

DECISION DOCUMENT

28-12 41st Avenue Site
Brownfield Cleanup Program
Long Island City, Queens County
Site No. C241300
August 2026



**Department of
Environmental
Conservation**

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

DECLARATION STATEMENT - DECISION DOCUMENT

28-12 41st Avenue Site
Brownfield Cleanup Program
Long Island City, Queens County
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Statement of Purpose and Basis

This document presents the remedy for the 28-12 41st Avenue 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 (NYSDEC) for the 28-12 41st 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 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 contaminant source areas, including:

- 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 restricted-residential SCOs, as defined by 6 NYCRR Part 375-6.8 in the upper 15 feet. This includes excavation to a depth of approximately 7 feet below grade (ft bg) across the entire site, plus excavation to depths of approximately 9 and 15 ft bg at two “hotspot” locations in the northeastern and southwestern

portions of the site respectively. If a Track 2 cleanup is achieved, a Cover System will not be a required element of the remedy.

Approximately 1,335 cubic yards of contaminated soil will be removed from the site for remediation. Collection and analysis of confirmation and documentation samples at the remedial excavation depths 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 depths, 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.

3. Backfill

As needed, clean fill 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.

4. 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.

5. Soil Vapor Extraction (SVE)

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. Specifics about the installation of the SVE will be determined during the remedial design.

6. Institutional Controls

Imposition of an institutional control in the form of an Environmental Easement (EE) 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 the NYSDOH or NYCDOHMH; and
- require compliance with the NYSDEC approved Site Management Plan.

7. Site Management Plan (SMP)

A SMP 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 engineering controls remain in place and effective:
 - Institutional Controls: The EE discussed in Remedy Element 6 above.
 - Engineering Controls: The sub-slab depressurization system discussed in Remedy Element 4 and the SVE system discussed in Remedy Element 5 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 EE including any land use, and groundwater use restrictions;
 - 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, soil vapor, and indoor air to assess the performance and effectiveness of the remedy; and
 - a schedule of monitoring and frequency of submittals to the 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 the 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 NYSDEC guidance, as appropriate. The remedy is protective of public health and the environment.

August 3, 2026

Date



Scott Deyette, Director
Remedial Bureau B

DECISION DOCUMENT

28-12 41st Avenue Site
Long Island City, Queens County
Site No. C241300
August 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=C241300>

Queens Public Library - Hunters Point Branch
47-40 Center Boulevard
Long Island City, NY 11109
Phone: (718) 707-9944

Queens Public Library - Long Island City Branch
37-44 21 Street
Long Island City, NY 11101
Phone: (718) 752-3700

Queens Community Board 1
45-02 Ditmars Blvd
Astoria, NY 11105
Phone: (718) 626-1024

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 28-12 41st Avenue Site (site) is located in the Long Island City neighborhood of Queens, NY and occupies Block 417, Lot 20. The site is bounded to the north by 41st Avenue followed by the ATLAS High School, to the east by a two-story mixed-use residential and commercial building, to the south by a two-story commercial building and a two-story mixed-use residential and commercial building, and to the west by a commercial parking lot followed by Gotham Tech High School.

Site Features: The 0.115-acre site is currently improved with a vacant one-story, slab-on-grade warehouse.

Current Zoning and Land Use: The site is currently zoned as M1-5/R7-3 manufacturing and residential and has been assigned an E-Designation of E-104. The surrounding properties are characterized by low-rise commercial and residential, multi-family high-rise, and manufacturing uses.

Past Use of the Site: Site history indicates the site was used for metal works; dry cleaning; laundry; printing operations; auto repair; and for commercial, retail, and residential uses.

Site Geology and Hydrogeology: The site stratigraphy includes an urban fill layer from the surface down to approximately 7 feet below the ground surface (ft bgs) consisting of brown to dark brown to black fine to medium sand with varying amounts of silt, fine gravel, brick, concrete, and asphalt. This fill layer is underlain by potentially native soils consisting of brown fine to medium sand with varying amounts of clay, silt, and fine to coarse gravel. Bedrock was

noted as deeper than 30 ft bgs during previous investigations.

Groundwater was observed at approximately 25 ft bgs and is generally flowing southeast across the site.

A site location map is attached as Figure 1 and a site layout is attached as Figure 2.

