

DECISION DOCUMENT

480 Flushing
Brownfield Cleanup Program
Brooklyn, Kings County
Site No. C224259
February 2023



**Department of
Environmental
Conservation**

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

DECLARATION STATEMENT - DECISION DOCUMENT

480 Flushing
Brownfield Cleanup Program
Brooklyn, Kings County
Site No. C224259
February 2023

Statement of Purpose and Basis

This document presents the remedy for the 480 Flushing 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 480 Flushing 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:

- grossly contaminated soil, as defined in 6 NYCRR Part 375-1.2(u); and
- soils which exceed the protection of groundwater soil cleanup objectives (PGSCOs), as defined by 6 NYCRR Part 375-6.8 for those contaminants found in site groundwater above standards.

All soils in the upper four feet which exceed the restricted residential SCOs will be excavated and transported off-site for disposal. Material exceeding restricted residential SCOs and PGSCOs for chlorinated volatile organic compounds in the western portion of the site will be excavated to thirteen feet below grade and transported off-site for disposal. The elevator pit located along the southern boundary of the site will be excavated to fifteen feet below grade and transported off-site for disposal. Boundaries of the excavation are on Figure 3.

If a Track 2 restricted residential cleanup is achieved, a cover system will not be a required element of the remedy.

Approximately 1,400 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

If a Track 2 restricted residential cleanup is not achieved, a site cover will be required in areas where the upper two feet of exposed surface soil will exceed the applicable soil cleanup objectives (SCOs), to allow for restricted residential use of the site. 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 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. Groundwater Remedies

Permeable Reactive Barrier

A permeable reactive barrier consisting of colloidal zero-valence iron (ZVI) will be installed on the upgradient side of the site consistent with groundwater contours to mitigate contamination entering the site. The barrier will be installed to a terminal depth of 39 feet bgs.

Prior to the full implementation of this technology, laboratory and on-site pilot scale studies will be conducted to more clearly define the design.

Monitoring will be required down-gradient, and within the treatment zone. Monitoring will be conducted for chlorinated volatile organic compounds, oxidation-reduction potential (ORP), pH and dissolved oxygen (DO).

In-Situ Chemical Reduction

In-situ chemical reduction (ISCR) will be implemented to treat chlorinated volatile organic compounds (CVOCs) in groundwater. A chemical reducing agent will be mixed with remaining soil at the groundwater interface.

Prior to the full implementation of this technology, laboratory and on-site pilot scale studies will be conducted to more clearly define design.

Monitoring will be required down-gradient, and within the treatment zone. Monitoring will be conducted for CVOC, ORP, pH and DO.

Off-site Remedial Design

Pending results of the Off-Site Pre-Design Investigation (PDI), a separate design document may be prepared to address off-Site soil and groundwater contamination as a result of impacts from the site. Remedial elements may be comprised of a permeable reactive barrier, sheet pile installation, and or in-situ chemical reduction.

6. Vapor Mitigation

A soil vapor intrusion assessment will be completed at off-site buildings as part of this remedy. Continued attempts to access and sample identified off-site properties must be performed. 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 soil and/or groundwater.

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 anticipated remedy is a Track 2 restricted residential cleanup. However, if Track 2 cannot be achieved the remedy will achieve a Track 4 restricted residential 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 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.

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 Paragraph 7 above.
- Engineering Controls: The Groundwater Remedies discussed in Paragraph 5 and the Vapor Mitigation discussed in Paragraph 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 use restrictions;
- provisions for the management and inspection of the identified engineering controls;
- 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;
- 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 and vapor 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 on the site and 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:

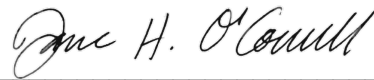
- procedures for operating and maintaining the remedy;
- compliance monitoring of treatment systems to ensure proper O&M as well as providing the data for any necessary permit or permit equivalent reporting;
- maintaining site access controls and Department notification; and
- providing the Department 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.

February 6, 2023

Date



Jane H. O'Connell
Region 2 Remedial Remediation Engineer

DECISION DOCUMENT

480 Flushing
Brooklyn, Kings County
Site No. C224259
January 2023

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=C224259>

Brooklyn Public Library-Marcy Branch
617 DeKalb Avenue
Brooklyn, NY
Phone: 718.935.0032

Brooklyn Community Board 3
1360 Fulton Street
Rm. 202
Brooklyn, NY 11216
Phone: 718-622-6601

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 in the Bedford Stuyvesant section of Brooklyn in the City of New York, Kings County and is comprised of a single tax parcel totaling 4,450 square feet (0.102 acre). The site is rectangular in shape with 50 feet of frontage on Flushing Avenue and 89.25 feet of frontage on Walworth Street. The north side of the property is bordered by Flushing Avenue, and the east side is bordered by Walworth Street. There are two Brownfield Cleanup Program sites with co-mingled contaminant plumes located adjacent to the site - 11 Spencer Street (C224204) to the west and 8 Walworth Street (C224239) to the south.

