DECISION DOCUMENT

Hamilton Hill II - Target Area 1 Site
Brownfield Cleanup Program
Schenectady, Schenectady County
Site No. C447052
November 2019

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

DECLARATION STATEMENT - DECISION DOCUMENT

Hamilton Hill II - Target Area 1 Site
Brownfield Cleanup Program
Schenectady, Schenectady County
Site No. C447052
November 2019

Statement of Purpose and Basis

This document presents the remedy for the Hamilton Hill II - Target Area 1 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 Hamilton Hill II - Target Area 1 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 all on-site soils which exceed unrestricted soil cleanup objectives (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 6,800 cubic yards of contaminated soil will be removed from the site. Any underground storage tanks (USTs), fuel dispensers, underground piping or other structures associated with a source of contamination will be excavated and removed.

3. Backfill

Clean fill meeting the requirements of 6 NYCRR Part 375-6.7(d) for unrestricted use will be brought in to replace the excavated soil and establish the designed grades at the site.

4. Groundwater Evaluation

Post-excavation groundwater sampling will be performed to determine whether an institutional control, such as a municipal ordinance or an environmental easement on the site, is needed to prevent exposure to contaminated groundwater.

5. Vapor Intrusion Evaluation

As part of the Track 1 remedy, a soil vapor intrusion (SVI) evaluation will be completed. The evaluation will include a provision for implementing actions recommended to address exposures related to SVI, if identified.

Conditional Track 1

The intent of the remedy is to achieve Track 1 unrestricted use; therefore no environmental easement or site management plan is anticipated. If the SVI evaluation is not completed prior to completion of the Final Engineering Report, a cover system is required, and/or a long-term groundwater monitoring program is needed based on the post-excavation groundwater evaluation, then a Site Management Plan and Environmental Easement will be required to address the SVI evaluation and/or implement other 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 a Track 1 unrestricted use is not achieved, including failure to achieve the groundwater and/or soil vapor remedial objectives, the following contingent remedial elements will be required, and the remedy will achieve a Track 2 or Track 4 restricted residential cleanup.

6. Cover System

A site cover will be required to allow for restricted residential use of the site in areas where the upper two feet of exposed surface soil will exceed the applicable SCOs. 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 component of the tangible property to be placed as 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. If a Track 2 restricted residential cleanup is achieved, a Cover System will not be a required element of the remedy.

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 County DOH; and
- require compliance with the Department approved Site Management Plan.

8. Site Management Plan

A Site Management Plan, which would include 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 Cover System discussed in Paragraph 6 above and/or mitigation systems to address soil vapor intrusion.

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 use 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, if identified;
- provisions for the management and inspection of the identified engineering controls;
- maintaining site access controls and Department notification; and
- the steps necessary for the periodic reviews and certification of the institutional and/or engineering controls.

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

- monitoring of groundwater to assess the performance and effectiveness of the remedy;
- a schedule of monitoring and frequency of submittals to the Department; and
- monitoring for vapor intrusion for any buildings on the 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, inspection, and reporting of any mechanical or physical components of any active vapor mitigation system(s). The plan includes, but is not limited to:

- procedures for operating and maintaining the system(s);
- 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.

The operation of the components of the remedy will continue until the remedial objectives have been achieved, or until the Department determines that continued operation is technically impracticable or not feasible.

Declaration

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

November 21, 2019

Date

Gerard Burke, Director
Remedial Bureau B

DECISION DOCUMENT

Hamilton Hill II - Target Area 1 Site
Schenectady, Schenectady County
Site No. C447052
November 2019

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 - Web Application
https://gisservices.dec.ny.gov/gis/dil/index.html?rs=C447052

Schenectady County Public Library
99 Clinton Street
Schenectady, NY 12305
Phone: 518-388-4500

Receive Site Citizen Participation Information By Email

Please note that the Department's Division of Environmental Remediation (DER) is "going paperless" relative to citizen participation information. The ultimate goal is to distribute citizen participation information about contaminated sites electronically by way of county email listservs. Information will be distributed for all sites that are being investigated and cleaned up in a particular county under the State Superfund Program, Environmental Restoration Program, Brownfield Cleanup Program and Resource Conservation and Recovery Act Program. We encourage the public to sign up for one or more county listservs at http://www.dec.ny.gov/chemical/61092.html

SECTION 3: SITE DESCRIPTION AND HISTORY

Location: The 0.81-acre site is in the Hamilton Hill neighborhood in the City of Schenectady, Schenectady County. The site consists of two non-contiguous parcels that were recently formed by merging 10 properties. The site parcels, referred to as 830 Albany Street and 834 Albany Street, are located to the southwest and southeast (respectively) of the intersection of Albany Street and Craig Street.