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, alternatives that restrict 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) were 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, NYSDEC, in consultation with NYSDOH, has determined that this site poses a significant threat to public health or the environment; accordingly, an enforcement action is necessary.

NYSDEC will seek to identify any parties (other than the Volunteer) 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

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:

benzo(a)anthracene	indeno(1,2,3-cd)pyrene
benzo(a)pyrene	lead
benzo(b)fluoranthene	mercury
benzo(k)fluoranthene	tetrachloroethene (PCE)
chrysene	trichloroethene (TCE)
dibenz[a,h]anthracene	1,1,1-Trichloroethane(TCA)

The contaminants 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.

Nature and Extent of Contamination:

Soil and groundwater were analyzed for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), metals, polychlorinated biphenyls (PCBs), pesticides, per- and polyfluoroalkyl substances (PFAS), and 1,4- dioxane. Soil vapor was analyzed for VOCs. The primary contaminants of concern at the site include metals, pesticides, and PCBs in soil; metals, PFAS and VOCs in groundwater; and chlorinated and petroleum-related VOCs in soil vapor.

Soil

Exceedances of the restricted-residential use soil cleanup objectives (RRSCOs) or applicable protection of groundwater soil cleanup objectives (PGWSCOs) were primarily found in the historic fill layer which extends from the surface down to approximately 7 ft bgs. In general, the highest concentrations were detected in the upper 2 feet of the historic fill layer with some deeper exceedances extending up to 14 ft bgs.

Metals detected at concentrations exceeding their respective RRSCOs include arsenic up to 25.7 parts per million (ppm) (RRSCO of 16 ppm), barium up to 537 ppm (RRSCO of 410 ppm), lead up to 1,210 ppm (RRSCO of 400 ppm), and mercury up to 2.87 ppm (RRSCO of 0.3 ppm).

SVOCs detected at concentrations exceeding their respective RRSCOs or applicable PGWSCOs include benz(a)anthracene up to 24 ppm (PGWSCO of 1 ppm), benzo(a)pyrene up to 26 ppm (RRSCO of 1 ppm), benzo(b)fluoranthene up to 30 ppm (PGWSCO of 2.1 ppm), benzo(k)fluoranthene up to 8.8 ppm (RRSCO of 4.9 ppm), chrysene up to 23 ppm (PGWSCO of 1 ppm), dibenz(a,h)anthracene up to 3.8 ppm (RRSCO of 0.33 ppm), and indeno(1,2,3-cd)pyrene up to 10 ppm (PGWSCO of 6.6 ppm).

No VOCs, PCBs, or pesticides were detected above their respective RRSCOs or applicable PGWSCOs. No PFAS were detected above their respective restricted residential or protection of groundwater guidance values.

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

Groundwater

SVOCs detected at concentrations exceeding their respective Class GA Ambient Water Quality Standards (AWQS) or Guidance Values (AWQSGVs) include benz(a)anthracene up to 0.03 parts per billion (ppb) (AWQSGV of 0.002 ppb), benzo(b)fluoranthene up to 0.07 ppb (AWQSGV of 0.002 ppb), chrysene up to 0.05 ppb (AWQSGV of 0.002 ppb), and phenol up to 1.5 ppb (AWQS of 1 ppb).

PFAS detected at concentrations exceeding their respective AWQSGVs include PFOA up to 16.4 parts per trillion (ppt) (AWQSGV of 6.7 ppt), and PFOS up to 9.52 ppt (AWQSGV of 2.7 ppt).

No dissolved metals, VOCs, PCBs, pesticides, or 1,4-dioxane were detected above their respective AWQS or AWQSGVs.

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

Soil Vapor

Various chlorinated VOCs were detected in soil vapor including trichloroethene up to 37.9 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$), tetrachloroethene up to 3,070 $\mu\text{g}/\text{m}^3$, 1,1,1-trichloroethane up to 141 $\mu\text{g}/\text{m}^3$, chloroform up to 6.84 $\mu\text{g}/\text{m}^3$, and trichlorofluoromethane up to 19.3 $\mu\text{g}/\text{m}^3$.

