Basis

This document presents the remedy for the 749 Van Sinderen Avenue 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 (NYSDEC) for the 749 Van Sinderen Avenue site and the public's input to the proposed remedy presented by NYSDEC.

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 shall be

constructed, at a minimum, to meet the 2020 Energy Conservation Construction Code of New York (or most recent edition) to improve energy efficiency as an element of construction.

As part of the remedial design program, to evaluate the remedy with respect to green and sustainable remediation principles, an environmental footprint analysis will be completed. The environmental footprint analysis will be completed using an accepted environmental footprint analysis calculator such as SEFA (Spreadsheets for Environmental Footprint Analysis, USEPA), SiteWise™ (available in the Sustainable Remediation Forum [SURF] library) or similar NYSDEC accepted tool. Water consumption, greenhouse gas emissions, renewable and non-renewable energy use, waste reduction and material use will be estimated, and goals for the project related to these green and sustainable remediation metrics, as well as for minimizing community impacts, protecting habitats and natural and cultural resources, and promoting environmental justice, will be incorporated into the remedial design program, as appropriate. The project design specifications will include detailed requirements to achieve the green and sustainable remediation goals. Further, progress with respect to green and sustainable remediation metrics will be tracked during implementation of the remedial action and reported in the Final Engineering Report (FER), including a comparison to the goals established during the remedial design program.

Additionally, the remedial design program will include a climate change vulnerability assessment, to evaluate the impact of climate change on the project site and the proposed remedy. Potential vulnerabilities associated with extreme weather events (e.g., hurricanes, lightning, heat stress and drought), flooding, and sea level rise will be identified, and the remedial design program will incorporate measures to minimize the impact of climate change on potential identified vulnerabilities.

2. Excavation

The existing on-site buildings will be demolished and materials which cannot be beneficially reused on site will be taken off-site for proper disposal in order to implement the remedy.

All soils in the upper two feet which exceed the restricted residential soil cleanup objectives (SCOs) will be excavated and transported off-site for disposal. Approximately 100 cubic yards of contaminated soil will be removed from the site. Collection and analysis of confirmation samples at the remedial excavation depth will be used to verify that SCOs for the site have been achieved. If confirmation sampling indicates that SCOs were not achieved at the stated remedial depth, the Applicant must notify NYSDEC, submit the sample results and, in consultation with NYSDEC, determine if further remedial excavation is necessary. Further excavation for development will proceed after confirmation samples demonstrate that SCOs for the site have been achieved.

To ensure proper handling and disposal of excavated material, waste characterization sampling will be completed for all identified contaminated site material. Waste characterization sampling will be performed exclusively for the purposes of off-site disposal in a manner suitable to receiving facilities and in conformance with applicable federal, state and local laws, rules, and

regulations and facility-specific permits.

Backfill meeting the requirements of 6 NYCRR Part 375-6.7(d) will be brought in to replace the excavated soil and establish the designed grades at the site.

3. Cover System

A site cover will be required in areas where the upper two feet of exposed surface soil will exceed the applicable SCOs, to allow for future restricted residential use of the site. Where a soil cover is to be used it will be a minimum of two feet of soil placed over a demarcation layer, with the upper six inches of soil of sufficient quality to maintain a vegetative layer. Soil cover material, including any fill material brought to the site, will meet the SCOs for cover material for the use of the site as set forth in 6 NYCRR Part 375-6.7(d). Substitution of other materials and components may be allowed where such components already exist or are a component of the tangible property to be placed as part of site redevelopment. Such components may include, but are not necessarily limited to: pavement, concrete, paved surface parking areas, sidewalks, building foundations and building slabs.

4. Soil Vapor Extraction

Soil vapor extraction (SVE) will be implemented to remove volatile organic compound (VOC) vapors from the subsurface and prevent off-site migration of contaminated vapor. VOCs will be physically removed from the subsurface by applying a vacuum to wells that have been installed into the vadose zone (the area below the ground but above the water table). The vacuum draws air through the soil matrix which carries the VOC vapors from the soil to the SVE well. The air extracted from the SVE wells is then treated as necessary prior to being discharged to the atmosphere.

Prior to the full implementation of this technology, on-site pilot scale studies will be conducted to more clearly define design parameters.

Upon system startup, SVE wells will be tested to confirm vacuum influence and effectiveness of the system. If there are no SVE wells located near the site boundaries of concern, vacuum monitoring points will be installed near the site boundaries to evaluate SVE effectiveness at preventing off-site migration of contaminated vapors.

5. In-situ Chemical Oxidation

In-situ chemical oxidation (ISCO) will be implemented to treat contaminants in groundwater and source material. A chemical oxidant will be injected into the subsurface to destroy the contaminants across tax map lot 21 where soils that may be acting as a source material were identified at the soil-groundwater interface and volatile organic compounds were elevated in the groundwater. The method and depth of injection will be determined during the remedial design.

Monitoring will be required upgradient, downgradient, and within the treatment zone. Monitoring will be conducted for contaminants of concern. The treatment zone will be monitored

for dissolved oxygen and oxidation/reduction potential from a network of monitoring wells.

6. Treatment Remedy Shutdown

The operation of the components of the remedy will continue until the remedial objectives have been achieved, or until NYSDEC determines that continued operation is technically impracticable or not feasible.

7. Vapor Mitigation

Any on-site buildings will be required to have a sub-slab depressurization system, or other acceptable measures, to mitigate the migration of vapors into the building from the subsurface.