Site Features: The site previously contained residential and commercial structures, including a dry cleaner, which were recently demolished. The site is currently vacant and fenced off. The surrounding area is mixed use residential and commercial.

Current Zoning and Land Use: The site is zoned C-2 Mixed Use Commercial, which includes residential and commercial use. The surrounding area is also mixed use residential and commercial. The proposed use after redevelopment is restricted residential, including low to moderate income multi-family housing.

Past Use of the Site: Prior to the turn of the 20th century, the site and surrounding area was mainly vacant land. Beginning in the early 1900s, the site and surrounding area began to be developed with dwellings and commercial establishments, including two dry cleaning operations, a bakery and retail store. All of the site buildings were recently demolished; however, an underground storage tank believed to have contained fuel oil remains and a second buried tank is suspected. A spill was reported after contaminants related to dry cleaning solvents and petroleum were discovered at 830 Albany Street in 2016.

Site Geology and Hydrogeology: Based on subsurface investigations, the site consists of several feet of urban fill consisting of sand mixed with brick, ash, coal, concrete and/or wood chips. The urban fill is underlain by brown sand with variable silt and clay to depths of more than 50 feet. Bedrock, which is mapped as the Schenectady Formation, was not encountered during the investigations. Groundwater was encountered at a depth of approximately 9 to 13 feet below the ground surface and flows to the east.

A site location map is attached as Figure 1.

SECTION 4: LAND USE AND PHYSICAL SETTING

The Department may consider the current, intended, and reasonably anticipated future land use of the site and its surroundings when evaluating a remedy for soil remediation. For this site, alternatives (or an alternative) that restrict(s) the use of the site to restricted-residential use (which allows for commercial use and industrial use) as described in Part 375-1.8(g) were/was evaluated in addition to an alternative which would allow for unrestricted use of the site.

A comparison of the results of the Remedial Investigation (RI) to the appropriate standards, criteria and guidance values (SCGs) for the identified land use and the unrestricted use SCGs for the site contaminants is available in the RI Report.

SECTION 5: ENFORCEMENT STATUS

The Applicant(s) under the Brownfield Cleanup Agreement is a/are Volunteer(s). The Applicant(s) does/do not have an obligation to address off-site contamination. However, the Department has determined that this site does not pose a significant threat to public health or the environment; accordingly, no enforcement actions are necessary.

SECTION 6: SITE CONTAMINATION

6.1: Summary of the Remedial Investigation

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

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

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

The analytical data collected on this site includes data for:

- groundwater
- soil
- 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:

benzo(k)fluoranthene	indeno(1,2,3-cd)pyrene
benzo(a)anthracene	mercury
benzo(a)pyrene	lead
benzo(b)fluoranthene	chloroform
chrysene	tetrachloroethene

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

- groundwater
- soil

6.2: Interim Remedial Measures

An interim remedial measure (IRM) is conducted at a site when a source of contamination or exposure pathway can be effectively addressed before issuance of the Decision Document.

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

6.3: Summary of Environmental Assessment

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

Environmental Assessment: Soil and groundwater samples collected from the site during the remedial investigation were analyzed for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), metals, polychlorinated biphenyls (PCBs), pesticides, 1,4-dioxane and per- and polyfluoroalkyl substances (PFAS). Soil vapor samples were analyzed for VOCs. Based on the investigation results, the primary contaminants of concern at the site are SVOCs (specifically polycyclic aromatic hydrocarbons, or PAHs) and metals in soil, and VOCs and SVOCs groundwater.

Over 25 surface soil samples and 40 subsurface soil samples were analyzed during the site investigations and the results were compared to the restricted residential soil cleanup objectives (SCOs). No VOCs were detected above SCOs in soil. The following SVOCs were detected in subsurface soil above their respective SCOs of 1 part per million (ppm) or less at one or more sample locations: benzo(a)anthracene (up to 24 ppm), benzo(a)pyrene (up to 20 ppm), benzo(b)fluoranthene (up to 27 ppm), benzo(k)fluoranthene (up to 2.7 ppm), chrysene (up to 25 ppm), dibenzo(a,)anthracene (up to 2.4 ppm), and indeno(1,2,3-cd)pyrene (up to 13 ppm). Most of the same SVOCs were detected slightly above (up to about twice) their respective SCOs in one or more surface soil samples collected from the site. The metals lead and mercury were detected above SCOs in a limited number of surface and subsurface soil samples. Lead was detected at up to 640 ppm (compared to its SCO of 400 ppm) and mercury was detected at up to 1.25 ppm (compared to its SCO of 0.81 ppm). Subsurface soil impacts are generally limited to the site and possibly beneath Craig Street, which runs between the two site parcels. The limited instances of metals above SCOs in the surface soil at the site may be attributable to the urban setting; therefore, these may also be observed off-site.

