DECISION DOCUMENT

4125-4149 Laconia Avenue
Brownfield Cleanup Program
Bronx, Bronx County
Site No. C203124
April 2022

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

DECLARATION STATEMENT - DECISION DOCUMENT

4125-4149 Laconia Avenue
Brownfield Cleanup Program
Bronx, Bronx County
Site No. C203124
April 2022

Statement of Purpose and Basis

This document presents the remedy for the 4125-4149 Laconia 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 4125-4149 Laconia 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. Green Remediation

Green remediation principals and techniques will be implemented to the extent feasible in the 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 gas and other emissions;
- Increasing energy efficiency and minimizing use of non-renewable energy;
- Conserving and efficiently managing resources and materials; and
- Reducing waste, increasing recycling and increasing reuse of materials which would otherwise be considered a waste.

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.

Approximately 13 cubic yards of contaminated soil will be removed from the site.

3. Backfill

Fill meeting the requirements of 6 NYCRR Part 375-6.7(d) will be brought in to replace the excavated soil.

4. Cover System

A site cover currently exists in areas not occupied by the building and will be maintained to allow for commercial use of the site. Any site redevelopment will maintain the existing site cover. The site cover may include paved surface parking areas, sidewalks or soil where the upper one foot of exposed surface soil meets the applicable soil cleanup objectives (SCOs) for commercial use. Any fill material brought to the site will meet the requirements for the identified site use as set forth in 6NYCRR part 375-6.7(d).

5. In-Situ Chemical Reduction and Enhanced Bioremediation:

In-situ chemical reduction (ISCR) and enhanced bioremediation will be implemented to treat chlorinated volatile organic compounds (CVOCs) in groundwater. A chemical reducing agent will be injected into the subsurface to destroy the contaminants in the source area below the building slab and downgradient. Enhanced bioremediation will be employed to expedite the degradation of CVOCs within the plume. Following on-site excavation of source material, the ISCR constituent will be mixed with the clean backfill below the building slab as an added remedial step.

Monitoring will be required down-gradient and within the treatment zone to determine the effectiveness of the remedy. Monitoring will be conducted for CVOCs upgradient and downgradient of the treatment zone. The treatment zone will be monitored for dissolved oxygen and oxidation/reduction potential.

6. Vapor Mitigation

Any on-site buildings and off-site buildings impacted by the site 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.

Engineering and Institutional Controls

Imposition of an institutional control in the form of an environmental easement and a Site Management Plan, as described below, will be required. The remedy will achieve a Track 4 commercial cleanup at a minimum and will include imposition of a site cover.

7. 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 commercial 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.

8. 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 Section 7 above.
    - Engineering Controls: The cover system discussed in Section 4 and the sub-slab depressurization system(s) discussed in Section 6 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 restrictions;
   - a provision for evaluation of the potential for soil vapor intrusion for any occupied buildings off-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 Section 4 above will be placed in any areas where the upper one foot of exposed surface soil exceeds 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 of groundwater to assess the performance and effectiveness of the remedy; a schedule of monitoring and frequency of submittals to the Department;
   - monitoring for vapor intrusion for any buildings off-site, as may be required by the

Institutional and Engineering Control Plan discussed above.

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 Department notification; and
- providing the Department 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 Department guidance, as appropriate. The remedy is protective of public health and the environment.

April 26, 2022

Date

Gerard Burke, Director
Remedial Bureau B

DECISION DOCUMENT

4125-4149 Laconia Avenue
Bronx, Bronx County
Site No. C203124
April 2022

SECTION 1: SUMMARY AND PURPOSE

The New York State Department of Environmental Conservation (the Department), in consultation with the New York State Department of Health (NYSDOH), has selected a remedy for the above referenced site. The disposal of contaminants at the site has resulted in threats to public health and the environment that would be addressed by the remedy. The disposal or release of contaminants at this site, as more fully described in this document, has contaminated various environmental media. Contaminants include hazardous waste and/or petroleum.

The New York State Brownfield Cleanup Program (BCP) is a voluntary program. The goal of the BCP is to enhance private-sector cleanups of brownfields and to reduce development pressure on "greenfields." A brownfield site is real property, where a contaminant is present at levels exceeding the soil cleanup objectives or other health-based or environmental standards, criteria or guidance, based on the reasonably anticipated use of the property.

