DECISION DOCUMENT

4435-4445 Military Road Site
Brownfield Cleanup Program
Niagara, Niagara County
Site No. C932174
February 2022

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

DECLARATION STATEMENT - DECISION DOCUMENT

4435-4445 Military Road Site
Brownfield Cleanup Program
Niagara, Niagara County
Site No. C932174
February 2022

Statement of Purpose and Basis

This document presents the remedy for the 4435-4445 Military Road 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 4435-4445 Military Road 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.

3. Excavation

Excavation and off-site disposal of contaminant source areas, including soils which exceed the protection of groundwater soil cleanup objectives (PGWSCOs), as defined by 6 NYCRR Part 375-6.8, for hexavalent chromium. Approximately 200 cubic yards of hexavalent chromium contaminated soil will be removed from the site.

All soils in the upper foot which exceed the commercial soil clean up objectives (CSCOs) will be excavated and transported off-site for disposal. Approximately 40 cubic yards of contaminated surficial soil will be removed from the site.

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

4. Cover System

A site cover will be required to allow for commercial use of the site in areas where the upper one foot of exposed surface soil will exceed the applicable soil cleanup objectives (SCOs). Where a soil cover is to be used it will be a minimum of one foot 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.

5. Soil Vapor Evaluation/ Containment

Completion of an additional soil vapor evaluation to determine if off-site soil vapor impacts exist. This evaluation will include provisions for implementing actions recommended to prevent potential migration of site- related contaminants in soil vapor from the site. If off-site migration of VOCs in soil vapor is identified, additional remedial actions will be implemented to prevent such migration. Such actions include, but are not limited to, a soil vapor extraction system designed to prevent migration of soil vapor off-site.

6. Institutional Controls

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

- require the remedial party or site owner to complete and submit to the Department a periodic certification of institutional and engineering controls in accordance with Part 375-1.8 (h)(3);
- allow the use and development of the controlled property for commercial use as defined by Part 375-1.8(g), although land use is subject to local zoning laws;
- restrict the use of groundwater as a source of potable or process water, without necessary water quality treatment as determined by the NYSDOH or County DOH; and
- require compliance with the Department approved Site Management Plan.

7. Site Management Plan

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

a. an Institutional and Engineering Control Plan that identifies all use restrictions and engineering controls for the site and details the steps and media-specific requirements necessary to ensure the following institutional and/or engineering controls remain in place and effective:

Institutional Controls: The Environmental Easement discussed in Paragraph 6 above.
Engineering Controls: The Cover System discussed in Paragraph 4 and contingent soil vapor containment system discussed in Paragraph 5.

This plan includes, but may not be limited to:

o an Excavation Plan which details the provisions for management of future excavations in areas of remaining contamination;

o a provision for further investigation and remediation should large scale redevelopment occur, if any of the existing structures are demolished, or if the subsurface is otherwise made accessible. The nature and extent of contamination in areas where access was previously limited or unavailable will be immediately and thoroughly investigated pursuant to a plan approved by the Department. Based on the investigation results and the Department determination of the need for a remedy, a Remedial Action Work Plan (RAWP) will be developed for the final remedy for the site, including removal and/or treatment of any source areas to the extent feasible. Citizen Participation Plan (CPP) activities will continue through this process. Any necessary remediation will be completed prior to, or in association with, redevelopment. This includes the former building foundations and concrete slabs;

o descriptions of the provisions of the environmental easement including any land use, and groundwater use restrictions;

o 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;

o a provision that should a building foundation or building slab be removed in the future, a cover system consistent with that described in Paragraph 4 above will be placed in any areas where the upper one foot of exposed surface soil exceed the applicable SCOs;

o provisions for the management and inspection of the identified engineering controls;

o maintaining site access controls and Department notification; and

o 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:

o monitoring of groundwater and soil vapor to assess the performance and effectiveness of the remedy;

o a schedule of monitoring and frequency of submittals to the Department; and

o monitoring for soil vapor intrusion for any future buildings on the site, as may be required by the Institutional and Engineering Control Plan discussed above.