8. Institutional Control

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 NYSDEC 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 NYSDOH or NYCDOHMH; and
- require compliance with the NYSDEC approved Site Management Plan.

9. Site Management Plan

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

- a. an Institutional and Engineering Control Plan that identifies all use restrictions and engineering controls for the site and details the steps and media-specific requirements necessary to ensure the following institutional and/or engineering controls remain in place and effective:
 - Institutional Controls: The Environmental Easement discussed in Remedy Element 8 above.
 - Engineering Controls: The cover system discussed in Remedy Element 3, soil vapor extraction system discussed in Remedy Element 4, the monitoring well network discussed in Remedy Element 5, and the vapor mitigation system discussed in Remedy Element 7, 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, and groundwater 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;
 - a provision that should a building foundation or building slab be removed in the future, a cover system consistent with that described in Remedy Element 3 above will be placed in any areas where the upper two feet of exposed surface soil exceed the applicable SCOs
 - provisions for the management and inspection of the identified engineering controls;
 - maintaining site access controls and NYSDEC notification; and
 - the steps necessary for the periodic reviews and certification of the institutional and/or engineering 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 and soil vapor to assess the performance and effectiveness of the remedy; and
 - a schedule of monitoring and frequency of submittals to NYSDEC.
- c. an Operation and Maintenance (O&M) Plan to ensure continued operation, maintenance, optimization, monitoring, inspection, and reporting of any mechanical or physical components of the remedy. The plan includes, but is not limited to:
- procedures for operating and maintaining the remedy;
 - compliance monitoring of treatment systems to ensure proper O&M as well as providing the data for any necessary permit or permit equivalent reporting;
 - maintaining site access controls and NYSDEC notification; and
 - providing NYSDEC access to the site and O&M records.

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.



March 9, 2026

Date

Scott Deyette, Director
Remedial Bureau B

DECISION DOCUMENT

749 Van Sinderen Avenue
Brooklyn, Kings County
Site No. C224405
March 2026

SECTION 1: SUMMARY AND PURPOSE

The New York State Department of Environmental Conservation (NYSDEC), 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.

NYSDEC 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

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

DECInfo Locator - Web Application
<https://gisservices.dec.ny.gov/gis/dil/index.html?rs=C224405>

Brooklyn Community Board 5
127 Pennsylvania Avenue, 2nd Floor
Brooklyn, NY 11207
Phone: (929) 221-8261

Stone Avenue Library

581 Mother Gaston Boulevard
Brooklyn, NY 11207
Phone: (718) 819-5487

Receive Site Citizen Participation Information By Email

Please note that NYSDEC'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 0.603-acre site is located at 749 Van Sinderen Avenue and 719 Van Sinderen Avenue in the New Lots section of Brooklyn, NY and is identified as Block 3865, Lots 9 and 21. The site is bounded by a mixed-use residential and commercial building including a daycare and kindergarten facility to the north followed by New Lots Avenue, one- and two-family residential buildings to the east followed by Snediker Avenue, a commercial building to the south followed by Linden Boulevard, and Van Sinderen Avenue followed by the MTA L-Train station to the west.

Site Features: The rectangular shaped site is currently developed with seven (7) one story buildings most recently occupied by auto repair and auto body shop tenants. A courtyard is located on the northeastern portion of the site. All buildings are currently vacant.

Current Zoning and Land Use: The site is currently zoned as C4-4L (commercial). The greater surrounding area consists of predominantly residential properties with some commercial and mixed-use properties.

Past Uses of the Site: Historical uses of the site include manufacturing operations from at least 1928 to 1987, which included manufacturing of wood products, metal working, furniture manufacturing, and a lumber yard. The site was occupied by several auto repair and auto body works facilities from at least 1989 to 2025.

Site Geology and Hydrogeology: The site elevation ranges from approximately 22 feet North American Vertical Datum of 1988 (NAVD88, an approximation of sea level) on the northern portion of the site to 18 feet NAVD88 on the southern portion of the site. The subsurface of the site consists of historic urban fill characterized by fine sand and silt with asphalt, concrete, brick fragments and coal ash extending to varying depths of 0 to 15 feet below grade surface (bgs). The fill material is underlain by apparent native fine to medium, well-sorted, brown sand with little gravel. Groundwater is present beneath the site at 15.35 to 17.2 feet bgs. Groundwater flow is to the south-southeast towards Fresh Creek and Jamaica Bay, which are located approximately

4,000 feet from the site.

A site location map is attached as Figure 1.

SECTION 4: LAND USE AND PHYSICAL SETTING

NYSDEC 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, an alternative that restricts the use of the site to restricted-residential use (which allows for commercial use and industrial use) as described in Part 375-1.8(g) 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 Applicants under the Brownfield Cleanup Agreement are Volunteers. The Applicants do not have an obligation to address off-site contamination. However, NYSDEC has determined that this site poses a significant threat to public health or the environment; accordingly, enforcement actions are necessary.

NYSDEC will seek to identify any parties (other than the Volunteers) known or suspected to be responsible for contamination at or emanating from the site, referred to as Potentially Responsible Parties (PRPs). NYSDEC will bring an enforcement action against the PRPs. If an enforcement action cannot be brought, or does not result in the initiation of a remedial program by any PRPs, NYSDEC will evaluate the off-site contamination for action under the State Superfund. The PRPs are subject to legal actions by the State for recovery of all response costs the State incurs or has incurred.