The Department has issued this document in accordance with the requirements of New York State Environmental Conservation Law and 6 NYCRR Part 375. This document is a summary of the information that can be found in the site-related reports and documents.

SECTION 2: CITIZEN PARTICIPATION

The Department seeks input from the community on all remedies. A public comment period was held, during which the public was encouraged to submit comment on the proposed remedy. All comments on the remedy received during the comment period were considered by the Department in selecting a remedy for the site. Site-related reports and documents were made available for review by the public at the following document repositories:

DECInfo Locator - Web Application
https://gisservices.dec.ny.gov/gis/dil/index.html?rs=C203124

New York Public Library-Wakefield Branch
4100 Lowerre Place
Bronx, NY 10466
Phone: (718) 652-4663

Bronx Community Board 12
4101 White Plains Rd
Bronx, NY 10466
Phone: (718) 944-3300

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 0.74-acre site is located on the west side of Laconia Avenue between E. 230th and E. 231st Streets in the Wakefield section of the Bronx, NY. The site is bounded by E. 231st Street to the north, residential properties to the west, E. 230th Street to the south, and Laconia Avenue to the east.

Site Features

The site contains a one-story building and an asphalt paved parking lot. The footprint of the building is approximately 14,800 square feet and is rectangular in shape. The building contains eight tenant spaces on the first floor and a full basement that is constructed with concrete walls and a concrete slab. The basement of the building is subdivided for use by occupants for general storage purposes. One of the eight tenant spaces was previously occupied by a dry-cleaner which is currently non-operational and vacant. Support columns for the former dry-cleaning machine are located in the basement of the tenant space identified as 4137 Laconia Avenue (former dry cleaner space). There is one sump located in the tenant space occupied by a grocery/deli and three sumps located in the basement. The exterior paved parking lot is located at the central and western sections of the site, immediately west of the existing building.

Current Zoning and Land Use

The current zoning for the site is C1-4, which allows for commercial overlays mapped within residential districts that serve local retail needs. The nearest residential properties are located immediately west of the site and across E. 230th Street to the north. The surrounding land uses include single- and multi-family housing, public facilities and institutions (police station), parking facilities, and commercial and office buildings.

Past Use of the Site

Based on Environmental Data Resources (EDR) Radius Map Report, EDR-City Directory Abstract and historical Sanborn maps, the site was developed with the existing building and parking lot in 1958. Past uses that appear to have led to site contamination include dry cleaner operations that used tetrachloroethene (PCE). Four dry cleaner businesses (collective referred to as the former dry cleaners) operated at the site in the tenant space identified as 4137 Laconia Avenue including Jiffy One Hour Cleaners (operated at the site from approximately 1971 to 1976); Jiffy Quality Cleaners (operated at the site in 1983); Laconia Cleaners (operated at the site from approximately 1985 to 2000); and New Laconia Cleaners operated at the site 2000 to 2010.

Site Geology and Hydrogeology

The topography in the area surrounding the site slopes down to the east and north. The land surface elevation of the site is approximately 105 feet above mean sea level and is generally flat.

Based on previous investigations within the building footprint, an approximate one-foot to three-foot layer consisting of fine to medium sand with varying amounts of silt, gravel, cobble, and weathered bedrock is present beneath the building's basement concrete slab. This layer was underlain by bedrock at depths ranging from approximately two feet to three and a half feet below the building basement concrete slab. In the southern section of the site, an approximate three-and-a-half-foot layer is present consisting of silty clay with varying amounts of fine to medium sand and gravel, which is underlain by bedrock. Bedrock was encountered approximately nine feet below land surface beneath the Laconia Avenue sidewalk, immediately east of the site building.

During test pitting activities, groundwater was observed above bedrock at depths ranging from approximately seven inches to three feet below the basement slab. Based on previous investigations completed by others, groundwater was observed at a depth of approximately 9.5 feet to 11 feet below land surface from monitoring wells located on E. 230 Street and Laconia Ave sidewalks, immediate south and east of the site building. According to prior environmental investigation completed at the site, localized groundwater flow appears to be in a northerly to easterly direction and likely mimics land surface and bedrock surface topography.

