DECISION DOCUMENT

Long Island City Center
Brownfield Cleanup Program
Long Island City, Queens County
Site No. C241189
August 2019

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

DECLARATION STATEMENT - DECISION DOCUMENT

Long Island City Center
Brownfield Cleanup Program
Long Island City, Queens County
Site No. C241189
August 2019

Statement of Purpose and Basis

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

This decision is based on the Administrative Record of the New York State Department of Environmental Conservation (the Department) for the Long Island City Center site and the public's input to the proposed remedy presented by the Department.

Description of Selected Remedy

The elements of the selected remedy are as follows:

1. Remedial Design

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

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

a minimum, a 20-mil vapor barrier/waterproofing membrane on the foundation to improve energy efficiency as an element of construction.

2. Excavation

Excavation and off-site disposal of contaminant source areas, including soil exceeding the 6 NYCRR Part 371 hazardous criteria for lead. Excavation and off-site disposal of all on-site soils which exceed restricted-residential soil cleanup objectives in the upper 15 feet. If a Track 2 restricted residential cleanup is achieved, a Cover System will not be a required element of the remedy. Approximately 25,000 cubic yards of contaminated soil will be removed from the site.

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

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

4. 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 Paragraph 3.
   - Engineering Controls: The site cover, if necessary, discussed in Paragraph 5.

   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/or groundwater water use restrictions;
   - a provision for evaluation of the potential for soil vapor intrusion for any occupied buildings on the site, including provision for implementing actions recommended to address exposures related to soil vapor intrusion;
   - a provision that should a building foundation or building slab be removed in the future, a cover system consistent with that described in Paragraph 3 above will be placed in any areas where the upper two feet of exposed surface soil exceed the applicable soil cleanup objectives (SCOs);

- 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:
   - monitoring for vapor intrusion for any buildings on the site, as may be required by the Institutional and Engineering Control Plan discussed above.

Contingent Track 4 Remedy

In the event that Track 2 restricted residential use is not achieved, the following contingent remedial elements will be required and the remedy will achieve a Track 4 restricted residential cleanup.

5. Cover System

A site cover will be required to allow for restricted residential use of the site in areas where the upper two feet of exposed surface soil will exceed the applicable soil cleanup objectives (SCOs). 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 slabs building.

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.

August13, 2019

Date

Gerard Burke, Director
Remedial Bureau B

DECISION DOCUMENT

Long Island City Center
Long Island City, Queens County
Site No. C241189
August 2019

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, the redevelopment or reuse of which may be complicated by the presence or potential presence of a contaminant.

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:

Queens Borough Public Library - Court Square
Attn: Daniel Finger
25-01 Jackson Avenue
Long Island City, NY 11101
Phone: 718-937-2790

Queens Community Board 2
43-22 50th Street
Woodside, NY 11377
Phone: (718) 973-2790

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 in an urban area at 43-30 24th street in the Long Island City neighborhood of Queens, NY. The 1.29-acre site consists of the entirety of tax Block 436, Lot 1 (which includes a portion of former Lot 21). The site is bounded to the north by a five-story office building and a construction site that will contain a two-story office building with a basement, to the west by 23rd Street, to the south by 44th Road, and to the east by 24th Street. The elevated NYC Transit (NYCT) No. 7 subway structure runs along 23rd Street. The NYCT subway E/M lines are located about 280 feet south of the site running under 44th Drive.

Site Features:
The former on-site buildings have been demolished and the site is currently vacant. The site is capped with concrete slabs over Lot 1.

Current Zoning and Land Use:
According to the New York City Zoning Map the site is zoned M1-6/R10 and is located within the Special Long Island City Mixed Use District, Queens Plaza Sub-district, Area A-2. The M1-6/R10 districts include a M1 manufacturing district paired with the R10 residential district. Currently, the site is vacant.

Past Use of the Site:
A two-story building was constructed on Lot 1 in 1963 and was used by Panasonic for electronic parts and service from 1963 until at least 1986. The two-story building appears to have been used as a warehouse from 1988 until 2006. Former Lot 21 was improved with a single-story shipping and loading building constructed in 1948. The shipping and loading building was used by Goldsmith Bros. and Volunteers of America between 1948 and at least 1990, and was used as a parking garage from 2001 through 2016. The parking garage was demolished in August 2016 and the warehouse building was demolished in April 2017.