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
- indoor air
- sub-slab 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. NYSDEC 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 contaminants of concern identified at this site are:

trichloroethene (TCE)	1,2,4-trimethylbenzene
tetrachloroethene (PCE)	toluene
benzo(a)anthracene	1,3,5-trimethylbenzene
naphthalene	

The contaminants of concern exceed the applicable SCGs for:

- groundwater
- soil
- soil vapor intrusion

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, sub-slab soil vapor, and indoor air samples were analyzed for VOCs. Based upon investigations conducted to date, the primary contaminants of concern for the site include VOCs and SVOCs in groundwater; SVOCs in shallow soils; and VOCs in soil vapor.

Soil: Soil data were compared to Restricted Residential Soil Cleanup Objectives (RRSCO). SVOCs were found exceeding RRSCOs in shallow fill material which include maximum concentrations of benzo(a)anthracene at 3.02 parts per million or ppm (RRSCO is 1.4 ppm); benzo(a)pyrene at 3.32 ppm (RRSCO is 1 ppm); and benzo(b)fluoranthene at 3.76 ppm (RRSCO is 1.4 ppm). Soil data was compared to Protection of Groundwater Soil Cleanup Objectives (PGSCO). VOCs were found exceeding PGSCOs in one sample which include maximum concentrations of 1,2,4-trimethylbenzene at 14 ppm (PGSCO is 3.6 ppm); ethylbenzene at 1.1 ppm (PGSCO is 1 ppm); xylene at 4.5 ppm (PGSCO is 1.6 ppm); and one SVOC, naphthalene, with a maximum concentration of 13.6 ppm (PGSCO is 12 ppm). No VOCs, metals, PCBs, pesticides or PFAS were detected above RRSCOs or guidance values. Data does not indicate any off-site impacts to soil related to this site.

Groundwater: The primary contaminants of concern in groundwater are VOCs and SVOCs. VOCs and SVOCs in groundwater that exceed the Ambient Water Quality Standards and Guidance Values (AWQSGVs) include maximum concentrations of naphthalene at 312 parts per billion (ppb) (AWQSGV of 10 ppb); 1,2,4-trimethylbenzene at 168 ppb (AWQSGV of 5 ppb); 1,3,5-trimethylbenzene at 55.9 (AWQSGV of 5 ppb) and ethylbenzene at 59.6 ppb (AWQSGV of 5 ppb). Perfluorooctanoic acid (PFOA) and perfluorooctanesulfonic acid (PFOS) were reported at concentrations of up to 43.3 and 35.2 parts per trillion (ppt), respectively, compared to AWQSGVs of 6.7 ppt for PFOA and 2.7 ppt for PFOS. No PCBs or pesticides were detected above their respective AWQSGVs. Data does indicate off-site impacts to groundwater related to this site are likely.

Soil Vapor, Sub-Slab Soil Vapor, and Indoor Air: Petroleum-related VOCs and chlorinated VOCs concentrations were detected in soil vapor. PCE was detected in soil vapor samples at concentrations up to 5,300 micrograms per cubic meter (ug/m³), in sub-slab soil vapor samples up to 4,200 ug/m³, and in indoor air samples up to 500 ug/m³. TCE was detected in soil vapor samples at concentrations up to 840 ug/m³, in sub-slab soil vapor samples up to 490 ug/m³, and in indoor air samples up to 2.1 ug/m³. Toluene was detected in soil vapor samples at concentrations up to 1,800 ug/m³, in sub-slab soil vapor samples up to 380 ug/m³, and in indoor air samples up to 840 ug/m³. Data does indicate off-site impacts to soil vapor related to this site are likely.

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*.

Persons who enter the site could contact contaminants in the soil by walking on the site, digging or otherwise disturbing the soil. People are not expected to come into direct contact with the contaminated groundwater unless they dig below the ground surface. 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. Because the site is currently vacant, the potential for people to inhale site-related contaminants due to soil -vapor intrusion does not represent a concern. The potential exists for the inhalation of site contaminants due to soil vapor intrusion for any future on-site development and for buildings offsite.

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.
- Prevent contact with, or inhalation of volatiles, from contaminated groundwater.

RAOs for Environmental Protection

- Restore ground water aquifer to pre-disposal/pre-release conditions, to the extent practicable.
- 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 Track 4: Restricted Residential use with site-specific soil cleanup objectives remedy.

The selected remedy is referred to as the Soil Excavation, Vapor Mitigation, Soil Vapor Extraction remedy.

The elements of the selected remedy, as shown in Figures 2 through 5, 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 shall be constructed, at a minimum, to meet the 2020 Energy Conservation Construction Code of New York (or most recent edition) to improve energy efficiency as an element of construction.

As part of the remedial design program, to evaluate the remedy with respect to green and sustainable remediation principles, an environmental footprint analysis will be completed. The environmental footprint analysis will be completed using an accepted environmental footprint analysis calculator such as SEFA (Spreadsheets for Environmental Footprint Analysis, USEPA), SiteWise™ (available in the Sustainable Remediation Forum [SURF] library) or similar NYSDEC accepted tool. Water consumption, greenhouse gas emissions, renewable and non-renewable energy use, waste reduction and material use will be estimated, and goals for the project related to these green and sustainable remediation metrics, as well as for minimizing community impacts, protecting habitats and natural and cultural resources, and promoting environmental justice, will be incorporated into the remedial design program, as appropriate. The project design specifications will include detailed requirements to achieve the green and sustainable remediation goals. Further, progress with respect to green and sustainable remediation metrics will be tracked during implementation of the remedial action and reported in the Final Engineering Report (FER), including a comparison to the goals established during the remedial design program.

