

DECISION DOCUMENT

326-350 Rockaway Avenue
Brownfield Cleanup Program
Brooklyn, Kings County
Site No. C224328
November 2022



**Department of
Environmental
Conservation**

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

DECLARATION STATEMENT - DECISION DOCUMENT

326-350 Rockaway Avenue
Brownfield Cleanup Program
Brooklyn, Kings County
Site No. C224328
November 2022

Statement of Purpose and Basis

This document presents the remedy for the 326-350 Rockaway 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 (the Department) for the 326-350 Rockaway Avenue 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

The existing on-site building 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.

Excavation and off-site disposal of all on-site soils which exceed unrestricted use soil cleanup objectives (UUSCOs), as defined by NYCRR Part 375-6.8 to depths ranging from three to eleven feet will take place across the site. Excavation and removal of any underground storage tanks (USTs), fuel dispensers, underground piping or other structures associated with a source of contamination will also take place. Approximately 9,150 cubic yards of contaminated soil will be removed from the site.

Collection and analysis of confirmation and documentation samples at the remedial excavation depths will be used to verify that soil cleanup objectives (SCOs) for the site have been achieved. If confirmation/documentation sampling indicates that SCOs were not achieved at the stated remedial depth, the Applicant must notify DEC, submit the sample results, and in consultation with DEC, 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.

3. Backfill

On-site soil which does not exceed the above excavation criteria may be used to backfill the excavation or regrade the site. Clean fill meeting the requirements of 6 NYCRR Part 375-6.7(d) may be brought in to replace the excavated soil 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 no Environmental Easement 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.

Conditional Track 1

The intent of the remedy is to achieve Track 1 unrestricted use, therefore, no Environmental

Easement (EE) or Site Management Plan (SMP) is anticipated. If the soil vapor intrusion (SVI) evaluation is not completed prior to completion of the Final Engineering Report, then an SMP and EE will be required to address the SVI evaluation and/or implement other actions as needed; if a mitigation or monitoring action is needed, a Track 1 cleanup can only be achieved if the mitigation system or other required action is no longer needed within 5 years of the date of the Certificate of Completion.

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

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 or commercial use or industrial 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 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 above.

This plan includes, but may not be limited to:

- descriptions of the provisions of the environmental easement including any land use, and groundwater use restrictions;
- a provision for evaluation of the potential for soil vapor intrusion for any occupied buildings on the site, including provisions for implementing actions recommended to address exposures related to soil vapor intrusion;
- provisions for the management and inspection of the identified engineering controls;
- maintaining site access controls and Department 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:

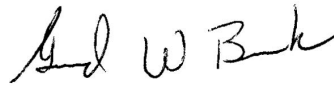
- a schedule of monitoring and frequency of submittals to the Department;
- monitoring for vapor intrusion for any buildings on the site, as may be required by the Institutional and Engineering Control Plan discussed above.

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.

November 15, 2022

Date



Gerard Burke, Director
Remedial Bureau B

DECISION DOCUMENT

326-350 Rockaway Avenue
Brooklyn, Kings County
Site No. C224328
October 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 repositories:

DECInfo Locator - Web Application
<https://gisservices.dec.ny.gov/gis/dil/index.html?rs=C224328>

Brooklyn Public Library - Brownsville Branch
61 Glenmore Ave at Watkins St.
Brooklyn, NY 11212
Phone: (718) 498-9721

Brooklyn Community Board 16
444 Thomas Boyland Street, Suite 103
Brooklyn, NY 11212
Phone: (718) 385-0323

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 326-350 Rockaway Avenue in the Brownsville neighborhood of Brooklyn, NY and is identified as Block 3499, Lot 25 on the NYC Tax Map. The site is located on the north portion of the city block bounded by East New York Avenue to the north, Rockaway Avenue to the east, Pitkin Avenue to the south, and Chester Avenue to the west.

Site Features: The 0.75-acre site is occupied by a vacant commercial-use building complex comprised of five interconnected buildings with partial basements in the northeast portion of the site. The rest of the site consists of a concrete-paved lot formerly used for employee and commercial vehicle parking and materials storage.

