

DECISION DOCUMENT

Ridgeway Phase VI Site
Brownfield Cleanup Program
Yonkers, Westchester County
Site No. C360231
October 2024



**Department of
Environmental
Conservation**

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

DECLARATION STATEMENT - DECISION DOCUMENT

Ridgeway Phase VI Site
Brownfield Cleanup Program
Yonkers, Westchester County
Site No. C360231
October 2024

Statement of Purpose and Basis

This document presents the remedy for the Ridgeway Phase VI 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 (NYSDEC) for the Ridgeway Phase VI Site and the public's input to the proposed remedy presented by NYSDEC.

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 shall be constructed, at a minimum, to meet the 2020 Energy Conservation Construction Code of New York (or most recent edition) to improve energy efficiency as an element of construction.

As part of the remedial design program, to evaluate the remedy with respect to green and sustainable remediation principles, an environmental footprint analysis will be completed. The environmental footprint analysis will be completed using an accepted environmental footprint analysis calculator such as SEFA (Spreadsheets for Environmental Footprint Analysis, USEPA), SiteWise(TM) (available in the Sustainable Remediation Forum [SURF] library) or similar NYSDEC accepted tool. Water consumption, greenhouse gas emissions, renewable and non-renewable energy use, waste reduction and material use will be estimated, and goals for the project related to these green and sustainable remediation metrics, as well as for minimizing community impacts, protecting habitats and natural and cultural resources, and promoting environmental justice, will be incorporated into the remedial design program, as appropriate. The project design specifications will include detailed requirements to achieve the green and sustainable remediation goals. Further, progress with respect to green and sustainable remediation metrics will be tracked during implementation of the remedial action and reported in the Final Engineering Report (FER), including a comparison to the goals established during the remedial design program.

Additionally, the remedial design program will include a climate change vulnerability assessment, to evaluate the impact of climate change on the project site and the proposed remedy. Potential vulnerabilities associated with extreme weather events (e.g., hurricanes, lightning, heat stress and drought), flooding, and sea level rise will be identified, and the remedial design program will incorporate measures to minimize the impact of climate change on potential identified vulnerabilities.

2. Excavation

The existing 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.

Excavation and off-site disposal of all on-site soils which exceed unrestricted SCOs, as defined by 6 NYCRR Part 375-6.8. If a Track 1 cleanup is achieved, a Cover System will not be a required element of the remedy.

Approximately 10,000 to 15,000 cubic yards of contaminated soil will be removed from the site. Soils will be removed from depths ranging from 2 to 14 feet. Collection and analysis of confirmation and documentation samples at the remedial excavation depths will be used to verify that SCOs for the site have been achieved. If confirmation/documentation sampling indicates that SCOs were not achieved at the stated remedial depth, the Applicant must notify DEC, submit the sample results and, in consultation with DEC, determine if further remedial excavation is necessary. Further excavation for development will proceed after confirmation samples demonstrate that SCOs for the site have been achieved. If all soils exceeding USCOs cannot be removed, but restricted residential SCOs are achieved, the remedy will achieve a Track 2 restricted residential use cleanup.

To ensure proper handling and disposal of excavated material, waste characterization sampling will be completed for all identified contaminated site material. Waste characterization sampling will be performed exclusively for the purposes of off-site disposal in a manner suitable to receiving facilities and in conformance with applicable federal, state and local laws, rules, and regulations and facility-specific permits.

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. Vapor Intrusion Evaluation

As part of the Track 1 remedy, a soil vapor intrusion (SVI) evaluation will be completed, including sub-slab and indoor air samples. The evaluation will include a provision for implementing actions recommended to address exposures related to soil vapor intrusion.

5. Local Institutional Controls

If no environmental easement or Site Management Plan (SMP) is needed to achieve soil, groundwater or soil vapor intrusion remedial action objectives, then the following local use restriction will be relied upon to prevent ingestion of groundwater: Chapter 873 Article VII of the Laws of Westchester County, which prohibits potable use of groundwater without prior approval.