Additionally, the remedial design program will include a climate change vulnerability assessment, to evaluate the impact of climate change on the project site and the proposed remedy. Potential vulnerabilities associated with extreme weather events (e.g., hurricanes, lightning, heat stress and drought), flooding, and sea level rise will be identified, and the remedial design program will incorporate measures to minimize the impact of climate change on potential identified vulnerabilities.

2. Excavation

The existing on-site buildings will be demolished and materials which cannot be beneficially reused on site will be taken off-site for proper disposal in order to implement the remedy.

All soils in the upper two feet which exceed the restricted residential soil cleanup objectives (SCOs) will be excavated and transported off-site for disposal. Approximately 100 cubic yards of contaminated soil will be removed from the site. Collection and analysis of confirmation samples at the remedial excavation depth will be used to verify that SCOs for the site have been achieved. If confirmation sampling indicates that SCOs were not achieved at the stated remedial depth, the Applicant must notify NYSDEC, submit the sample results and, and in consultation with NYSDEC, determine if further remedial excavation is necessary. Further excavation for development will proceed after confirmation samples demonstrate that SCOs for the site have been achieved.

To ensure proper handling and disposal of excavated material, waste characterization sampling will be completed for all identified contaminated site material. Waste characterization sampling will be performed exclusively for the purposes of off-site disposal in a manner suitable to receiving facilities and in conformance with applicable federal, state and local laws, rules, and regulations and facility-specific permits.

Backfill meeting the requirements of 6 NYCRR Part 375-6.7(d) will be brought in to replace the excavated soil and establish the designed grades at the site.

3. Cover System

A site cover will be required in areas where the upper two feet of exposed surface soil will exceed the applicable SCOs, to allow for future restricted residential use of the site. Where a soil cover is to be used it will be a minimum of two feet of soil placed over a demarcation layer, with the upper six inches of soil of sufficient quality to maintain a vegetative layer. Soil cover material, including any fill material brought to the site, will meet the SCOs for cover material for the use of the site as set forth in 6 NYCRR Part 375-6.7(d). Substitution of other materials and components may be allowed where such components already exist or are a component of the tangible property to be placed as part of site redevelopment. Such components may include, but are not necessarily limited to: pavement, concrete, paved surface parking areas, sidewalks, building foundations and building slabs.

4. Soil Vapor Extraction

Soil vapor extraction (SVE) will be implemented to remove volatile organic compound (VOC) vapors from the subsurface and prevent off-site migration of contaminated vapor. VOCs will be physically removed from the subsurface by applying a vacuum to wells that have been installed into the vadose zone (the area below the ground but above the water table). The vacuum draws air through the soil matrix which carries the VOC vapors from the soil to the SVE well. The air extracted from the SVE wells is then treated as necessary prior to being discharged to the atmosphere.

Prior to the full implementation of this technology, on-site pilot scale studies will be conducted to more clearly define design parameters.

Upon system startup, SVE wells will be tested to confirm vacuum influence and effectiveness of the system. If there are no SVE wells located near the site boundaries of concern, vacuum monitoring points will be installed near the site boundaries to evaluate SVE effectiveness at preventing off-site migration of contaminated vapors.

5. In-situ Chemical Oxidation

In-situ chemical oxidation (ISCO) will be implemented to treat contaminants in groundwater and source material. A chemical oxidant will be injected into the subsurface to destroy the contaminants across tax map lot 21 where soils that may be acting as a source material were

identified at the soil-groundwater interface and volatile organic compounds were elevated in the groundwater. The method and depth of injection will be determined during the remedial design.

Monitoring will be required upgradient, downgradient, and within the treatment zone. Monitoring will be conducted for contaminants of concern. The treatment zone will be monitored for dissolved oxygen and oxidation/reduction potential from a network of monitoring wells.

6. Treatment Remedy Shutdown

The operation of the components of the remedy will continue until the remedial objectives have been achieved, or until NYSDEC determines that continued operation is technically impracticable or not feasible.

7. Vapor Mitigation

Any on-site buildings will be required to have a sub-slab depressurization system, or other acceptable measures, to mitigate the migration of vapors into the building from the subsurface.

8. Institutional Control

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 NYSDEC 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 NYSDOH or NYCDOHMH; and
- require compliance with the NYSDEC approved Site Management Plan.

