

# DECISION DOCUMENT

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3475 Third Avenue  
Brownfield Cleanup Program  
Bronx, Bronx County  
Site No. C203080  
November 2015



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

# DECLARATION STATEMENT - DECISION DOCUMENT

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3475 Third Avenue  
Brownfield Cleanup Program  
Bronx, Bronx County  
Site No. C203080  
November 2015

## **Statement of Purpose and Basis**

This document presents the remedy for the 3475 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 3475 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; and
- Integrating the remedy with the end use where possible and encouraging green and sustainable re-development.

## **2. Excavation**

The on-site building(s) 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. Following building demolition, all on-site soils necessary for the installation of a cover system described in remedy element 3, will be excavated and transported off-site for disposal. Approximately 8,000 cubic yards of soil will be removed from the site.

On-site soil which does not exceed the restricted residential use SCOs, as defined by 6 NYCRR Part 375-6.8 may be used below the cover system described in remedy element 3 to backfill the excavation.

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. The site will be regraded to accommodate installation of a cover system as described in remedy element 3.

## **3. Cover System**

A site cover will be required to allow for restricted residential use of the site. The cover will consist either of the structures such as buildings, pavement, sidewalks comprising the site development or a soil cover in areas where the upper two feet of exposed surface soil will exceed the applicable soil cleanup objectives (SCOs). Where the soil cover is required 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 as set forth in 6 NYCRR Part 375-6.7(d).

## **4. 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, commercial, and industrial uses 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.

## **5. 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 3 above.

This plan includes, but may not be limited to:

- o an Excavation Plan which details the provisions for management of future excavations in areas of remaining contamination;
  - o descriptions of the provisions of the environmental easement including any land use and groundwater use restrictions;
  - o a provision for evaluation of the potential for soil vapor intrusion for future buildings developed on the site, including provision for implementing actions recommended to address exposures related to soil vapor intrusion;
  - o provisions for the management and inspection of the identified engineering controls;
  - o maintaining site access controls and Department notification; and
  - o 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:
- o monitoring for vapor intrusion for any buildings developed on the site, as may be required by the Institutional and Engineering Control Plan discussed above.

### **Declaration**

The remedy conforms with promulgated standards and criteria that are directly applicable, or that are relevant and appropriate and takes into consideration Department guidance, as appropriate. The remedy is protective of public health and the environment.

November 13, 2015

\_\_\_\_\_  
Date



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Robert Cozzy, Director  
Remedial Bureau B

# DECISION DOCUMENT

3475 Third Avenue  
Bronx, Bronx County  
Site No. C203080  
November 2015

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## **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 repository:

New York Public Library Bronx Central Branch  
Attn: Giselle Dixon  
Neighborhood Library Network  
Bronx, NY 10456  
Phone: 718-583-6625

### **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, Voluntary 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 the Morrisania section of the Bronx at 3475 Third Avenue between 167th and 168th Street. It is identified as Block 2372 and a portion of Lot 32 on the NYC tax map, and is approximately 0.4 acres in size.

#### **Site Features:**

The site is currently occupied by two vacant structures. The first is a two-story building with community space on the ground floor and offices on the second floor, at the southern end of the site. The other structure is a three-story building with retail and self-storage on the ground floor, and self-storage on the second and third floors. The buildings occupy the entire site.

#### **Current Zoning and Land Use:**

The current zoning designation is M1-1/R7-2, for manufacturing and residential use.

#### **Past Use of the Site:**

Current onsite buildings were constructed between 1909 and 1951. The site has a history of manufacturing uses which include a chemical company, automotive repair, manufacture of textiles, manufacture of bed springs, and dyeing and finishing.

#### **Site Geology and Hydrogeology:**

Approximately the upper 2 feet of the site subsurface consists of urban fill material. This is underlain by a layer of native, coarse reddish brown sand with varying amounts of silt and gravel that extends to bedrock. Bedrock is present at varying depths across the site; at 1 to 2 feet below the western portion of the site and between 17 and 22 feet beneath the eastern portion of the site. Groundwater is encountered at 15 to 16 feet below sidewalk level and flows from northeast to southeast.

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
- 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:

|         |                       |
|---------|-----------------------|
| lead    | zinc                  |
| mercury | hexachlorobenzene     |
| arsenic | trichloroethene (TCE) |
| barium  |                       |

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.

Nature and extent of contamination:

Soil and groundwater samples were analyzed for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), metals, pesticides and PCBs. Soil vapor samples were analyzed for VOCs. Based on investigation performed to date that the primary contaminants of concern are metals related to historic fill and are present in shallow material.