6. Conditional Track 1

The intent of the remedy is to achieve a Track 1 unrestricted use; therefore, no environmental easement or SMP is anticipated. If the SVI evaluation is not completed prior to completion of the Final Engineering Report (FER), then a SMP and environmental easement will be required to address the SVI evaluation and implement actions as needed; if a mitigation or monitoring action is needed, a Track 1 cleanup can only be achieved if the mitigation system or other required action is no longer needed within 5 years of the date of the Certificate of Completion.

In the event that Track 1 unrestricted use is not achieved, including achievement of soil, groundwater and/or soil vapor remedial objectives, the following contingent remedial elements will be required, and the remedy will achieve a Track 2 restricted residential cleanup.

7. 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 2 restricted residential cleanup at a minimum.

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 or 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 County DOH (Chapter 873, Article VII of the Laws of Westchester County); and,
- require compliance with the Department approved Site Management Plan.

8. Site Management Plan

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

- i. 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 Remedy Element 7 above.

Engineering Controls: Any engineering controls that may be required (e.g., sub-slab depressurization system or groundwater treatment).

This plan includes, but may not be limited to:

- an Excavation Plan which details the provisions for management of future excavations in areas of remaining contamination;
 - descriptions of the provisions of the environmental easement including any land use and/or groundwater restrictions;
 - 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.
- ii. 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 soil vapor to assess the performance and effectiveness of the remedy;
 - a schedule of monitoring and frequency of submittals to the Department; and
 - monitoring for vapor intrusion for any buildings on the site, as may be required by the Institutional and Engineering Control Plan discussed above.
- iii. 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 active vapor mitigation system(s). The plan includes, but is not limited to:
 - procedures for operating and maintaining the system(s); and
 - compliance inspection of the system(s) to ensure proper O&M as well as providing the data

for any necessary reporting.

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.

October 9, 2024

Date

Sarah Saucier

Sarah Saucier, Director
Remedial Bureau C

DECISION DOCUMENT

Ridgeway Phase VI Site
Yonkers, Westchester County
Site No. C360231
October 2024

SECTION 1: SUMMARY AND PURPOSE

The New York State Department of Environmental Conservation (NYSDEC), 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.

NYSDEC 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

NYSDEC 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 NYSDEC 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:

DECInfo Locator - Web Application
<https://gisservices.dec.ny.gov/gis/dil/index.html?rs=C360231>

Yonkers Public Library - Riverfront Library
Attn: Anne Campbell
One Larkin Center
Yonkers, NY 10701
Phone: (914) 337-1500

Receive Site Citizen Participation Information By Email

Please note that NYSDEC'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 Ridgeway Phase VI Site is located in an urban area within the City of Yonkers, Westchester County, New York. The Site is approximately 1.01 acres in size and constitutes the entirety of tax parcel 2.-2094-1. The Site is addressed as 8 Cottage Place and is located within eastern portions of the Cottage Place Gardens (CPG) apartment complex.

Site Features: The site is developed with two multi-story brick apartment buildings surrounded by landscaped areas, concrete walkways and an asphalt paved accessway. The apartment buildings were constructed in the 1940's during development of the CPG complex. The apartment buildings are currently vacant and will not be refilled as vacancies occur. The existing 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.

Current Zoning and Land Use: The site is zoned as Apartments Medium Density. The site is currently being used as an apartment complex and will continue to be used as an apartment complex upon completion of its redevelopment. The surrounding parcels are primarily used for residential purposes with an interspersing of small convenience stores.

Past Use of the Site:

The Site has consisted of a portion of the CPG public housing apartment complex since its construction in the 1940s. Prior to this time, the CPG complex was developed with multiple single and multi-family dwellings, stores and a garage since as early as 1886. Several Phase I and II Environmental Site Assessments have been conducted on the Site from 2014 to 2022 to assess the Site's environmental quality. Results of these investigations concluded that fill material covering the Site (and the remainder of the CPG apartment complex) are impacted by compounds and analytes exceeding regulatory standards and guidance values for the Site's anticipated use as an apartment complex. The CPG complex is undergoing phased redevelopment into low to moderate income housing. Previous phases 1, 2, 3, 4 and 5 of the redevelopments have each been accepted into the Brownfield Cleanup Program (BCP) pursuant to similar contaminants of concern in soil/fill and groundwater.

