DECISION DOCUMENT

500 Main Street Laundry Site
Brownfield Cleanup Program
New Rochelle, Westchester County
Site No. C360199
February 2021

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

DECLARATION STATEMENT - DECISION DOCUMENT

500 Main Street Laundry Site
Brownfield Cleanup Program
New Rochelle, Westchester County
Site No. C360199
February 2021

Statement of Purpose and Basis

This document presents the remedy for the 500 Main Street Laundry Site 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 500 Main Street Laundry Site 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 remedial design program will include:

- 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

The existing on-site building(s) overlaying contaminated soils (500 Main Street and 12 Church Street) 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 Soil Cleanup Objectives (USCOs), 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 2,700 cubic yards of contaminated soil will be removed from the site. Excavation and removal of any underground storage tanks (USTs), fuel dispensers, underground piping or other structures associated with a source of contamination. Water removed from subsurface soils to allow for excavation will be properly managed prior to disposal.

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 designated grades at the site.

4. Natural Attenuation of Groundwater

Groundwater contamination will be addressed with natural attenuation. Groundwater will be monitored for site related contamination. It is anticipated that contamination will meet standards within 5 years. Reports of the attenuation will be provided annually, and active remediation will be proposed if it appears that natural processes alone will not address the contamination. The contingency remedial action will depend on the information collected, but it is currently anticipated that oxidant injection would be the expected contingency remedial action.

5. Vapor Intrusion Evaluation

As part of the track 1 remedy, a soil vapor intrusion evaluation will be completed. The evaluation will include a provision for implementing actions recommended to address exposures related to soil vapor intrusion.

6. Local Institutional Controls

If no environmental easement (EE) or site management plan (SMP) is needed to achieve soil, groundwater or soil vapor remedial action objectives, then the following local use restriction will be relied upon to prevent ingestion of groundwater: Article 141 of the NYCDOH code Chapter 873, article VII of the Laws of Westchester County, which prohibits potable use of groundwater without prior approval.

7. Conditional Track 1

The intent of the remedy is to achieve a Track 1 unrestricted use; therefore, no environmental easement or site management plan is anticipated. If the soil vapor intrusion (SVI) evaluation is not completed prior to completion of the Final Engineering Report, then a Site Management Plan (SMP) and Environmental Easement (EE) 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.

8. 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 Track 2 restricted residential cleanup at a minimum.

8a. Institutional Control

Imposition of an institutional control in the form of an environmental easement for the controlled property which will:

- require the remedial party or site owner to complete and submit to the Department a periodic certification of institutional and engineering controls in accordance with Part 375-1.8 (h)(3);
- allow the use and development of the controlled property for restricted-residential, commercial 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.

8b. Site Management Plan

A Site Management Plan (SMP) 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 Paragraph 8a 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;
- a provision for evaluation of the potential for soil vapor intrusion for any occupied buildings on the site, including provision for implementing actions recommended to address exposures related to soil vapor intrusion;
- 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 developed 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, inspection, and reporting of any mechanical or physical components of vapor mitigation system(s), if any. The plan includes, but is not limited to:

- procedures for operating and maintaining the system(s)/contingent groundwater remedy, if any;
- compliance inspection of the system(s) to ensure proper O&M as well as providing the data for any necessary 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.

2/11/2021
Date

Janet Brown, Director
Remedial Bureau C

DECISION DOCUMENT

500 Main Street Laundry Site
New Rochelle, Westchester County
Site No. C360199
February 2021

SECTION 1: SUMMARY AND PURPOSE

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

The New York State Brownfield Cleanup Program (BCP) is a voluntary program. The goal of the BCP is to enhance private-sector cleanups of brownfields and to reduce development pressure on "greenfields." A brownfield site is real property, the redevelopment or reuse of which may be complicated by the presence or potential presence of a contaminant.