Current Zoning and Land Use: The site is currently vacant and is zoned R6 residential with a C2-3 commercial overlay. Land use within a half-mile radius is urban and includes residential, commercial, office, industrial and manufacturing, transportation, utility/transportation, public facilities/institutions, open space/outdoor recreation, parking facilities and vacant land.

Past Use of the Site: Historical Sanborn Fire Insurance Maps indicate that the site was located in a developed urban area as early as 1897. By 1907, the site was developed into one- to three-story residential and commercial buildings. The buildings on the western part of the site were demolished between 1976 and 1984. The buildings on the northeastern part of the site were identified as five interconnected commercial use buildings in 1976 and remain unchanged to present day. Residential and commercial entities were listed in association with the site. Commercial operations included a sign painter supply store (1928), a hat cleaner (1934), an exterminating company (1949), store fixture manufacturing (1950 to 1966), and a lamp manufacturing company (1960 to 1965).

Site Geology and Hydrogeology: Site soils consist of historic fill which varies in depth throughout the site between two and ten below ground surface (bgs), underlain by native soil primarily consisting of sand and gravel. Depth to bedrock is expected to be greater than 300 feet bgs. The site sits at an elevation of about 50 feet above mean sea level (msl). Groundwater is present at this

site at about 40 feet bgs and flows southeast towards Jamaica Bay.

A site location map is attached as Figure 1. A site plan is attached as Figure 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, an alternative which allows for restricted residential use of the site was evaluated.

A comparison of the results of the Remedial Investigation (RI) against unrestricted use standards, criteria and guidance values (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:

benzo(a)pyrene	dieldrin
benzo(b)fluoranthene	alpha chlordane
chrysene	heptachlor
benzo(a)anthracene	polychlorinated biphenyls (PCB)
benzo(k)fluoranthene	arsenic
indeno(1,2,3-cd)pyrene	chromium
4,4'-DDD	copper
4,4'-DDE	lead
4,4'-DDT	mercury

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

- groundwater
- soil

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 samples were analyzed for volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), metals, polychlorinated biphenyls (PCBs), per- and polyfluoroalkyl substances (PFAS), and pesticides. Soil vapor samples were analyzed for VOCs. Based upon investigations conducted to date, the primary contaminants of concern for the site include, SVOCs, pesticides, PCBs, and metals in soil and VOCs in soil vapor.

Soil: Exceedances of unrestricted use soil cleanup objectives (UUSCOs) for SVOCs included benzo(a)anthracene up to 260 parts per million, or ppm (UUSCO 1 ppm), benzo(a)pyrene up to 250 ppm (UUSCO 1 ppm), benzo(b)fluoranthene up to 320 ppm (UUSCO 1 ppm), benzo(k)fluoranthene up to 100 ppm (UUSCO 0.8 ppm), chrysene up to 250 ppm (UUSCO 1 ppm), and indeno(1,2,3-cd)pyrene up to 160 ppm (UUSCO 0.5 ppm). Maximum SVOC concentrations were encountered at one boring (SB-06) located in the central portion of the site at a depth of four to six feet bgs. PCBs were also detected at this location and depth at 0.243 ppm (UUSCO 0.1 ppm). Additional SVOC exceedances of UUSCOs were encountered throughout site soils in historic fill.

Pesticides detected above UUSCOs included 4-4'-DDD up to 0.299 ppm (UUSCO 0.0033 ppm), 4-4'-DDE up to 0.902 ppm (UUSCO 0.0033 ppm), 4-4'-DDT up to 8.87 ppm (UUSCO 0.0033 ppm), dieldrin up to 0.367 ppm (UUSCO 0.005 ppm), alpha chlordane up to 0.707 ppm (UUSCO 0.094 ppm), and heptachlor up to 0.051 ppm (UUSCO 0.042 ppm). Metals detected above UUSCOs included arsenic up to 19.2 ppm (UUSCO 13 ppm), trivalent chromium up to 75 ppm (UUSCO 30 ppm), copper up to 33,000 ppm (UUSCO 50 ppm), lead up to 5,270 ppm (UUSCO 63 ppm), and mercury up to 5.78 ppm (UUSCO 0.18 ppm). Metal and pesticide exceedances of UUSCOs were encountered throughout site soils in historic fill.