Site Geology and Hydrogeology: The site is covered by fill material that typically consists of fine to coarse sand, containing little to some gravel, various amounts of silt, and occasional cobbles, brick, porcelain, ash, coal, concrete, glass and metal. Site soils consist of fill up to 5 ft below

ground surface (bgs), underlain by sand, little silt, trace gravel with occasional cobbles and boulders up to 10 feet bgs. Underlying the sand deposit is a glacial till similar in composition to the overlying sand deposit with numerous cobbles and larger boulders. Shallow groundwater is discontinuous in perched zones within the glacial till and measured at depths of 25 feet. Deep groundwater is confined and is present in the bedrock aquifer at 80 ft bgs. The Site slopes moderately from east to west towards the Hudson River. Based on the soil types encountered and Site and area topography, groundwater movement within the Site is expected to be generally from the east to west.

A site location map is attached as Figure 1.

SECTION 4: LAND USE AND PHYSICAL SETTING

NYSDEC 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, an alternative which allows for unrestricted use of the site was evaluated.

A comparison of the results of the Remedial Investigation (RI) against unrestricted use standards, criteria and guidance values (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, NYSDEC has determined that this site does not pose a significant threat to public health or the environment; accordingly, no enforcement actions are necessary.

SECTION 6: SITE CONTAMINATION

6.1: Summary of the Remedial Investigation

A remedial investigation (RI) serves as the mechanism for collecting data to:

- characterize site conditions;
- determine the nature of the contamination; and
- assess risk to human health and the environment.

The RI is intended to identify the nature (or type) of contamination which may be present at a site and the extent of that contamination in the environment on the site, or leaving the site. The RI reports on data gathered to determine if the soil, groundwater, soil vapor, indoor air, surface water or sediments may have been contaminated. Monitoring wells are installed to assess groundwater and soil borings or test pits are installed to sample soil and/or waste(s) identified. If other natural resources are present, such as surface water bodies or wetlands, the water and sediment may be sampled as well. Based on the presence of contaminants in soil and groundwater, soil vapor will also be sampled for the presence of contamination. Data collected in the RI influence the development of remedial alternatives. The RI report is available for review in the site document

repository and the results are summarized in section 6.3.

The analytical data collected on this site includes data for:

- groundwater
- soil
- soil vapor

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. NYSDEC has developed SCGs for groundwater, surface water, sediments, and soil. The NYSDOH has developed SCGs for drinking water and soil vapor intrusion. For a full listing of all SCGs see: <http://www.dec.ny.gov/regulations/61794.html>

6.1.2: RI Results

The data have identified contaminants of concern. A "contaminant of concern" is a contaminant that is sufficiently present in frequency and concentration in the environment to require evaluation for remedial action. Not all contaminants identified on the property are contaminants of concern. The nature and extent of contamination and environmental media requiring action are summarized below. Additionally, the RI Report contains a full discussion of the data. The contaminant(s) of concern identified at this site is/are:

benzo(a)anthracene	chromium, hexavalent
benzo(a)pyrene	trichloroethene (TCE)
benzo(b)fluoranthene	tetrachloroethene (PCE)
chrysene	chromium, trivalent
indeno(1,2,3-cd)pyrene	

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

This section summarizes the assessment of existing and potential future environmental impacts presented by the site. Environmental impacts may include existing and potential future exposure pathways to fish and wildlife receptors, wetlands, groundwater resources, and surface water. The RI report presents a detailed discussion of any existing and potential impacts from the site to fish and wildlife receptors.