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 commercial 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

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:

tetrachloroethene (PCE)
trichloroethene (TCE)
trans-1,2-dichloroethene
cis-1,2-dichloroethene
1,2,4-trimethylbenzene

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

- groundwater
- soil
- soil vapor intrusion

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.

The following IRM has been completed at this site based on conditions observed during the RI.

Interim Remedial Measure

Sub-Slab Depressurization Interim Remedial Measure (IRM)

A sub-slab depressurization system was installed in the on-site building impacted by contamination on the site. The on-site building is occupied. Inspections to ensure the efficacy of the IRM are performed on periodic basis and reported to the NYSDEC and NYSDOH. The IRM completion was documented in a Construction Completion Report and will be included in the Final Engineering Report.

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), per- and polyfluoroalkyl substances (PFAS), and pesticides. Soil vapor was analyzed for VOCs. Based upon investigations conducted to date, the primary contaminants of concern include VOCs, SVOCs and metals in soil, VOCs and SVOCs in groundwater, and chlorinated VOCs in soil vapor.

Soil: Soil data were compared to Commercial Use Soil Cleanup Objectives (CUSCOs) and Protection of Groundwater Soil Clean up Objectives (PGWSCOs). Contaminants of concern are VOCs, and metals to a depth of approximately 13 feet below grade located beneath the former dry-cleaning operation. VOCs identified include tetrachloroethene (PCE) at a maximum concentration of 880 parts per million (ppm) (CUSCO(CCSCO: 150 ppm and PGWSCO: 1.3 ppm), and 1,2,4-trimethylbenzene at a maximum concentration of 16 ppm (CUSCO: 190 ppm and PGWSCO: 3.6 ppm). Highest concentrations of VOCs were detected in the source area below the former dry cleaners. No SVOCs, PCBs or pesticides were detected at concentrations exceeding the CUSCOs. Perfluorooctanoic acid (PFOA) and perfluorooctanesulfonic acid (PFOS) were reported at concentrations below soil cleanup guidance values for commercial use and protection of groundwater within soil. Data do not indicate any off-site impacts in soil related to this site.

Groundwater: Groundwater data were compared to the Department's TOGS Ambient Water Quality Standards (AWQS). Contaminants of concern are VOCs, SVOCs, and metals. VOCs identified include tetrachloroethene (PCE) at a maximum concentration of 39,000 parts per billion (ppb) (AWQS: 5 ppb), trichloroethene (TCE) at a maximum concentration of 1,800 ppb (AWQS: 5 ppb), vinyl chloride at a maximum concentration of 42 ppb (AWQS: 2 ppb), toluene at a maximum concentration of 540 ppb (AWQS: 5 ppb), 1,2,4-trimethylbenzene at a maximum concentration of 1,900 ppb (AWQS: 5 ppb), and 1,3,5-trimethybenze at a maximum concentration of 480 ppb (AWQS: 5 ppb). PFOA and PFOS were reported at concentrations of up to 73.4 and 332 parts per trillion (ppt), respectively, exceeding the Maximum Contaminant Level (drinking water standard) of 10 ppt in groundwater. Data does not indicate any off-site impacts in groundwater related to this site.

Soil Vapor: Three sampling events to analyze sub-slab vapor within the on-site building were performed from 2018 to 2020. PCE was detected in sub-slab vapor at a maximum concentration of 303,119 ug/m3. TCE was detected at a maximum concentration of 5,911 ug/m3. Five off-site soil vapor samples were collected throughout the site during the RI. PCE was detected at a maximum concentration of 20,000 micrograms per cubic meter (ug/m3), TCE was detected at a maximum concentration of 1,400 ug/m3, and cis-1,2-dichloroethene was detected at a maximum concentration of 290 ug/m3. Data indicates that contaminated soil vapor may be migrating 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 soil is unlikely because the majority of the site is covered with a building and asphalt pavement. Contaminated groundwater at the site is not used for drinking or other purposes, and the area is served by a public water supply that obtains water from a different source not affected by site-related 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. Soil vapor intrusion sampling identified impacts to indoor air quality within the on-site building which represent an exposure concern that is being addressed by installation of a sub-slab depressurization system through an interim remedial measure. Environmental sampling indicates soil vapor intrusion is a potential concern off-site.