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

SECTION 2: CITIZEN PARTICIPATION

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

DECInfo Locator/On-line repository - Web Application
https://www.dec.ny.gov/data/DecDocs/C360199/

Local repositories may be temporarily unavailable due to COVID-19 precautions

New Rochelle Public Library
One Library Plaza
New Rochelle, NY 10801
Phone: (914) 632-7878

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 Main Street Laundry Site (site) comprises four tax parcels, totaling approximately 0.79 acres in size, located in an urban area of the City of New Rochelle, Westchester County, New York. The site is located at 500, 506, and 510 Main Street and 12 Church Street. The site is bounded to the northwest by Main Street, to the southwest by Church Street, to the southeast by an access driveway and a three- story brick building, and to the northeast by a two- story brick building and an existing private parking lot. The site is approximately 0.25 miles south of the New Rochelle Metro North train station and approximately 0.75 miles west of Echo Bay.

Site Features: The site is currently improved with four buildings located on four contiguous tax parcels. 500 Main Street contains a three- story building (including a basement level) currently occupied by the New York Covenant Church. 506 Main Street contains a two- story building that is currently vacant. 510 Main Street contains a three- story brick building occupied by the Liebman's Children's Uniform Clothing store. 12 Church Street contains a multi-story building occupied by the French Speaking Baptist Church of New Rochelle. The portions of the site outside of the building footprints are paved driveways and parking areas. No surface soils are present on the site.

Current Zoning and Land Use: The site is located in the Downtown Business District (a/k/a the "DB Zone") and is currently used as commercial property. The surrounding properties are mainly commercial with some residential uses. The site redevelopment plan is a mixed-use commercial and residential housing building.

Past Use of the Site: The site was originally developed in 1887 as a meat market and laundry that existed until at least 1896. Additional historical uses included lodging, commercial retail, Fire Department Headquarters, auto storage, fur storage, ice rink, and church spaces. The Fire Department was present from 1903 until the 1990s. Several underground storage tanks (USTs) and aboveground storage tanks (ASTs) were noted on-site associated with past site use.

Site Geology and Hydrogeology: Site soil consists of fill material over a layer of varied coarse to fine sand with silt to an approximate depth of 2 to 16 feet below ground surface (bgs). Weathered rock was encountered at depths ranging from about 14 to 38 feet bgs. Area bedrock ranges from 20 to 38 feet bgs based on a geotechnical investigation. Groundwater is found in the overburden. Groundwater flow direction is dominantly to the south-southeast towards Long Island Sound, but is influenced by the tides. Groundwater depth ranges from 7.5 to 12 feet bgs.

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, 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, the Department has determined that this site does not pose a significant threat to public health or the environment; accordingly, no enforcement actions are necessary.

SECTION 6: SITE CONTAMINATION

6.1: Summary of the Remedial Investigation

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

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

The RI is intended to identify the nature (or type) of contamination which may be present at a site and the extent of that contamination in the environment on the site, or leaving the site. The RI reports on data gathered to determine if the soil, groundwater, soil vapor, indoor air, surface water or sediments may have been contaminated. Monitoring wells are installed to assess groundwater and soil borings or test pits are installed to sample soil and/or waste(s) identified. If other natural resources are present, such as surface water bodies or wetlands, the water and sediment may be sampled as well. Based on the presence of contaminants in soil and groundwater, soil vapor will also be sampled for the presence of contamination. Data collected in the RI influence the development of remedial alternatives. The RI report is available for review in the site document repository and the results are summarized in section 6.3.

The analytical data collected on this site includes data for:

- groundwater
- soil
- soil vapor
- sub-slab vapor

6.1.1: Standards, Criteria, and Guidance (SCGs)

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

To determine whether the contaminants identified in various media are present at levels of concern, the data from the RI were compared to media-specific SCGs. The Department has developed SCGs for groundwater, surface water, sediments, and soil. The NYSDOH has developed SCGs for drinking water and soil vapor intrusion. For a full listing of all SCGs see: http://www.dec.ny.gov/regulations/61794.html

6.1.2: RI Results

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

DDT
arsenic
benzo(a)anthracene
benzo(a)pyrene
benzo(b)fluoranthene
benzo(k)fluoranthene
chrysene
cis-1,2-dichloroethene
copper
dibenz[a,h]anthracene
hexachlorobenzene
indeno(1,2,3-CD)pyrene
lead
mercury
perfluorooctane sulfonic acid (PFOS)
perfluorooctanoic acid (PFOA)
phenol
trichloroethene (TCE)
zinc

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

- groundwater
- soil
- soil vapor

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), metals, cyanide, pesticides, and the emerging contaminants per- and polyfluorinated 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 SVOCs, metals, and pesticides, in soils, SVOCs in groundwater, and VOCs in soil vapor.