Soil and groundwater samples were analyzed for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), polychlorinated biphenyls (PCBs), pesticides, metals, cyanide, and the emerging contaminants per-and poly fluoroalkyl substances (PFAS) and 1,4-dioxane. Soil vapor samples were analyzed for VOCs. Based on investigations conducted to date, the primary contaminants of concern include metals and PAHs in soil; VOCs and PFAS in the groundwater; and VOCs in soil vapor.

Soil - Soil samples were collected during the remedial investigation from overburden beneath the site. Several constituents were identified at concentrations that exceed their Unrestricted Use Soil Cleanup Objectives (UUSCOs). The following is a list of those compounds and their maximum exceedances: hexavalent chromium 13 ppm (parts per million) (UUSCO of 1 ppm), trivalent chromium 13 ppm (UUSCO of 30 ppm), lead 2680 ppm (UUSCO of 63 ppm), mercury 1.36 ppm (UUSCO of 0.18 ppm), benzo(a)anthracene 4.2 ppm (UUSCO of 1 ppm), benzo(a)pyrene 3.7 ppm (UUSCO of 1 ppm), benzo(b)fluoranthene 4.6 ppm (UUSCO of 1 ppm), chrysene 3.5 ppm (UUSCO of 1 ppm), indeno(1,2,3-cd)pyrene 2.8 ppm (UUSCO of 0.5 ppm). Data does not indicate any off-site impacts in soil related to this site.

Groundwater - One monitoring well was installed during the remedial investigation. The following compounds were identified exceeding their groundwater standards: benzene 8.4 parts per billion (ppb) (AWQS of 1 ppb), iron 1290 ppb (AWQS of 300 ppb), sodium 108,000 ppb (AWQS of 20,000 ppb), PFOS 34.5 parts per trillion (ppt) (AWQS of 2.7 ppb), PFOA 44.6 ppt (AWQS of 6.7 ppt). Based on the historic site use being an unlikely source for contamination, the depth to groundwater, and the groundwater use restrictions in place by the City of Yonkers, groundwater contaminants likely originated offsite and are not considered to be contaminants of concern for the Site. The groundwater data does not indicate any off-site impacts to groundwater related to this Site.

Soil Vapor - No indoor air samples were collected since the on-site building is vacant and will be demolished. Soil vapor points were installed within the site boundaries, within the footprint of the proposed building, and within the footprint of a reported former building structure. VOCs, including trichloroethene and tetrachloroethene, were detected at generally low levels but with maximum concentrations of 70.9 micrograms per cubic meter (ug/m³) and 103 ug/m³, respectively at side gradient locations. These compounds were not detected in soil or groundwater above its USCO or SCG. Data does not indicate any off-site impacts in soil vapor related to this Site.

6.4: Summary of Human Exposure Pathways

This human exposure assessment identifies ways in which people may be exposed to site-related contaminants. Chemicals can enter the body through three major pathways (breathing, touching or swallowing). This is referred to as *exposure*.

Site access is restricted by a fence. People who enter the site may come into contact with site-related soil and groundwater contamination if they dig below the surface. Contaminated groundwater at the site is not used for drinking and the site is served by a public water supply that obtains water from a different source not affected by this contamination. Volatile organic compounds in the groundwater and/or 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 site is vacant so inhalation of site contaminants in indoor air via vapor intrusion is not a current concern. However, the potential exists for inhalation of site contaminants due to soil vapor intrusion for any future on-site development. In addition, 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

- Groundwater contaminants detected in the Remedial Investigation are not considered to be contaminants of concern for the site, therefore there are no RAOs for GW at this site

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 1: Unrestricted use remedy.

The selected remedy is referred to as the remedy.

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

1. Remedial Design

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

- Considering the environmental impacts of treatment technologies and remedy stewardship over the long term;
- Reducing direct and indirect greenhouse gases and other emissions;
- Increasing energy efficiency and minimizing use of non-renewable energy;
- Conserving and efficiently managing resources and materials;
- Reducing waste, increasing recycling and increasing reuse of materials which would otherwise be considered a waste;
- Maximizing habitat value and creating habitat when possible;
- Fostering green and healthy communities and working landscapes which balance ecological, economic and social goals;
- Integrating the remedy with the end use where possible and encouraging green and sustainable re-development; and
- Additionally, to incorporate green remediation principles and techniques to the extent feasible in the future development at this site, any future on-site buildings shall be constructed, at a minimum, to meet the 2020 Energy Conservation Construction Code of New York (or most recent edition) to improve energy efficiency as an element of construction.