Perfluorooctanoic acid (PFOA) was detected above the unrestricted use guidance value of 0.66 parts per billion (ppb) at a maximum concentration of 1.02 ppb. Perfluorooctanesulfonic acid (PFOS) was detected above the unrestricted use guidance value of 0.88 ppb at a maximum concentration of 2.31 ppb.

Data does not indicate any off-site impacts in soil related to this site.

Groundwater: No PCBs or pesticides were detected in site groundwater. Two VOCs were detected in site groundwater. Chloroform was found exceeding the Ambient Water Quality Standards (AWQS) of 7 ppm at a maximum concentration of 29.6 ppm. Tetrachloroethene was found exceeding the AWQS of 5 ppm at a maximum concentration of 9.01 ppm.

The following SVOCs were found at concentrations exceeding their respective groundwater standards: 2,4-dinitrotoluene at 15.4 ppb (AWQS is 5 ppb); 2,6-dinitrotoluene at 21.9 ppb (AWQS is 5 ppb); benzo(a)anthracene at 0.123 ppb (AWQS is 0.002 ppb); benzo(a)pyrene at 0.0923 ppb

(AWQS is 0.002 ppb); benzo(b)fluoranthene at 0.0821 ppb (AWQS is 0.002 ppb); chrysene at 0.123 ppb (AWQS is 0.002 ppb); indeno(1,2,3-cd)pyrene at 0.0718 ppb (AWQS is 0.002 ppb); and bis(2-ethylhexyl)phthalate up to 18.8 ppb (AWQS is 5 ppb). Although SVOCs are present in both sites soils and groundwater, it is unlikely SVOCs in site soils are impacting groundwater. SVOCs in groundwater are likely due to entrained sediments in groundwater samples. High concentrations of SVOCs in site soil are limited to the area around SB-06 and a depth of 6 feet, while site groundwater is present at 40 feet bgs.

For metals in groundwater samples, iron was detected at concentrations up to 4,720 ppb (AWQS is 300 ppb), magnesium was detected at concentrations up to 38,600 ppb (AWQS is 35,000 ppb), manganese was detected at concentrations up to 5,910 ppb (AWQS is 300 ppb), sodium was detected at concentrations up to 219,000 ppb (AWQS is 20,000 ppb), and was thallium detected at concentrations up to 2.33 ppb (AWQS is 0.5 ppb). Metals were present in both total and dissolved groundwater samples at similar concentrations. The presence of metals in groundwater samples are likely reflective of naturally occurring hydrogeologic conditions and are not considered to be site related impacts.

PFOA was found exceeding its maximum contaminant level (MCL) of 10 ppt at a maximum concentration of 110 ppt. PFOS was found exceeding its MCL of 10 ppt at a maximum concentration of 20.7 ppt.

Data does not indicate any off-site impacts in groundwater related to this site.

Soil Vapor: Tetrachloroethene (PCE) was detected at a maximum concentration of 36 micrograms per cubic meter (ug/m³) in the soil vapor, and Trichloroethene (TCE) was detected at a maximum concentration of 5.13 ug/m³ in soil vapor.

Data does not indicate any off-site impacts on 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*.

Since the site is fenced and covered by building or concrete, people will not come into contact with site related soil and groundwater contamination unless they dig below the surface. Contaminated groundwater at the site is not used for drinking or other purposes and the site is served by a public water supply that obtains water from a different source 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 is referred to as soil vapor intrusion. Since the site is vacant soil vapor intrusion does not represent a concern for the site in its current condition and off-site sampling indicates soil vapor intrusion is not a 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.
- Prevent contact with, or inhalation of volatiles, from contaminated groundwater.

Soil

RAOs for Public Health Protection

- Prevent ingestion/direct contact with contaminated soil.

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 Conditional 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

The existing on-site building 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.