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.

2/16/2022

Michael J Cruden

Date

Michael Cruden, Director
Remedial Bureau E

DECISION DOCUMENT

4435-4445 Military Road Site
Niagara, Niagara County
Site No. C932174
February 2022

SECTION 1: SUMMARY AND PURPOSE

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

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

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

SECTION 2: CITIZEN PARTICIPATION

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

DECInfo Locator - Web Application
https://gisservices.dec.ny.gov/gis/dil/index.html?rs=C932174

Niagara Falls Public Library - Earl W. Brydges Building
Attn: Sarah Potwin
1425 Main Street
Niagara Falls, NY 14305
Phone: 716-286-4894

Receive Site Citizen Participation Information By Email

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

SECTION 3: SITE DESCRIPTION AND HISTORY

Location: The site is located at 4435-4445 Military Road in the Town of Niagara, just south of the Niagara Reservoir in Niagara County. The site is approximately 1.15-acres and is owned by the Town of Niagara. Sweet Home Road is located to the north, Grauer Road is located to the south, Military Road is located to the west and Hermitage Street is located at a distance to the east. The site is bounded by residential properties and Military and Grauer Roads. Land uses adjacent to the BCP site include residential and commercial uses.

Site Features: The site is relatively flat and contains two concrete building foundations and slabs in the center of the property, an asphalt parking lot on the western portion of the site, and a vegetated area to the east comprised of grass, and a small wooded area

Current Zoning and Land Use: The site is currently inactive and zoned as B-1, general commercial in the Business 1 District. The B-1 district allows for retail business establishments, personal service establishments, and office and storage facilities. There are residential properties immediately adjacent to the site to the north and east with commercial properties across Military Road, one of which being a children's daycare facility.

Past Use of the Site: According to historical records, the structure at the site has been historically divided into several commercial businesses. The site was previously developed with various automotive service stations, barbers, pizza shops, dry cleaners and automotive parts shops. Most recently, the site was a storage facility and automotive tire center. The property was foreclosed upon by Niagara County in 2018, and the Town of Niagara assumed ownership on October 11, 2018.

Site Geology and Hydrogeology: Site soils consist of historic fill material in the upper one to three feet, underlain by native silty clay with trace amounts of gravel at depths up to at least sixteen feet below ground surface (fbgs).

Groundwater is present in the silty clay at approximately five to twelve fbgs and flows west southwest towards Military and Grauer Roads.

A site location map and site plan are attached as Figures 1 and 2 respectively.

SECTION 4: LAND USE AND PHYSICAL SETTING

The Department may consider the current, intended, and reasonably anticipated future land use of the site and its surroundings when evaluating a remedy for soil remediation. For this site, alternatives (or an alternative) that restrict(s) the use of the site to commercial use (which allows for 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:

arsenic
cadmium
chromium
mercury
benzo(a)pyrene
1,2-dichloroethane
2,2,4-trimethylpentane

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.

The following IRM(s) has/have been completed at this site based on conditions observed during the RI.

Interim Remedial Measure

IRMs were completed in 2020 in conformance with a Department-approved work plan. The IRMs consisted of:

- off-site disposal of 22.33 tons of on-site tires;
- off-site disposal of various automotive fluid containers;

- removal and off-site disposal of a 275-gallon waste oil tank ;
- removal and off-site disposal of in-ground automotive lifts; and
- Off-site disposal of 15-gallons of automotive fluid containers residuals, residual waste oil, and hydraulic oil from the automotive lifts.

Subsurface soil samples were collected at eight feet below grade after removal of the automotive lifts and analyzed for volatile organic compounds (VOCs) and semi-volatile organic compounds (SVOCs). Results did not exceed unrestricted soil cleanup objectives (SCOs) for VOCs or SVOCs.

The IRMs are detailed in a Construction Completion Report, contained within the RI/Alternatives Analysis Report submitted September 2021.

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.

During two Phase II Environmental Site Assessments and a RI, analytical samples were collected from soil, soil vapor, and groundwater. Based upon investigations conducted to date, the primary contaminants of concern (COCs) are metals in soil and groundwater, and to a lesser extent benzo(a)pyrene in soil and 1,2-dichloroethane in groundwater.