As part of the remedial design program, to evaluate the remedy with respect to green and sustainable remediation principles, an environmental footprint analysis will be completed. The environmental footprint analysis will be completed using an accepted environmental footprint analysis calculator such as SEFA (Spreadsheets for Environmental Footprint Analysis, USEPA), SiteWise(TM) (available in the Sustainable Remediation Forum [SURF] library) or similar NYSDEC accepted tool. Water consumption, greenhouse gas emissions, renewable and non-renewable energy use, waste reduction and material use will be estimated, and goals for the project related to these green and sustainable remediation metrics, as well as for minimizing community

impacts, protecting habitats and natural and cultural resources, and promoting environmental justice, will be incorporated into the remedial design program, as appropriate. The project design specifications will include detailed requirements to achieve the green and sustainable remediation goals. Further, progress with respect to green and sustainable remediation metrics will be tracked during implementation of the remedial action and reported in the Final Engineering Report (FER), including a comparison to the goals established during the remedial design program.

Additionally, the remedial design program will include a climate change vulnerability assessment, to evaluate the impact of climate change on the project site and the proposed remedy. Potential vulnerabilities associated with extreme weather events (e.g., hurricanes, lightning, heat stress and drought), flooding, and sea level rise will be identified, and the remedial design program will incorporate measures to minimize the impact of climate change on potential identified vulnerabilities.

2. Excavation

The existing 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.

Excavation and off-site disposal of all on-site soils which exceed unrestricted SCOs, as defined by 6 NYCRR Part 375-6.8. If a Track 1 cleanup is achieved, a Cover System will not be a required element of the remedy.

Approximately 10,000 – 15,000 cubic yards of contaminated soil will be removed from the site. Soils will be removed from depths ranging from 2 to 14 feet. Collection and analysis of confirmation and documentation samples at the remedial excavation depths will be used to verify that SCOs for the site have been achieved. If confirmation/documentation sampling indicates that SCOs were not achieved at the stated remedial depth, the Applicant must notify DEC, submit the sample results and, in consultation with DEC, determine if further remedial excavation is necessary. Further excavation for development will proceed after confirmation samples demonstrate that SCOs for the site have been achieved. If all soils exceeding USCOs cannot be removed, but restricted residential SCOs are achieved, the remedy will achieve a Track 2 restricted residential use cleanup.

To ensure proper handling and disposal of excavated material, waste characterization sampling will be completed for all identified contaminated site material. Waste characterization sampling will be performed exclusively for the purposes of off-site disposal in a manner suitable to receiving facilities and in conformance with applicable federal, state and local laws, rules, and regulations and facility-specific permits.

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. Vapor Intrusion Evaluation

As part of the Track 1 remedy, a soil vapor intrusion (SVI) evaluation will be completed, including sub-slab and indoor air samples. The evaluation will include a provision for implementing actions recommended to address exposures related to soil vapor intrusion.

5. Local Institutional Controls

If no environmental easement or SMP is needed to achieve soil, groundwater or soil vapor intrusion remedial action objectives, then the following local use restriction will be relied upon to prevent ingestion of groundwater: Chapter 873 Article VII of the Laws of Westchester County, which prohibits potable use of groundwater without prior approval.

6. Conditional Track 1

The intent of the remedy is to achieve a Track 1 unrestricted use; therefore, no environmental easement or SMP is anticipated. If the soil vapor intrusion evaluation is not completed prior to completion of the FER, then a SMP and environmental easement will be required to address the SVI evaluation and implement actions as needed; if a mitigation or monitoring action is needed, a Track 1 cleanup can only be achieved if the mitigation system or other required action is no longer needed within 5 years of the date of the Certificate of Completion.