9. Site Management Plan

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

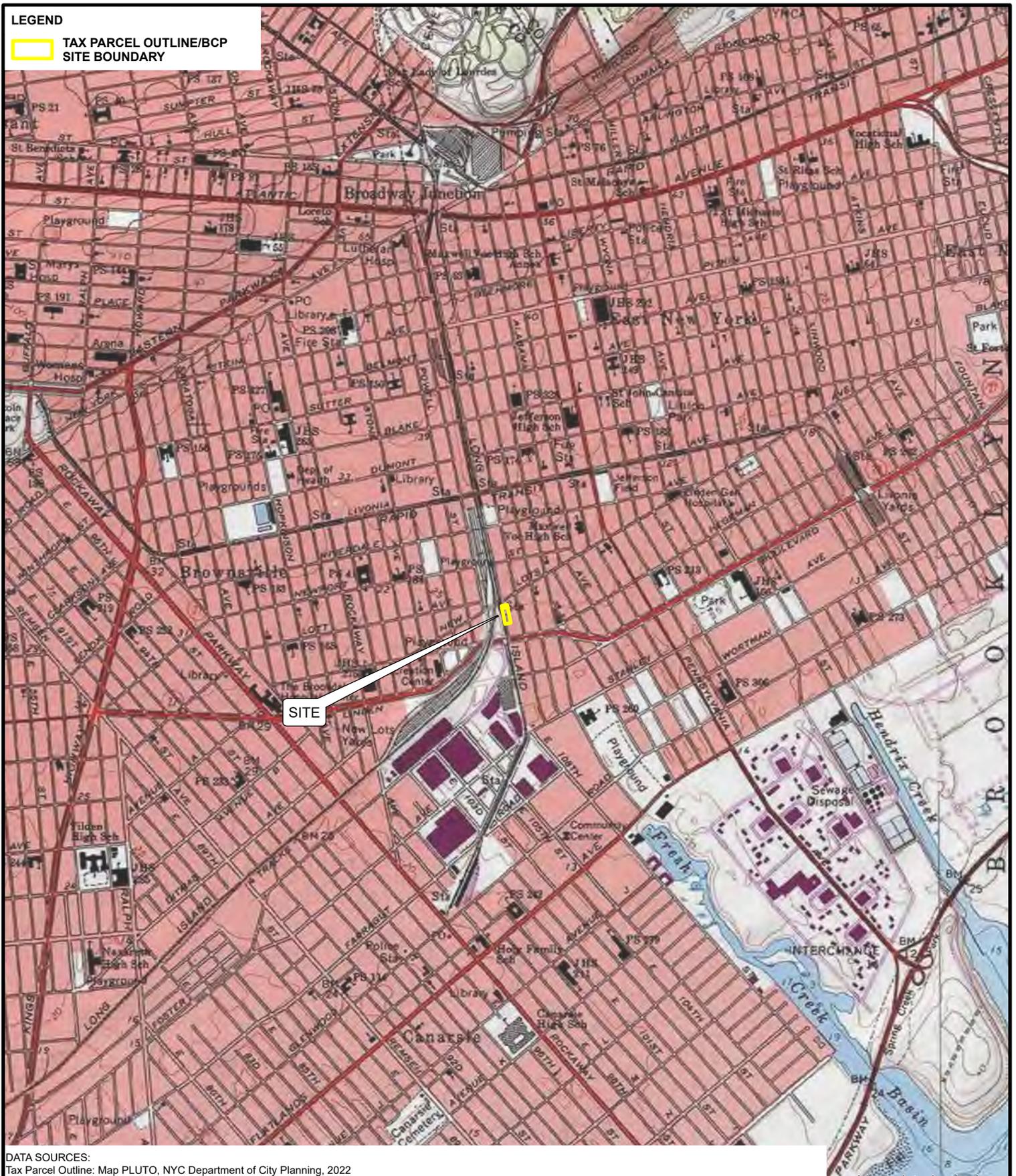
- a. an Institutional and Engineering Control Plan that identifies all use restrictions and engineering controls for the site and details the steps and media-specific requirements necessary to ensure the following institutional and/or engineering controls remain in place and effective:
 - Institutional Controls: The Environmental Easement discussed in Remedy Element 8 above.
 - Engineering Controls: The cover system discussed in Remedy Element 3, soil vapor extraction system discussed in Remedy Element 4, the monitoring well network discussed in Remedy Element 5, and the vapor mitigation system discussed in Remedy Element 7, 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, and groundwater 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;
 - a provision that should a building foundation or building slab be removed in the future, a cover system consistent with that described in Remedy Element 3 above will be placed in any areas where the upper two feet of exposed surface soil exceed the applicable SCOs
 - provisions for the management and inspection of the identified engineering controls;
 - maintaining site access controls and NYSDEC notification; and
 - the steps necessary for the periodic reviews and certification of the institutional and/or engineering 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 and soil vapor to assess the performance and effectiveness of the remedy; and
 - a schedule of monitoring and frequency of submittals to NYSDEC.
- c. an Operation and Maintenance (O&M) Plan to ensure continued operation, maintenance, optimization, monitoring, inspection, and reporting of any mechanical or physical components of the remedy. The plan includes, but is not limited to:
- procedures for operating and maintaining the remedy;
 - compliance monitoring of treatment systems to ensure proper O&M as well as providing the data for any necessary permit or permit equivalent reporting;
 - maintaining site access controls and NYSDEC notification; and
 - providing NYSDEC access to the site and O&M records.