6.5: Summary of the Remediation Objectives

The objectives for the remedial program have been established through the remedy selection process stated in 6 NYCRR Part 375. The goal for the remedial program is to restore the site to pre-disposal conditions to the extent feasible. At a minimum, the remedy shall eliminate or mitigate all significant threats to public health and the environment presented by the contamination identified at the site through the proper application of scientific and engineering principles.

The remedial action objectives for this site are:

Groundwater

RAOs for Public Health Protection

- Prevent ingestion of groundwater with contaminant levels exceeding drinking water standards.
- Prevent contact with, or inhalation of volatiles, from contaminated groundwater.

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 4: Restricted use with site-specific soil cleanup objectives remedy.

The selected remedy is referred to as the hot spot removal and treatment remedy.

The elements of the selected remedy are as follows:

1. Green Remediation

Green remediation principals and techniques will be implemented to the extent feasible in the 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 gas and other emissions;
- Increasing energy efficiency and minimizing use of non-renewable energy;
- Conserving and efficiently managing resources and materials; and
- Reducing waste, increasing recycling and increasing reuse of materials which would otherwise be considered a waste.

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.

Approximately 13 cubic yards of contaminated soil will be removed from the site.

3. Backfill

Fill meeting the requirements of 6 NYCRR Part 375-6.7(d) will be brought in to replace the excavated soil. Following on-site excavation of source material, the ISCR constituent will be mixed with the clean backfill below the building slab as an added remedial step.

4. Cover System

A site cover currently exists in areas not occupied by the building and will be maintained to allow for commercial use of the site. Any site redevelopment will maintain the existing site cover. The site cover may include paved surface parking areas, sidewalks or soil where the upper one foot of

exposed surface soil meets the applicable soil cleanup objectives (SCOs) for commercial use. Any fill material brought to the site will meet the requirements for the identified site use as set forth in 6NYCRR part 375-6.7(d).

5. In-Situ Chemical Reduction and Enhanced Bioremediation:

In-situ chemical reduction (ISCR) and enhanced bioremediation will be implemented to treat chlorinated volatile organic compounds (CVOCs) in groundwater. A chemical reducing agent will be injected through six sub-slab injection points into the subsurface to destroy the contaminants in the source area below the building slab and downgradient. Enhanced bioremediation will be employed to expedite the degradation of CVOCs within the plume. Prior to the full implementation of this technology, laboratory and on-site pilot scale studies will be conducted to more clearly define design parameters. Following on-site excavation of source material, the ISCR constituent will be mixed with the clean backfill below the building slab as an added remedial step.

Monitoring will be required down-gradient and within the treatment zone to determine the effectiveness of the remedy. Monitoring will be conducted for CVOCs upgradient and downgradient of the treatment zone. The treatment zone will be monitored for dissolved oxygen and oxidation/reduction potential.

6. Vapor Mitigation

Any on-site buildings and off-site buildings impacted by the site 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.

Engineering and Institutional Controls

Imposition of an institutional control in the form of an environmental easement and a Site Management Plan, as described below, will be required. The remedy will achieve a Track 4 commercial cleanup at a minimum and will include imposition of a site cover.

7. 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 commercial 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.

8. Site Management Plan

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

d. 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 Section 7 above.
- Engineering Controls: The cover system discussed in Section 4 and the sub-slab depressurization system(s) discussed in Section 6 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 restrictions;
- a provision for evaluation of the potential for soil vapor intrusion for any occupied buildings off-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 Section 4 above will be placed in any areas where the upper one foot of exposed surface soil exceeds 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.

