

DECISION DOCUMENT

2455 Third Avenue
Brownfield Cleanup Program
Bronx, Bronx County
Site No. C203125
July 2020



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

DECLARATION STATEMENT - DECISION DOCUMENT

2455 Third Avenue
Brownfield Cleanup Program
Bronx, Bronx County
Site No. C203125
July 2020

Statement of Purpose and Basis

This document presents the remedy for the 2455 Third 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 (the Department) for the 2455 Third 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

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.

All soils in the upper two feet which exceed the restricted residential SCOs will be excavated and transported off-site for disposal. Approximately 1,500 cubic yards of contaminated soil will be removed from the site.

3. Backfill

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

4. 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 building slabs.

5. 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.

6. 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 5 above.
- Engineering Controls: The cover system discussed in Paragraph 4 above.

This plan includes, but may not be limited to:

- an Excavation Plan which details the provisions for management of future excavations in areas of remaining contamination;
- descriptions of the provisions of the environmental easement including any land use, and groundwater 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 4 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.

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.

July 23, 2020

Date



Gerard Burke, Director
Remedial Bureau B

DECISION DOCUMENT

2455 Third Avenue
Bronx, Bronx County
Site No. C203125
July 2020

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:

DECInfo Locator - Web Application
<https://gisservices.dec.ny.gov/gis/dil/index.html?rs=C203125>

Bronx Community Board 1
3024 Third Avenue
Bronx, NY 10455
Phone: (718) 585-7117

New York Public Library - Mott Haven Branch
321 East 140th Street

Bronx, NY 10454
Phone: (718) 665-4878

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 within an urban area at 2455 and 2457 Third Avenue, Bronx, NY. The approximately 19,900 square-foot (0.45 acres) site is identified on the Bronx County Tax Map as Block 2319, Lots 38 and 39. The site is bounded by East 135th Street/the Major Deegan Expressway followed by a hotel to the northeast, Third Avenue/Third Avenue Bridge ramp followed by commercial buildings to the southeast, a mixed-use commercial/residential building to the southwest, and a parking lot and an active construction site to the northwest.

Site Features:

The site is currently vacant and paved.

Current Zoning and Land Use:

This site is currently vacant and is zoned M1-3/R8, which allows for light manufacturing and high density residential commercial district. The adjoining parcels and surrounding area are used for industrial/manufacturing, and commercial purposes.

Past Use of the Site:

Historical site use includes multiple two- and three-story residential and commercial buildings on the site (1891), a carpet storage facility on the southern part of the site (1908), and a rail yard (1935 - 1951). The site was an asphalt-paved lot in 1995. In 1998, a one-story building of unknown use was present on the southeastern part of the site, with parking located on the northeastern portion of the site. From 2006 to 2017, the site contained a building on the southwestern part of the site occupied by Bridge Building Supply. The site is currently vacant and is covered by the concrete slab of the recently demolished warehouse as well as a concrete-paved lot.

Site Geology and Hydrogeology:

The site is underlain by fill material predominantly consisting of brown, fine-grained sand with varying amounts of silt, gravel, tile, metal, concrete, brick, glass, wood, and slag. The fill was observed to depths varying between about 6 and 9.5 feet below ground surface (bgs). Historic

fill is generally underlain by fine-grained sands with varying amounts of silt, clay, organic material, and gravel. In the western portion of the site, historic fill is underlain by a 1- to 5- foot thick clay/peat layer with organic material (between 8 and 16 feet bgs) followed by sand. Bedrock was not encountered during the previous site investigations.

Groundwater is present at depths of approximately 8 feet below grade surface at the site. Groundwater flows to the west.

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 under the Brownfield Cleanup Agreement is a Participant. The Applicant has an obligation to address on-site and off-site contamination. 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
- indoor air
- sub-slab vapor

6.1.1: Standards, Criteria, and Guidance (SCGs)

The remedy must conform to promulgated standards and criteria that are directly applicable or that are relevant and appropriate. The selection of a remedy must also take into consideration guidance, as appropriate. Standards, Criteria and Guidance are hereafter called SCGs.