Surface Soil: Samples were collected from 0-2 inches below the vegetated surface during the RI and from the top six inches during the Phase II Environment Assessments. The samples were analyzed for SVOCs, metals, polychlorinated biphenyls (PCBs), and pesticides. No SVOCs, PCBs, or pesticides were detected exceeding Commercial SCOs (CSCOs). The following metals were detected in at least one location exceeding CSCOs:
- arsenic up to 138 parts per million (ppm) (CSCO 16 ppm)
- barium up to 19,500 ppm (CSCO 400 ppm)
- cadmium up to 10.3 ppm (CSCO 4.3 ppm)
- copper up to 2,260 ppm (CSCO 270 ppm)
- mercury up to 8.6 ppm (CSCO 2.8 ppm)
- zinc up to 10,600 ppm (CSCO 10,000 ppm)

Investigation results do not indicate that site contaminants in surface soil have migrated off-site.

Subsurface Soil: Samples were collected at depths up to fifteen feet below ground surface (fbgs) and analyzed for VOCs, SVOCs, metals, PCBs, pesticides, and per- and polyfluoroalkyl substances (PFAS). No VOCs, PCBs, or pesticides were detected exceeding CSCOs. No PFAS were detected exceeding guidance values for commercial use or protection of groundwater. The following metals were detected in at least one location exceeding CSCOs:

- chromium, total up to 6,050 ppm (chromium III CSCO 1,500 ppm, chromium VI CSCO 400 ppm)
- mercury up to 8.6 ppm (CSCO 2.8 ppm)

The following SVOC was detected in at one location exceeding CSCOs:
- benzo(a)pyrene up to 1.6 ppm (CSCO 1 ppm)

Based on elevated detections of chromium in groundwater, additional soil samples were collected and speciated for hexavalent chromium, the results are as follows:
- hexavalent chromium up to 137 ppm (protection of groundwater soil cleanup objectives (PGWSCO), 19 ppm)

Delineation samples contained exceedances of PGWSCOs for hexavalent chromium in both the southwest and northwest corners of the site and indicate that fill material in these areas is contributing to chromium groundwater contamination.

Investigation results do not indicate that site contaminants in soil have migrated off-site, however, soils impacted with chromium are impacting on-site groundwater.

Groundwater: Groundwater samples were collected from seven monitoring wells during the Phase II Environment Assessments and RI. The samples were analyzed for VOCs, SVOCs, metals, PCBs, pesticides, and PFAS. An additional two temporary monitoring wells were installed during the RI. The temporary monitoring wells were sampled and speciated for chromium. No SVOCs or PCBs were detected exceeding groundwater quality standards (GWQS). The pesticide delta-BHC was detected in monitoring well MW-03 at 0.066 parts per billion (ppb) exceeding the GWQS of 0.04 ppb during the Phase II investigations, however sampling results from the same well during the RI were non-detect. Lead was detected in three monitoring wells exceeding GWQS during the Phase II investigations, however results for lead from two of the monitoring wells resampled during the RI were below GWQS. The monitoring well not resampled during the RI is upgradient and no lead exceedances of GWQS were identified in downgradient monitoring wells. The following VOC was detected exceeding GWQS:
- 1,2-dichloroethane up to 3.5 ppb (GWQS 0.6 ppb)

The following metals were detected exceeding GWQS:
- total chromium up to 2,000 ppb (GWQS 50 ppb)
- hexavalent chromium up to 1,000 ppb (GWQS 50 ppb)

Aluminum, iron, magnesium, manganese, and sodium were also detected above GWQS, but are likely attributed to natural aquifer conditions and not contamination at the site.

Perfluorooctanoic acid (PFOA) was detected up to 49 parts per trillion (ppt) and perfluorooctanesulfonic acid (PFOS) was detected up to 15 ppt, both exceeding the screening level of 10 ppt for each compound. Monitoring well MW-06 exhibited the highest concentrations and was resampled to confirm the initial results. Resampling results showed significant decreases in all PFAS concentrations and no exceedances of screening levels.