Excavation and off-site disposal of all on-site soils which exceed unrestricted use soil cleanup objectives (UUSCOs), as defined by NYCRR Part 375-6.8 to depths ranging from three to eleven feet will take place across the site. Excavation and removal of any underground storage tanks (USTs), fuel dispensers, underground piping or other structures associated with a source of contamination will also take place. Approximately 9,150 cubic yards of contaminated soil will be removed from the site.

Collection and analysis of confirmation and documentation samples at the remedial excavation depths will be used to verify that soil cleanup objectives (SCOs) for the site have been achieved. If confirmation/documentation sampling indicates that SCOs were not achieved at the stated remedial depth, the Applicant must notify DEC, submit the sample results, and in consultation with DEC, 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.

3. Backfill

On-site soil which does not exceed the above excavation criteria may be used to backfill the excavation or regrade the site. Clean fill meeting the requirements of 6 NYCRR Part 375-6.7(d) may be brought in to replace the excavated soil 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 no Environmental Easement 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.

Conditional Track 1

The intent of the remedy is to achieve Track 1 unrestricted use, therefore, no Environmental Easement (EE) or Site Management Plan (SMP) is anticipated. If the soil vapor intrusion (SVI) evaluation is not completed prior to completion of the Final Engineering Report, then an SMP and EE will be required to address the SVI evaluation and/or implement other actions as needed; if a mitigation or monitoring action is needed, a Track 1 cleanup can only be achieved if the mitigation system or other required action is no longer needed within 5 years of the date of the Certificate of Completion.

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

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 or commercial use or industrial 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 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:

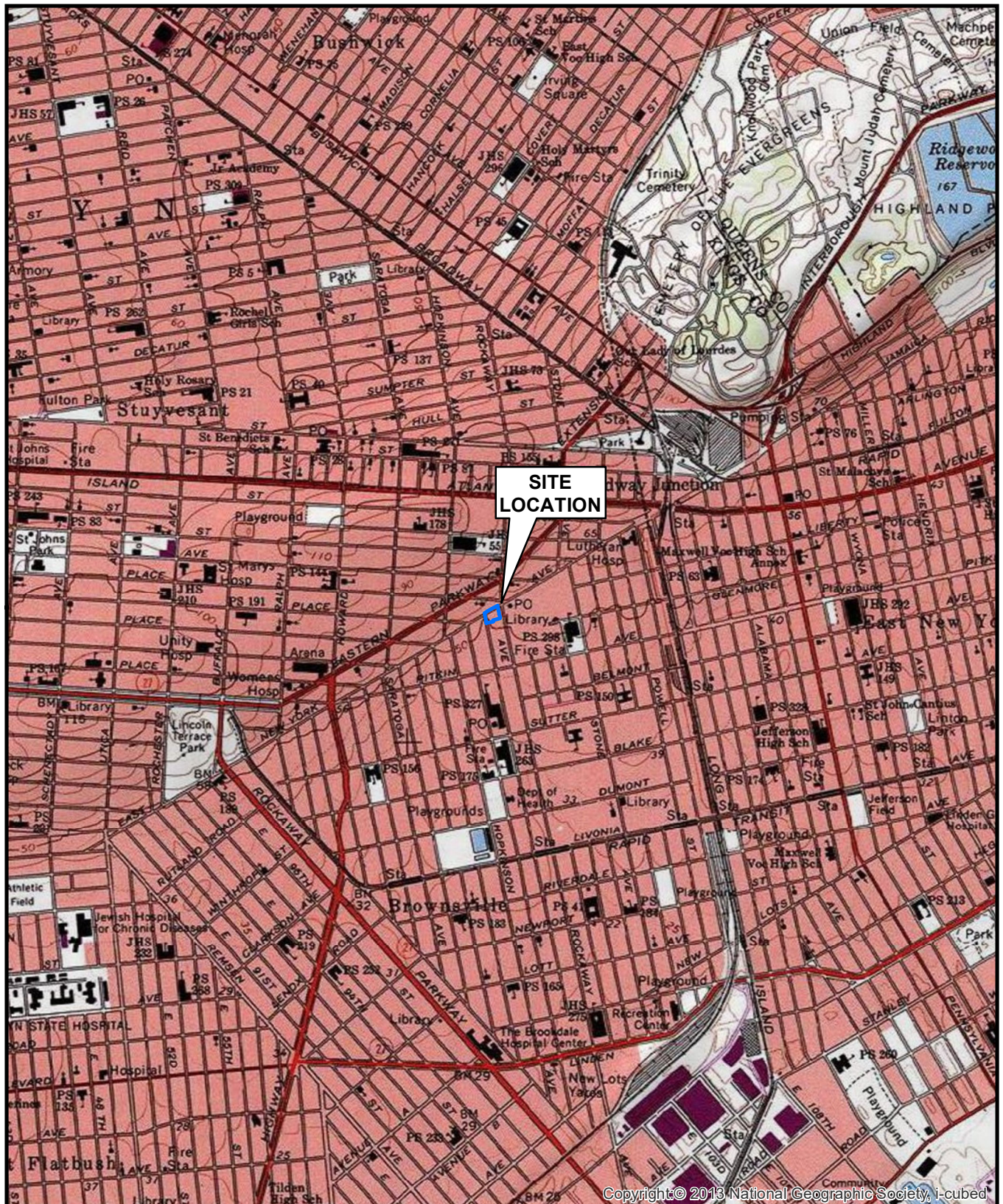
- Institutional Controls: The Environmental Easement discussed above.