Site Geology and Hydrogeology:
The surface cover is underlain by fill material consisting primarily of dark brown to grey fine-grained sand, with varying amounts of silt, gravel, concrete, brick, slag, glass and wood fragments. The fill extends to about 14 feet below ground surface (bgs). Beneath the fill, native material is present, consisting of brown to olive fine grained sand, with varying amounts of silt and gravel.

Groundwater is present from about 18.5 to 19 feet bgs and flows southwest towards the East River.

A site location map is attached as Figure 1.

SECTION 4: LAND USE AND PHYSICAL SETTING

The Department may consider the current, intended, and reasonably anticipated future land use of the site and its surroundings when evaluating a remedy for soil remediation. For this site, alternatives (or an alternative) that restrict(s) the use of the site to restricted-residential use (which allows for commercial use and industrial use) as described in Part 375-1.8(g) were/was evaluated in addition to an alternative which would allow for unrestricted use of the site.

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

SECTION 5: ENFORCEMENT STATUS

The Applicant(s) under the Brownfield Cleanup Agreement is a/are Volunteer(s). The Applicant(s) does/do 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
- 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. 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)anthracene
benzo(a)pyrene
benzo(b)fluoranthene
dibenz[a,h]anthracene
indeno(1,2,3-CD)pyrene
tetrachloroethene (PCE)
lead
chrysene
arsenic
mercury
bis(2-ethylhexyl)phthalate

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

- air
- 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 were analyzed for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), metals, polychlorinated biphenyls (PCBs), and pesticides. Soil vapor samples were analyzed for VOCs. Groundwater samples were analyzed for emerging contaminants (ECs). Based on investigations performed at the site to date, the primary contaminants of concern for the site are SVOCs and metals in soil.

Soil - SVOCs and metals exceeding Restricted Residential Soil Cleanup Objectives (RRSCOs) were detected in soils throughout the site. The maximum concentrations of SVOCs found at the site were: benzo(a)anthracene at 8.1 parts per million (ppm) as compared to the RRSCO of 1 ppm, benzo(a)pyrene at 8.5 ppm (RRSCO is 1 ppm), benzo(b)fluoranthene at 11 ppm (RRSCO is 1 ppm), chrysene at 9.1 ppm (RRSCO is 3.9 ppm), dibenz(a,h)anthracene at 2 ppm (RRSCO is 0.33 ppm), and indeno(1,2,3-cd)pyrene at 7.3 ppm (RRSCO is 0.5 ppm). For metals, the maximum concentration of lead was 18,000 ppm (RRSCO is 400 ppm), mercury was 1.1 ppm (RRSCO is 0.81 ppm), and arsenic was 49.4 ppm (RRSCO is 16 ppm). No VOCs, PCBs or pesticides were detected at concentrations exceeding the RRSCOs. Data does not indicate any off-site impacts in soil related to this site.

Groundwater - Trace concentrations of one SVOC as well as several naturally occurring metals (specifically iron, manganese and magnesium) were detected in groundwater at concentrations exceeding their ambient water quality standards (AWQS). The concentration of bis(2-ethylhexyl)phthalate was found up to 7 parts per billion (ppb) (AWQS is 5 ppb). Emerging contaminants were also detected in groundwater samples. The maximum concentrations of PFOA and PFOS were 56.5 parts per trillion (ppt) and 17.2 ppt respectively. No VOCs, PCBs or pesticides were detected at concentrations exceeding the applicable AWQS. Data does not indicate any off-site impacts in groundwater related to this site.