Groundwater is present in the overburden at approximately five to twelve fbgs and generally flows southwest towards Military and Grauer Roads. Investigation results indicate there is potential that impacted groundwater is migrating off-site.

Soil Vapor: Two soil vapor samples were collected at the west and southwest boundaries of the site and analyzed for VOCs using Method TO-15. The gasoline additive 2,2,4-trimethylpentane was detected up to 2,700 micrograms per cubic meter (mcg/m3) in on-site soil vapor.

Investigation results indicate that site contaminants in soil vapor have the potential to migrate off-site.

6.4: Summary of Human Exposure Pathways

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

People are not coming into contact with the contaminated groundwater because the area is served by a public water supply that is not affected by site-related contamination. Persons who enter the site could contact contaminants in the soil by walking on the site, digging or otherwise disturbing the soil. Volatile organic compounds in soil vapor (air spaces within the soil) may move into buildings and affect the indoor air quality. This process, which is similar to the movement of radon gas from the subsurface into the indoor air of buildings, is referred to as soil vapor intrusion. Currently, there is no on-site building. However, the potential exists for the inhalation of site contaminants due to soil vapor intrusion for any future on-site development. Additional evaluation is needed to determine the potential for contaminants to migrate off-site in soil vapor.

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 ground or surface water 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 or surface water contamination.

Soil Vapor

RAOs for Public Health Protection

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

SECTION 7: ELEMENTS OF THE SELECTED REMEDY

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

The selected remedy is a Track 4: Restricted use with site-specific soil cleanup objectives remedy.

The selected remedy is referred to as the Excavation and Cover System remedy.

The elements of the selected remedy, as shown in Figure 3, are as follows:

1. Remedial Design

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

- Considering the environmental impacts of treatment technologies and remedy stewardship over the long term;
- 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.

3. Excavation

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All soils in the upper foot which exceed the commercial SCOs will be excavated and transported off-site for disposal. Approximately 40 cubic yards of contaminated surficial soil will be removed from the site.

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

4. Cover System

A site cover will be required to allow for commercial use of the site in areas where the upper one foot of exposed surface soil will exceed the applicable soil cleanup objectives (SCOs). Where a soil cover is to be used it will be a minimum of one foot 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.

5. Soil Vapor Evaluation/ Containment

Completion of an additional soil vapor evaluation to determine if off-site soil vapor impacts exist. This evaluation will include provisions for implementing actions recommended to prevent potential migration of site- related contaminants in soil vapor from the site. If off-site migration of VOCs in soil vapor is identified, additional remedial actions will be implemented to prevent such migration. Such actions include, but are not limited to, a soil vapor extraction system designed to prevent migration of soil vapor off-site.

6. Institutional Controls

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

- require the remedial party or site owner to complete and submit to the Department a periodic certification of institutional and engineering controls in accordance with Part 375-1.8 (h)(3);

- allow the use and development of the controlled property for commercial use as defined by Part 375-1.8(g), although land use is subject to local zoning laws;
- restrict the use of groundwater as a source of potable or process water, without necessary water quality treatment as determined by the NYSDOH or County DOH; and
- require compliance with the Department approved Site Management Plan.

7. Site Management Plan

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

a. an Institutional and Engineering Control Plan that identifies all use restrictions and engineering controls for the site and details the steps and media-specific requirements necessary to ensure the following institutional and/or engineering controls remain in place and effective:

Institutional Controls: The Environmental Easement discussed in Paragraph 6 above.
Engineering Controls: The Cover System discussed in Paragraph 4 and contingent soil vapor containment system discussed in Paragraph 5.