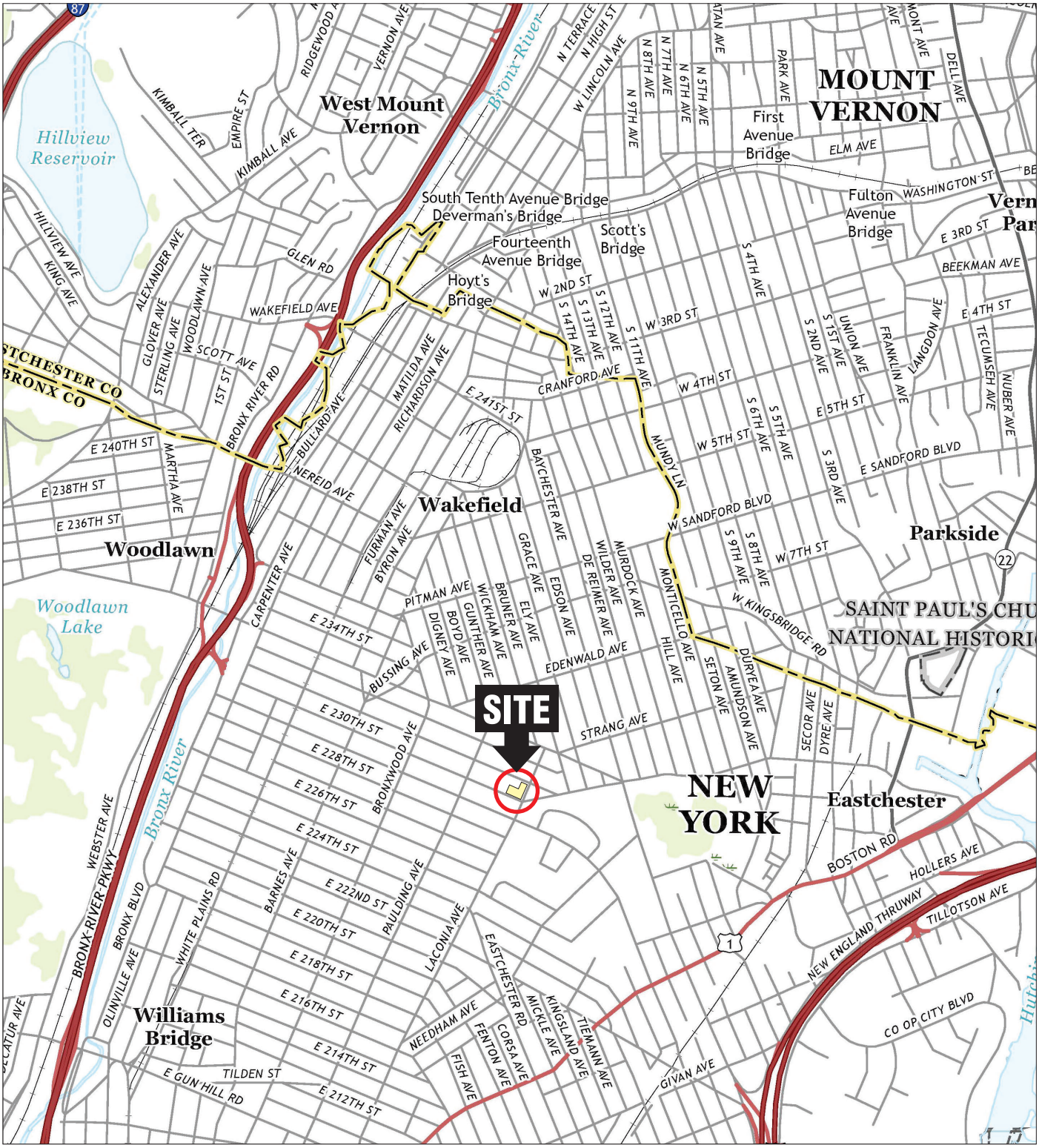
e. a Monitoring Plan to assess the performance and effectiveness of the remedy. The plan includes, but may not be limited to:

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

f. 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 Department notification; and
- providing the Department access to the site and O&M records.