Sub-slab and Soil Vapor - Slight detections of VOCs were found in soil vapor samples collected at 15 feet below the ground surface. The maximum concentration of tetrachloroethene was 4.7 micrograms per cubic meter (ug/m3) and trichloroethene was 31 ug/m3. Higher levels of petroleum compounds were detected in sub-slab soil vapor samplings prior to conducting the RI. Data does not indicate any 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 may contact contaminated soil if they dig below the ground surface. 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 the soil vapor (air spaces within the soil) may move into overlying 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 the buildings, is referred to as soil vapor intrusion. Because the site is vacant, the inhalation of site-related contaminants due to soil vapor intrusion does not represent a current concern. The potential exists for the inhalation of site contaminants due to soil vapor intrusion in any future on-site development. 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 contact with, or inhalation of volatiles, from contaminated groundwater.

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 use with generic soil cleanup objectives remedy.

The selected remedy is referred to as the Soil Excavation remedy.

The elements of the selected remedy, as shown in Figure 2, are as follows:

1. Remedial Design

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

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

2. Excavation

Excavation and off-site disposal of contaminant source areas, including soil exceeding the 6 NYCRR Part 371 hazardous criteria for lead. Excavation and off-site disposal of all on-site soils which exceed restricted-residential soil cleanup objectives in the upper 15 feet. If a Track 2 restricted residential cleanup is achieved, a Cover System will not be a required element of the remedy. Approximately 25,000 cubic yards of contaminated soil will be removed from the site.

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

3. 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 the Department a periodic certification of institutional and engineering controls in accordance with Part 375-1.8 (h)(3);
- allow the use and development of the controlled property for restricted residential use as defined by Part 375-1.8(g), although land use is subject to local zoning laws;
- restrict the use of groundwater as a source of potable or process water, without necessary

water quality treatment as determined by the NYSDOH or NYCDOH; and
- require compliance with the Department approved Site Management Plan.

4. 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 Paragraph 3.
   - Engineering Controls: The site cover, if necessary, discussed in Paragraph 5.

   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/or groundwater water use restrictions;
   - a provision for evaluation of the potential for soil vapor intrusion for any occupied buildings on the site, including provision for implementing actions recommended to address exposures related to soil vapor intrusion;
   - a provision that should a building foundation or building slab be removed in the future, a cover system consistent with that described in Paragraph 3 above will be placed in any areas where the upper two feet of exposed surface soil exceed the applicable soil cleanup objectives (SCOs);
   - 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:
   - monitoring for vapor intrusion for any buildings on the site, as may be required by the Institutional and Engineering Control Plan discussed above.