This plan includes, but may not be limited to:

o an Excavation Plan which details the provisions for management of future excavations in areas of remaining contamination;

o a provision for further investigation and remediation should large scale redevelopment occur, if any of the existing structures are demolished, or if the subsurface is otherwise made accessible. The nature and extent of contamination in areas where access was previously limited or unavailable will be immediately and thoroughly investigated pursuant to a plan approved by the Department. Based on the investigation results and the Department determination of the need for a remedy, a Remedial Action Work Plan (RAWP) will be developed for the final remedy for the site, including removal and/or treatment of any source areas to the extent feasible. Citizen Participation Plan (CPP) activities will continue through this process. Any necessary remediation will be completed prior to, or in association with, redevelopment. This includes the former building foundations and concrete slabs;

o descriptions of the provisions of the environmental easement including any land use, and groundwater use restrictions;

o 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;

o a provision that should a building foundation or building slab be removed in the future, a cover system consistent with that described in Paragraph 4 above will be placed in any areas where the upper one foot of exposed surface soil exceed the applicable soil cleanup objectives (SCOs)

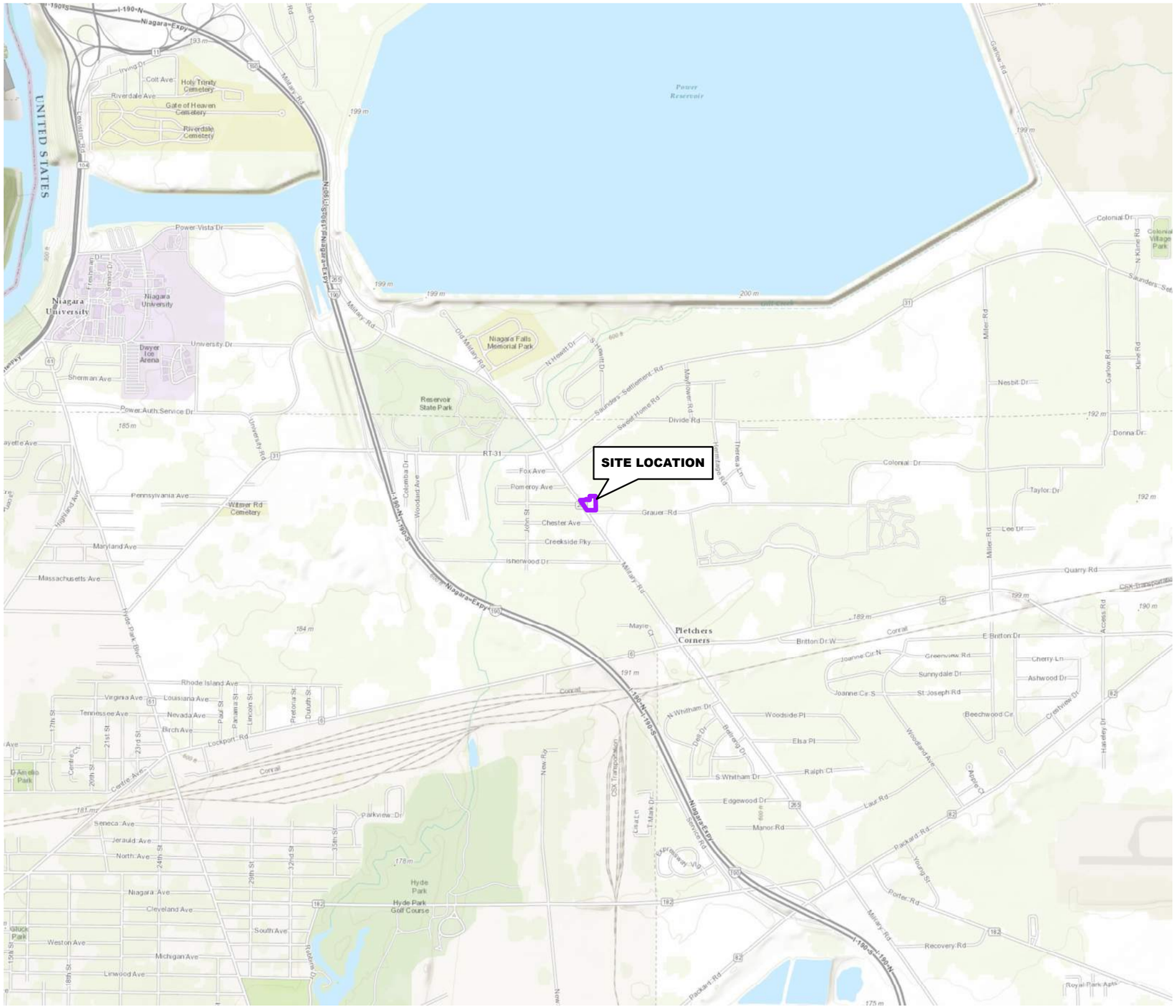
o provisions for the management and inspection of the identified engineering controls;