Soil:

The site is mostly occupied by buildings and the portions of the site outside of building footprints are paved driveways and parking areas. No surface soils are present on the site.

Samples of subsurface soil (deeper than 2 inches) were collected throughout the site during the RI to document soil conditions. A total of 36 subsurface soil samples were collected from 24 locations to depths extending to 22 feet below ground surface (bgs). No VOCs, PCBs, or cyanide were detected in subsurface soils above Unrestricted Soil Cleanup Objectives (USCOs). Several SVOCs and metals as well as one pesticide were identified in subsurface soil at concentrations exceeding their USCOs. Exceedances of USCOs were encountered beneath the 500 Main Street and 12 Church Street buildings and access driveways. Exceedances of USCOs were not present beneath the 506 Main Street and 510 Main Street buildings.

SVOC concentrations above USCOs were found in subsurface soil samples collected from the southeastern portion of the site. The highest SVOC concentrations were found in soil boring 14 (SB-14) at a depth of 6 feet bgs. SB-14 is located in an access driveway and the vertical extent of the SVOC contamination reaches to 6 feet bgs. The highest concentrations of any SVOCs detected were for benzo(b)fluoranthene and benzo(a)anthracene, both at 18 parts per million (ppm) (USCO: 1 ppm). The next highest concentrations were for benzo(a)pyrene and chrysene, both at 16 ppm (USCO: 1 ppm), benzo(k)fluoranthene at 7 ppm (USCO: 0.8 ppm), indeno(1,2,3-cd)pyrene at 6.7 ppm (USCO: 0.5 ppm), and dibenz(a,h)anthracene at 1.8 ppm (USCO: 0.33 ppm).

Metals concentrations above USCOs were found in subsurface soil samples collected from the southern half of the site. The highest concentrations for metals encountered were arsenic at 39.7 ppm (USCO: 13 ppm), lead at 194 ppm (USCO: 63 ppm), mercury at 1.9 ppm (USCO: 0.18 ppm), copper at 59.5 ppm (USCO: 50 ppm), and zinc at 686 ppm (USCO: 109 ppm). The deepest exceedance for metals was found at 20 feet bgs.

Pesticide concentrations above USCOs were found in subsurface soil samples collected from the southeastern portion of the site. The highest concentration of a pesticide encountered was for 4,4'-DDT at 0.34 ppm (USCO: 0.0033 ppm) found at a depth of 13 feet bgs.

No per- and polyfluoroalkyl substances (PFAS) were detected above the screening level of 1 part per billion (ppb). 1,4-dioxane was not detected in any subsurface soil samples.

The presence of SVOCs, metals, and pesticides in subsurface soils is related to the historical use of the site and/or was present in fill material added to the site in the past. There is no indication soil contamination is migrating off-site.

Groundwater:

Groundwater samples were collected from eight monitoring wells throughout the site. Groundwater samples were analyzed for VOCs, SVOCs, metals, cyanide, pesticides, and PCBs as well as the emerging contaminants PFAS and 1,4-dioxane.

No pesticides, PCBs, or cyanide were detected above groundwater standards. The VOCs cis-1,2-dichloroethene and hexachlorobenzene were detected in one well each, respectively at 6.4 parts per billion (ppb) exceeding the groundwater standard of 5 ppb, and 0.044 ppb exceeding the groundwater standard of 0.04 ppb. The SVOCs benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, indeno(1,2,3-cd)pyrene, and phenol were detected above groundwater standards in several wells. The greatest SVOC concentration in groundwater was for benzo(b)fluoranthene at 0.075 ppb (standard: 0.002 ppb).