To determine whether the contaminants identified in various media are present at levels of concern, the data from the RI were compared to media-specific SCGs. 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	barium
benzo(a)pyrene	cadmium
benzo(b)fluoranthene	lead
chrysene	mercury
dibenz[a,h]anthracene	benzo(k)fluoranthene
indeno(1,2,3-CD)pyrene	naphthalene

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 were analyzed for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), metals, polychlorinated biphenyls (PCBs), pesticides, and emerging contaminants (ECs). Soil vapor was analyzed for VOCs. Based upon investigations conducted to date, the primary contaminants of concern include SVOCs and metals.

Soil - SVOCs and metals exceeding restricted residential soil cleanup objectives (RRSCOs) were detected in soil throughout the site, including benzo(a)anthracene at a maximum concentration of 16 parts per million (ppm) compared to RRSCO of 1 ppm, benzo(a)pyrene at 14 ppm (RRSCO is 1 ppm), benzo(b)fluoranthene at 19 ppm (RRSCO is 1 ppm), benzo(k)fluoranthene at 7.4 ppm (RRSCO is 3.9 ppm), chrysene at 16 ppm (RRSCO is 3.9 ppm), dibenzo(a,h)anthracene at 2 ppm (RRSCO is 0.33 ppm), and indeno(1,2,3-cd)pyrene at 7.6 ppm (RRSCO is 0.5 ppm). One SVOC, naphthalene, was found at a maximum concentration of 26 ppm, which exceeds the protection of groundwater SCO of 12 ppm. Several metals were detected at concentrations exceeding the RRSCOs, including barium at a maximum concentration of 1,080 ppm (RRSCO is 400 ppm), cadmium at 5.08 ppm (RRSCO is 4.3 ppm), lead at 2,250 ppm (RRSCO is 400 ppm), and mercury at 6.2 ppm (RRSCO is 0.81 ppm). No VOCs, pesticides or PCBs were found at concentrations exceeding the RRSCOs. Data does not indicate any off-site impacts in soil related to this site.

Groundwater - The SVOC naphthalene was detected in groundwater at concentrations exceeding the ambient water quality standards (AWQS) at a maximum concentration of 56 parts per billion (ppb) compared to the AWQS of 10 ppb. Three dissolved metals (iron, manganese and sodium) were detected at concentrations exceeding their respective AWQS; however, these are naturally occurring compounds associated with the site's proximity to saline surface water and are therefore not site-specific contaminants. Levels of PFOS and/or PFOA was detected above the NYSDEC screening level of 10 ppt with PFOS at a maximum concentration of 52 parts per trillion (ppt) and PFOA at 100 ppt. No VOCs, pesticides or PCBs were found exceeding AWQS. Data does not indicate any off-site impacts in groundwater related to this site.

Soil Vapor - Several VOCs were detected in soil vapor samples. Total VOCs were detected at a maximum concentration of 2,630 micrograms per cubic meter (ug/m³) in a sample collected from the western part of the site. The maximum concentration PCE was 68 ug/m³ and 1,1,1-TCA was 2.4 ug/m³. 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*.

Direct contact with contaminants in the soil is unlikely because the majority of the site is covered with buildings and pavement. 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, 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 potential exists for inhalation exposures to site contamination via the soil vapor intrusion pathway should the on-site building be re-occupied and/or if new construction occurs. Environmental 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.

Soil

RAOs for Public Health Protection

- Prevent ingestion/direct contact with contaminated soil.

RAOs for Environmental Protection

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

Soil Vapor

RAOs for Public Health Protection

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

SECTION 7: ELEMENTS OF THE SELECTED REMEDY

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

The selected remedy is a Track 4: Restricted use with site-specific soil cleanup objectives remedy.

The selected remedy is referred to as the Soil Excavation & Cover System 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;
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- Maximizing habitat value and creating habitat when possible;
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- 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

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5. 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.