o maintaining site access controls and Department notification; and

o 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:

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



LEGEND

PROPERTY BOUNDARY

0 1,000 2,000 4,000 Feet

C&S COMPANIES®
C&S Engineers, Inc.
141 Elm Street
Suite 100
Buffalo, New York 14203
Phone: 716-847-1630
Fax: 716-847-1454
www.cscos.com

N

4435-4445 MILITARY ROAD REMEDIAL INVESTIGATION IRM AND ALTERNATIVE ANALYSIS REPORT

TOWN OF NIAGARA, NEW YORK

MARK	DATE	DESCRIPTION

REVISIONS

PROJECT NO:	Q47.001.001
DATE:	FEBRUARY 22, 2016
DRAWN BY:	C. MARTIN
DESIGNED BY:	C. MARTIN
CHECKED BY:	M. COLMERAUER

SITE LOCATION

FIGURE 1

Path: F:\Project\Q47 - Niagara County Dept of Economic Development\Planning-Study\GIS\SITE LOCATION.mxd

Legend

- 2013 SOIL BORING LOCATIONS
- 2016 SOIL BORING LOCATIONS
- 2017 SOIL BORING LOCATIONS (FORMER PUMP ISLAND INVESTIGATION)
- 2013 GROUNDWATER MONITORING WELLS
- 2016 GROUNDWATER MONITORING WELLS
- PROPERTY/ SITE BOUNDARY
- RECONGIZED ENVIRONMENTAL CONDITION (REC) AREA

0 20 40 80 Feet

C&S COMPANIES®
C&S Engineers, Inc.
141 Elm Street
Buffalo, New York 14203
Phone: 716-847-1630
Fax: 716-847-1454
www.cscos.com