The metals aluminum, iron, magnesium, manganese, and sodium were detected in groundwater samples collected from the site in exceedance of groundwater standards. These metals are common, naturally occurring and/or associated with road salt application, and were present across the site. The metals detected in groundwater are not likely attributed to the site contamination. The metal exceedances found in groundwater were different than the metals that exceeded the SCOs. The SVOCs and VOCs present are attributed to historic site use.

1,4-dioxane was not detected in any wells. Perfluorooctanoic acid (PFOA) and perfluorooctanesulfonic acid (PFOS) were reported at concentrations of up to 66.3 and 601 parts per trillion (ppt), respectively, exceeding the 10 ppt screening level for each. PFOA and PFOS were detected in every well above the 10 ppt screening level. The presence of PFAS may be attributed to the historical use of the site as a fire department, the highest concentrations of PFAS in groundwater were near the building (12 Church Street) which was used for fire department headquarters. However, no source of PFOA or PFOS was encountered in subsurface soil.

There is a possibility that VOC and SVOC groundwater contamination is migrating off-site. Elevated levels of PFOA and PFOS in groundwater are consistent with concentrations encountered at other nearby Brownfield Cleanup Program (BCP) sites.

Soil Vapor:

Soil vapor samples were collected at four locations throughout the western half of the site. Two soil vapor samples were collected in the access driveways in the western and southwestern portion of the site at a depth of 5-6 feet bgs, which is approximately 2-3 feet above the groundwater table. The other two soil vapor samples were taken one foot beneath the building slab due to the presence of shallow groundwater. One soil vapor point was located in the basement of 510 Main Street and the other was collected in the basement of 500 Main Street. Soil vapor samples were analyzed for VOCs. There were two VOC detections for one of the constituents listed on the New York State Department of Health (NYS DOH) soil vapor/ indoor air matrices. The VOC trichloroethene (TCE) was detected at 20.8 micrograms per cubic meter (ug/m^3) in a sample collected one foot beneath the 506 Main Street building slab at a location along the northern boundary of the site and at 3.56 ug/m^3 in a sample collected one foot beneath the 510 Main Street building slab along the western boundary of the site. Petroleum related VOCs were detected in several soil vapor points, including, but not limited to, benzene up to 51.5 ug/m^3, methyl ethyl ketone up to 124 ug/m^3, ethanol up to 347 ug/m^3, toluene up to 244 ug/m^3, and m,p- xylene up to 307 ug/m^3. Acetone and chloroform were also detected. Acetone is a common laboratory contaminant, and chloroform is a common byproduct of drinking water chlorination. There are no NYS DOH matrices for these constituents and no action is needed based on the detections.

The results of on-site soil vapor sampling indicate further evaluation of soil vapor intrusion for any future buildings on the site is warranted. There are possible off-site sources of soil vapor contamination. Soil vapor intrusion is not expected to be a concern for off-site buildings.

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.*

The site is currently covered with buildings and pavement. People are not expected to come into contact with contaminated soil and groundwater unless they dig below the surface. People are not drinking the contaminated groundwater because the area is served by a public water supply that is not affected by this contamination. Volatile organic compounds in the groundwater or 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. An evaluation of the potential for soil vapor intrusion to occur is recommended for any new buildings built on-site as part of the expected remediation and site redevelopment. Soil vapor intrusion is not expected to be 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.

There 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.
- Remove the source of ground or surface water contamination.

Soil

RAOs for Public Health Protection

- Prevent ingestion/direct contact with contaminated soil.

RAOs for Environmental Protection

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

Soil Vapor

RAOs for Public Health Protection

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

SECTION 7: ELEMENTS OF THE SELECTED REMEDY

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

The selected remedy is a Conditional Track 1 remedy.

The selected remedy is referred to as the Excavation and Contingent Site Management 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 remedial design program will include:

- 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

The existing on-site building(s) overlaying contaminated soils (500 Main Street and 12 Church Street) 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 Soil Cleanup Objectives (USCOs), 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 2,700 cubic yards of contaminated soil will be removed from the site. Excavation and removal of any underground storage tanks (USTs), fuel dispensers, underground piping or other structures associated with a source of contamination. Water removed from subsurface soils to allow for excavation will be properly managed prior to disposal.