This plan includes, but may not be limited to:

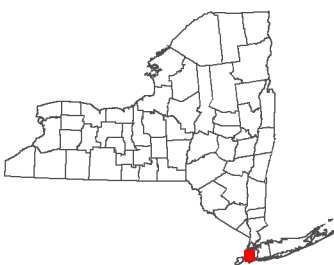
- descriptions of the provisions of the environmental easement including any land use, and groundwater use restrictions;
- a provision for evaluation of the potential for soil vapor intrusion for any occupied buildings on the site, including provisions for implementing actions recommended to address exposures related to soil vapor intrusion;
- provisions for the management and inspection of the identified engineering controls;
- maintaining site access controls and Department 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:

- a schedule of monitoring and frequency of submittals to the Department;
- monitoring for vapor intrusion for any buildings on the site, as may be required by the Institutional and Engineering Control Plan discussed above.



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Feet

Figure 1

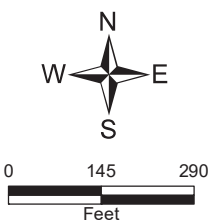
Site Location Map
326-350 Rockaway Ave.
City of Brooklyn, Kings County
Site No. C224328



Department of
Environmental
Conservation



Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

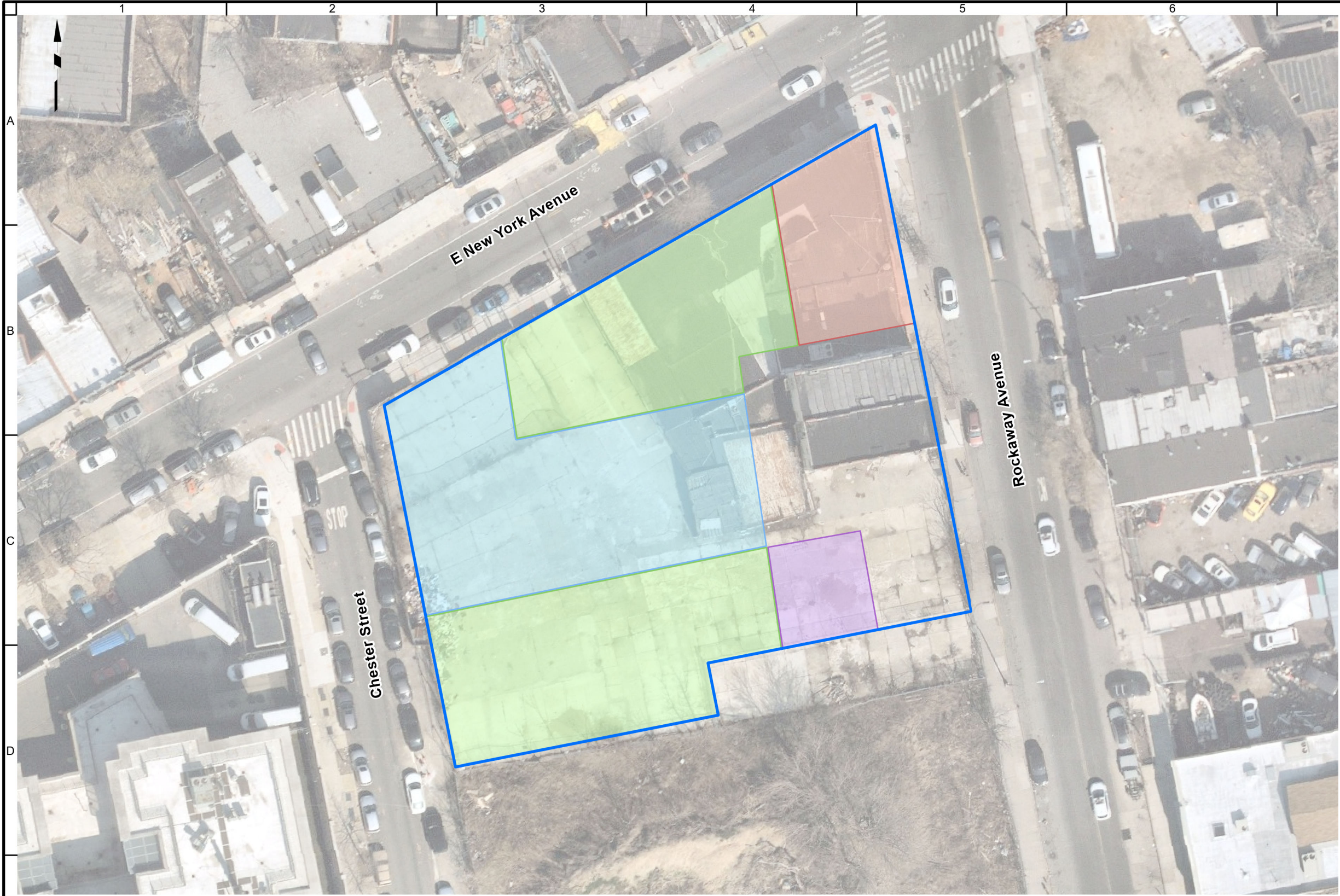