Soil - Metals were detected in shallow soil (0 to 2 feet below surface) at concentrations that exceed the restricted residential use soil cleanup objectives (SCOs). These exceedances include: lead detected at a maximum concentration of 2,960 parts per million (ppm); mercury detected at a maximum concentration of 1.7 ppm; arsenic at a maximum of 27.9 ppm; barium in one sample at 3,850 ppm; and zinc in one sample at 2,500 ppm. A few pesticides were detected in soil at concentrations that exceed the unrestricted use SCOs, but are below the restricted residential use SCOs. Site related soil contamination does not appear to extend off-site.

Groundwater - In one of three groundwater samples collected, hexachlorobenzene (a volatile organic compound) was detected in the most upgradient well on the site at a concentration of 0.35 parts per billion (ppb) compared to the standard of 0.04 ppb. No other contaminants of concern were detected in groundwater. Site related groundwater contamination does not appear to extend off-site.

Soil vapor - Trichloroethene (TCE) was detected in 1 of 7 sub-slab soil vapor samples at a concentration of 10 micrograms per cubic meter (ug/m3). Site related soil vapor contamination does not appear to extend off-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 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 obtains water from a different source not affected by this contamination. Volatile organic compounds in the soil may move into the soil vapor (air spaces within the soil), which in turn 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 buildings, is referred to as soil vapor intrusion. The potential exists for the inhalation of site contaminants due to soil vapor intrusion for future on-site buildings. 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.

### **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 Site Cover remedy.

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

### **1. Remedial Design**

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## **5. Site Management Plan**

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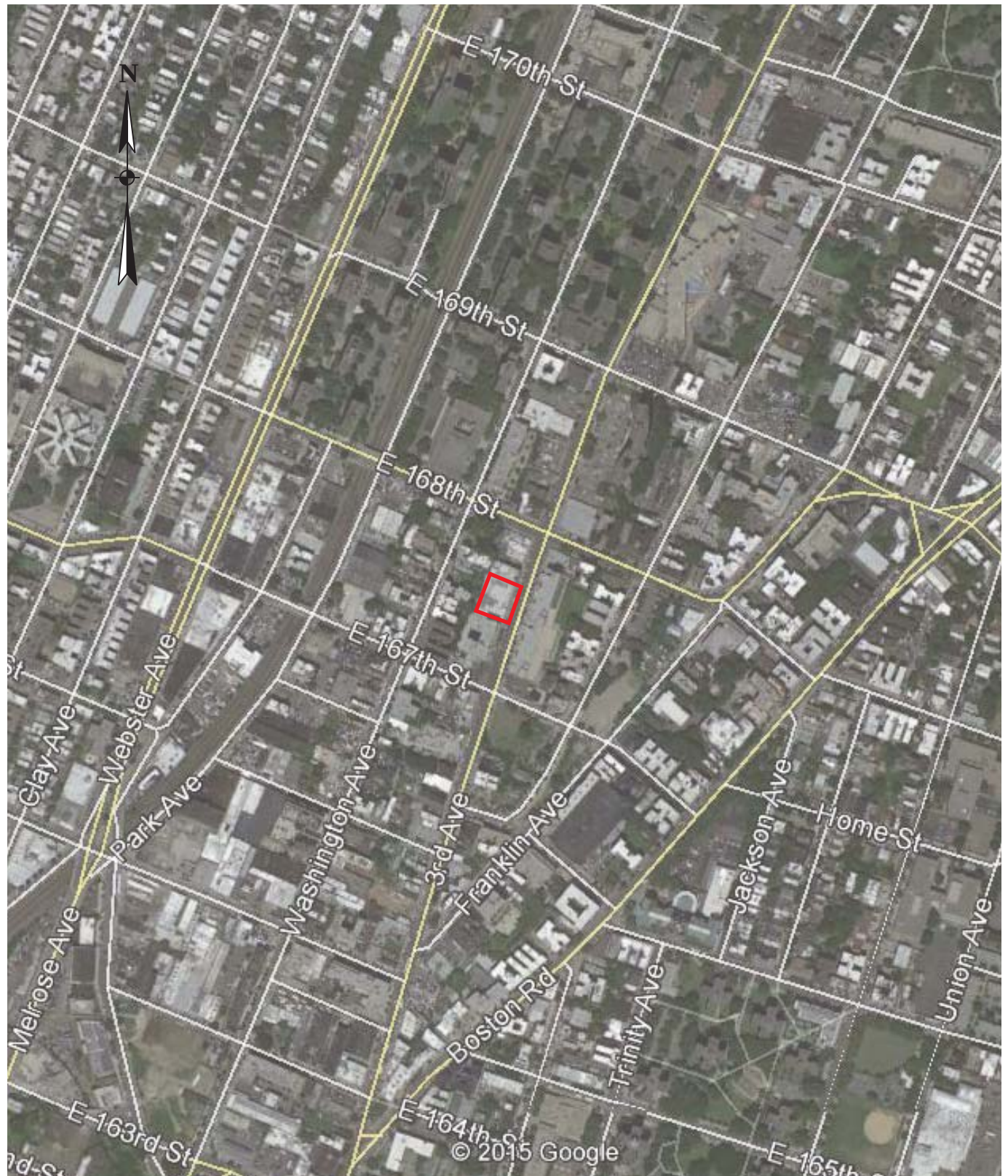
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  - provisions for the management and inspection of the identified engineering controls;
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  - the steps necessary for the periodic reviews and certification of the institutional and/or engineering controls.
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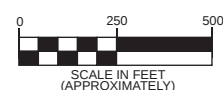