LEGEND

 TAX PARCEL OUTLINE/BCP
SITE BOUNDARY

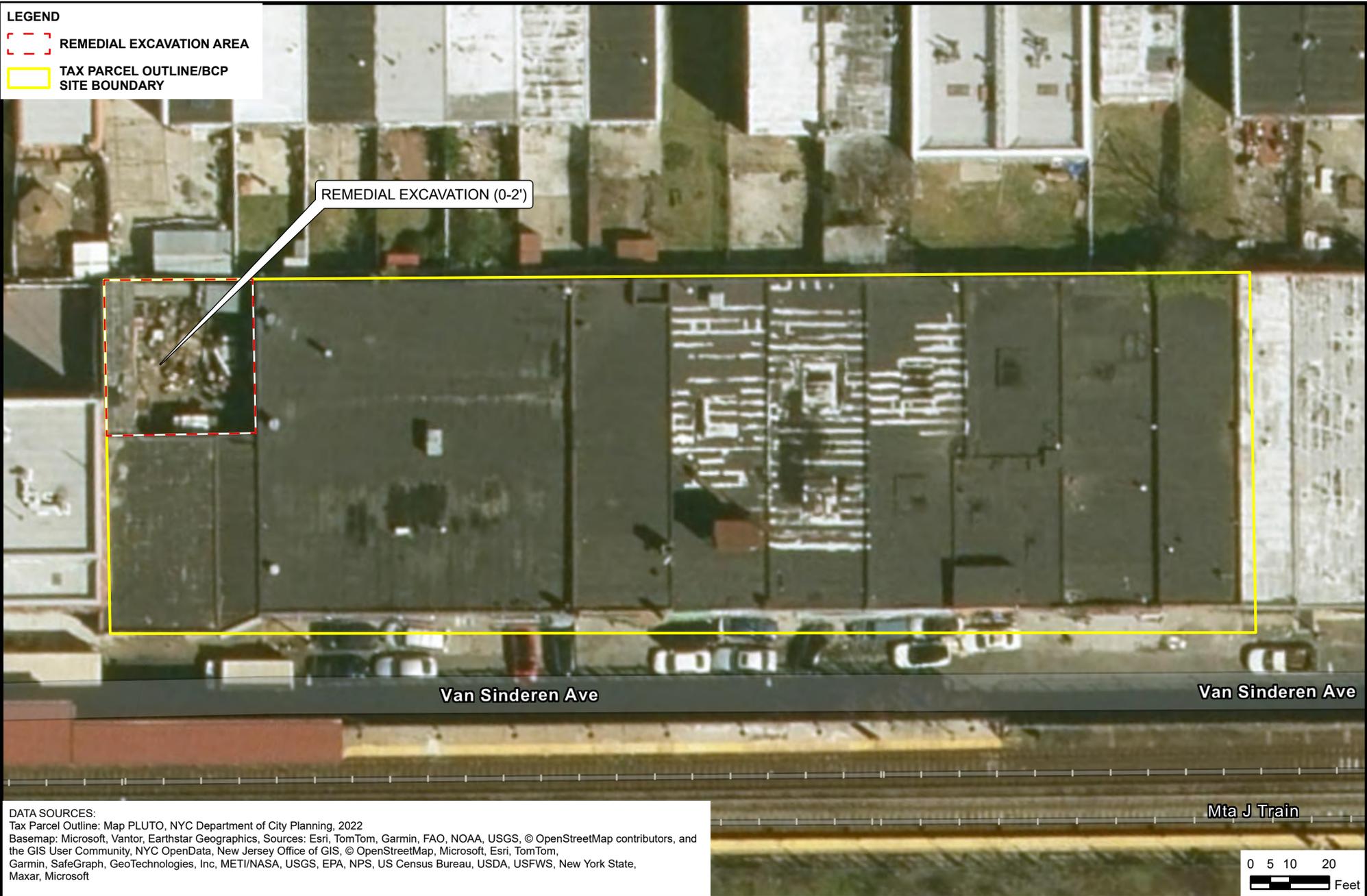


DATA SOURCES:

Tax Parcel Outline: Map PLUTO, NYC Department of City Planning, 2022
 Basemap: Esri Community Maps Contributors, NYC OpenData, New Jersey Office of GIS, © OpenStreetMap, Microsoft, Esri, TomTom,
 Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA, USFWS, New York State,
 Maxar, Microsoft



 48 Springside Avenue Poughkeepsie, NY 12603 Office: 845.454.2544 Fax: 845.454.2655	SITE LOCATION MAP 719-749 VAN SINDEREN AVENUE BROOKLYN, NEW YORK BCP SITE #C224405	PROJECT NO. 20230097	FIGURE 1
			DATE: 10/24/2025
			SCALE: AS INDICATED
			PROJECTION: STATE PLANE NAD83 NY EAST
		ALL LOCATIONS APPROXIMATE	



LEGEND
 [Red dashed box] REMEDIAL EXCAVATION AREA
 [Yellow box] TAX PARCEL OUTLINE/BCP SITE BOUNDARY

REMEDIAL EXCAVATION (0-2')

Van Sinderen Ave

Van Sinderen Ave

Mta J Train

DATA SOURCES:
 Tax Parcel Outline: Map PLUTO, NYC Department of City Planning, 2022
 Basemap: Microsoft, Vantor, Earthstar Geographics, Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community, NYC OpenData, New Jersey Office of GIS, © OpenStreetMap, Microsoft, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA, USFWS, New York State, Maxar, Microsoft



PVEDi
 48 Springside Avenue
 Poughkeepsie, NY 12603
 Office: 845.454.2544
 Fax: 845.454.2655

REMEDIAL EXCAVATION AREA

719-749 VAN SINDEREN AVENUE
 BROOKLYN, NEW YORK
 BCP SITE #C224405

PROJECT NO. 20230097	FIGURE 2
	DATE: 10/31/2025
	SCALE: AS INDICATED
	PROJECTION: STATE PLANE NAD83 NY EAST
	ALL LOCATIONS APPROXIMATE

LEGEND

-  IN-SITU CHEMICAL OXIDATION WELL
-  MONITORING WELL
-  AOC-1 PETROLEUM CONTAMINATION
-  AOC-2 cVOC CONTAMINATION
-  TAX PARCEL OUTLINE/BCP SITE BOUNDARY



DATA SOURCES:
 Tax Parcel Outline: Map PLUTO, NYC Department of City Planning, 2022
 Basemap: Esri Community Maps Contributors, NYC OpenData, New Jersey Office of GIS, © OpenStreetMap, Microsoft, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA, USFWS, NYS ITS Geospatial Services, Earthstar Geographics, New York State, Microsoft, Vantor

PVEDi
 48 Springside Avenue
 Poughkeepsie, NY 12603
 Office: 845.454.2544
 Fax: 845.454.2655