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 designated grades at the site.

4. Natural Attenuation of Groundwater

Groundwater contamination will be addressed with natural attenuation. Groundwater will be monitored for site related contamination. It is anticipated that contamination will meet standards within 5 years. Reports of the attenuation will be provided annually, and active remediation will be proposed if it appears that natural processes alone will not address the contamination. The contingency remedial action will depend on the information collected, but it is currently anticipated that oxidant injection would be the expected contingency remedial action.

5. Vapor Intrusion Evaluation

As part of the track 1 remedy, a soil vapor intrusion evaluation will be completed. The evaluation will include a provision for implementing actions recommended to address exposures related to soil vapor intrusion.

6. Local Institutional Controls

If no environmental easement (EE) or site management plan (SMP) is needed to achieve soil, groundwater or soil vapor remedial action objectives, then the following local use restriction will be relied upon to prevent ingestion of groundwater: Article 141 of the NYCDOH code Chapter 873, article VII of the Laws of Westchester County, which prohibits potable use of groundwater without prior approval.

7. Conditional Track 1

The intent of the remedy is to achieve a Track 1 unrestricted use; therefore, no environmental easement or site management plan is anticipated. If the soil vapor intrusion (SVI) evaluation is not completed prior to completion of the Final Engineering Report, then a Site Management Plan (SMP) and Environmental Easement (EE) 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.

8. 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 Track 2 restricted residential cleanup at a minimum.

8a. Institutional Control

Imposition of an institutional control in the form of an environmental easement for the controlled property which will:

- require the remedial party or site owner to complete and submit to the Department a periodic certification of institutional and engineering controls in accordance with Part 375-1.8 (h)(3);
- allow the use and development of the controlled property for restricted-residential, commercial 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.

8b. Site Management Plan

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

iv. 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 8a 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;
- a provision for evaluation of the potential for soil vapor intrusion for any occupied buildings on the site, including provision for implementing actions recommended to address exposures related to soil vapor intrusion;
- 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.