QUADRANGLE LOCATION

SOURCE:
USGS; 2016, Mount Vernon, NY
7.5 Minute Topographic Quadrangle

N

0 2000'

Title:

SITE LOCATION MAP

4125-4149 LACONIA AVENUE
BRONX, NEW YORK

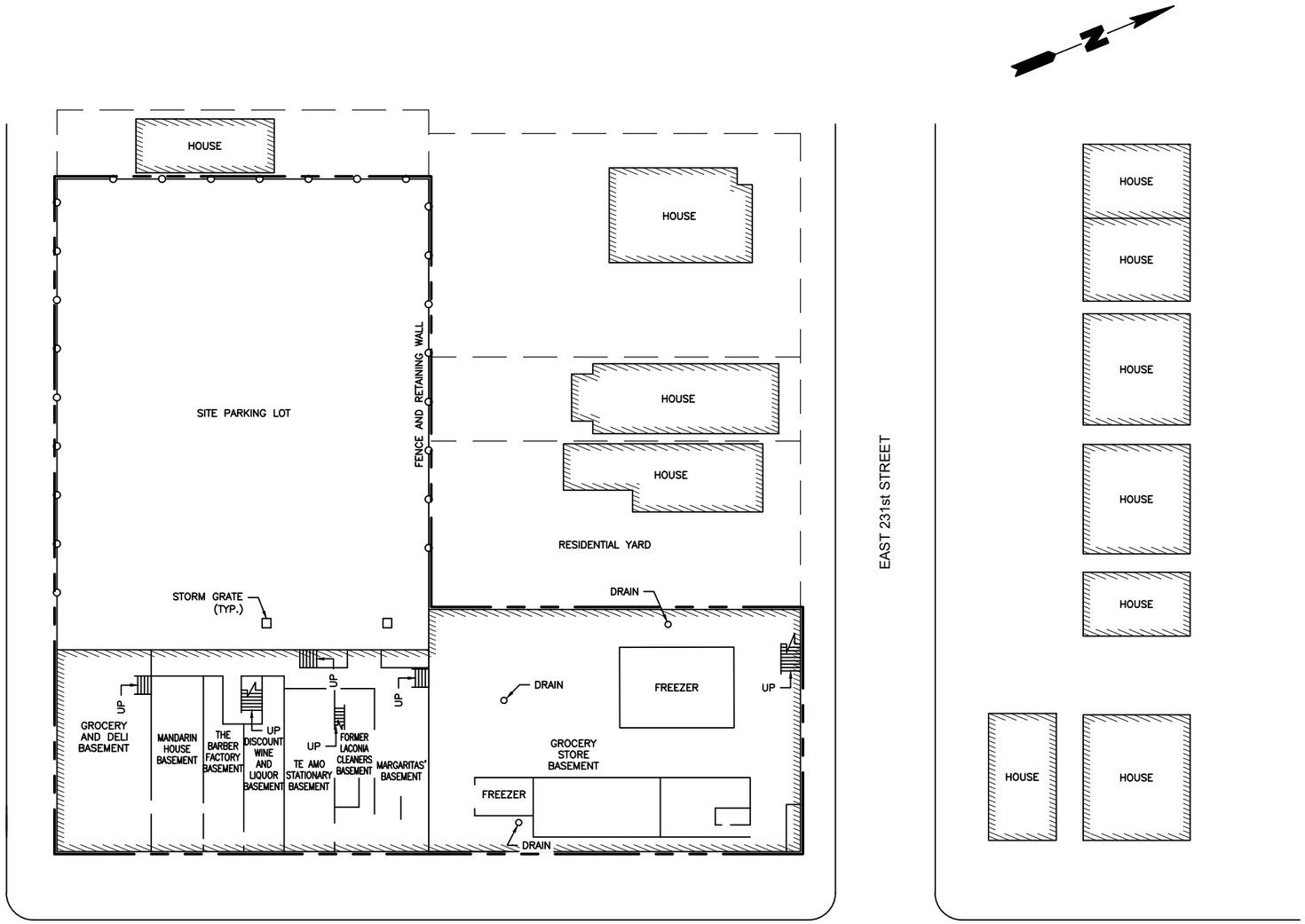
Prepared for:

LACONIA PROPERTIES LLC

ROUX

Compiled by: D.M.	Date: 29MAR22	FIGURE
Prepared by: G.M.	Scale: AS SHOWN	1
Project Mgr: J.W.	Project: 3390.0001Y000	
File: 3390.0001Y139.01.CDR		

PROJECTS\3390Y\0001Y\117\3390.0001Y117.01.CDR



LEGEND

BROWNFIELD CLEANUP PROGRAM SITE BOUNDARY (C203124)

40' 0 40'

Title:

SITE BOUNDARIES

4125-4149 LACONIA AVENUE
BRONX, NEW YORK

Prepared for:

LACONIA PROPERTIES LLC

ROUX	Compiled by: J.W.	Date: 29MAR22	FIGURE 2
	Prepared by: G.M.	Scale: AS SHOWN	
	Project Mgr: J.W.	Project: 3390.0001Y000	
	File: 3390.0001Y139.02.DWG		

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LEGEND

- BROWNFIELD CLEANUP PROGRAM SITE BOUNDARY (C203124)
- RMW–1 — LOCATION AND DESIGNATION OF SOIL BORING/MONITORING WELL
- RMW–2 — LOCATION AND DESIGNATION OF BEDROCK MONITORING WELL
- RMW–8 — LOCATION AND DESIGNATION OF OFFSITE MONITORING WELL
- RSB–1 — LOCATION AND DESIGNATION OF SOIL BORING
- SV–5 — LOCATION OF SOIL VAPOR MONITORING POINT
- AMB–050421 — LOCATION OF AMBIENT AIR SAMPLE
- SUMP–1 — LOCATION AND DESIGNATION OF EXISTING SUMP
- MW1 — LOCATION AND DESIGNATION OF EXISTING MONITORING WELL INSTALLED BY MERRITT ENVIRONMENTAL IN 2019
- IW4 — APPROXIMATE LOCATION AND DESIGNATION OF EXISTING INJECTION AND/OR MONITORING WELL INSTALLED BY OTHERS
- B1 — APPROXIMATE LOCATION AND DESIGNATION OF SOIL BORING INSTALLED BY MERRITT ENVIRONMENTAL
- IA–4 — APPROXIMATE LOCATION AND DESIGNATION OF INDOOR AIR SAMPLE COLLECTED BY MERRITT ENVIRONMENTAL
- IA1 SV1 — APPROXIMATE LOCATION AND DESIGNATION OF INDOOR AIR AND SUB SLAB SOIL VAPOR SAMPLE LOCATION INSTALLED BY MERRITT ENVIRONMENTAL
- RSS–1/ RIA–1 — APPROXIMATE LOCATION AND DESIGNATION OF SUB SLAB SOIL VAPOR AND INDOOR AIR SAMPLE COLLECTED BY ROUX
- SV–1 — APPROXIMATE LOCATION AND DESIGNATION OF SOIL VAPOR MONITORING POINT INSTALLED/SAMPLED BY ROUX
- AA–1 — APPROXIMATE LOCATION AND DESIGNATION OF OUTDOOR AMBIENT AIR SAMPLE COLLECTED BY ROUX
- OA–1 — APPROXIMATE LOCATION AND DESIGNATION OF OUTDOOR AMBIENT AIR SAMPLE COLLECTED BY MERRITT ENVIRONMENTAL
- TP–1 — APPROXIMATE LOCATION AND DESIGNATION OF EXPLORATORY TEST PIT (ONE FOOT LONG BY ONE FOOT WIDE) INSTALLED BY ROUX
- IP–1 — APPROXIMATE LOCATION AND DESIGNATION OF PROPOSED INJECTION WELL
- APPROXIMATE LOCATION OF PROPOSED CONFIRMATION SIDEWALL SAMPLE
- APPROXIMATE LOCATION OF PROPOSED CONFIRMATION BOTTOM SAMPLE
- SS–1 — LOCATION AND DESIGNATION OF SSDS SUCTION POINT
- APPROXIMATE AREA OF ELEVATED CVOC DETECTIONS IN OVERBURDEN GROUNDWATER AND IN–SITU CHEMICAL REDUCTION ZONE OF INFLUENCE
- SSDS — SUB–SLAB DEPRESSURIZATION SYSTEM

40' 0 40'

Title:

ELEMENTS OF THE REMEDY

4125-4149 LACONIA AVENUE
BRONX, NEW YORK

Prepared for:

LACONIA PROPERTIES LLC

ROUX	Compiled by: D.M.	Date: 22SEPT21	FIGURE 3
	Prepared by: G.M.	Scale: AS SHOWN	
	Project Mgr: J.W.	Project: 3390.0001Y000	
	File: 3390.0001Y139.03.DWG		

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