Groundwater samples were collected from 18 monitoring wells installed at the site. The VOCs chloroform and/or tetrachloroethene (PCE) were detected slightly above the groundwater standard at several monitoring well locations. PCE was detected at up to 8.6 parts per billion (ppb), compared to the groundwater standard of 5 ppb. Chloroform was detected at up to 11 ppb compared to the groundwater standard of 7 ppb. The SVOC benzo(a)pyrene (a PAH) was detected at two monitoring wells at concentrations of up to 0.04 ppb, compared to the groundwater standard of non-detect. Several other SVOCs (including the PAHs benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, and/or indeno(1,2,3-cd)pyrene) were detected at concentrations of up to 0.06 ppb, slightly above the groundwater guidance values (0.002 ppb), at four monitoring well locations. Based on the sampling results, site-related groundwater contamination is not expected to significantly affect off-site groundwater quality.

Soil vapor samples were collected from seven locations at the site. Several VOCs were detected, including PCE and chloroform, which were detected at concentrations of up to 426 micrograms per cubic meter ($\mu g/m^3$) and 129 $\mu g/m^3$, respectively. There are no standards for soil vapor.

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*.

People who enter the site may contact contaminants in the soil by walking on it, digging or otherwise disturbing the soil. Contaminated groundwater at the site is not used for drinking or other purposes, and the site and surrounding area are served by a public water supply that obtains water from a different source not affected by this contamination. Volatile organic compounds in the soil and groundwater may move into the soil vapor (air spaces within the soil), which in turn may move into overlying buildings and affect the indoor air quality. This process, which is similar to the movement of radon gas from the subsurface into the indoor air of buildings, is referred to as soil vapor intrusion. The potential exists for the inhalation of site contaminants due to soil vapor intrusion in any future on-site development. Environmental sampling indicates soil vapor intrusion is not a concern off-site.

6.5: Summary of the Remediation Objectives

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

The remedial action objectives for this site are:

Groundwater

RAOs for Public Health Protection

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

RAOs for Environmental Protection

- Restore ground water aquifer to pre-disposal/pre-release conditions, to the extent practicable.
- Remove the source of groundwater contamination.

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 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 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;
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- 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

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4. Groundwater Evaluation

Post-excavation groundwater sampling will be performed to determine whether an institutional control, such as a municipal ordinance or an environmental easement on the site, is needed to prevent exposure to contaminated groundwater.

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As part of the Track 1 remedy, a soil vapor intrusion (SVI) evaluation will be completed. The evaluation will include a provision for implementing actions recommended to address exposures related to SVI, if identified.

Conditional Track 1

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In the event that a Track 1 unrestricted use is not achieved, including failure to achieve the groundwater and/or soil vapor remedial objectives, the following contingent remedial elements will be required, and the remedy will achieve a Track 2 or Track 4 restricted residential cleanup.

6. Cover System

A site cover will be required to allow for restricted residential use of the site in areas where the upper two feet of exposed surface soil will exceed the applicable SCOs. 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 component of the tangible property to be placed as 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. If a Track 2 restricted residential cleanup is achieved, a Cover System will not be a required element of the remedy.

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 County DOH; and
- require compliance with the Department approved Site Management Plan.

8. Site Management Plan

A Site Management Plan, which would include 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 Cover System discussed in Paragraph 6 above and/or mitigation systems to address soil vapor intrusion.

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 use 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, if identified;
- provisions for the management and inspection of the identified engineering controls;
- maintaining site access controls and Department notification; and
- the steps necessary for the periodic reviews and certification of the institutional and/or engineering controls.

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

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

- monitoring for vapor intrusion for any buildings on the 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, inspection, and reporting of any mechanical or physical components of any active vapor mitigation system(s). The plan includes, but is not limited to:

- procedures for operating and maintaining the system(s);
- 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
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The operation of the components of the remedy will continue until the remedial objectives have been achieved, or until the Department determines that continued operation is technically impracticable or not feasible.