Site Features:

The site is currently vacant with no structures and is not being used. An 8-foot-high construction fence borders the property on the north and west sites to prevent unauthorized access.

Current Zoning and Land Use:

The property is currently zoned M1-2 (manufacturing). M1 districts typically include light industrial uses, such as woodworking shops, repair shops, and wholesale service and storage facilities. Nearly all industrial uses are allowed in M1 districts if they meet the stringent M1 performance standards. Offices, hotels and most retail uses are also permitted. Certain community facilities, such as hospitals, are allowed in M1 districts only by special permit, but houses of worship are allowed as-of-right.

Surrounding land use includes commercial and mixed-use (retail/residential) properties along the north side of Flushing Avenue, commercial/office use to the west, commercial (warehouses) properties to the south and to the east. The area surrounding the property is highly urbanized and predominantly consists of older industrial/commercial buildings with mixed use (retail/residential) buildings along main corridors such as Bedford Avenue, Flushing Avenue and Park Avenue. There are ten schools located within 1,200 feet of the site including Bnei Shimon Yisroel of Sopron approximately 150 feet to the east. There are no nursing homes or hospitals identified

within 1,000 feet of the site.

Past Use of the Site:

The environmental history of the subject property was previously investigated through the review of Federal and State Environmental databases, Environmental Sanborn Fire Insurance maps, NYC Department of Building records and the NYC Department of Finance databases. According to the review of these sources the property was developed sometime prior to 1887 with two 2-story residences in the southern portion of the site with the northern portion vacant. A 1-story building was constructed on the northern portion which is shown as "broom manufacturers supply" until 1950. A 1 story building was constructed in 1965 and identified as "paint mixing". The northern building is shown as storage or warehouse. Both buildings remained unchanged until 2016 when the north building was demolished. The south building was demolished in 2018. The property was known to be most recently used by an auto repair shop and a fish market.

Site Geology and Hydrogeology:

Subsurface soils at the site consist of historic fill materials to a depth of approximately 1 foot below grade followed by native silty-sand and clay. According to the USGS topographic map for the area (Brooklyn Quadrangle), the elevation of the property is approximately 16 feet above mean sea level. The topography within the immediate area slopes gradually from south to north. Groundwater was reported to be present under semi-confined conditions at approximately 12-14 ft below grade. Based upon the remedial investigation, groundwater flow was reported to be east/southeast. Neighboring sites indicate an east by northeast groundwater flow. The site is not located within a designated flood zone area.

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 Department has determined that this site poses a significant threat to human health and the environment and there are off-site impacts that require remedial activities. 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

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)	benzo(a)pyrene
trichloroethene (TCE)	benzo(b)fluoranthene
vinyl chloride	chrysene
indeno(1,2,3-cd) pyrene	lead
benzo(a)anthracene	mercury

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.

There were no IRMs performed at this site during the RI.

6.3: Summary of Environmental Assessment

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 chlorinated VOCs, SVOCs and metals in soil, chlorinated VOCs in groundwater, and chlorinated VOCs in soil vapor.

Soil: Chlorinated Volatile Organic Compounds (CVOCs) were detected above Protection of Groundwater Soil Cleanup Objectives (PGSCO) and Restricted Residential Soil Cleanup Objectives (RRSCOs). The highest concentration of tetrachloroethene (PCE) is 99 parts per million (ppm) (PGSCO: 1.3 ppm and RRSCO: 19 ppm), trichloroethene (TCE) is 16 ppm (PGSCO: 0.47 ppm and RRSCO: 21 ppm), and vinyl chloride is 1.5 ppm (PGSCO: 0.02 ppm and RRSCO: 0.9 ppm). SVOCs and metals were also detected above RRSCOs. The highest concentration of lead is 1,040 ppm (RRSCO: 400 ppm), mercury is 2.29 ppm (RRSCO: 0.81 ppm), benzo(a)anthracene is 260 ppm (RRSCO: 1 ppm), benzo(a)pyrene is 230 ppm (RRSCO: 1 ppm), benzo(b)fluoranthene is 280 ppm (RRSCO: 1 ppm), chrysene is 240 ppm (RRSCO: 3.9 ppm) and indeno(1,2,3-c,d)pyrene is 140 ppm (RRSCO: 0.5 ppm). Perfluorooctanoic acid (PFOA) was measured in soil at a maximum concentration of 0.305 part per billion (ppb), which is below the guidance value for restricted residential use of 33 ppb. Data does not indicate any off-site impacts in soil related to this site.