In the event that Track 1 unrestricted use is not achieved, including achievement of soil, groundwater and/or soil vapor remedial objectives, the following contingent remedial elements will be required, and the remedy will achieve a Track 2 restricted residential cleanup.

7. 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 2 restricted residential cleanup at a minimum.

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 or 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 County DOH (Chapter 873, Article VII of the Laws of Westchester County); and,
- require compliance with the Department approved Site Management Plan.

8. Site Management Plan

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

- i. 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:

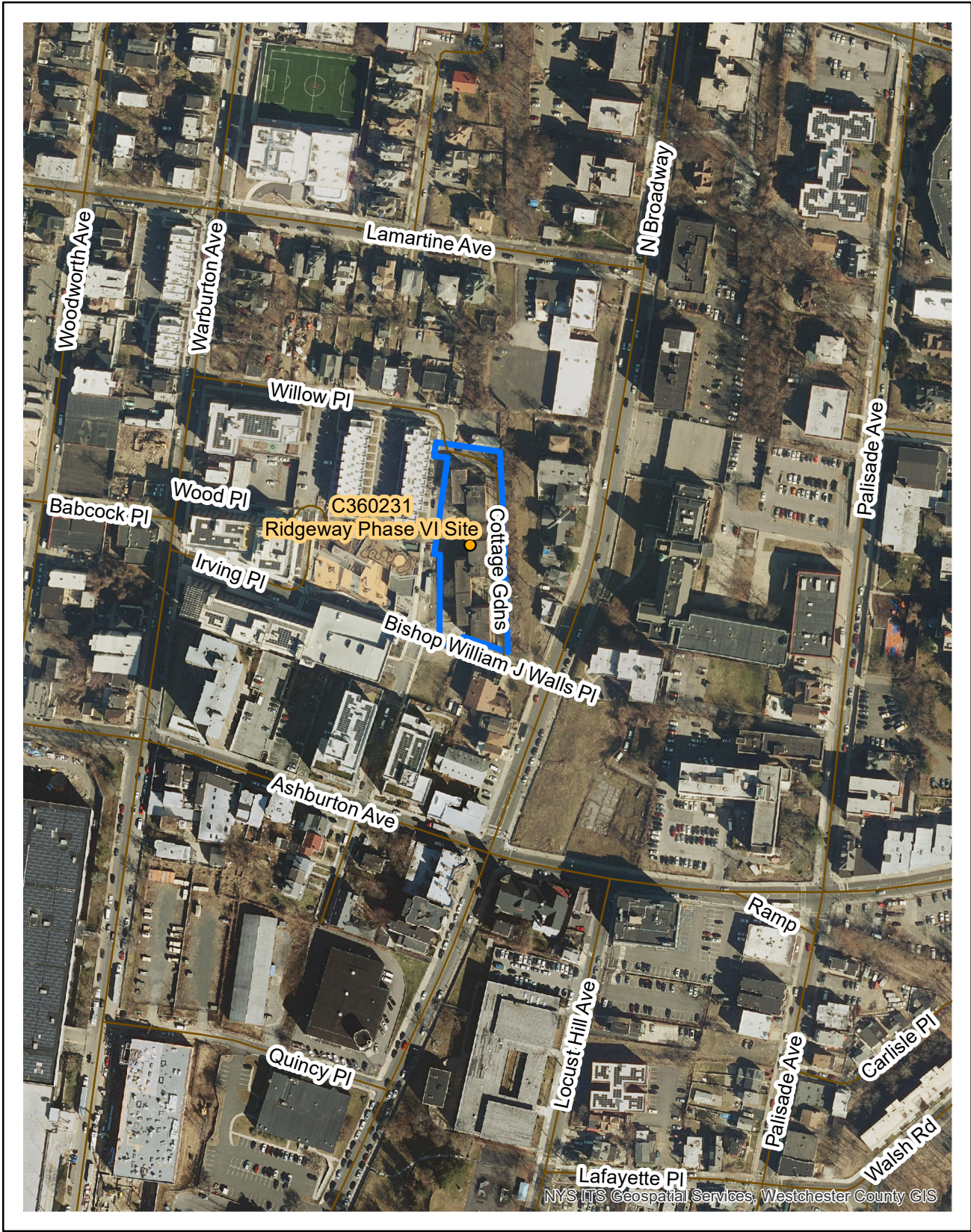
Institutional Controls: The Environmental Easement discussed in Remedy Element 7 above.