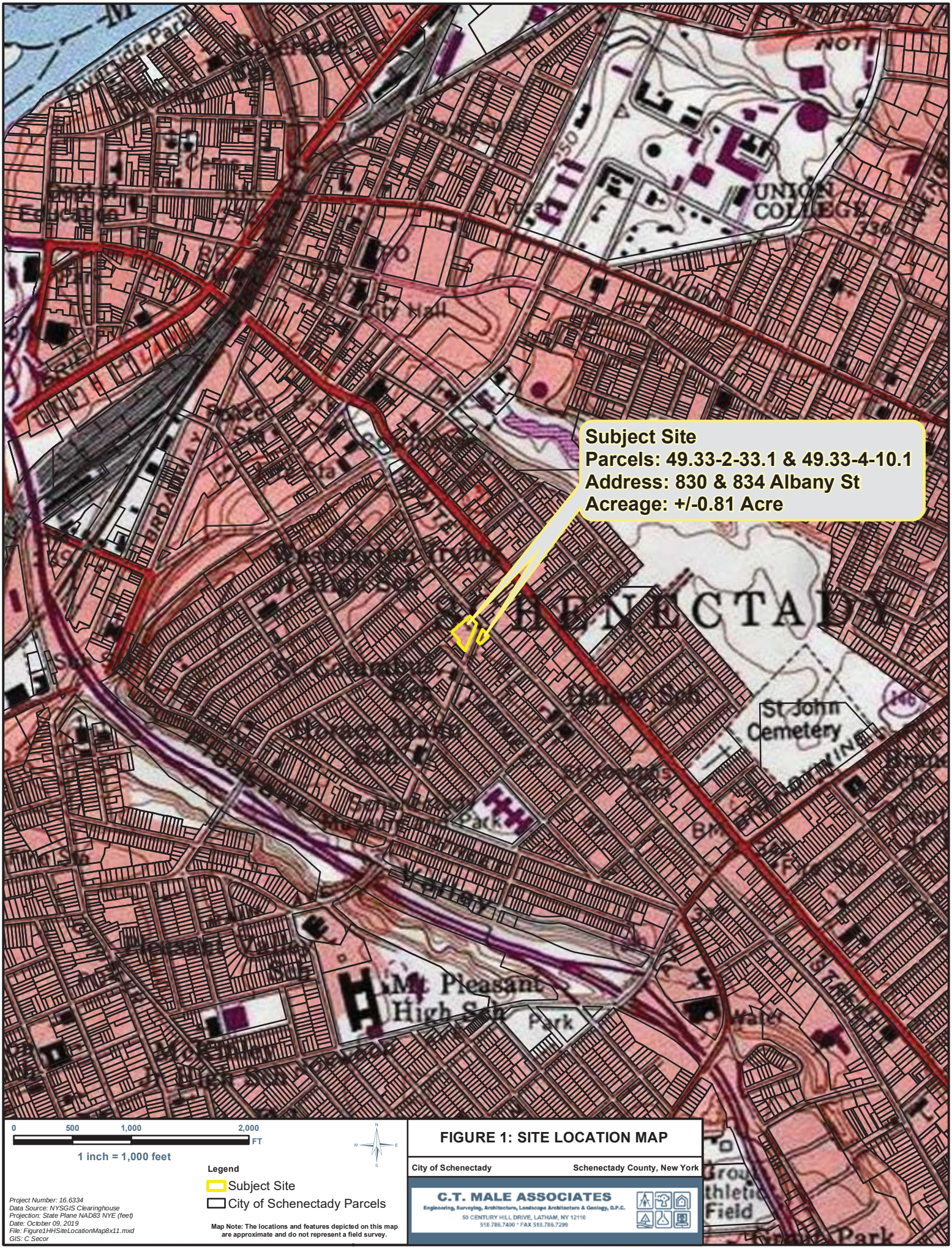


FIGURE 1: SITE LOCATION MAP

City of Schenectady — Schenectady County, New York

C.T. MALE ASSOCIATES
Engineering, Surveying, Architecture, Landscape Architecture & Geology, D.P.C.
50 CENTURY HILL DRIVE, LATHAM, NY 12110
518.786.7400 * FAX 518.786.7299

XREFS: NONE

PROJECT NUMBER: 16.6334

CAD DWG. FILE NAME: C:\Users\michele\Desktop\WORK FROM HOME\hamilton hill\17.7266\figure mapping\FIGURE DRAWINGS\FIGURE 3 SELECTED REMEDY.dwg

CAD DWG. FILE NAME: FIGURE 3 SELECTED

MAP REFERENCES:

1. "Map Showing Lot Line Adjustment of No. 310 Craig Street No. 807 Emmett Street" City of Schenectady, County of Schenectady, New York State of New York prepared by Hershberg & Hershberg, Consulting Engineers and Land Surveyors dated March 23, 2016, Map No. 160068 and filed in the Schenectady County Clerk's Office on December 2, 2016 in Cabinet N, Map No. 279.