Groundwater: Groundwater samples collected at the site exceeded the Ambient Water Quality Standards (AWQSs) for PCE at a maximum concentration of 7,300 ppb (AWQS is 5 ppb), TCE was detected at a maximum concentration of 380 ppb (AWQS is 5 ppb), and vinyl chloride was detected at a maximum concentration of 200 ppb (AWQS is 2 ppb). PFOS was detected above the maximum contaminant limit (MCL – drinking water standard) of 10 parts per trillion (ppt) at a maximum concentration of 116 ppt. PFOA was detected above the MCL of 10 ppt at a maximum concentration of 124 ppt. Data indicates off-site impacts in groundwater related to this site. Off-site impacts will be monitored post remedy.

Soil Vapor: Soil vapor containing PCE and TCE has been found on-site at levels as high as 32,000,000 micrograms per cubic meter (ug/m³) and 1,470 ug/m³, respectively. Neighboring lots were analyzed for soil vapor intrusion as part of the remedial investigations. Data indicates that there is potential for additional off-site impacts in soil vapor related to this site. Off-site impacts will be monitored post-remedy.

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*.

Access is restricted by a fence. People may contact contaminants in soil by walking on the site, digging, or otherwise disturbing the soil. 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 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 buildings, is referred to as soil vapor intrusion. The site is currently vacant and redevelopment is planned. The potential exists for the inhalation of site contaminants due to soil vapor intrusion for future on-site buildings. Additional investigation is needed to determine whether actions are needed to address soil vapor intrusion in off-site structures.

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 2: Restricted use with generic soil cleanup objectives remedy.

The selected remedy is referred to as the Excavation and In-Situ Chemical Reduction remedy.

The elements of the selected remedy, as shown in Figure 3, 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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- 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.

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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 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.

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Monitoring will be required down-gradient, and within the treatment zone. Monitoring will be conducted for CVOC, ORP, pH and DO.

Off-site Remedial Design

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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.

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This plan includes, but may not be limited to:

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- descriptions of the provisions of the environmental easement including any land use, and groundwater use restrictions;
- provisions for the management and inspection of the identified engineering controls;
- 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;
- maintaining site access controls and Department notification; and
- the steps necessary for the periodic reviews and certification of the institutional and/or engineering controls.

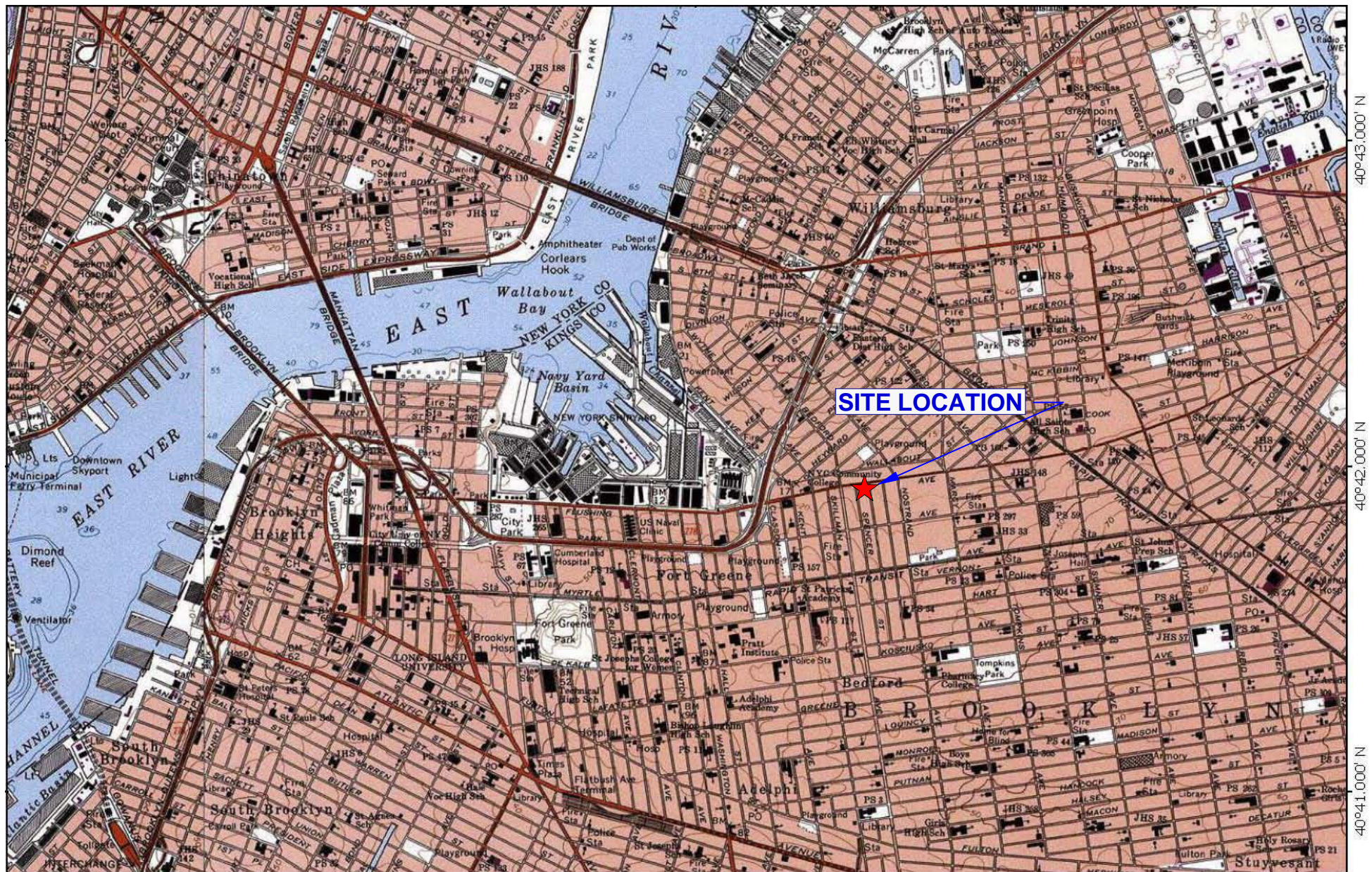
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- monitoring of groundwater and vapor to assess the performance and effectiveness of the remedy;
- a schedule of monitoring and frequency of submittals to the Department;