Engineering Controls: Any engineering controls that may be required (e.g., sub-slab depressurization system or groundwater treatment).

This plan includes, but may not be limited to:

- an Excavation Plan which details the provisions for management of future excavations in areas of remaining contamination;
 - descriptions of the provisions of the environmental easement including any land use and/or groundwater restrictions;
 - 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.
- ii. 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 soil vapor to assess the performance and effectiveness of the remedy;
 - a schedule of monitoring and frequency of submittals to the Department; and
 - monitoring for vapor intrusion for any buildings on the site, as may be required by the Institutional and Engineering Control Plan discussed above.
- iii. 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 active vapor mitigation system(s). The plan includes, but is not limited to:
 - procedures for operating and maintaining the system(s); and
 - compliance inspection of the system(s) to ensure proper O&M as well as providing the data for any necessary reporting.

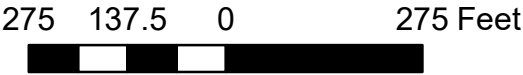
C360231 Ridgeway Phase VI Site Location Map



Legend

Local Streets

Remediation Site Borders



Estimated Remedial
Excavation Depths

- +/- 4 feet bgs.
- +/- 6 feet bgs.
- +/- 8 feet bgs.
- +/- 14 feet bgs.

The approximate remedial excavation depths take into account that over excavation may inadvertently occur during implementation of the Remedial Action.

RI-SB-04
+/- 3' bgs
+/- 7' bgs

+/- 3' bgs denotes the approximate depth below grade of fill material.