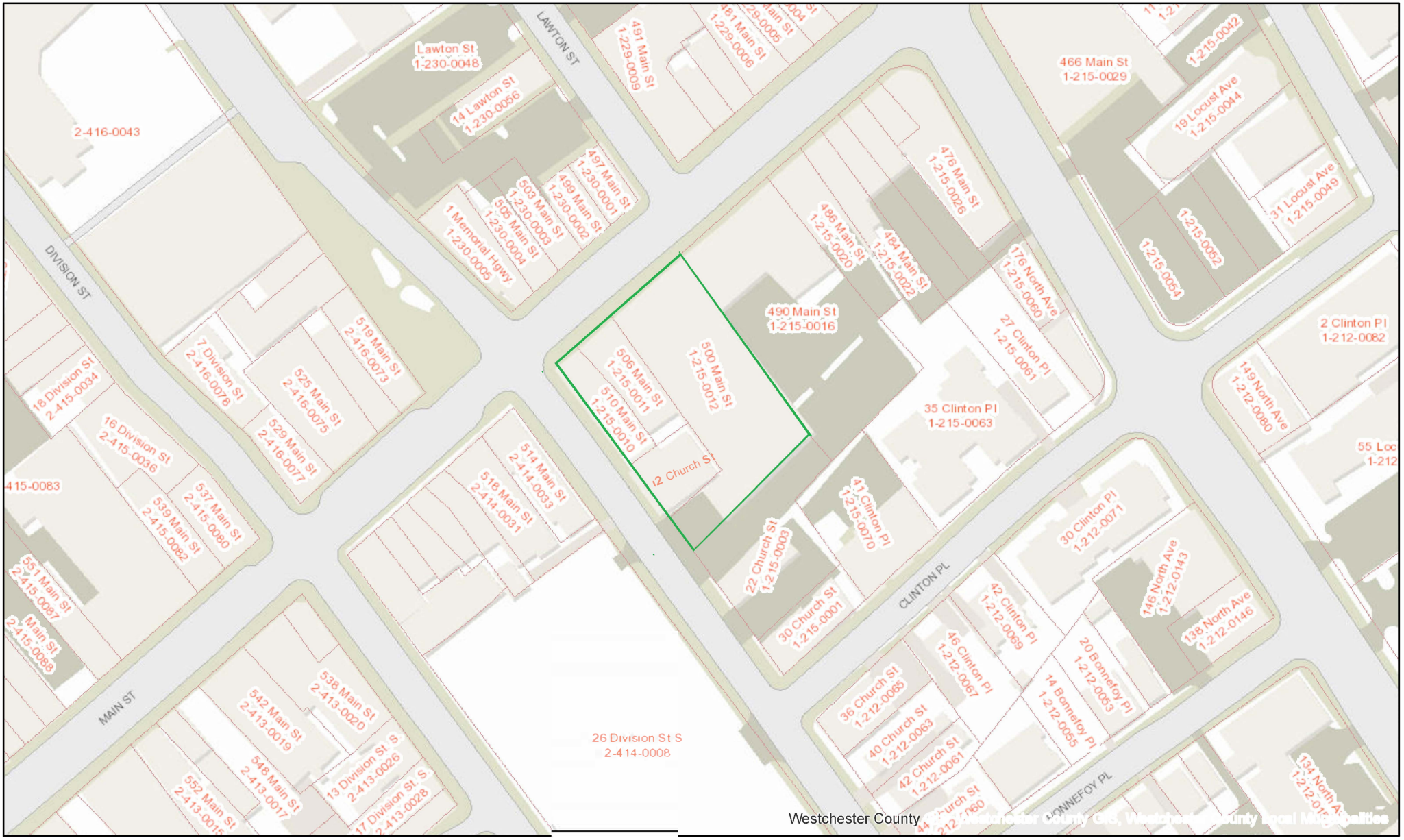
v. a Monitoring Plan to assess the performance and effectiveness of the remedy. The plan includes, but may not be limited to:

- 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 developed on the site, as may be required by the Institutional and Engineering Control Plan discussed above.

vi. an Operation and Maintenance (O&M) Plan to ensure continued operation, maintenance, inspection, and reporting of any mechanical or physical components of vapor mitigation system(s), if any. The plan includes, but is not limited to:

- procedures for operating and maintaining the system(s)/contingent groundwater remedy, if any;
- compliance inspection of the system(s) to ensure proper O&M as well as providing the data for any necessary reporting;
- maintaining site access controls and Department notification; and
- providing the Department access to the site and O&M records.

500 Main Street Laundry (C360199)



January 27, 2021

DD Figure 1

BCP Site Boundary

Tax parcel data was provided by local municipality. This map is generated as a public service to Westchester County residents for general information and planning purposes only, and should not be relied upon as a sole informational source. The County of Westchester hereby disclaims any liability from the use of this GIS mapping system by any person or entity. Tax parcel boundaries represent approximate property line location and should NOT be interpreted as or used in lieu of a survey or property boundary description. Property descriptions must be obtained from surveys or deeds. For more information please contact local municipality assessor's office.