- monitoring for vapor intrusion for any buildings on the site and 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.



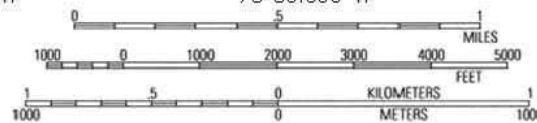
74°00.000' W

73°59.000' W

73°58.000' W

73°57.000' W

WGS84 73°56.000' W



10/30/11



ENVIRONMENTAL BUSINESS CONSULTANTS

Phone 631.504.6000
Fax 631.924.2870

Figure No.

1

Site Name: 480 FLUSHING

Site Address: 480 FLUSHING AVENUE, BROOKLYN, NY

Drawing Title: SITE LOCATION MAP

Flushing Avenue



SIDEWALK

LOT 21

50.0

SIDEWALK

Walworth Street

89.5

Underground Storage Tank

LOT 33

KEY:



SITE BOUNDARY

SCALE:



1 inch = 20 feet



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Fax 631.924.2870

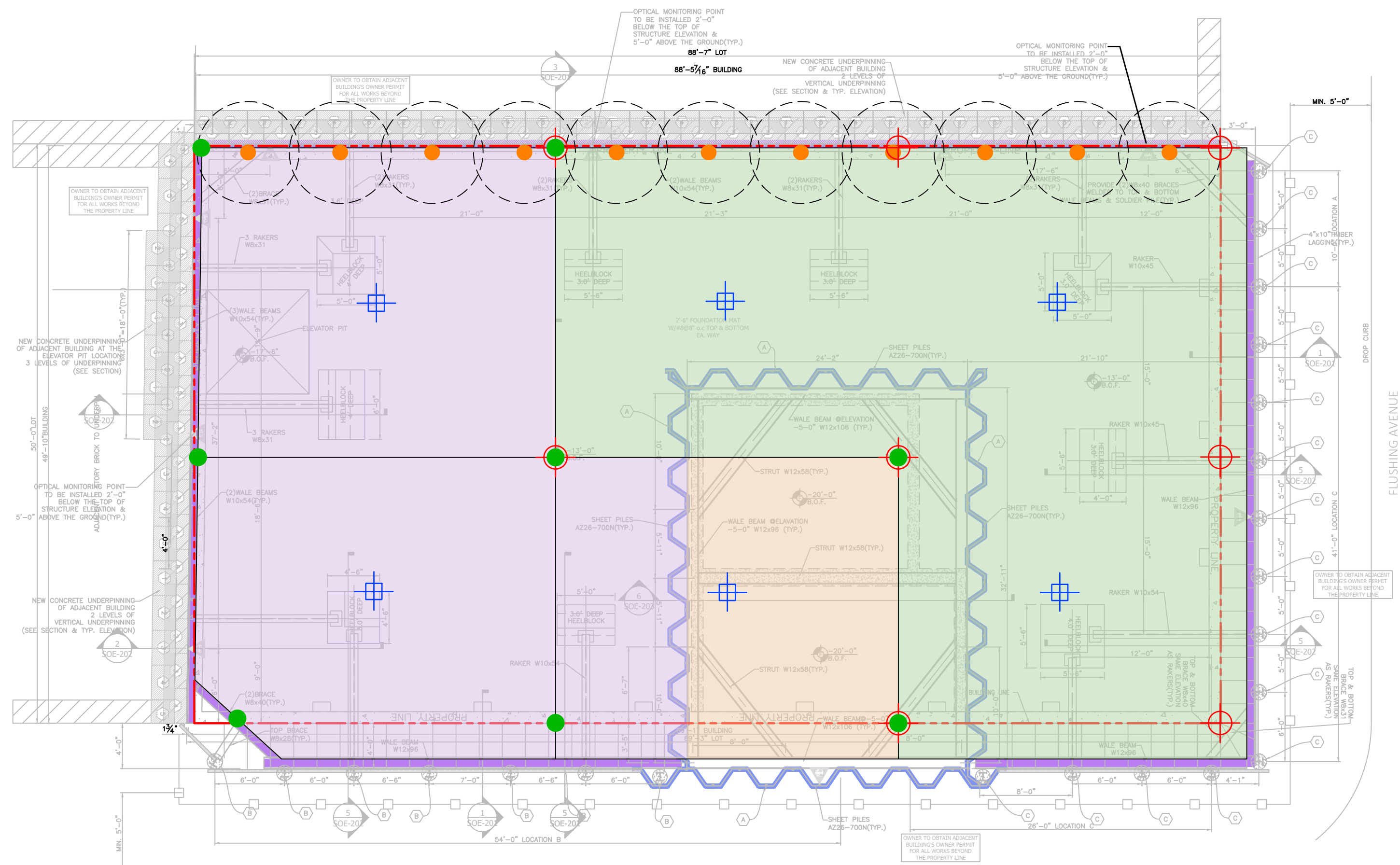
Figure No.
2

Site Name: **480 FLUSHING**

Site Address: **480 FLUSHING AVENUE, BROOKLYN, NY**