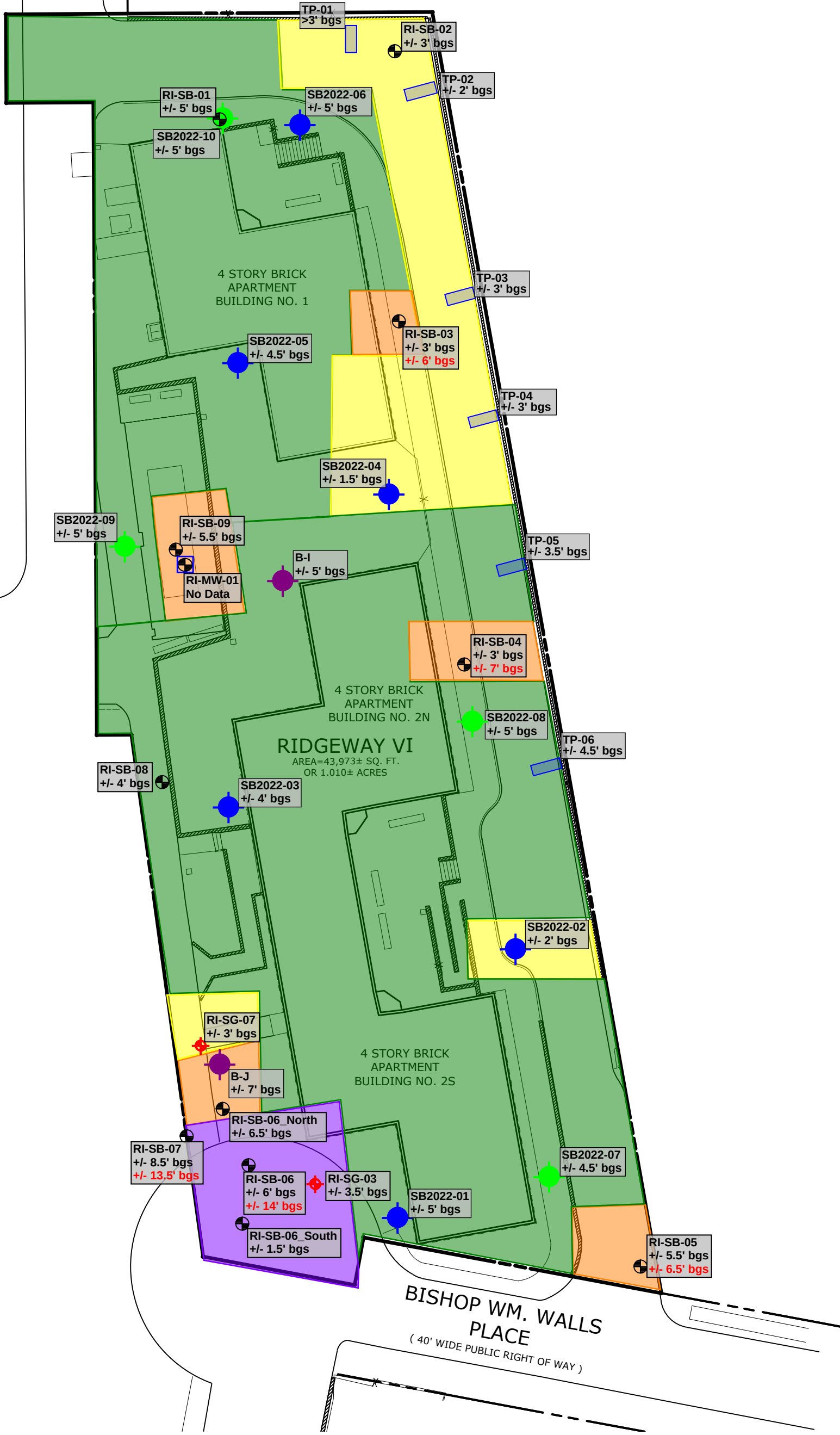
+/- 7' bgs denotes the approximate depth below grade where contaminants were encountered in native soil underlying the fill material. If red font is not shown, then contaminants were not encountered in native soil underlying the fill material at the depths explored.

Remedial excavation depths in the areas underneath the existing buildings is assumed and extrapolated from the estimated remedial excavation depths from samples collected nearest to the buildings. Remedial excavation depths beneath the existing buildings may be more or less and will be determined in the field after demolition of the buildings and excavation of fill and soil.

The remedial excavation depths shown are approximate and will be further determined in the field based on field observations.

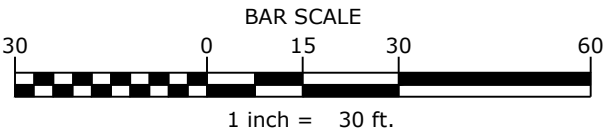
THE PROPOSED REMEDIAL EXCAVATION DEPTHS ARE APPROXIMATE AND ONLY REFLECT CONDITIONS OBSERVED AT THE PARTICULAR SAMPLING LOCATIONS. THE INFORMATION PRESENTED SHOULD BE USED FOR INFORMATIONAL PURPOSES ONLY AND NOT FOR CONSTRUCTION PLANNING AND BIDDING.

WILLOW PLACE



- 2022 C.T. MALE PHASE II ESA SOIL BORING
- 2015 C.T. MALE PHASE II ESA SOIL BORING
- 2022 C.T. MALE BORING LOCATION FOR GEOTECHNICAL EVALUATION
- 2023 C.T. MALE TEST PIT LOCATION FOR RETAINING WALL EVALUATION.

- RI SOIL BORING LOCATION
- RI SOIL GAS SAMPLING LOCATION



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	2				
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FIGURE 6: APPROXIMATE DEPTHS OF FILL MATERIAL
RIDGEWAY PHASE VI SITE

PREPARED FOR
CPG PHASE VI LIMITED PARTNERHIP

CITY OF YONKERS

WESTCHESTER COUNTY, NEW YORK

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