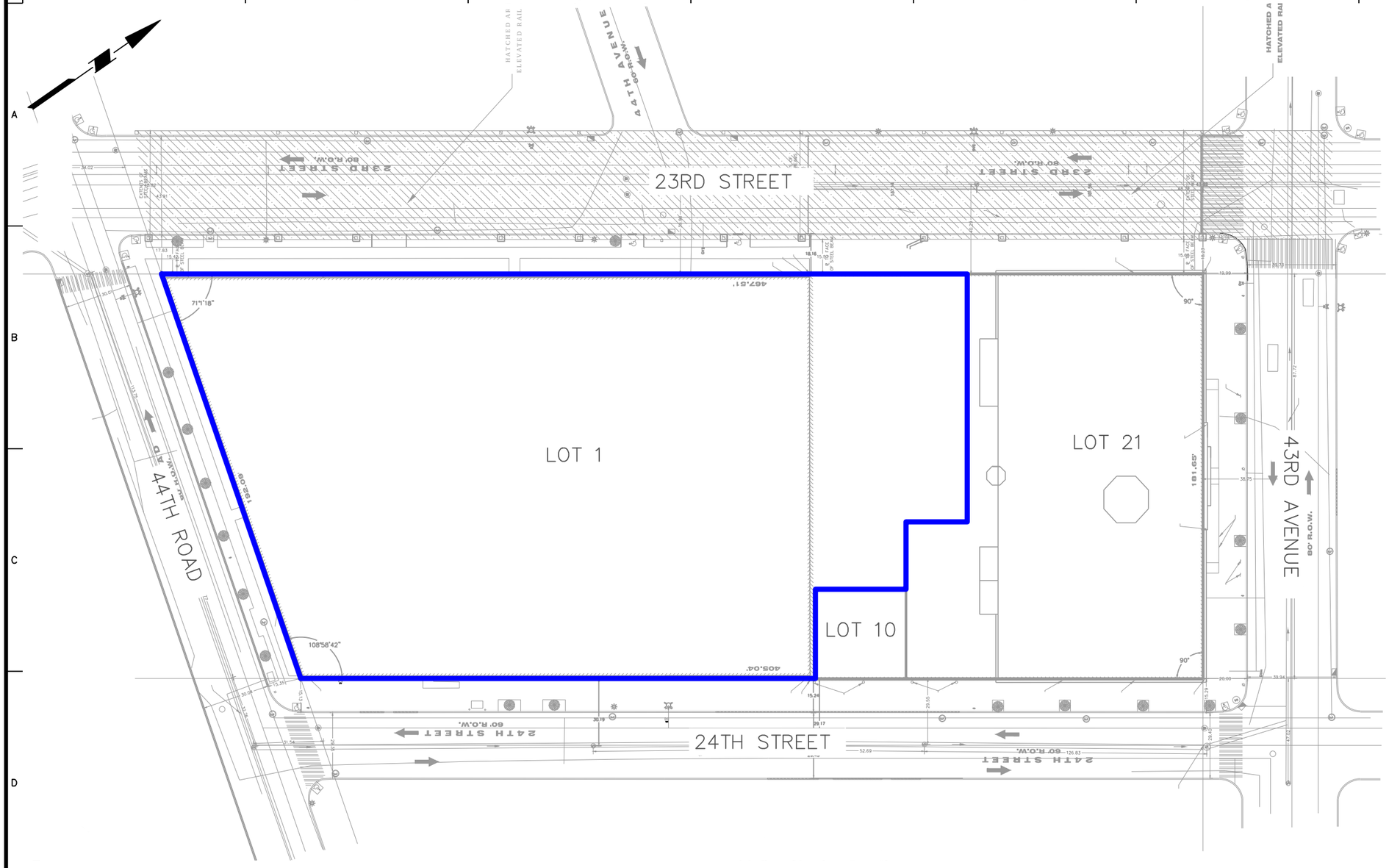
Contingent Track 4 Remedy

In the event that Track 2 restricted residential use is not achieved, the following contingent remedial elements will be required and the remedy will achieve a Track 4 restricted residential cleanup.

5. Cover System

A site cover will be required to allow for restricted residential use of the site in areas where the upper two feet of exposed surface soil will exceed the applicable soil cleanup objectives (SCOs). 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 slabs building.