1:1,500

N

0 70 140 280 ft

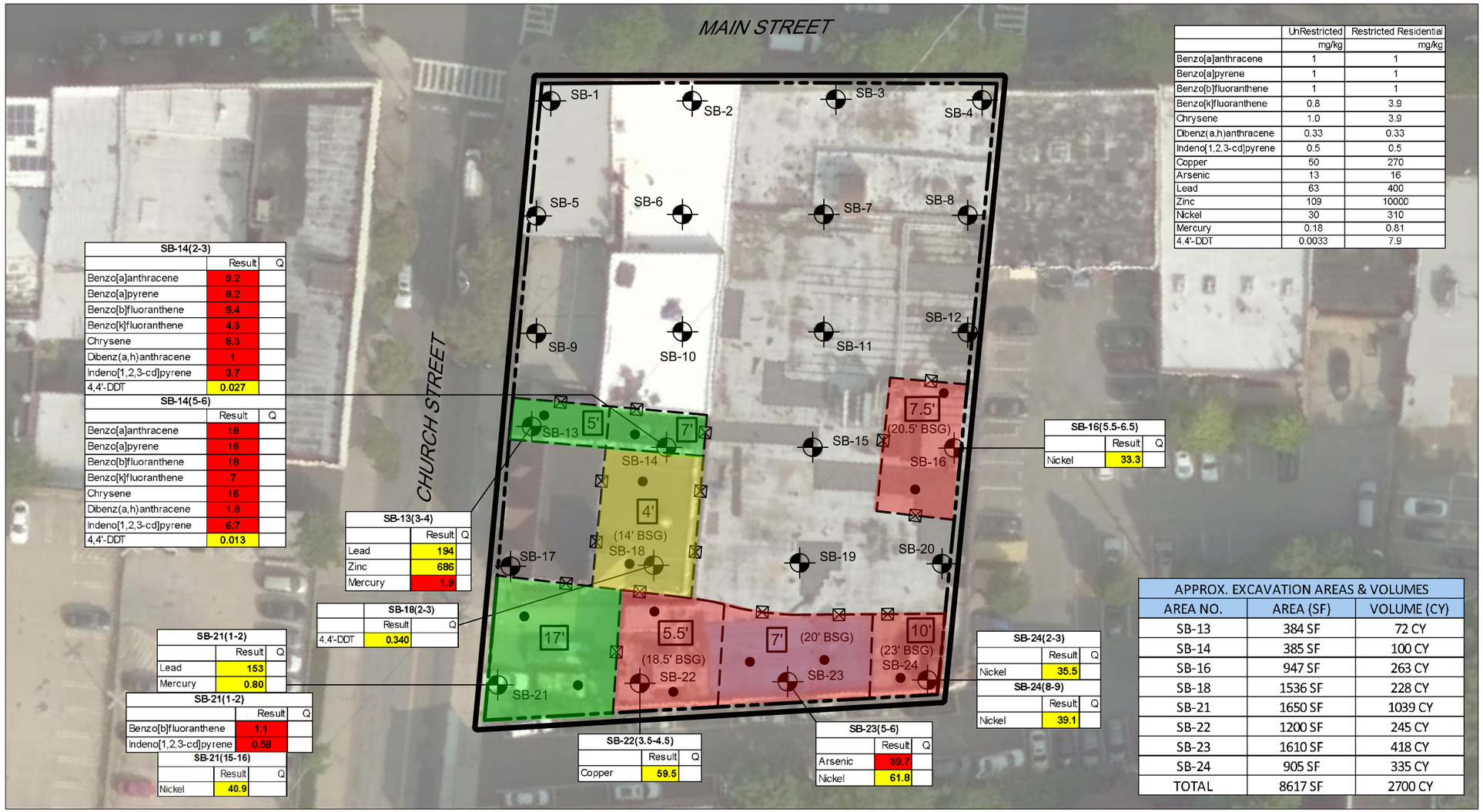
Westchester County GIS

http://giswww.westchestergov.com

Michaelian Office Building

148 Martine Avenue Rm 214

White Plains, New York 10601



	UnRestricted	Restricted Residential
	mg/kg	mg/kg
Benzo[a]anthracene	1	1
Benzo[a]pyrene	1	1
Benzo[b]fluoranthene	1	1
Benzo[k]fluoranthene	0.8	3.9
Chrysene	1.0	3.9
Dibenz(a,h)anthracene	0.33	0.33
Indeno[1,2,3-cd]pyrene	0.5	0.5
Copper	50	270
Arsenic	13	16
Lead	63	400
Zinc	109	10000
Nickel	30	310
Mercury	0.18	0.81
4,4'-DDT	0.0033	7.9

SB-14(2-3)

	Result	Q
Benzo[a]anthracene	9.2	
Benzo[a]pyrene	8.2	
Benzo[b]fluoranthene	9.4	
Benzo[k]fluoranthene	4.3	
Chrysene	8.3	
Dibenz(a,h)anthracene	1	
Indeno[1,2,3-cd]pyrene	3.7	
4,4'-DDT	0.027	