Various petroleum-related VOCs were also detected in soil vapor including benzene up to 0.856 $\mu\text{g}/\text{m}^3$, ethylbenzene up to 1.24 $\mu\text{g}/\text{m}^3$, naphthalene up to 5.87 $\mu\text{g}/\text{m}^3$, 1,2,4-trimethylbenzene up to 4.68 $\mu\text{g}/\text{m}^3$, 1,3,5-trimethylbenzene up to 1.32 $\mu\text{g}/\text{m}^3$, o-xylene up to 2.51 $\mu\text{g}/\text{m}^3$, m,p-xylene up to 5.91 $\mu\text{g}/\text{m}^3$, heptane up to 2.56 $\mu\text{g}/\text{m}^3$, hexane up to 5.18 $\mu\text{g}/\text{m}^3$, and toluene up to 6.63 $\mu\text{g}/\text{m}^3$.

Data indicates that there is a potential for off-site impacts in soil vapor related to this 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*.

People are not expected to come into contact with contaminated soil since the site is covered with buildings and pavement. People are not drinking the contaminated groundwater because the area is served by a public 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. The site is vacant so inhalation of site contaminants in indoor air via vapor intrusion is not a current concern. However, the potential exists for inhalation of site contaminants due to soil vapor intrusion for any future on-site development. In addition, environmental sampling indicates soil vapor intrusion from site contamination is a potential 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

- Restore ground water aquifer to pre-disposal/pre-release conditions, to the extent practicable.

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 2: Restricted-residential use with generic soil cleanup objectives remedy.

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