6. Site Management Plan

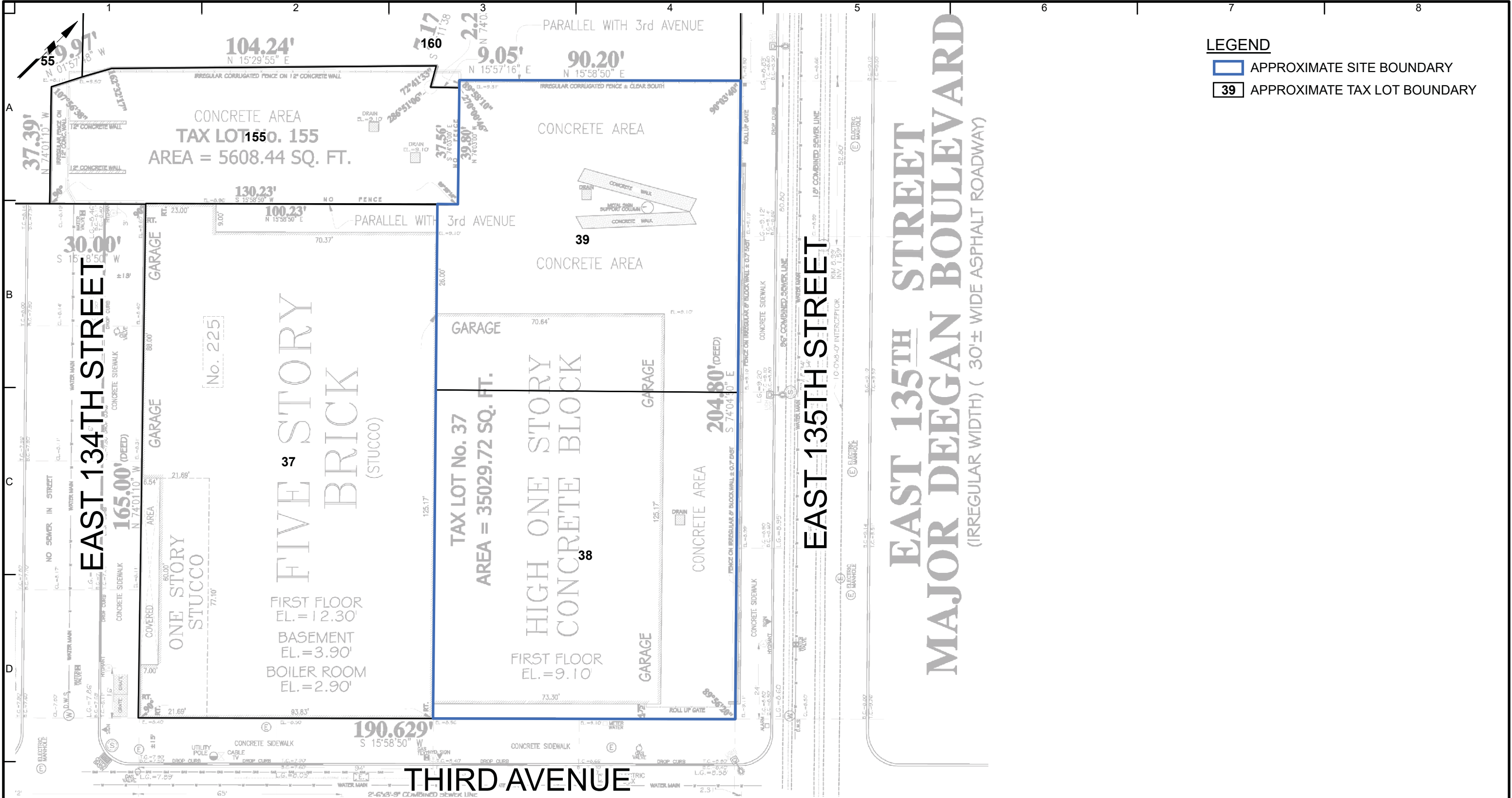
A Site Management Plan is required, which includes the following:

- 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 5 above.
 - Engineering Controls: The cover system discussed in Paragraph 4 above.

This plan includes, but may not be limited to:

- an Excavation Plan which details the provisions for management of future excavations in areas of remaining contamination;
- descriptions of the provisions of the environmental easement including any land use, and groundwater 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 4 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.