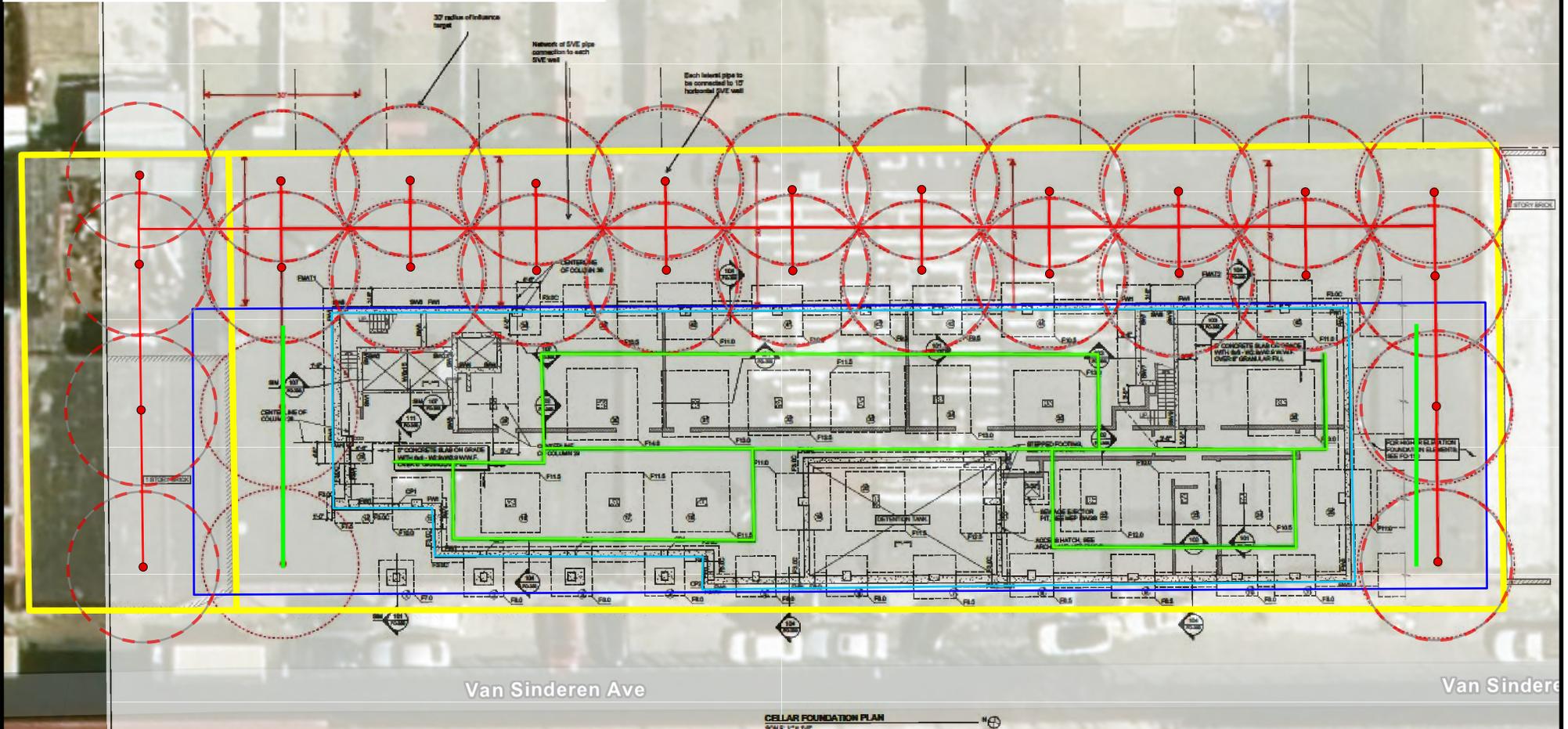
GROUNDWATER INJECTION WELL LOCATIONS

719-749 VAN SINDEREN AVENUE
 BROOKLYN, NEW YORK
 BCP SITE #C224405

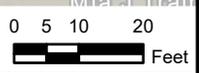
PROJECT NO. 20230097	FIGURE 3
	DATE: 10/27/2025
	SCALE: AS INDICATED
	PROJECTION: STATE PLANE NAD83 NY EAST
	ALL LOCATIONS APPROXIMATE

LEGEND

- SOIL VAPOR EXTRACTION WELL
- NETWORK OF SOIL VAPOR EXTRACTION (SVE) PIPE CONNECTION
- SUB-SLAB DEPRESSURIZATION SYSTEM (SSDS)
- 30 FEET RADIUS OF INFLUENCE TARGET
- BASEMENT FOUNDATION
- SLAB-ON-GRADE FOUNDATION
- TAX PARCEL OUTLINE/BCP SITE BOUNDARY



DATA SOURCES:
 Tax Parcel Outline: Map PLUTO, NYC Department of City Planning, 2022
 Cellar Foundation Plan: MHG Architects PC, FO-100.00, April 26, 2024.
 Basemap: Esri Community Maps Contributors, NYC OpenData, New Jersey Office of GIS, © OpenStreetMap, Microsoft, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA, USFWS, Earthstar Geographics, New York State, Microsoft, Vantor



PVEDi
 48 Springside Avenue
 Poughkeepsie, NY 12603
 Office: 845.454.2544
 Fax: 845.454.2655