The elements of the selected remedy, as shown in Figures 3, 4, and 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 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.

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- 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.

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Approximately 1,335 cubic yards of contaminated soil will be removed from the site for remediation. Collection and analysis of confirmation and documentation samples at the remedial excavation depths 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 depths, 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.

3. Backfill

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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.

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6. Institutional Controls

Imposition of an institutional control in the form of an Environmental Easement (EE) 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 the NYSDOH or NYCDOHMH; and
- require compliance with the NYSDEC approved Site Management Plan.

7. Site Management Plan (SMP)

A SMP is required, which includes the following:

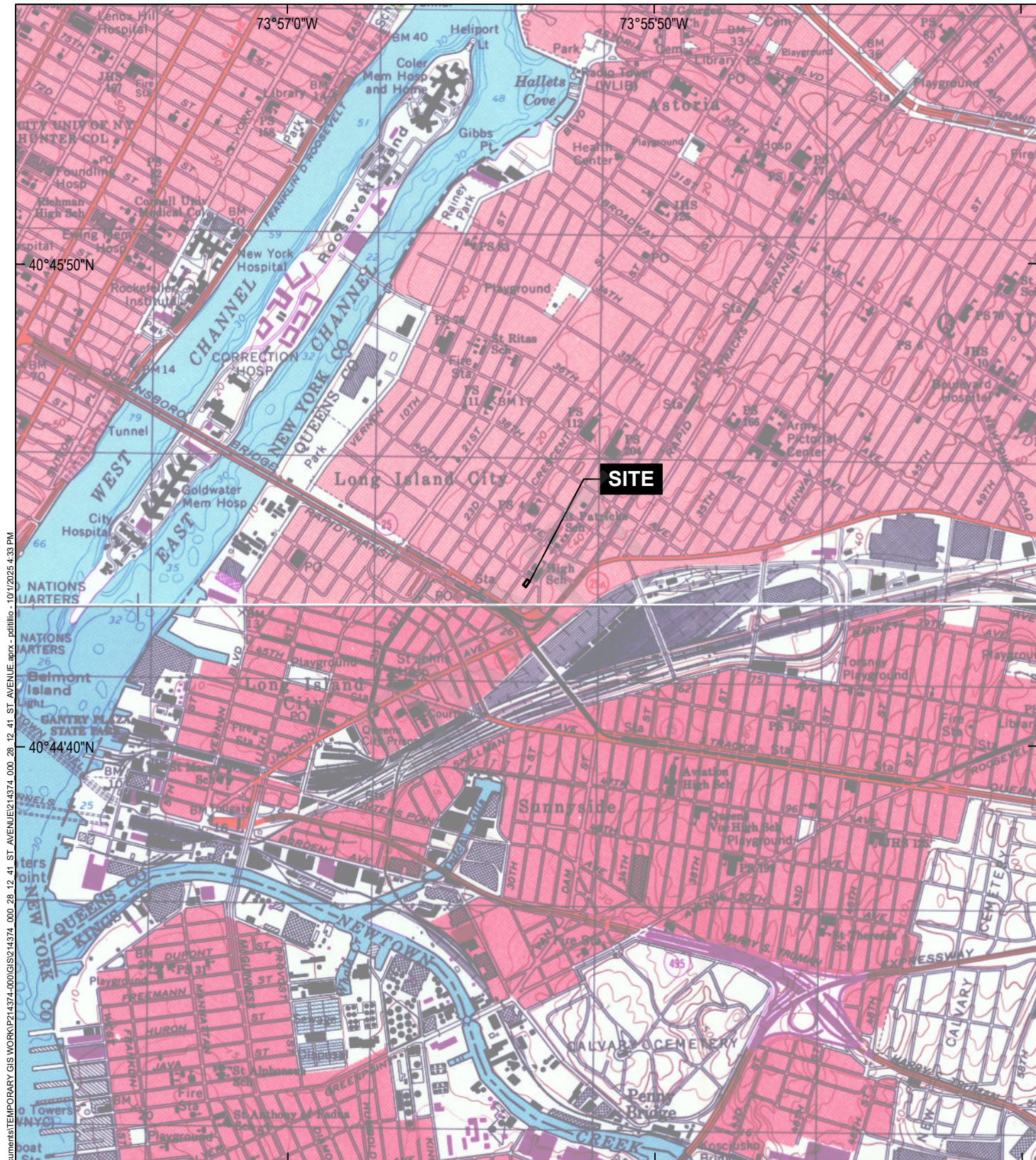
- a. an Institutional and Engineering Control Plan that identifies all use restrictions and engineering controls for the site and details the steps and media-specific requirements necessary to ensure the following institutional and engineering controls remain in place and effective:
 - Institutional Controls: The EE discussed in Remedy Element 6 above.
 - Engineering Controls: The sub-slab depressurization system discussed in Remedy Element 4 and the SVE system discussed in Remedy Element 5