N

4435-4445 MILITARY ROAD
REMEDIAL INVESTIGATION/IRM
AND ALTERNATIVE ANALYSIS
REPORT
TOWN OF NIAGARA, NEW YORK

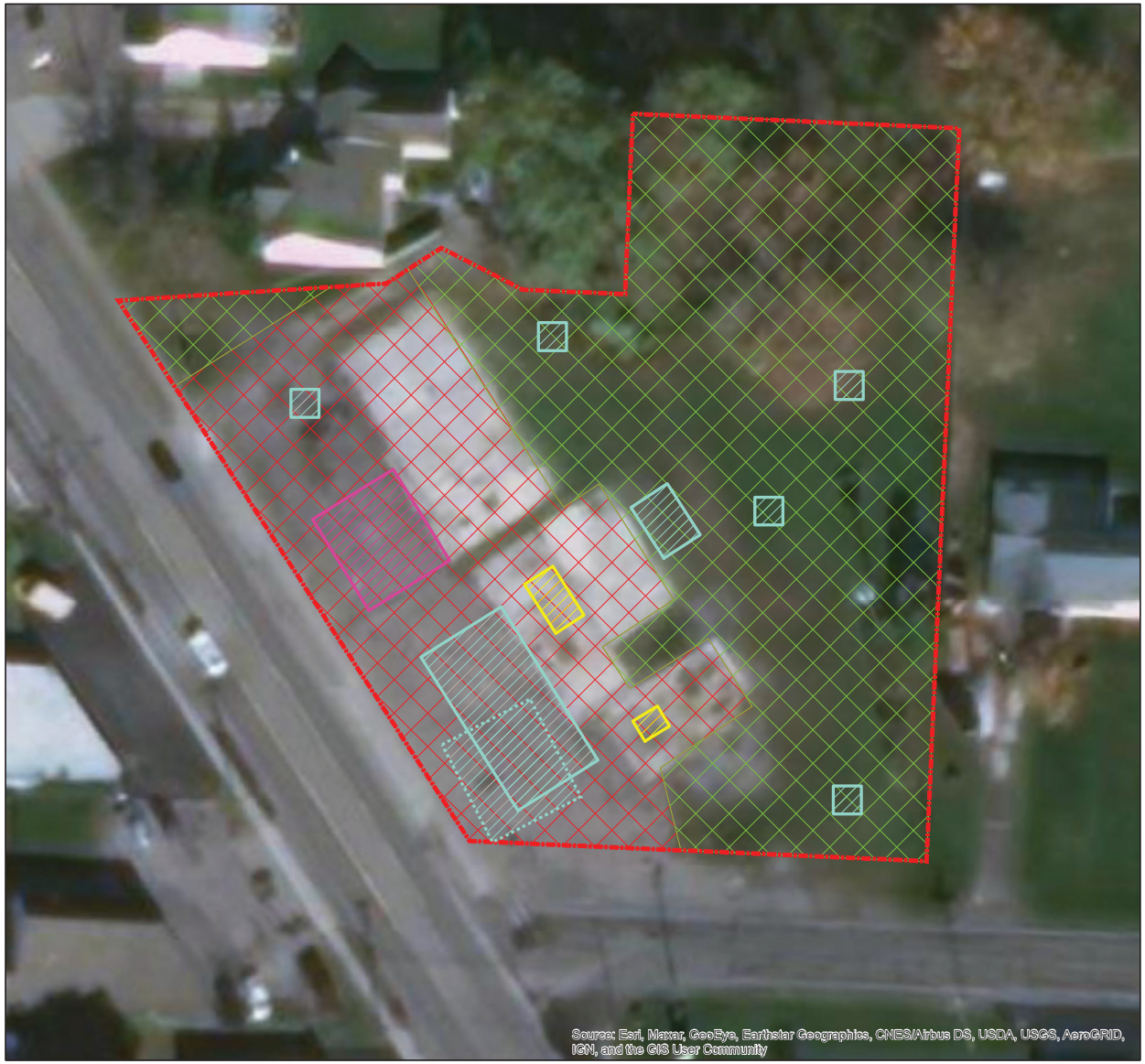
MARK	DATE	DESCRIPTION

REVISIONS

PROJECT NO:	249.006.001
DATE:	11/26/2018
DRAWN BY:	A. DEMARCHI
DESIGNED BY:	A. DEMARCHI
CHECKED BY:	D. RIKER

SITE PLAN

FIGURE 2



Legend

- BCP BOUNDARY
- 1-2 FOOT EXCAVATION OR TO NATIVE SOILS TO BE BACKFILLED WITH IMPORTED STONE
- ESTIMATED EXCAVATION TO NATIVE SOILS TO BE BACKFILLED WITH IMPORTED STONE
- RADIOLOGICAL CONTAMINATED MATERIAL: 1-2 FOOT EXCAVATION OR TO NATIVE SOILS TO BE BACKFILLED WITH IMPORTED STONE
- AUTOMOTIVE LIFT LOCATIONS TO BE BACKFILLED WITH ONE FOOT OF IMPORTED STONE
- EXISTING HARDSCAPE COVER TO REMAIN
- EXISTING ONE FOOT SOIL COVER TO REMAIN IN PLACE

0 20 40 80 Feet

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141 Elm Street
Buffalo, New York 14203
Phone: 716-847-1630
Fax: 716-847-1454
www.cscos.com

N

4435-4445 MILITARY ROAD REMEDIAL ACTION WORK PLAN

TOWN OF NIAGARA, NEW YORK

MARK	DATE	DESCRIPTION

REVISIONS

PROJECT NO:	249.006.001
DATE:	1/17/2022
DRAWN BY:	C. MARTIN
DESIGNED BY:	C. MARTIN
CHECKED BY:	D. RIKER

Recomended Alternative

FIGURE 3