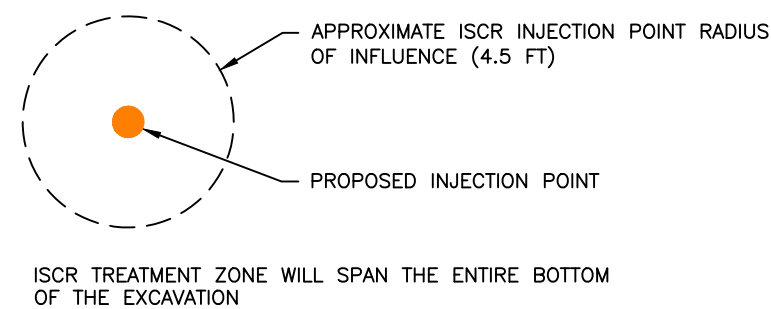
Drawing Title: **SITE PLAN**

V:\CAD\PROJECTS\3788\0001\103\3788_0001Y103.02.DWG BCD/C

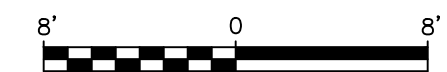


LEGEND

- BCP SITE BOUNDARY
- PROPOSED SOLDIER PILE AND LAGGING SOE PLAN
- PROPOSED SHEETING SOE PLAN
- AREA TO BE EXCAVATED TO -15 FT BLS
- AREA TO BE EXCAVATED TO -13 FT BLS*
- AREA TO BE EXCAVATED TO -4 FT BLS*
- * PENDING CONFIRMATION SAMPLING



- BOTTOM ENDPOINT SAMPLE LOCATION
- PERIMETER ENDPOINT SAMPLE LOCATION (4 FT BLS)
- PERIMETER ENDPOINT SAMPLE LOCATION (13/15 FT BLS)



Title:

SUMMARY OF REMEDIAL ACTION

480 FLUSHING AVENUE
BROOKLYN, NEW YORK

Prepared for:

480 FLUSHING LLC



Compiled by: R.H.	Date: 6/30/2022	FIGURE 3
Prepared by: B.H.C.	Scale: AS SHOWN	
Project Mgr: R.H.	Project: 3788.0001Y000	
File: 3788.0001Y103.02.DWG		