above.

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- an Excavation Plan which details the provisions for management of future excavations in areas of remaining contamination;
- descriptions of the provisions of the EE including any land use, and groundwater use restrictions;
- 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, soil vapor, and indoor air to assess the performance and effectiveness of the remedy; and
 - a schedule of monitoring and frequency of submittals to the 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 the NYSDEC access to the site and O&M records.



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MAP SOURCE: USGS
SITE COORDINATES: 40°45'04"N, 73°56'14"W

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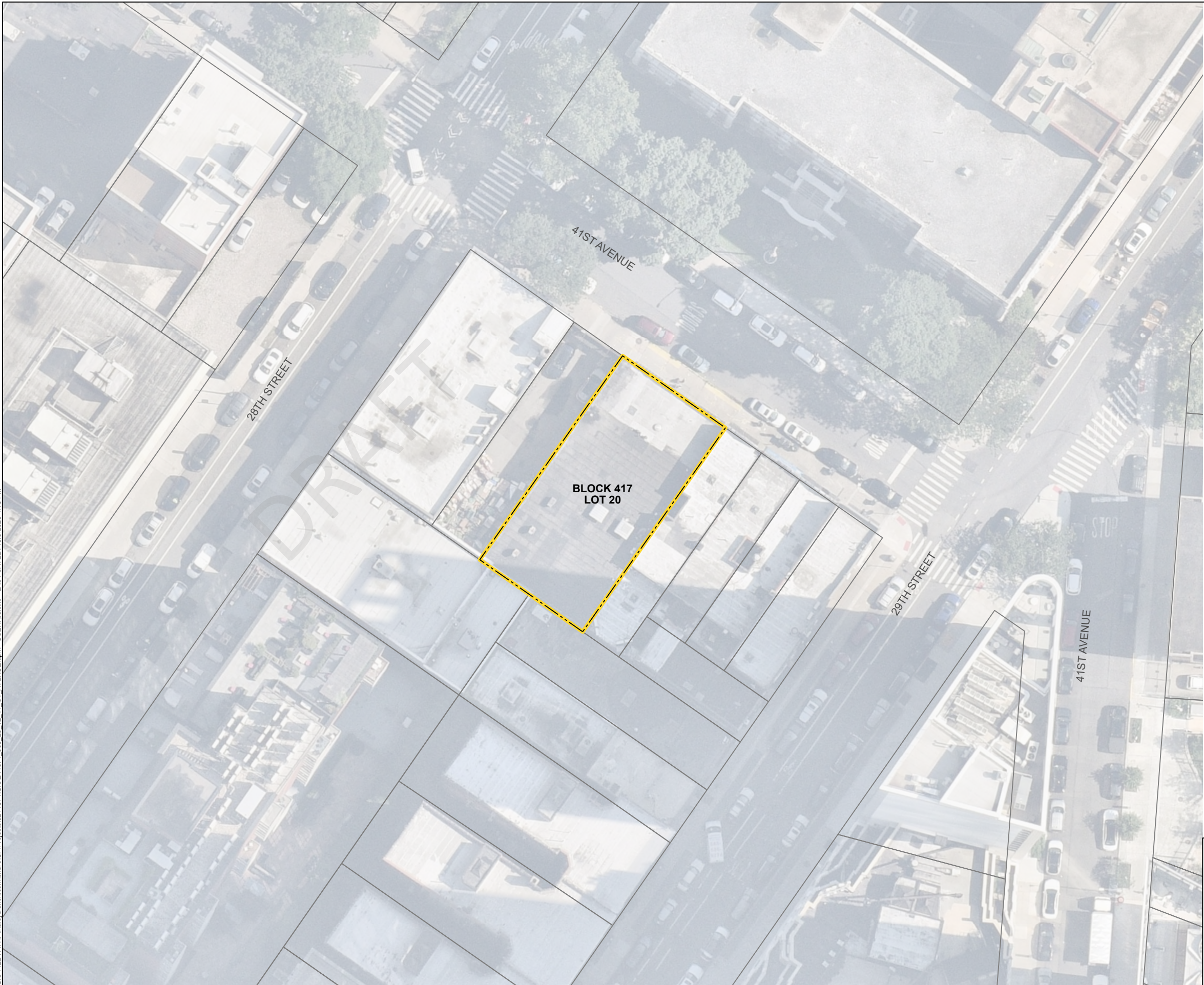
28-12 41ST AVENUE
LONG ISLAND CITY, NEW YORK

PROJECT LOCUS

APPROXIMATE SCALE: 1 IN = 2000 FT
JANUARY 2026

FIGURE 1

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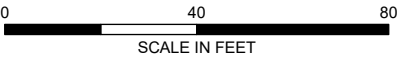


LEGEND

-  SITE BOUNDARY
-  PARCEL BOUNDARY

NOTES

1. ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE.
2. ASSESSOR PARCEL DATA SOURCE: NYC DEPARTMENT OF CITY PLANNING, INFORMATION TECHNOLOGY DIVISION
3. AERIAL IMAGERY SOURCE: NEARMAP, JULY 3, 2025