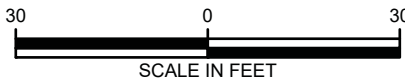


LEGEND

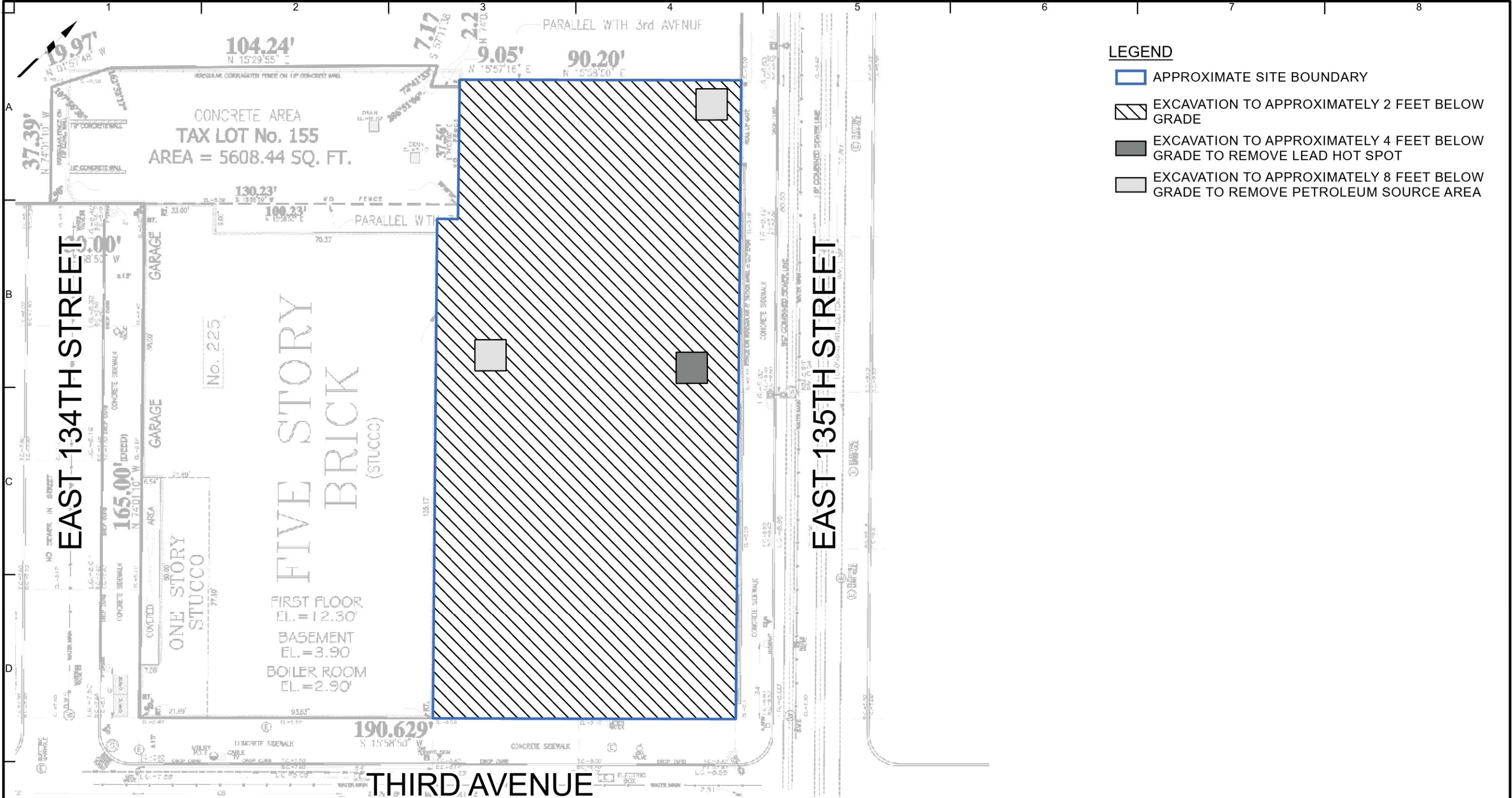
APPROXIMATE SITE BOUNDARY

39

 APPROXIMATE TAX LOT BOUNDARY



Project 2455 THIRD AVENUE BLOCK No. 2319, LOT Nos. 38 & 39 BRONXNEW YORK	Figure Title SITE PLAN	Project No. 190051701	Figure No. 1
		Date 7/14/2020	
		Scale 1"=30'	
		Drawn By MG	



- LEGEND**
- APPROXIMATE SITE BOUNDARY
 - EXCAVATION TO APPROXIMATELY 2 FEET BELOW GRADE
 - EXCAVATION TO APPROXIMATELY 4 FEET BELOW GRADE TO REMOVE LEAD HOT SPOT
 - EXCAVATION TO APPROXIMATELY 8 FEET BELOW GRADE TO REMOVE PETROLEUM SOURCE AREA



	Project	Figure Title	Project No.	Figure No.
	2455 THIRD AVENUE BLOCK No. 2319, P/O LOT No. 37		190051701	
			Date	
			5/21/2020	
	Scale			
	1"=30'			
	Drawn By			
	MG			
BRONX	NEW YORK			