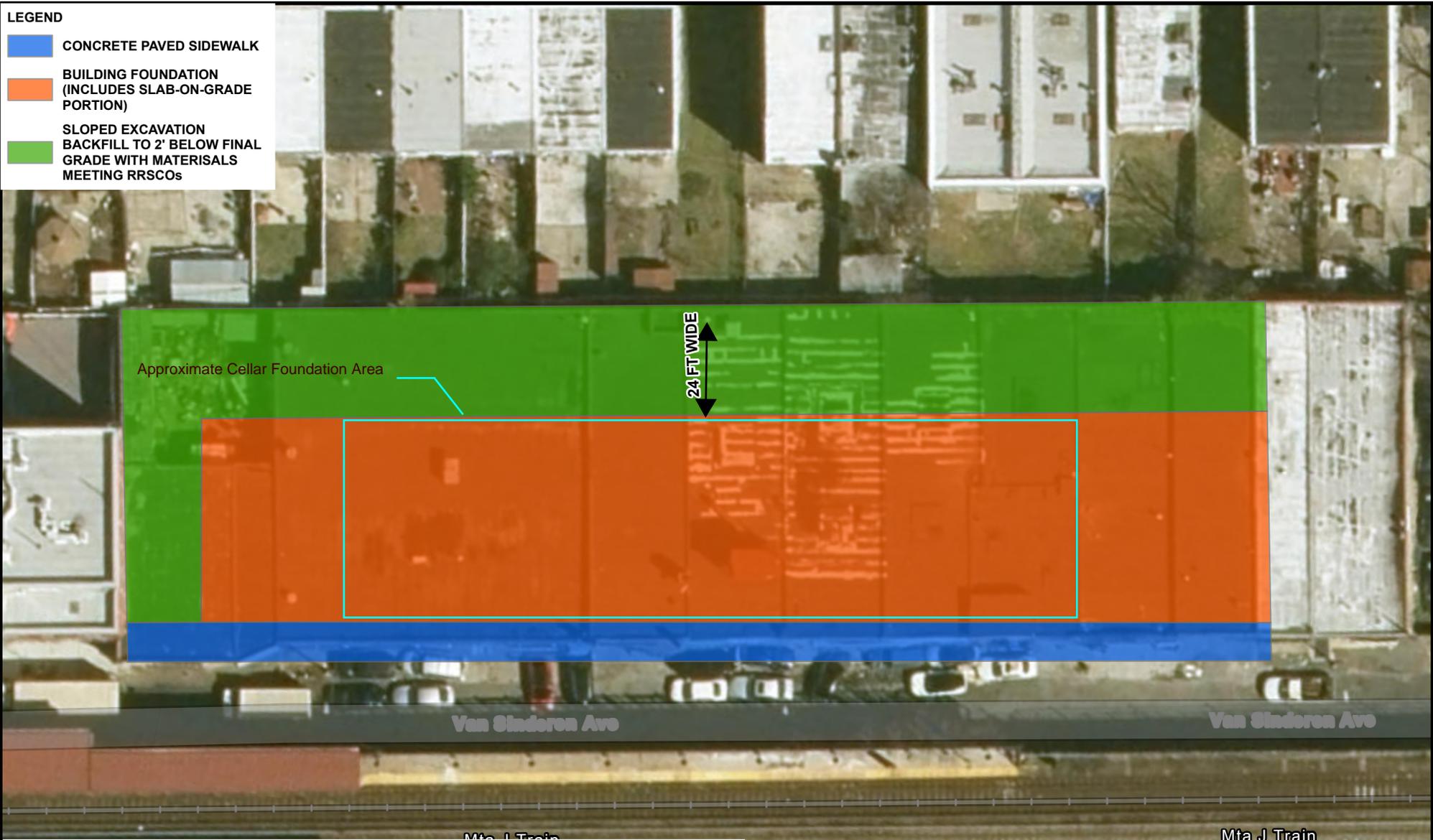
SSDS/SVE PRELIMINARY DESIGN

719-749 VAN SINDEREN AVENUE
 BROOKLYN, NEW YORK
 BCP SITE #C224405

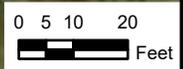
PROJECT NO. 20230097	FIGURE 4
	DATE: 12/8/2025
	SCALE: AS INDICATED
	PROJECTION: STATE PLANE NAD83 NY EAST
	ALL LOCATIONS APPROXIMATE

LEGEND

- CONCRETE PAVED SIDEWALK
- BUILDING FOUNDATION
(INCLUDES SLAB-ON-GRADE PORTION)
- SLOPED EXCAVATION
BACKFILL TO 2' BELOW FINAL
GRADE WITH MATERIALS
MEETING RRSCOs



DATA SOURCES:
 Tax Parcel Outline: Map PLUTO, NYC Department of City Planning, 2022
 Raster Layer: MHG Architects PC, Zoning Analysis, Z-001.00, April 26, 2024
 Basemap: Esri Community Maps Contributors, NYC OpenData, New Jersey Office of GIS, © OpenStreetMap, Microsoft, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA, USFWS, Earthstar Geographics, New York State, Microsoft, Vantor



PVEDi

48 Springside Avenue
 Poughkeepsie, NY 12603
 Office: 845.454.2544
 Fax: 845.454.2655

SITE WIDE COVER SYSTEM

719-749 VAN SINDEREN AVENUE
 BROOKLYN, NEW YORK
 BCP SITE #C224405

PROJECT NO. 20230097	FIGURE 5
	DATE: 12/8/2025
	SCALE: AS INDICATED
	PROJECTION: STATE PLANE NAD83 NY EAST
	ALL LOCATIONS APPROXIMATE