SB-14(5-6)

	Result	Q
Benzo[a]anthracene	18	
Benzo[a]pyrene	16	
Benzo[b]fluoranthene	18	
Benzo[k]fluoranthene	7	
Chrysene	16	
Dibenz(a,h)anthracene	1.8	
Indeno[1,2,3-cd]pyrene	6.7	
4,4'-DDT	0.013	

SB-16(5.5-6.5)

	Result	Q
Nickel	33.3	

SB-13(3-4)

	Result	Q
Lead	194	
Zinc	686	
Mercury	1.9	

SB-18(2-3)

	Result	Q
4,4'-DDT	0.340	

SB-21(1-2)

	Result	Q
Lead	153	
Mercury	0.80	

SB-21(1-2)

	Result	Q
Benzo[b]fluoranthene	1.1	
Indeno[1,2,3-cd]pyrene	0.58	

SB-21(15-16)

	Result	Q
Nickel	40.9	

SB-22(3.5-4.5)

	Result	Q
Copper	59.5	

SB-23(5-6)

	Result	Q
Arsenic	39.7	
Nickel	61.8	

SB-24(2-3)

	Result	Q
Nickel	35.5	

SB-24(8-9)

	Result	Q
Nickel	39.1	

APPROX. EXCAVATION AREAS & VOLUMES

AREA NO.	AREA (SF)	VOLUME (CY)
SB-13	384 SF	72 CY
SB-14	385 SF	100 CY
SB-16	947 SF	263 CY
SB-18	1536 SF	228 CY
SB-21	1650 SF	1039 CY
SB-22	1200 SF	245 CY
SB-23	1610 SF	418 CY
SB-24	905 SF	335 CY
TOTAL	8617 SF	2700 CY

NOTES:
1. THIS PLAN IS FOR LOCATING EXCAVATION AREAS AND THEIR DEPTHS.
2. THE BASEMENT OF 500 MAIN STREET IS APPROX. 13 FT BELOW STREET GRADE.
3. THE BASEMENT OF 12 CHURCH STREET IS APPROX. 10 FT BELOW STREET GRADE.
4. YELLOW HIGHLIGHT INDICATES EXCEEDANCE OF UNRESTRICTED USE SOIL CLEANUP OBJECTIVE.
5. RED HIGHLIGHT INDICATES EXCEEDANCE OF RESTRICTED RESIDENTIAL SOIL CLEANUP OBJECTIVE.

LEGEND:
- PROPERTY LINE
- SITE BOUNDARY
- SB-21 - BORING NUMBER & APPROX. LOCATION
- APPROXIMATE EXTENTS OF EXCAVATION
- 3' - PROPOSED EXCAVATION DEPTH
- (14' BSG) - CORRESPONDING DEPTH BELOW STREET GRADE
- PROPOSED BOTTOM ENDPOINT SAMPLE LOCATION
- PROPOSED SIDEWALL SAMPLE LOCATION

Area to be excavated from street grade

Area to be excavated beneath 500 Main Street basement starting at 13 ft bsg

Area to be excavated beneath 12 Church Street basement starting at 10 ft bsg

SCALE: 1"=40'
0 40 80

dwg by: aas
chk by: TTK
scale: AS NOTED
date: 02/05/2021

SESI CONSULTING ENGINEERS D.P.C.
SOILS / FOUNDATIONS
SITE DESIGN
ENVIRONMENTAL
12A MAPLE AVE. PINE BROOK, N.J. 07058 PH: 973-808-9050

RAWP
500 MAIN STREET
NEW ROCHELLE, WESTCHESTER COUNTY, NY

PROPOSED EXCAVATION PLAN

job no: 10637
drawing no:

FIG-2

N:\ACAD\10637\RAWP\10637 – FIG-3.1 – PROPOSED EXCAVATION PLAN.DWG 02/05/21 02:27:38PM, aas, LAYOUT:FIG-3.1