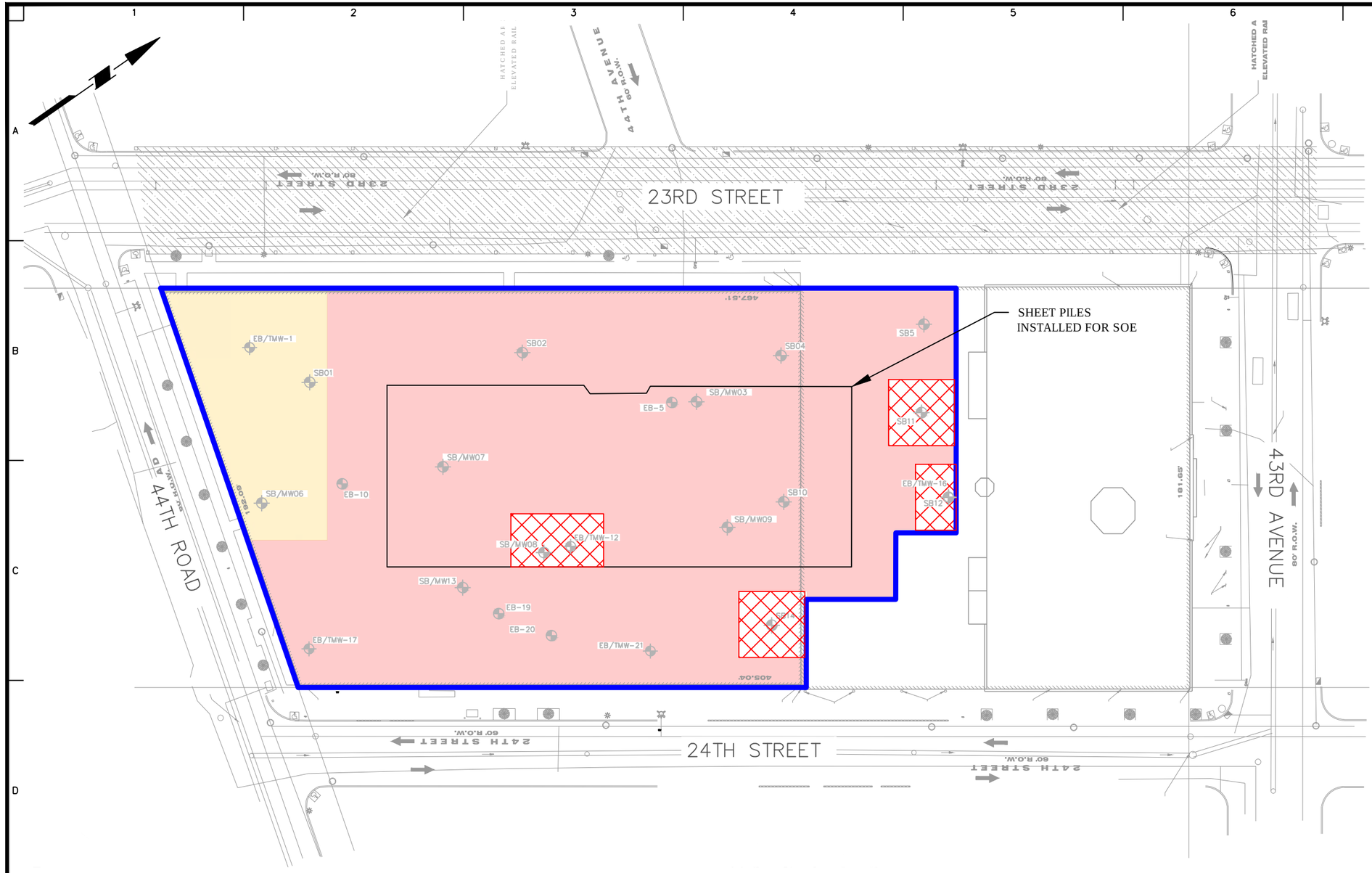
LEGEND:

SITE BOUNDARY

NOTE:

BASE MAP TAKEN FROM ARCHITECTURAL SURVEY OF 23-10 43RD AVENUE ISSUED BY TRUE NORTH SURVEYORS ON MAY 5, 2016.

	Project	Figure Title		Figure No.
	Long Island City Center LONG ISLAND CITY NEW YORK	SITE PLAN		1



LEGEND:

- SITE BOUNDARY
- REMEDIAL EXCAVATION FROM ABOUT 0 TO 4 FEET BGS
- REMEDIAL EXCAVATION FROM ABOUT 12 TO 13 FEET BGS
- REMEDIAL EXCAVATION TO A MAXIMIUM DEPTH OF 15 FEET BGS
- SB/MW02 — RI SOIL BORING AND MONITORING WELL
- EB/TMW-1 — PREVIOUS SOIL BORING (LANGAN, JUNE 2016)
- EB-5 — PREVIOUS SOIL BORING AND TEMPORARY MONITORING WELL (LANGAN, JUNE 2016)

NOTE:

1. BASE MAP TAKEN FROM ARCHITECTURAL SURVEY OF 23-10 43RD AVENUE ISSUED BY TRUE NORTH SURVEYORS ON MAY 5, 2016.
2. DEPTH AND DIMENSION OF REMEDIAL EXCAVATION AREAS ARE ESTIMATED BASED ON ANALYTICAL RESULTS EXCEEDING TRACK 2 RESTRICTED USE RESTRICTED RESIDENTIAL SOIL CLEANUP OBJECTIVES.
3. BGS = BELOW GROUND SURFACE
4. SOE = SUPPORT OF EXCAVATION

50 0 25 50
SCALE IN FEET

Project
Long Island City Center
LONG ISLAND CITY NEW YORK

Figure Title
ALTERNATIVE II - TRACK 2 REMEDIAL EXCAVATION MAP

Figure No.
2