Site Map

326-350 Rockaway Avenue
326-350 Rockaway Ave.
City of Brooklyn, Kings County
Site No. C224328



Department of
Environmental
Conservation



- Legend**
- Approximate Site Boundary
 - Excavation to 3 feet bgs
 - Excavation to 4 feet bgs
 - Excavation to 9 feet bgs
 - Excavation to 11 feet bgs

NOTES:
1. AERIAL IMAGERY PROVIDED THROUGH LANGAN'S SUBSCRIPTION TO NEAR MAP, DATED 03/04/2022.
2. ALL LOCATIONS ARE APPROXIMATE.
3. BGS = BELOW GRADE SURFACE
4. DEPTH AND DIMENSION OF REMEDIAL EXCAVATION AREAS ARE ESTIMATED BASED ON ANALYTICAL RESULTS EXCEEDING THE TRACK 1 SOIL CLEANUP OBJECTIVES.

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SCALE IN FEET

<div><div>LANGAN</div><div>Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C. 21 Penn Plaza, 360 West 31st Street, 8th Floor New York, NY 10001 T: 212.479.5400 F: 212.479.5444 www.langan.com</div></div>	<div>Project</div> <div>326-350 ROCKAWAY AVENUE</div> <div>BLOCK No. 3499, LOT No. 25</div> <div>BROOKLYN</div> <div>KINGS COUNTYNEW YORK</div>	<div>Figure Title</div> <div>ALTERNATIVE I - TRACK 1 CLEANUP</div>	Project No.	7
			Date	
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