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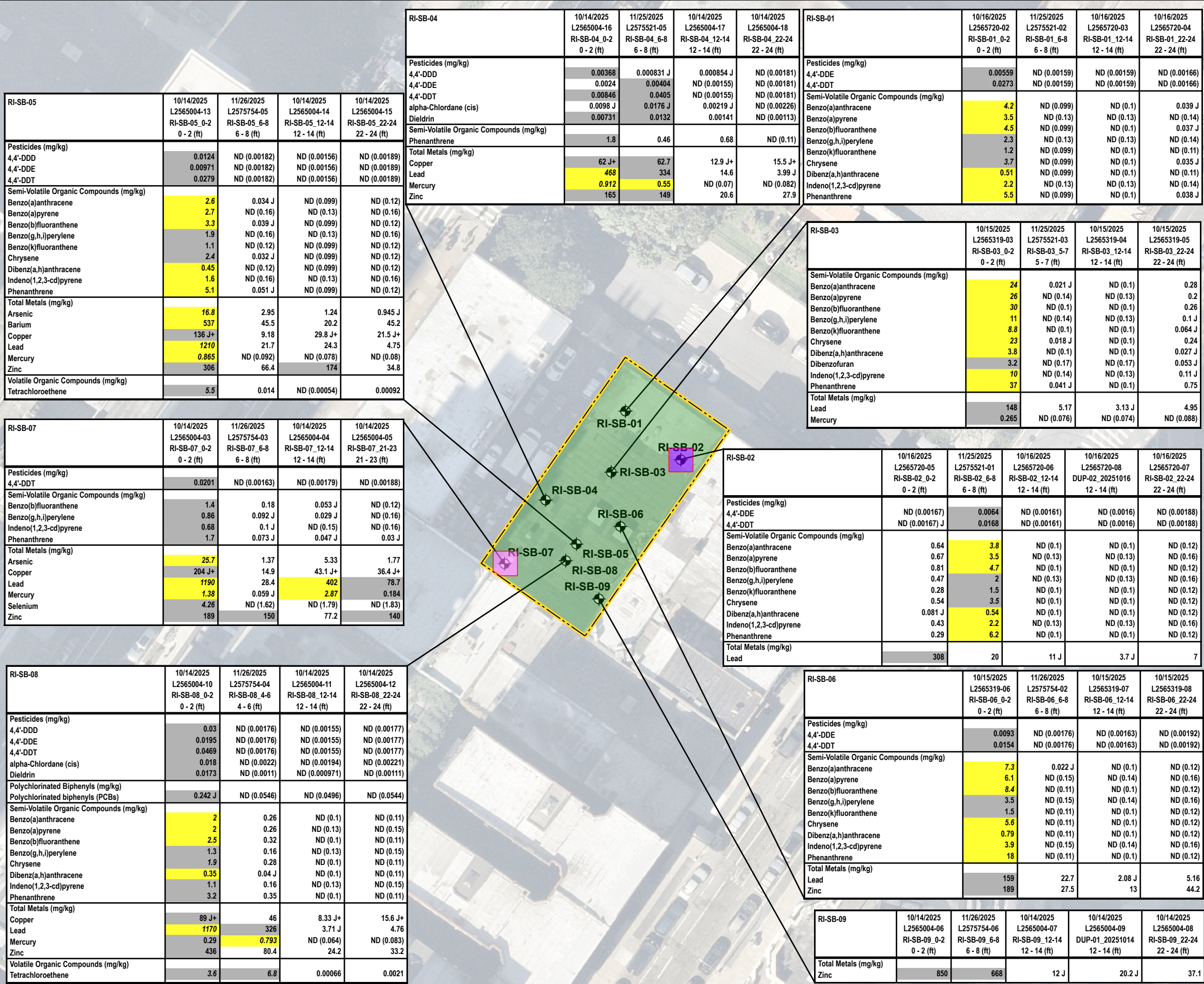
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LONG ISLAND CITY, NEW YORK

SITE PLAN

JANUARY 2026

FIGURE 2

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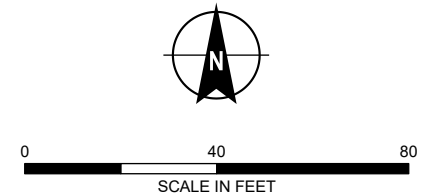
- SOIL BORING
- SITE-WIDE EXCAVATION TO 7 FT
- SITE BOUNDARY
- RI-SB-07 HOTSPOT EXCAVATION TO 15 FT
- PARCEL BOUNDARY
- RI-SB-02 HOTSPOT EXCAVATION TO 9 FT

*EXCAVATION DEPTHS IN FEET BELOW GROUND SURFACE (BGS)

Analyte	NY-PGW	NY-RESR	NY-UNRES
PCBs (mg/kg)			
Polychlorinated biphenyls	3.2	1	0.1
Pesticides (mg/kg)			
4,4'-DDD	14	5	0.0033
4,4'-DDE	9.3	3.4	0.0033
4,4'-DDT	135	3.8	0.0033
alpha-Chlordane (cis)	4.5	0.65	0.014
Dieldrin	0.1	0.075	0.005
Semi-Volatile Organic Compounds (mg/kg)			
Benzo(a)anthracene	1	1.4	1
Benzo(a)pyrene	22	1	1
Benzo(b)fluoranthene	2.1	1.4	1
Benzo(g,h,i)perylene	1000	4.9	0.64
Benzo(k)fluoranthene	2	4.9	0.8
Chrysene	1	4.9	1
Dibenz(a,h)anthracene	1000	0.33	0.33
Dibenzofuran	110	18	2.1
Indeno(1,2,3-cd)pyrene	6.6	1.4	0.6
Phenanthrene	1000	4.9	1.1
Total Metals (mg/kg)			
Arsenic	16	16	13
Barium	820	410	410
Copper	1720	280	50
Lead	450	400	63
Mercury	0.73	0.3	0.18
Selenium	4	110	3.9
Zinc	2480	6600	109
Volatile Organic Compounds (mg/kg)			
Tetrachloroethene	1.3	18	1.3