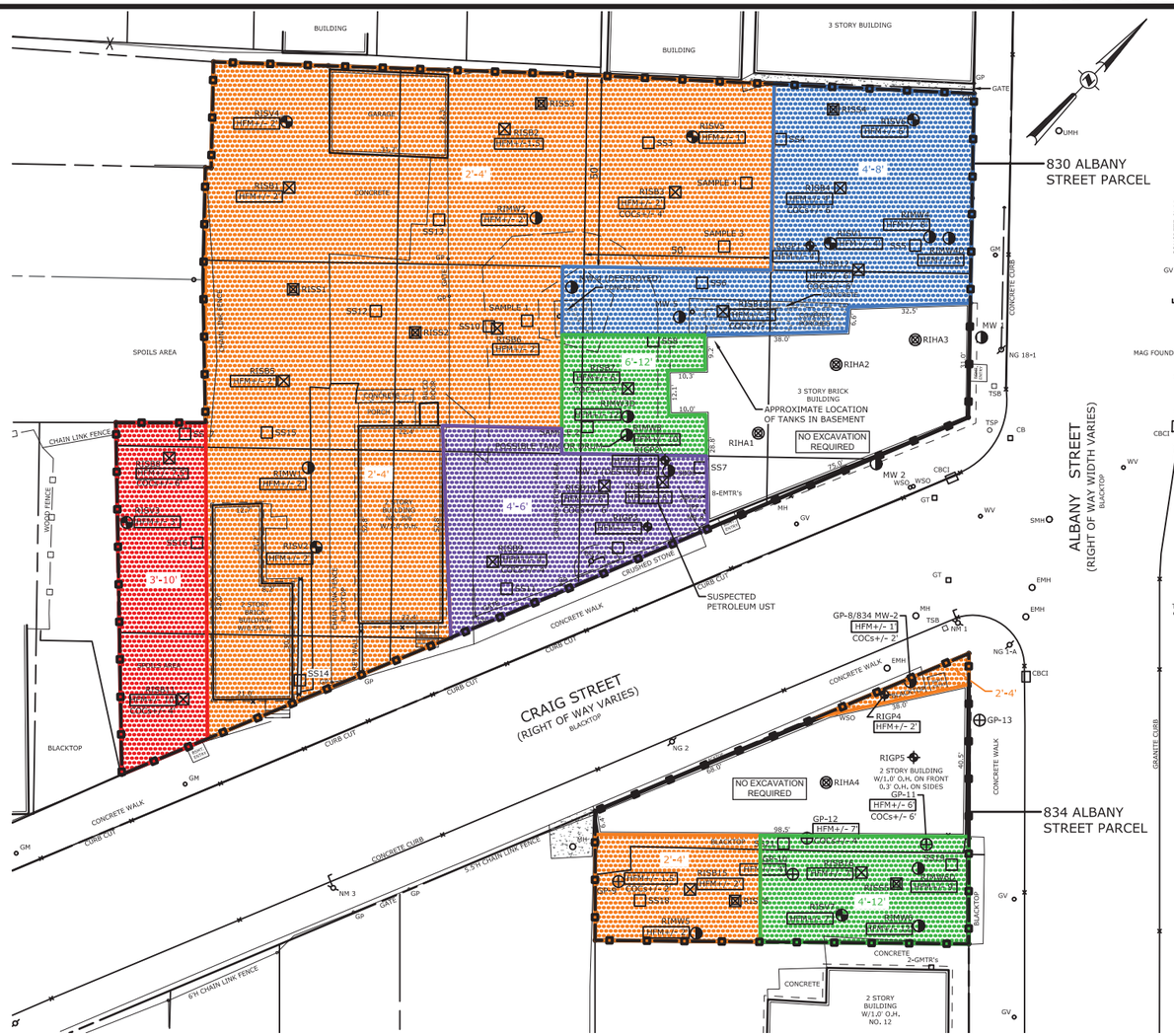
2. ALTA/NSPS Land Title Boundary and Topographic Survey 820 Albany Street - 824 Albany Street - 830 Albany Street - 834 Albany Street - 840 Albany Street - 811 Albany Street - 827 Albany Street - 831 Albany Street - 302 Craig Street - 304 Craig Street - 306 Craig Street - 308 Craig Street - 310 Craig Street, prepared for TCB Holdings, Inc.", prepared by C.T. Male Associates, Engineering, Surveying, Architecture & Landscape Architecture, D.P.C., dated May 24, 2017, Project No. 17.7266, Drawing No. 17-376.