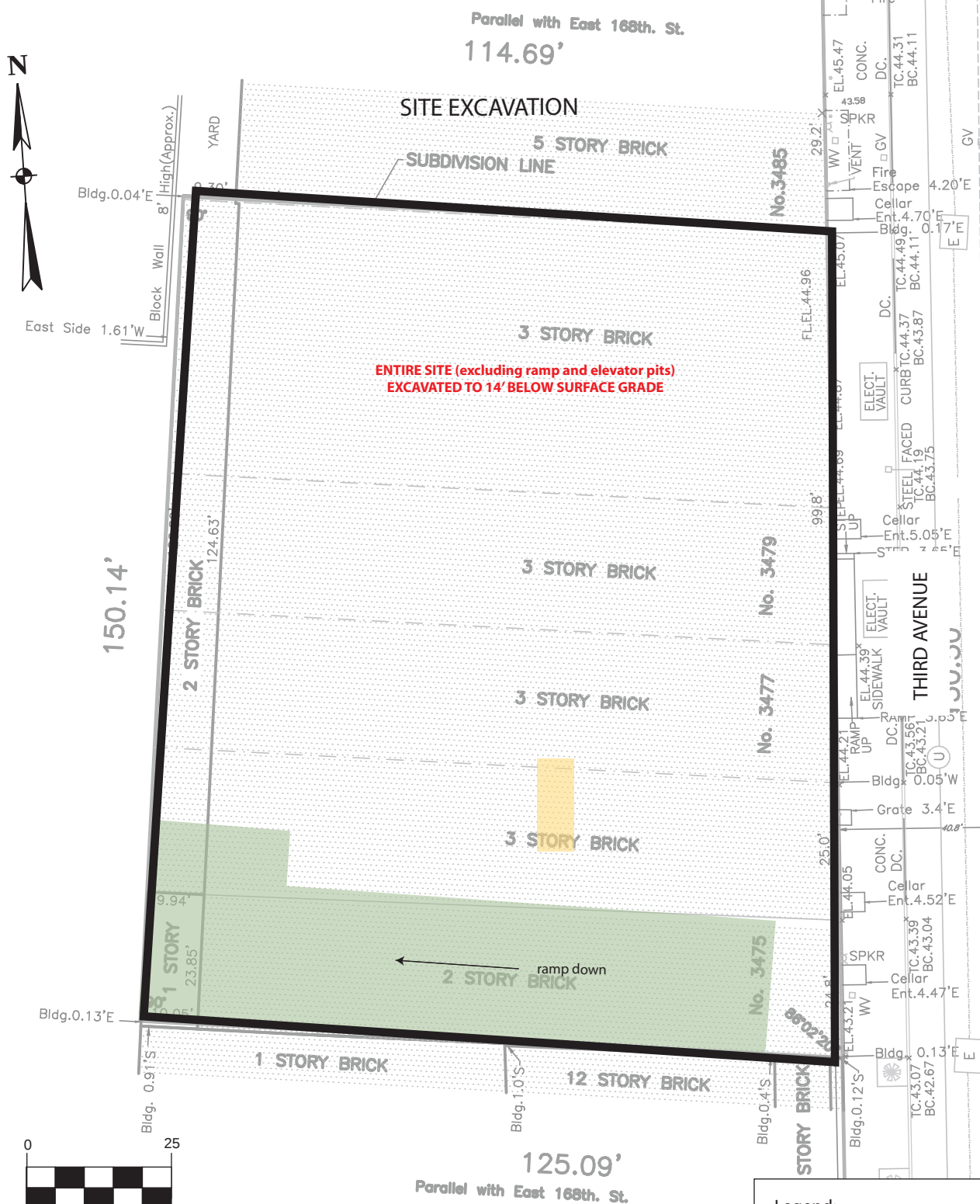
**Figure 1 - Site Location Map**

3475 Third Avenue  
 Borough of Bronx  
 New York City, New York

Legend: — Site Boundary

Longitude = -73°54'23.27"W  
 Latitude = 40°49'49.76"N



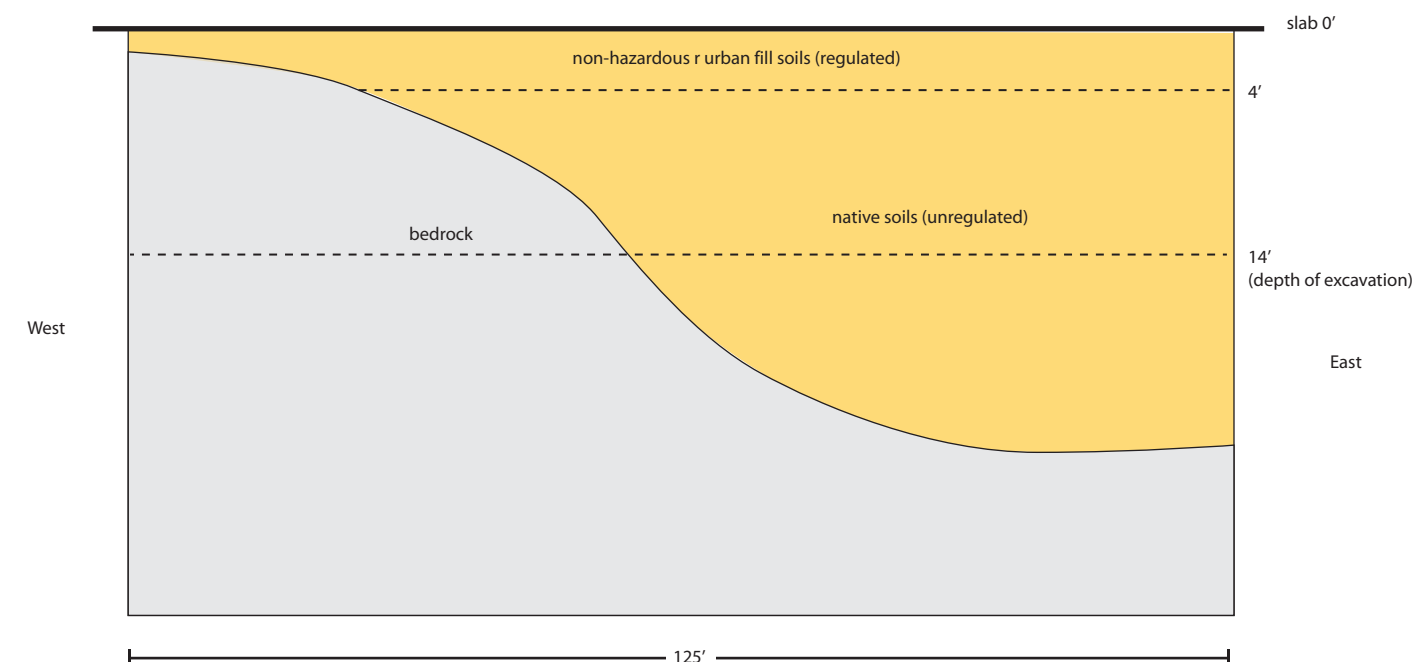


Base map provided Survey Autar Land Surveying, P.C. Survey Map dated April 29, 2015. All feature locations are approximate. This map is intended as a schematic to be used in conjunction with the associated report, and it should not be relied upon as a survey for planning or other activities.

Legend:

-  site boundary  
 elevator pits to be excavated >14'  
 ramp down to cellar parking from Third Avenue to be excavated < 14'

### GENERALIZED SOIL EXCAVATION CROSS SECTION WEST TO EAST



## Site Excavation Map

3475 Third Avenue  
Borough of Bronx  
New York City, New York

ESI File: KB15012.40

Scale as shown

November 2015

Attachment