NOTES

- ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE.
- SOIL ANALYTICAL RESULTS ARE COMPARED TO THE NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION (NYSDEC) TITLE 6 OF THE OFFICIAL COMPILATION OF NEW YORK CODES, RULES, AND REGULATIONS (NYCRR) PART 375 UNRESTRICTED USE SOIL CLEANUP OBJECTIVES (SCO), RESTRICTED-USE RESIDENTIAL SCOS, AND PROTECTION OF GROUNDWATER SCOS.
- EXCEEDANCES PROTECTION OF GROUNDWATER CRITERIA ARE SHOWN IN **ITALICS**
- EXCEEDANCES OF THE UNRESTRICTED SCOS ARE SHADED GRAY.
- EXCEEDANCES OF THE RESTRICTED SCOS ARE SHADED **YELLOW**.
- DEFINITIONS:
 - NY-PGW - NYSDEC PART 375 PROTECTION OF GROUNDWATER CRITERIA
 - NY-RESR - NYSDEC PART 375 RESTRICTED-USE RESIDENTIAL SCOS
 - NY-UNRES - NYSDEC PART 375 UNRESTRICTED USE SCOS
 - mg/kg: MILLIGRAM PER KILOGRAM
 - ND (2.5): NOT DETECTED, NUMBER IN PARENTHESES IS THE LABORATORY REPORTING LIMIT
 - J: VALUE IS ESTIMATED.
- AERIAL IMAGERY SOURCE: NEARMAP, OCTOBER 1, 2025



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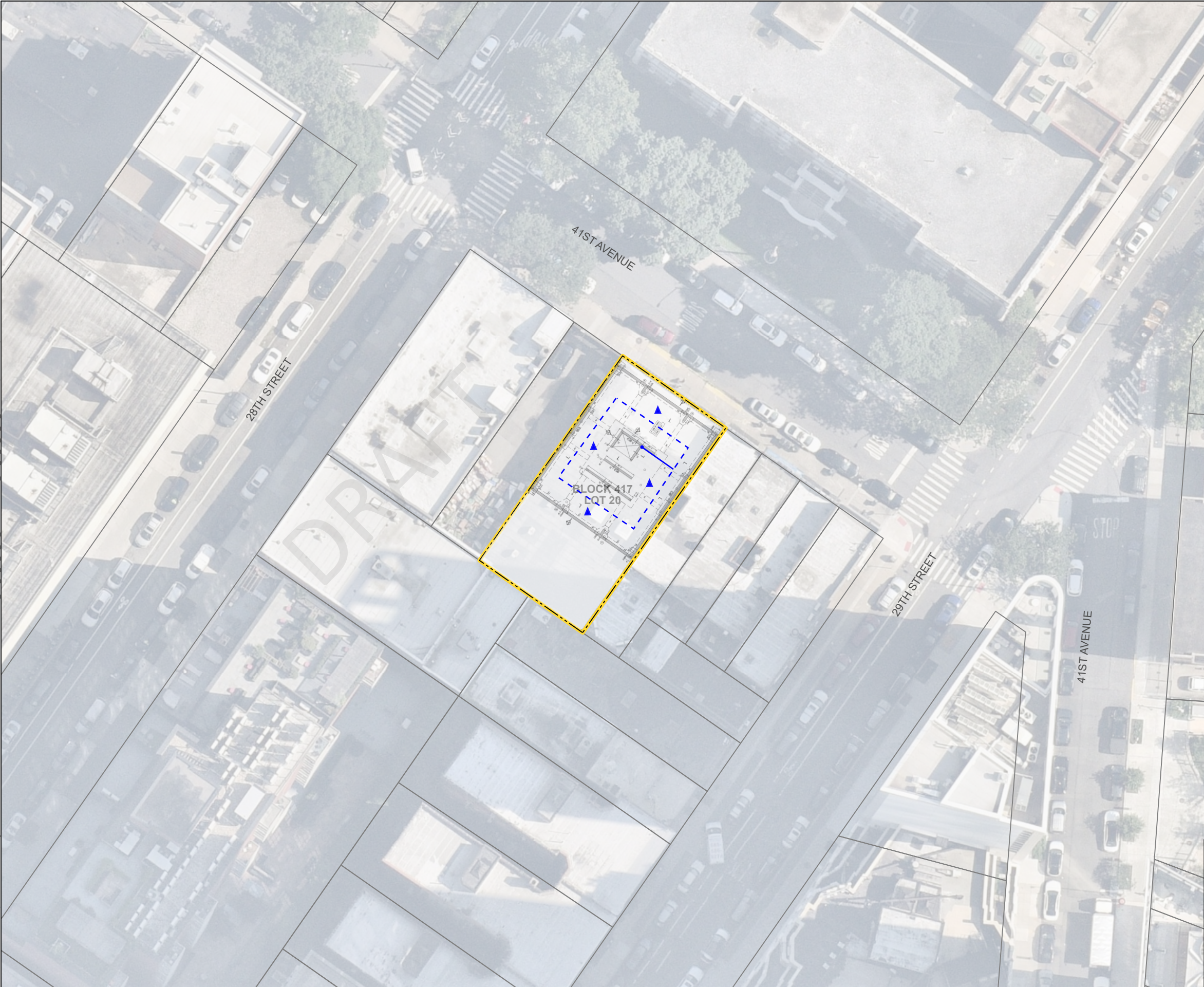
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SOIL RESULTS EXCEEDANCE MAP AND ALTERNATIVE II EXCAVATION PLAN