MAP NOTES:

1. Boundary and topographic information shown hereon was compiled from an actual field survey conducted on April 28, May 4, May 8-9 and May 24, 2017 and June 15, 2017.
2. North orientation and bearings are Grid North based on the New York State Plane Coordinate System, East Zone, NAD 83/2011 epoch 2010.00 obtained from GPS observations.
3. Objects shown on this drawing with a distance indicating how far that object is from a particular line, lie on the same side of the line that the offset distance is written.
4. Vertical datum shown hereon is NAVD 88 and was obtained from GPS observations which were post processed holding Albany CORS.
5. Underground facilities, structures, and utilities have been plotted from data obtained from previous maps and record drawings. Surface features such as catch basin rims, manhole covers, water valves, gas valves, etc. are the result of field survey unless noted otherwise. There may be other underground utilities, the existence of which is not known to the undersigned. Size and location of all underground utilities and structures must be verified by the appropriate authorities. Dig Safely New York must be notified prior to conducting test borings, excavation and construction.
6. Per map entitled National Flood Insurance Program, FIRM Flood Insurance Rate Map for Schenectady County, New York(All Jurisdictions) contains Community Number 360739, Town of Niskayuna, Number 360740, Town of Rotterdam and Number 360741 City of Schenectady, Panel 170 of 257, Map Suffix: D, Map Number 36093C0170D, effective date January 8, 2014, the parcel shown hereon falls within an area designated as Zone X areas determined to be outside the 0.2% annual chance floodplain.

LEGEND

GP-10	EXISTING GEOPROBE (APPROXIMATE LOCATION)
MW1	EXISTING MONITORING WELL LOCATION
SS3	EXISTING SHALLOW SOIL SAMPLE LOCATION (APPROXIMATE LOCATION)
RISB1	RI SUBSURFACE SOIL SAMPLE LOCATION
RISV1	RI SOIL VAPOR SAMPLE LOCATION
RISS1	RI SURFACE SOIL LOCATION
RIHA1	RI HAND AUGER LOCATION
RIMW1	RI MONITORING WELL LOCATION
HFM+/- 3'	APPROXIMATE DEPTH OF HISTORICAL FILL MATERIAL (HFM)
COCs +/- 4'	APPROXIMATE DEPTH OF CONTAMINANTS OF CONCERN CONFINED TO SAMPLING DEPTH INTERVALS SAMPLES WERE COLLECTED FROM)
	APPROXIMATE AREA OF PROPOSED EXCAVATION UP TO 4 FEET BELOW GRADE
	APPROXIMATE AREA OF PROPOSED EXCAVATION UP TO 6 FEET BELOW GRADE
	APPROXIMATE AREA OF PROPOSED EXCAVATION UP TO 8 FEET BELOW GRADE
	APPROXIMATE AREA OF PROPOSED EXCAVATION UP TO 10 FEET BELOW GRADE
	APPROXIMATE AREA OF PROPOSED EXCAVATION UP TO 12 FEET BELOW GRADE
2'-4'	INDICATES THAT IMPACTED FILL/SOIL WILL BE EXCAVATED TO DEPTHS RANGING FROM 2FEET TO 4 FEET BELOW GRADE
	SILT FENCE
RIGP1	SUPPLEMENTAL RI GEOPROBE/MONITORING WELL LOCATION



BAR SCALE

40 0 20 40 80

1 inch = 40 ft.

DATE	REVISIONS RECORD/DESCRIPTION	DRAFTED	CHECK	APPR.
	1			
	2			
	3			
	4			
	5			
	6			
	7			
	8			
	9			

DESIGNED : SB

DRAFTED : MDD

CHECKED : SB

PROJ. NO : 16.6334

SCALE : 1"=40'

DATE : OCT. 10, 2019

FIGURE 2: SELECTED REMEDY 830 & 834 ALBANY STREET PARCELS

HAMILTON HILL - TARGET AREA 1 SITE

CITY OF SCHENECTADY — SCHENECTADY COUNTY, NEW YORK

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SHEET 1 OF 1

DWG. NO: 19-619