MARCH 2026

FIGURE 3

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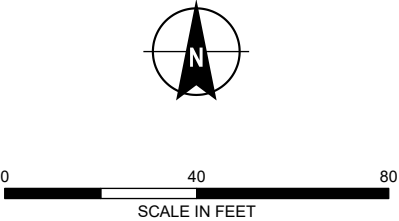


LEGEND

- SITE BOUNDARY
- PARCEL BOUNDARY
- SUB-SLAB HORIZONTAL PIPING NETWORK
- SUB-SLAB LEADER PIPE TO VERTICAL RISER
- RISER EXTENDING FROM SUB-SLAB TO THE BUILDING ROOF
- SUB-SLAB VAPOR MONITORING POINT

NOTES

1. ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE.
2. ASSESSOR PARCEL DATA SOURCE: NYC DEPARTMENT OF CITY PLANNING, INFORMATION TECHNOLOGY DIVISION
3. AERIAL IMAGERY SOURCE: NEARMAP, JULY 3, 2025
4. SOURCE MAP: FOUNDATION PLAN BY JUST CONSULTING ENGINEERING PLLC DATED 8/5/2024



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28-12 41ST AVENUE
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CONCEPTUAL SSDS LAYOUT

JANUARY 2026

FIGURE 4

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LEGEND

- SITE BOUNDARY
- PARCEL BOUNDARY
- SITE-WIDE REMEDIAL EXCAVATION TO 7 FT BGS
- DEVELOPMENT EXCAVATION TO 14 FT BGS
- SVE WELL SCREENED FROM 14 TO 24 FT BGS
- ASSUMED 15 FEET RADIUS OF INFLUENCE
- SVE MONITORING POINT

NOTES

1. ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE.
2. ASSESSOR PARCEL DATA SOURCE: NYC DEPARTMENT OF CITY PLANNING, INFORMATION TECHNOLOGY DIVISION
3. AERIAL IMAGERY SOURCE: NEARMAP, JULY 3, 2025
4. SOURCE MAP: FOUNDATION PLAN BY JUST CONSULTING ENGINEERING PLLC DATED 8/5/2024



0 40 80
SCALE IN FEET

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LONG ISLAND CITY, NEW YORK

CONCEPTUAL SVE SYSTEM LAYOUT

MARCH 2026

FIGURE 5